2014

Africa Rising: Corruption & Foreign Direct Investment Inflows

Kunaal A. Chande
Claremont McKenna College

Recommended Citation
http://scholarship.claremont.edu/cmc_theses/1023
Africa Rising: Corruption & Foreign Direct Investment Inflows

Kunaal A. Chande

Submitted To

Professor Marc Massoud

Fall 2014

December 01, 2014
Kunaal Chande
Africa Rising: Corruption & Foreign Direct Investment Inflows

Introduction

There is much literature on the effect of corruption on foreign investment however, there is little focused on the continent of Africa specifically. Africa has been receiving global media and political attention over the last decade; and multinational corporations were soon to follow. Specifically, the continent has been receiving a consistent increase in foreign direct investment inflows (FDI). Figures 1.1 and 1.2 illustrate the trend most countries in Africa are currently faced with.

Figure 1.1 Foreign Direct Investment Inflows for 35 select African countries in USD (mm) over time (2004-2012)
Graphically, it is easy to see the trend has been consistent over the last decade or so, and the continent is well poised to increase its competitive edge as well as its attractiveness for FDI. It is for this reason I have chosen to make this the focal point of my paper; in the hopes of furthering the literature on a continent on track to receive the most foreign investment in history, over the next decade.

A study by Ferencikova and Smith (1997) claimed that multinational corporations “are uniquely able to supply many of the necessary ingredients for economic
Kunaal Chande  
Africa Rising: Corruption & Foreign Direct Investment Inflows

growth, a reshaping of attitudes to work and wealth creation, the redesigning of the business and legal framework, especially with respect to property rights and contractual relationships.” These companies can also be exposed to, and in turn influence, certain negative aspects of operating in developing countries, namely, corruption. Before proceeding further, it is important to define corruption for the purposes of this study. Corruption can be described in many ways; I will define it as *the misuse of public funds for private gain* (more concretely defined later in this paper). This measure used will be taken from the Mo Ibrahim Index discussed later in the data sources section. It can be claimed that this is an overly simplistic definition however I would argue that this captures the essence of the phenomenon and allows for it to be quantified into a controllable unit. This speaks directly to the essential role of institutions in creating “the rules of the game” by which the free markets operate (North, 1990).

I analyze the role of multinational corporations through FDI and how it is impacted by corruption. In many of these countries the weak rule of law allows for negative social consequences related to misallocation of resources by way of bribery, corruption and opportunistic behavior. However, in conducting this research it is important to note elements such as causality and which direction the causality flows. I believe that there is a negative correlation between corruption and the amount of FDI a given country receives, meaning, the more corruption observed in a
country the less FDI they receive. In order to allow for these observations to take effect in the market place the corruption variable by two years. This study presents the effect of corruption on FDI for 35 African countries between 2005 and 2012. This paper contributes to the corruption-investment literature by analyzing the effect of corruption on foreign investment in African nations.

The rest of this paper is organized as follows. The literature review section provides a brief discussion of the definitions and measure of corruption, followed by a dialogue on the theoretical relationship between FDI and the various variables, then a description of the datasets employed, and finally data analysis and conclusions drawn.

**Literature Review**

Throughout history virtually all societies have experienced some form and degree of corruption. The effect, however, has varied among countries, and this paper hopes to help better focus literature on the continent on Africa. Given its prevalence throughout history is has long been considered by policymakers to be a inevitable reality of human civilization. Nevertheless, measures can be taken to manage this phenomenon.
The issues faced when defining corruption have been well documented by scholars (Phillip, 1997; Heywood, 1997; DeLeon, 1993). In summary, they distinguish whether the focus is on the interference of private interests with public interests or if it’s a more narrow emphasis on office holders’ compliance with legally defined standards. Corruption, thus, has been defined in a multitude of ways and as a result I will build upon those to create a usable definition for this paper. Carl Friedrich (1995) stated that “corruption occurs whenever a power holder who is in charge of doing certain things, that is a responsible functionary or office holder, is by monetary or other rewards, such as expectation of a job in the future, induced to take actions which favor whoever provides the reward and thereby damage the group or organization to which the functionary belongs, more specifically, the government.” More broadly, however, corruption is also viewed as “institutional decay.” Scholars such as Johnston, LeVine, Heidenheimer (1990) posit that there is an intersection between the aforementioned broader classification and the more specific definition focused on the misappropriation of resources by government officials for personal advancement. Following large corruption scandals such as the Watergate Affair, Bush-Gore voting recount and the even the Snowden revelations, a more appropriate definition was necessary- Berg, Hahn, and Schmidhauser (1976) stated that corruption is defined as “behavior by private or public individuals, which
violates and undermines the norms of the system of public order which is deemed indispensable for the maintenance of political democracy.”

