The impact of selected institutional environment dimensions of sub-Saharan countries on their ability to attract foreign direct investment

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ABSTRACT

International business research points to the institutional environment as a core determinant of the countries’ ability to attract foreign direct investment (FDI). However, the extant research has been more focused on understanding the specific institutional of the transition and emerging economies and has left largely un­tapped African countries. In this paper we examine the impact of a selected number of six institutional dimensions on sub-Saharan countries’ ability to attract FDI inflows. Results show that the quality of the institutional environment is positively related to the FDI into these countries, confirming prior work on different geographies but showing some remarkable differences. We extend extant research on the institutional environments and distances into contexts of extreme under-institutionalization that characterize much of the sub-Saharan African region.

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1. Introduction

Understanding why some countries have greater capacity to attract foreign direct investment (FDI) has motivated researchers to seek the origins of that attractiveness, or the determinants of FDI. This is an important question from the standpoint of public policy by governments, but is also relevant to multinational firms, in that they evaluate a set of costs, risks and potential benefits in their international expansion decisions. The extant literature has identified several determinants of FDI. Some are specific to firms and emerge from firms’ specific advantages (Dunning, 1988, 1993), whilst others are related to the specific motivations of entering each country. Other determinants are related to the characteristics of the host countries (Peng & Khoury, 2008; Khoury & Peng, 2011). These host country characteristics may originate from economic factors, market size, purchasing power and income profile, but also from the legal, political, geographic, infrastructure, culture, level of taxation, restrictions on trade and investment, among others (Asiedu, 2004, 2006; Kaufmann et al., 2003, 2009; Naude, Krugell & 2007; Berry et al., 2010). Especially relevant for attracting FDI seem the institutional features of the countries (Kostova & Roth, 2003; Ferreira & Li, 2011). In the case of less developed countries, with higher levels of corruption, where informal institutions dominate and an infrastructure, for instance, the financial markets, is still incipient or ineffective (Kostova & Roth, 2003; Li & Ferreira, 2011), the impact of the inefficiencies, ineffectiveness and institutional voids may be especially hazardous for firms and for attracting foreign investments.

In the specific case of the sub-Saharan countries, there are recent evidence indicating that the FDI has been increasing in these sub-Saharan African countries, especially since the 1990s (Ndikumana, 2003; Verick & Ndikumana, 2008), although these

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countries are still largely marginalized in the worldwide FDI flows and unattractive to foreign investors (Naude & Krugell, 2007; Ndikumana; Verick, 2008; Darley, 2012). The challenge for public policy is how to create conditions of security, efficiency and effectiveness to become more attractive destinations for international investors (Ndikumana & Verick, 2008; Darley, 2012). Some of the most notable barriers include a relatively small market size given the high level of poverty and lack of communication, transportation and sanitary infrastructure. Nonetheless, the largest obstacles may reside in the institutional setting of these countries that by being ineffective present hazards, risks and additional costs to foreign investor firms (Asiedu, 2004, 2006; Naude & Krugell, 2007).

In this paper we analyze the impact of a selected set of institutional variables of the 48 sub-Saharan countries in their ability to attract foreign direct investment. Methodologically, we used the World Governance Indicators of the institutional environment (see Kaufmann et al., 1999; Kaufmann et al., 2003, 2009) – voice and accountability, political stability, control of corruption, rule of law, regulatory quality and government effectiveness – for the 48 countries of sub-Saharan Africa. This study thus aims at complementing the small but growing debate on the determinants of FDI, specifically on the impact of the institutional environment determinants on FDI in sub-Saharan Africa (see also Asiedu, 2002, 2004; Naude & Krugell, 2007; Asiedu & Lien, 2011).

This study contributes to a better understanding of the real impact of institutional weaknesses on FDI inflows in conditions of extreme institutional deficiencies, such as those likely to be found in sub-Saharan Africa. Focusing on a group of countries that has remained surprisingly largely under-researched in prior literature – perhaps due to their low participation in the international trade and investment flows – we capture those countries with larger institutional voids and where the risks for foreign firms are heightened by the political and social instability. Despite not specifically accounting for the differences that exist within the institutional environments in these African economies, these countries are among those with worst, or less sophisticated, institutional environments (Asiedu, 2004). This context is particularly relevant given that institutions reduce uncertainty for the different agents, constraining the dominant norms and defining the boundaries of what is taken as legitimate behaviors and actions (Dimaggio & Powell, 1983). This study also contributes to put into context that frequently used and established indicators, such as the World Governance Indicators, require deeper examination. Perhaps, when exposed to extreme conditions, such as those in sub-Saharan Africa, additional dimensions ought to be considered and results may vary from those found in other institutional settings.