One can also distinguish between bureaucratic and political corruption. While bureaucratic corruption has to do with the misuse of public office for private gain, “political corruption refers to the undermining of institutions and national laws in order to build political parties, political machines, as well as help politicians capture and retain leadership positions in the polity’s political system.” (Mbaku, 2007) Thus, political corruption spans all aspects of governance from accepting bribes, soliciting votes, election rigging, intimidation of opposition supporters, and falsifying votes. Bureaucratic corruption on the other hand is usually concerned with advancing the interests of the official and improving the lucrativeness of the enterprises of the few. In doing so, there are negative externalities passed onto the public in the form of a misuse of resources and misrepresentation of the interests of the people. (Goodman, 1990)
Defining Corruption

Corruption is commonly associated with bribery, sale of office, partiality to parties of interest, and misuse of public office. Modern social sciences give corruption three basic characteristics: firstly, corruption is related to the public interest concept, secondly, corruption is associated with the performance of duties of public office, and lastly, corruption is related to the concept of exchange derived from the theory of the market. (Mbaku, 2007) There have been various studies of bureaucratic performance and corruption that primarily focus on poverty in developing nations. A study by Bayley (1966) concluded, “corruption, while being tied in particularly to the act of bribery, is a general term covering misuse of authority as a result of considerations of personal gain, which need not be monetary.” The paper delves deeper and discusses the sale of office for personal gain, either in the form of monetary or nonmonetary compensation. This is known as political prostitution.

In theory, any authority at any position can bought for personal advancement. For instance, in the police force a higher up official may be in a better position to extort bribes for larger crimes, even relatively lower level police officials, even traffic police, can solicit bribes to look past minor offences. Looking more specifically at Africa, a study by Werlin (1973) described the corruption as “diversion of public resources to nonpublic purposes.” In this form of corruption resources are
misappropriated for the personal gain of the individual in public office, this study, however, highlights how African politicians take this a step further, in that, they engage in the *privatization* of the state and subsequent employment of its structures as instruments of plunder for their personal capital accumulation activities (Gould, 1980; LeVine 1975; Wold Bank, 1979). Employing the example of corruption in the police force, while the traffic officer may only be able to solicit small sums of payment for minor offences, a higher ranked official, such as a constable or captain, could round up a group of armed bandits to solicit bribes throughout the city, using the police force as personal thugs. This view refocuses researches to evaluate the effect of political coalitions and special interest parties, which attempt to undermine the rule of law in order to advance themselves, either monetarily or otherwise. Through these means certain special interest groups could influence legislature that increases their profitability, which tends to also come at a cost to the larger population (e.g. income inequality, increased production costs).

It is common knowledge that corruption is rampant throughout Africa, and countries such as Ghana and Nigeria have adopted and accepted it as a way of life. In a study by Werlin (1972) established that under the Nkumah regime a 5-10 percent kickback was expected for all government contract, and the administration accumulated up to five million US dollars between 1958 and 1966 for personal expenses. Without the bribe people would be unable to receive the government
contracts, constituting this behavior as extortion at the highest level, and the
Ministry of Trade was found to be one of the primary examples of blatant corruption
in the country. This sort of widespread corruption is not uncommon; Nigeria is
another country with a well-documented history of corruption at high levels of
government. According to a study by the Ministry of Justice and Eker in 1980 and
1981, respectively, established that the “proportion of cases actually detected is
estimated to be very low. Specifically, the studies showed that up to 87 percent of all
reported corruption cases go undetected and uninvestigated, even higher when
solely considering the private sector.

Hence, while corruption in the public sector is often made public, corruption in the
private sector—which according to the studies cited above, amounts to a large
degree of undocumented corruption—is concealed in order to maintain goodwill.
Therefore, an inaccurate perception has emerged that corruption is most prevalent
among official office-holders, but it is purely because these violations are more
likely to be acknowledged. For this reason, I have decided to focus on corruption
and transparency in the public sector, in the hopes of capturing the most accurate
impression of the country’s situation.
Literature on Corruption

Authors such as Mauro (1995), Mo (2001), and Li et al. (2000) find that corruption does have significant negative effects on economic progress. Furthermore, Wei (2000) investigated whether FDI flows from varying source countries are statistically different by analyzing bilateral transfers between 45 host countries and 14 source countries for the years 1990 and 1991. A host country is defined as a country where a company that is based in another country has business activities and a source country is defined as the country in which the investment originated. He concluded that there is a negative correlation between the level of corruption and the level of FDI, and that it does not vary across source countries, meaning the variety of source countries exhibited the same behavior. Additionally, according to the World Bank (2002) corruption is found to create obstacles to doing business and even reduce rates of investment into the host countries (Tanzi and Davoodi, 1997).

A study by Wheeler and Mody (1992) showed there was no significant correlation between foreign investment and a host country’s risk level. They did conclude that this risk should be “discounted” although it would be possible to assign some weight to it as part of the investment decision. However, a more recent study by Wei (2000) noted that Wheeler and Mody used a combination of other indicators to form one variable the authors dubbed RISK, which they claimed might have interfered with
Kunaal Chande  
Africa Rising: Corruption & Foreign Direct Investment Inflows

the FDI variable, making their results inconclusive. Wei’s paper studies the effect of corruption on FDI. He finds that a rise in either tax or corruption level in a host country would reduce FDI. Issues regarding errors and causality are addressed in these works and are dealt with by means of analyzing instrumental variables (IV); this method will be further explored later in this paper. Employing this method will allow the author to reliably estimate the constraints in a system of simultaneous equations.

Abed and Davoodi (2000) analyzed the level of corruption on inflows of per capita FDI flows to developing economies. They find that low levels of corruption result in higher inflows of foreign investment. Their cross-sectional and panel data analysis also showed that controlling for structural reform, i.e. stability and development, resulted in an insignificant correlation with corruption. This study illustrates that though corruption seemed to be have a correlation with level of foreign investment, when controlling for other factors that may influence an investors’ decision, such as infrastructural development, these correlations are no longer significant. This paper will build on this research by analyzing this same phenomenon specifically focused on Africa.
Foreign Direct Investment

The World Bank defines globalization as a worldwide trend towards the integration of markets—it changes the strategy of multinational corporations and the way the way in which developing nations vie for FDI. In order to maintain their competitive edge multinational corporations seek to maximize profitability by locating strategic facilities around the world. In a world of increasing globalization and increased competitiveness developing nations attract FDI by having favorable policies and lower costs of production. An advantageous environment for FDI requires openness in a stable, fair, and non-discriminantal marketplace. Factors such as effective competitive policies, establishment of rule of law, and of course, corruption and transparency are also established as determinants of FDI. Moreover, in order to be more competitive in today’s market the country should have an advanced enough labor market to be able to acclimatize to manufacturing advancements, have flexible institutions and provide tax incentives. A geographical factor that proved to be significant to the flow of FDI was the proximity of the host country to the source country.