This paper is organized in four parts. First, we present the conceptual model based on a set of hypotheses advancing that the quality of the institutional environment is likely related to the countries’ ability to attract FDI inflows. In the second part, we present the method, including sample, variables and statistical procedure. The third part comprises the results followed by a broad discussion and pointing out limitations and suggestions for future research.

2. Conceptual model and hypotheses

International business research often analyzes how the differences between countries – that occur in the political, economic, cultural, technological, infrastructure and institutional environments – influence firms’ decisions, namely the decision to carry out FDI operations, or simply to export to the country. Thus, firms entering a foreign country must be knowledgeable of the host country institutional conditions they will face (Brouthers, 2002; Ferreira & Li, 2011). Scott (1995) defined institutions as the regulatory, normative and cognitive structures that provide stability and meaning to social behavior. Institutions are the humanly devised constraints that structure human interaction (North, 1990; Dumludag, Saridogan & Kurt, 2009). The host countries’ institutional characteristics encompass normative and regulatory components and cognitive domains that influence virtually all behaviors of the multinational corporations (Henisz & Swaminathan, 2008).

The quality of the institutional environment is a key determinant of FDI flows (Benassy-Quéré et al., 2007). First, good governance infrastructure may attract foreign investors, because the quality of the institutions is crucial for macroeconomic stability and the development of the private business sector. Second, poor institutions may entail additional costs to FDI, for example, corruption (Wei, 2000). Third, FDI is particularly vulnerable to all kinds of uncertainty,
including the uncertainty accruing from government inefficiency, policy changes, weak enforcement of property rights and weak legal system. Hence, it is probable that FDI flows are larger between countries exhibiting relatively similar institutions, and it is equally likely that firms will find it harder to evaluate countries that differ more markedly from their own domestic institutional environment (Benassy-Quéré et al., 2007). Fourth, better economic, political and social institutions, and more effective protection of property rights in a country, contribute to improve its attractiveness to foreign investors (Dumludag et al., 2009). In contrast, frequent public policy changes, political risk and institutional insufficiencies significantly discourage FDI (Singh; Jun, 1995). Finally, countries that wish to increase foreign investment inflows may be able to do so by improving their institutional milieu, namely establishing and implementing a predictable set of economic policies (Daude & Stein, 2007).

The inefficiencies of the institutions in less developed economies generate additional costs and delays in foreign investments (Estrin et al., 1997). MNCs internationalizing into under-institutionalized countries, such as transition and emerging economies or sub-Saharan countries face greater uncertainty due to high inflation, opaque regulatory environments, and underdeveloped financial and legal systems (Grosse & Trevino, 2005). Institutional inefficiencies increase the costs associated with the implementation of FDI in the host country, and the uncertainties related not only to conducting the operations but also to the prospects of long term investments (Grosse & Trevino, 2005).

In sum, the quality of the institutions of a country is an important determinant of its attractiveness for foreign investment (Blonigen, 2005). The conceptual model in Figure 1 summarizes our hypotheses on the impact of the quality of the institutional environment on FDI inflows in regions particularly under-institutionalized and fraught of institutional voids, as in sub-Saharan Africa.

2.1 Voice and accountability
The concept of voice and accountability refers to the political process, civil rights and institutions that facilitate the control of government actions by citizens and independent media. Democratic governance institutions generate credibility with the foreign investors (Jensen, 2003). Analyzing the relationship between fundamental democratic rights and FDI, Harms and Ursprung (2002), Jensen (2003) and Busse (2004) found that MNCs are attracted by democratic regimes, and Li and Resnick (2003) noted that democratic rights induced better property rights protection that are essential to foreign investment. Additionally, elected, or democratic, governments, are accountable for their actions, including the breach of contracts (Jensen, 2003), with consequences in future electoral processes.