FDI and its relationship with corruption is a well-researched topic yet there has yet to be a conclusive study on whether or not corruption has positive or negative
effects on an economy. For this reason we must distinguish between these two types of corruption. The first is corruption with a negative social benefit; meaning increase in corruption causes more inefficient use of resources. The other form of corruption is the kind with positive social benefit; meaning an increase in corruption results in corporations ability to expedite certain bureaucratic processes which actually attracts multinational corporations. In the short-run, firms operating in countries with high levels of corruption will experience higher costs of foreign investment due to factors such as inefficient use of resources (Murphy et al., 1991), bribes (unofficial taxes) (Appelbaum and Katz, 1987), additional contract risk (weak rule of law) (Shleifer and Vishnay, 1993). Therefore, these results in negative externalities associated with investing abroad in the host country. On the other hand, multinational corporations may be willing and able to pay a premium (bribe) to expedite certain bureaucratic processes (Lui, 1985) as well as to acquire large government contracts (Tanzi and Davoodi, 2000). This type of corruption is found to actually attract multinationals that shift production to low cost countries to take advantage of certain systemic failures. If the profits from this opportunistic behavior offset the unique costs associated with operating in the country, FDI is expected to increase.
Accountability, Transparency, and Corruption

There are a multitude of ways corruption could effect a developing nation; from distorting the free market, destroying incentives, misallocating resources, to even creating an overall uncertain marketplace. This study presents the effect of corruption on the inflow of FDI for 35 African nations over seven years. There was no discernable relationship between the variables however, there did appear to be a slight negative correlation present, with some outliers with a positive correlation.

Data Sources & Econometric Analysis

In order to conduct my research use data from the World Bank, OECD International Direct Investment Database, the Mo Ibrahim Index, and the Open Data from Africa database. This will include cross-sectional and panel data of FDI from source countries to host countries and how the level of corruption factors into the trends over time. I will essentially test the effect of changes in corruption (i.e. perceived transparency) on the inflow of FDI in 35 African nations.

I use a variety of data sources in order to compile the data. Firstly, data FDI are drawn from the UNCTAD database for various regions in Africa, as well as a select
Kunaal Chande  
Africa Rising: Corruption & Foreign Direct Investment Inflows

group of 35 African nations with data between 2005 and 2012. This is done in order to get a general view of inflows before focusing more specifically on countries with available data.

In the analysis of corruption I have employed the Mo Ibrahim Index’s Accountability, Transparency & Corruption in Public Sector. The metric takes into consideration factors such as the degree to which vested interests and cronyism distort decision-making in the public or private sectors. It considers the following aspects of cronyism or vested interests: awarding of public contracts based on merit or connections or political affiliations, appointment or promotion to key government and private sector: based on merit or connections or political affiliations.

Furthermore, the index includes analysis of enforcement agencies existence and whether they are independently proficient. It assesses the pervasiveness of corruption among public officials, measures perception or degree to which public officials are involved in corrupt practices (misuse of public office for private benefit, accepting bribes, dispensing favors and patronage for private gain). Consider the length of time that the regime or government has been in power; the number of officials appointed rather than elected and frequency of reports or rumors of bribery. Raw scores are sourced from the Economist Intelligence Unit’s Risk Briefing service (as an average of the four quarter scores for 2013), Global Peace Index 2014 and Democracy Index 2012 unless otherwise specified. Country analysts then adjust
these scores in order to consider the population at large rather than for businesses specifically. The EIU’s Regional Director for Middle East and Africa performs a final check for cross-country comparability and score standardisation. Once raw scores have been assigned and calculated, indicator scores are normalised using a standard function. Given that for all indicators except those from the Democracy Index a high value indicates low performance, the normalisation function takes the form of:

\[
x = \frac{(\text{Max}(x) - x)}{(\text{Max}(x) - \text{Min}(x))}
\]

Where Min(x) and Max(x) are, respectively, the lowest and highest values in the entire country set and time series (2006-2013) for any given indicator. (For Democracy Index indicators, as higher scores are better and the function takes the form of:

\[
x = \frac{(x - \text{Min}(x))}{(\text{Max}(x) - \text{Min}(x))}
\]

Conversation based on the Mo Ibrahim calculation of variables.

The control variable used is the real GDP for the countries being examined. The table below shows the variables used in the analysis:
I will be using a multivariate regression technique. I will create a correlation table between FDI and the perception of corruption. I expect this to have a negative relationship. Thereafter, I will create a correlation table between FDI. I will lag the independent variable rates by 2 years in order to account for the time it would take for effects of corruption to be seen on FDI.
Data Analysis

The first step is to determine whether there is a discernable link between corruption and FDI. The figure below (figure 1.3) plots the corruption variable from the Mo Ibrahim Index against the natural logarithm of the FDI inflows with a fitted regression line. From the model presented there seems to be little or no correlation between corruption and FDI in the select African nations. However, there are some observations that can be made..

Figure 1.3 Corruption and FDI Inflows with a fitted regression line
While figure two provides a visual representation of the relationship between these two variables that doesn’t seem to substantiate any claims, it does however provide us with some insights. Although only slightly, the line of best fit has a negative slope, indicating that over time, there is a negative association between corruption and FDI inflows. This association, however, does not imply causation in and of itself. In order to understand the causality we must analyze the regression results.

Table 1.1 does appear to show some link between the variables. The error terms were calculated robust to heteroskedasticity. The regression model used was taken from an existing study conducted by Habib and Zurawicki (2001):

\[ \ln FDI = \beta_0 + \beta_1 \text{corruption}_i + \beta_2 X_i + \varepsilon_i \]

Where I is the country subscript. X’s are the control variables other than corruption, and \( \varepsilon \) is a random error term. GDP attempts to capture the size of the market as a whole. Finally, a dummy variable was created to control for the colonial heritage of the country. The inclusion of these few additional variables will help improve the fit of the model.
Kunaal Chande
Africa Rising: Corruption & Foreign Direct Investment Inflows

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>8.9047e+20</td>
<td>37</td>
<td>2.4067e+19</td>
</tr>
<tr>
<td>Residual</td>
<td>3.0662e+20</td>
<td>258</td>
<td>1.1885e+18</td>
</tr>
<tr>
<td>Total</td>
<td>1.1971e+21</td>
<td>295</td>
<td>4.0579e+18</td>
</tr>
</tbody>
</table>