Harms and Ursprung (2002), Cuervo-Cazurra and Genc (2008) and Asiedu and Lien (2011) have argued that there is a sense that MNCs prefer investing in authoritarian regimes because they are able to extract greater benefits in the form of investment subsidies and lower labor costs – possibly due to lack of popular pressure and repression over the labor unions to maintain low wages. That is MNCs may still invest in those countries if there are business opportunities worth pursuing, as evidenced by the FDI inflows into China despite an authoritarian regime (Cuervo-Cazurra & Genc, 2008). However, the impact of low wages on FDI decisions might be over-estimated, and the alleged stronger property rights protection offered by repressive regimes may be an illusion (Harms & Ursprung, 2002). Hence, albeit autocratic governments may favor and protect certain investors, they have large discretionary power in decision making and foreign investors are subjected to the risks of policy changes or that the regime bursts into revolution (Harms & Ursprung, 2002).
Hypothesis 1: The quality of voice and accountability of sub-Saharan African countries is positively related to their ability to attract FDI.

2.2 Political stability

Political stability refers to the risk of destabilization or removal of a government from power in a violent or unconstitutional manner (Kaufmann et al., 2003). Changes of politicians may lead to changes in policies towards foreign investment and existing contracts. Bhinda et al. (1999) noted how a stable government in Tanzania and Uganda encouraged FDI in these countries. However, instability is endemic throughout sub-Saharan Africa and undermines efforts to attract FDI to the region (Dupasquier & Osakwe, 2006; Cleeve, 2008). Sub-Saharan Africa has been exposed to numerous coups, for example in Guinea-Bissau (in 2011) and the Central African Republic (in 2012), as well as military governments and regimes where presidents have been in power for decades, as in Angola and Zimbabwe. Political instability in the sub-Saharan Africa countries also emerges from frequent wars, military interventions in politics and religious and ethnic conflicts (Rogoff & Reinhart, 2003; Dupasquier & Osakwe, 2006). All these forms of political instability raise the risks for foreign investors.

Hypothesis 2: The political stability of sub-Saharan African countries is positively related to their ability to attract FDI.

2.3 Control of corruption

The effects of corruption as “sand” that undermines the attractiveness to FDI are well known (Wei, 2000; Uhlenbruck et al., 2006; Cuervo-Cazurra, 2006, 2007). The World Bank defines corruption as the abuse of power to obtain private benefits and includes paying or receiving bribes, embezzlement, favoritism, transactions for personal gain, misuse of influence or irregular payments in public procurement, among others. Corruption in the existing institutional apparatus increases the hazards of operating in some countries (Shleifer & Vishny, 1993; Cuervo-Cazurra, 2007), and heightens the uncertainties and costs of having to pay to get things done (Kaufmann et al, 2003), thus decreasing FDI (Wei, 2000). In these instances, firms are likely to seek alternative informal channels to resolve their problems (Li & Ferreira, 2011) and, as noted by Dixon and Polyakov (1998) in the case of the widespread corruption in the Soviet political system, bribery has become a guarantee that agents (e.g., government officials) fulfill their official functions (Olson, 1995).

One of the biggest obstacles to doing business in Africa is corruption (Anyanwu, 2006). Corruption generates lower investor confidence that discourages future foreign investments (Mauro, 1995). According to Li and Ferreira (2011), additional payments to officials are additional transaction costs that encourage firms to rely more on informal relations that avoid involvement with government officials. Corruption is endemic throughout Africa and is one of the main reasons for MNCs not investing in Africa (Dahou & Khalil, 2009). Mmieh and Owusu-Frimpong (2004), for example, concluded that bribery and corruption are deeply rooted in the African socio-economic and political systems, and are the main barriers to attracting FDI.

Hypotheses 3: The level of control of corruption in sub-Saharan African countries is positively related to their ability to attract FDI.

2.4 Rule of law

Rule of law refers to the effectiveness and predictability of the judiciary and enforceability of contracts. Complex and opaque regulatory structures undermine the attraction of FDI (Anyanwu, 2006; Dupasquier & Osakwe, 2006; Cleeve, 2008) because foreign investors value countries with sophisticated legal and judicial systems to ensure the safety of their investments (Dupasquier & Osakwe, 2006). Kinoshita and Campos (2004) noted that a weak legal system, including violations of property rights, and greater government participation in the economy, is a strong deterrent to FDI. Weak law enforcement and lack of credible property protection mechanisms are significant obstacles to FDI in sub-Saharan Africa. Some examples of risks include expropriation (Kinoshita & Campos, 2004), difficulty of using the judiciary system to resolve contract conflicts with partners (Henisz, 2000; Henisz & Swaminathan, 2008; Li & Ferreira, 2011).

Hypothesis 4: The quality of the rule of law in the sub-Saharan African countries is positively related to their ability to attract FDI.

2.5 Regulatory quality

The regulatory quality refers to the content of public policies, such as the existence of market-unfriendly
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legislation, price control mechanisms, and other forms of excessive regulation – including licensing regulation, opening of new businesses, hiring workers, import production factors, payment of taxes, governmental fees and licenses, etc. (Kaufmann et al., 2003; Li & Ferreira, 2011). It is up to governments to regulate the activities of domestic and foreign firms operating in the country (Holmes et al., 2012). These firms expect regulatory institutions to establish a set of explicit rules to minimize uncertainty. In credible countries, the existence of controls protects property rights and guarantees potential foreign investors against potential government arbitrary actions (Kaditi, 2010). Conversely, when these fail, firms are likely to hold back in realizing new investments, especially in long term commitments (Cuervo-Cazurra & Genc, 2008). Low quality of institutions needed for the proper functioning of markets increases the cost of doing business in sub-Saharan Africa and distorts investments, while insufficient legal protection of assets increases the possibility of expropriation and contribute to decreased FDI (Blonigen, 2005).

Hypothesis 5: The quality of the regulatory structures of the sub-Saharan African countries is positively related to their ability to attract FDI.

2.6 Government effectiveness

Government effectiveness refers to the quality of the bureaucracy, the competence of civil servants, public service quality and credibility of the government’s commitment to its policies (Kaufmann et al., 2003, 2009). Governments influence firms’ decisions through policies regulating foreign investment, prices, mergers and acquisitions activity, employment, wages, dividends, tax policies and defining and enforcing quality standards (North, 1990; Delios & Henisz, 2000). Public policies can create an enabling environment for FDI inflows (Darley, 2012) or, conversely, discourage FDI inflows by an inefficient use of financial resources (to satisfy special interests) and by the distortion of private incentives through taxes and specific regulations that create inefficiencies (Levine & Renelt, 1992).

In sub-Saharan Africa, government intervention is often unpredictable and arbitrary, seeking to satisfy voters and win popular support, without following political direction or a clear economic strategy. Governments have the legal monopoly on coercion and are present in every economic transaction (North, 1990), and changes in regulatory or fiscal policies (Delios & Henisz, 2000) are likely to have a negative impact on firms. Good governance needs to promote economic performance, and should encourage FDI indirectly, raising the possibility of profitable business activities (Globerman et al., 2004).

Hypothesis 6: The effectiveness of the actions of the governments of sub-Saharan countries is positively related to its ability to attract FDI.

3. Method

We tested the hypotheses with an econometric analysis using data on the FDI inflows, in 2011, for each of the 48 countries of sub-Saharan Africa. Using this enlarged sample of countries we are better able to assess how the attractiveness to FDI varies based on the characteristics of the institutional environment of these countries. The majority of the data was collected from the United Nations Conference on Trade and Development (UNCTAD), World Development Indicators and Worldwide Governance Indicators. Methodologically, we followed similar studies (Wei, 2000; Cuervo-Cazurra, 2006, 2007; Daude & Stein, 2007; Kaditi, 2010) and used a Tobit model for the statistical tests.

3.1 Variables

Table 1 summarizes the variables and data sources. The dependent variable is the logarithm of FDI inflows in US dollars, for each of the 48 sub-Saharan African countries.

The independent variables are the six dimensions of institutional environment, measured as in prior studies (Kaufmann et al., 2003, 2009; Daude & Stein, 2007; Kaditi, 2010) in units ranging from -2.5 to 2.5, with higher values corresponding to better governance. Additional details on the measures may be obtained in www.govindicators.org. We followed the procedure by Kaditi (2010) and rescaled the values to vary in the range 0 to 5, with 5 representing better institutional quality. The institutional independent variables were measured using data from the Worldwide Governance Indicators (WGI) 2010.

The indicator on voice and accountability refers to the level of participation of citizens in selecting their governments, freedom of expression, civil rights, freedom of association and free media (Kaufmann et
al., 2003). The variable captures the perceptions of governance by families and individuals, as well as the subjective evaluations of a variety of service providers of business information, nongovernmental organizations, a number of multilateral organizations and other government agencies around the world (Kaufmann et al., 2003).

Political stability refers to individuals' perceptions on the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically motivated violence and terrorism (Kaufmann et al., 2003, 2009; Daude & Stein, 2007; Kaditi, 2010).

Control of corruption is the perception capturing the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as the "capture" of the state by elites and private interests (Kaufmann et al., 2009; Daude & Stein, 2007; Darley, 2012).