Number of obs = 296
F( 37,  258) = 20.25
Prob > F = 0.0000
R-squared = 0.7439
Adj R-squared = 0.7071
Root MSE = 1.1e+09
| logFDI | Coef. | Std. Err. | t     | P>|t| | [95% Conf. Interval] |
|-------|-------|-----------|-------|-----|---------------------|
| Trans | 0.005943 | 0.00100058 | 0.59 | 0.553 | -0.0137641 | 0.0256502 |
| colonized1 | 0 (omitted) | | | | |
| gdp | 2.86e-06 | 2.69e-06 | 1.04 | 0.298 | -2.49e-06 | 8.10e-06 |
| algeria | -0.2916359 | 0.4831044 | -0.60 | 0.547 | -1.243146 | 0.6598747 |
| angola | -0.2601561 | 0.7340917 | -0.35 | 0.723 | -1.706005 | 1.185693 |
| burundi | -8.09081 | 5.8282224 | -1.38 | 0.000 | -9.238722 | 6.482997 |
| burkinafaso | -3.258942 | 0.4206507 | -7.75 | 0.000 | -4.087454 | 6.240349 |
| botswana | -1.668767 | 0.4839766 | -4.13 | 0.000 | -2.464369 | 0.8790443 |
| caboverde | -2.562853 | 0.4139556 | -6.19 | 0.000 | -3.37817 | 1.747536 |
| cotedivoir | -1.732165 | 0.5583712 | -3.10 | 0.002 | -2.831919 | 1.662411 |
| cameroun | -2.147249 | 0.4895799 | -4.39 | 0.000 | -3.115113 | 1.121829 |
| congo | 0.0288766 | 0.5230949 | 0.05 | 0.957 | -1.00212 | 1.058273 |
| djibouti | -3.086409 | 0.5104284 | -6.00 | 0.000 | -4.069481 | 3.058777 |
| egyptarahreph | 0.8138556 | 0.5911031 | 1.38 | 0.170 | -6.05666 | 1.978078 |
| ethiopia | -1.953261 | 0.4881416 | -4.00 | 0.000 | -2.916943 | -0.991829 |
| ghana | -1.684266 | 0.3950595 | -4.30 | 0.000 | -2.701961 | 0.606729 |
| guinea | -2.089441 | 0.5620566 | -3.68 | 0.000 | -2.637645 | 0.562428 |
| gambiathe | -3.684387 | 0.6160298 | -5.98 | 0.000 | -4.897785 | 2.471976 |
| guineabissau | -5.386211 | 0.5775233 | -9.33 | 0.000 | -6.526567 | 4.250735 |
| kenya | -2.643125 | 0.4557365 | -5.80 | 0.000 | -3.540732 | 1.745517 |
| losotho | -2.519274 | 0.4260392 | -5.91 | 0.000 | -3.35839 | 1.680157 |
| morocco | 0.0216151 | 0.4880172 | 0.05 | 0.958 | -0.028005 | 0.825259 |
| mali | -1.671463 | 0.4247728 | -3.93 | 0.000 | -2.508085 | -0.834846 |
| mozambique | -0.891845 | 0.493843 | -1.82 | 0.070 | -1.871846 | 0.0734767 |
| mauritius | -1.869232 | 0.4081865 | -4.58 | 0.000 | -2.673186 | -1.065278 |
| malawi | -2.850549 | 0.4579594 | -6.32 | 0.000 | -3.784742 | 1.985356 |
| niger | -1.911568 | 0.4655948 | -4.11 | 0.000 | -2.828592 | -0.994543 |
| nigeria | -0.7799256 | 0.5644385 | 1.38 | 0.168 | -1.331735 | 0.771641 |
| rwanda | -3.314412 | 0.4194682 | -7.90 | 0.000 | -4.148586 | -2.882238 |
| senegal | -1.77667 | 0.4324138 | -2.41 | 0.000 | -2.628342 | 0.924998 |
| sierraleone | -2.464854 | 0.496264 | -4.96 | 0.000 | -3.443588 | 1.48612 |
| swaziland | -3.011959 | 0.4631783 | -6.50 | 0.000 | -3.924223 | -2.099964 |
| seychelles | -2.59276 | 0.4688042 | -5.34 | 0.000 | -3.926119 | -1.257864 |
| togo | -3.168309 | 0.5730971 | -5.51 | 0.000 | -4.289087 | -2.031571 |
| tunisia | -3.854846 | 0.4533731 | -8.53 | 0.000 | -5.178437 | -2.303588 |
| tanzania | -5.908563 | 0.4261374 | -1.36 | 0.174 | -1.419816 | 2.588805 |
| uganda | -0.987947 | 0.490968 | -2.01 | 0.045 | -1.954942 | 0.0889425 |
| southafrica | 0.1466094 | 0.777866 | 0.19 | 0.851 | -1.395456 | 1.688765 |
| zambia | -0.7206104 | 0.4494011 | -1.60 | 0.110 | -1.605731 | 0.1645281 |
| _cons | 21.16747 | 0.3155944 | 67.07 | 0.000 | 20.54588 | 21.78906 |

Table 1.1 Regression table of FDI on Transparency for each of the countries analyzed
The regression table (table 1.1) shows a negative relationship between FDI and corruption. This was somewhat expected however slight it may be, due to the visual representation which indicated a slight negative relation, as revealed by a negative estimate that is significant at the one percent level. Since the regressions were done per country we get a clear metric on the effect of one additional unit of corruption (a decrease in overall transparency and accountability) on the inflow of FDI. So, for example, for Algeria, one unit increase in corruption results in 29% drop in FDI inflows. Gambia, with some of the highest corruption levels, returned the greatest value in terms of a negative effect on FDI inflows. Moreover, certain countries seemed to have positive correlation with corruption on FDI. This could either be explained by an anomaly in the dataset or that the investors are receptive to the corruption and use it to manipulate the system for profits.