Rule of law refers to agents' perceptions on their confidence and respect for the rules of society and, namely to the quality of contract enforcement, property rights, the police and the courts, as well as the likelihood of crime and violence (Daude & Stein, 2007; Kaufmann et al., 2009).

The 'regulatory quality' refers to the perceptions on the government's ability to formulate and implement sound policies and regulations that permit and promote private sector development (Daude & Stein, 2007; Kaufmann et al., 2009).

Finally, 'government effectiveness' refers to the perception on the quality of public services and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies (Daude & Stein, 2007; Kaufmann et al., 2003, 2009).

We also included a set of control variables to eliminate alternative explanations. We used the data available in the World Development Indicators, except for freedom of trade, in which we used data from the Heritage Foundation. GDP is an indicator used to assess a country's wealth. FDI flows depend heavily on GDP (Benassy-Quéré et al., 2007) and GDP growth is expected to attract more FDI (Anghel, 2005). GDP per capita was used in prior studies as a control variable (Benassy-Quéré et al., 2007; Daude & Stein, 2007; Kaditi, 2010; Khoury & Peng, 2011), with the results usually showing a positive relationship with FDI. The impact of GDP per capita on FDI is theoretically ambiguous since a high GDP per capita reflects a high consumer purchasing power but also high wages (Benassy-Quéré et al., 2007). To assess macroeconomic stability, we used the rate of inflation such that a greater macroeconomic stability reduces the investment uncertainty, lowers transaction costs and increases confidence in the economy, stimulating FDI (Busse & Hefeker, 2007; Kaditi, 2010). The variable population was used to control for market size (see Cuervo-Cazurra, 2006; Darley, 2012), since larger countries tend to be more attractive for MNCs given their market potential. We also included the natural resources endowment (Morisset, 2000; Asiedu, 2006). Finally, we included trade freedom because countries with low trade barriers also tend to have low barriers to FDI (Morisset, 2000) and firms may overcome trade restrictions by carrying out FDI operations. Data on trade freedom were obtained from the Heritage Foundation, 2010, following the methodology by Resmini (2000) and Mateev (2009).

3.2 Sample


Albeit they are countries from the same region, there are notable differences among them (Darley, 2012). These are differences pertaining to economic development, cultural (former colonies of different European countries that left a diverse cultural heritage), population and natural resources endowments. Some countries, such as South Africa, Angola and Nigeria hold abundant natural resources, and despite a high corruption index (e.g., Angola and Nigeria) are able to attract larger FDI inflows, in contrast with other countries with better institutions, such as Cape Verde and Mauritius, with poor natural resource pools (Darley, 2012).
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3.3 Procedures

Since we have logarithmic variables in both sides of the equation, namely FDI, GDP and population, this specification is referred to as a double log model (Wei, 2000). The logarithmic transformation of the dependent and independent variables should help close the error term (\(\varepsilon\)) homoscedasticity (Wei, 2000). As in previous studies (e.g., Cuervo-Cazurra, 2006), we used a one year lag for the independent variables (n-1), to accommodate the time lag that occurs between the analysis of a given investment and its actual implementation. According to Daude and Stein (2007), using FDI as the dependent variable may have problem of dealing with observations with zero value. In this work we do not have observations with values of zero, neither negative values, since we are only examining FDI inflows by host country.

We used a non-linear Tobit\(^2\) model, following Daude and Stein (2007), Wei (2000) and Cuervo-Cazurra (2006), given the higher robustness of the results. The model has the following form: \(\ln (\text{FDI}_i) = y_1 \text{INSTITUTIONS}_{i, t-1} + \beta x_{i, t-1} + \varepsilon_i\). Where \(\text{FDI}_i\) is the FDI inflow in country \(i\) in 2011. \(\text{INSTITUTIONS}_{i, t-1}\) is the perceived index of the institutional variables in

\(^2\) The Tobit model is a statistical model advanced by Tobin (1958) to describe the relation between a non-negative dependent variable and an independent variable.