The causality, and more importantly, the direction of causality need to be addressed at this point. One issue that may be of relevance is whether the causality actually occurs from FDI inflows to corruption. If this were the case, then the entire claim of any sort of relation between the two variables would be impossible to make. A common technique used to address this issue is to adopt the IV method, as mentioned above. This method was first outlined by Wright (1928) and addressed the issue of population regression coefficients not capturing the slope of any one equation in a set of simultaneous equations. Wright uses variables that appear in
one equation to shift this equation and trace out the other; the variables that do, in fact, shift are known to be the *instrumental variables*. This technique also accounts for other statistical errors such as bias from measurement error in regression models. This is because the regression coefficient is biased toward zero when the repressor of interest is measured with random errors.

**Instrumental Variables and Causality**

This phenomenon can be broken down into one version with a restricted model with constant effects, and then with unrestricted heterogeneous potential outcomes, where causal effects are also heterogeneous. This allows us to first understand the basic mechanics of the IV method without interferences, followed by a more intricate breakdown of how changes effect the model without altering the technique itself.

The equation below is an example of the potential outcomes in light of the constant effects setup as a structure for the causal link between FDI and corruption:

\[ Y_{si} = f_i(s) \]

and that,

\[ f_i(s) = \alpha + \rho s + \eta i \]
Furthermore, there are also vector of control variables, $A_i$, dubbed ‘ability’ that gives a selection-on-observables story:

$$\eta_i = A_i'\gamma + \nu_i$$

Where $\gamma$ is a vector of the population regression coefficients, so that $A_i$ and $\nu_i$ are uncorrelated by construction. In this case, it can be assumed that the variable $A_i$ is the only factor that $\eta_i$ and $S_i$ are correlated, so that:

$$E[S_i\nu_i] = 0$$

Therefore, if $A_i$ were to be observed, it could then be included in the regression for FDI on corruption:

$$Y_i = \alpha + \rho S_i + A_i'\gamma + \nu_i$$

Where this is a version of a linear causal model where the error term is the random part of potential outcomes, $\nu_i$, after controlling for $A_i$. This error term is assumed to be uncorrelated with FDI, if this is true, then the population regression of $Y_i$, $S_i$, and $A_i$ produces the coefficients for the above equation.
In this case it entails analyzing instruments that are correlated with corruption but not with the error term in the model and also do not have an influence on the level of FDI in the country other than the indirect impact through corruption itself. Given that language has been a going concern for the continent, and since Mauro (1995) the standard method instrument for corruption is the ethno-linguistic fractionalization (ELF) index. This measures the degree to which a country is fractionalized by ethnicity or language. This type of fractionalization creates a culture of preferential treatment and can foster corruption by politicians in power treating certain groups or their supporters favorably. This has an effect on corruption but does not correlate with the error term in the regression. For similar reasons, there is little reason to expect this to have a direct effect on FDI inflows. Due to time constraints I was unable to gather the necessary data to apply the method, however, it is a noteworthy element of the analysis.

Hence, it can be stated that for the select sample of African nations, there is no discernable impact of corruption on FDI inflows based on the data analyzed.

Conclusion

This paper was written in order to establish whether or not there is an effect of corruption on FDI inflows. I have argued so far, that while there is no clear
discernable relationship between these variables there is a slight negative skew, while a few countries appeared to have a positive correlation between corruption and FDI inflows. In attempting to establish a connection between these variables more questions arise. What types of corruption are the most detrimental to society, in terms of inefficiencies? What type of corruption can be considered good or bring with it some sort of benefit? In bringing these issues to light I hope to invite more research to be conducted with Africa as the focal point in order to better understand a continent poised to receive billions of dollars in investment over the next decade alone.
Кунал Чанде
Africa Rising: Corruption & Foreign Direct Investment Inflows

References


Kunaal Chande
Africa Rising: Corruption & Foreign Direct Investment Inflows


Kunaal Chande
Africa Rising: Corruption & Foreign Direct Investment Inflows


Kunaal Chande
Africa Rising: Corruption & Foreign Direct Investment Inflows