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**Tab 1**

**Variables and sources of data**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Measure</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DEPENDENT VARIABLE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ln FDI inflow 2011</td>
<td>Natural logarithm of FDI inflow in the country and the year, in million US dollars at current prices and current exchange rates.</td>
<td>UNCTAD (2011)</td>
</tr>
<tr>
<td><strong>INDEPENDENT VARIABLES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voice and accountability</td>
<td>Reflects the perceptions of the level of participation of the citizens of a country in selecting their government, as well as the freedoms they can rely on. (from 0 to 5)</td>
<td>Worldwide Governance Indicators. 2010 values.</td>
</tr>
<tr>
<td>Political stability</td>
<td>Reflects the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism. (0 to 5)</td>
<td>WGI. 2010 values.</td>
</tr>
<tr>
<td>Control of corruption</td>
<td>Refers to capture perceptions of the extent to which public power is exercised for private gain. (0 to 5)</td>
<td>WGI. 2010 values.</td>
</tr>
<tr>
<td>Rule of law</td>
<td>Refers to the level of legal regulation in a society. (0 to 5)</td>
<td>WGI. 2010 values.</td>
</tr>
<tr>
<td>Regulatory quality</td>
<td>Reflects the government’s capacity to formulate and implement policies and regulations that promote the development of the private sector. (0 to 5)</td>
<td>WGI. 2010 values.</td>
</tr>
<tr>
<td>Government effectiveness</td>
<td>Reflects the effects and consequences of good governance. (0 to 5)</td>
<td>WGI. 2010 values.</td>
</tr>
<tr>
<td><strong>CONTROL VARIABLES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ln GDP</td>
<td>Natural logarithm of GDP in millions of U.S. dollars in the year and in the country.</td>
<td>World Development Indicators, World Bank. 2010 values.</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>GDP per capita in the country and the year, in millions of dollars in the country.</td>
<td>WDI. 2010 values.</td>
</tr>
<tr>
<td>Macroeconomic stability</td>
<td>Percentage increase in consumer prices, in the year and country.</td>
<td>WDI. 2010 values.</td>
</tr>
<tr>
<td>Ln population</td>
<td>Natural logarithm of the number of inhabitants in the year and country.</td>
<td>WDI. 2010 values.</td>
</tr>
<tr>
<td>Trade freedom</td>
<td>A composite measure of the absence of tariff and non-tariff barriers that affect imports and exports of goods and services, in the year and country.</td>
<td>Index of Economic Freedom, da Heritage Foundation. 2010 values.</td>
</tr>
<tr>
<td>Natural resources</td>
<td>Total yields of natural resources (oil, natural gas, coal, minerals and forests), in the country and year.</td>
<td>WDI. 2010 values.</td>
</tr>
</tbody>
</table>

Source: The authors
country \( i \) in 2010, \( \gamma \) is the parameter of interest, \( X_i \) is a vector of the control variables, \( \beta \) is a vector of other parameters, and \( \varepsilon \) is the stochastic error remaining. Other robustness tests using the values for the independent values for \( t-2 \) (2009) and \( t-3 \) (2008) with identical results. Using a lag between independent and dependent variables is a standard procedure since firms first evaluate their investment opportunities before actually doing the investments (Cuervo-Cazurra & Genc, 2008). Nonetheless, we ought to acknowledge that OLS estimations based on cross-sectional data may result in inconsistent estimates for not accounting for endogeneity of some regressors (Naude & Krugell, 2007).

4. Results

Table 2 presents the summary statistics and correlation matrix. As might be expected, the independent variables have high correlation, which might be expected since we believe that on aggregate each individual component of the institutional environment will tend reflect the overall state of the country. In any instance, additional procedures were implemented and specifically, we followed the procedure in Daude and Stein (2007) and Kaditi (2010) and grouped the institutional variables that capture somewhat identical facets into two broader dimensions to reduce the problems of measuring the individual components. Hence we grouped the average of ‘voice and accountability’ and ‘political stability’ grouped into a ‘Political stability and freedom’ dimension. Similarly, we grouped the average of ‘control of corruption’, ‘rule of law’, ‘regulatory quality’ and ‘government effectiveness’ into a ‘Government efficiency’ dimension. This procedure is reasonable since we do not face multicollinearity between the dependent and the independent variables. Finally, it is worth noticing that all the countries share low institutional development across the indicators (confirming Cuervo-Cazurra & Genc, 2008).

Table 3 presents the results of the hypotheses tests. Model 1 includes only the control variables. Model 2 tests hypothesis 1, proposing a positive relation between voice and accountability and FDI inflows. A positive and statistically significant coefficient (\( p<0.05 \)) confirms H1, which contrasts with a positive but not significant coefficient in Daude and Stein’s (2007) work. Model 3 tests H2, on the positive impact of political stability, confirming a positive and significant (\( p<0.1 \)) relation to the ability to attract FDI inflows. This result also contrasts with the lack of statistical evidence by Daude and Stein (2007) and Kaditi (2010). Model 4 tests H3 on the influence of control of corruption on FDI. A positive and statistically significant coefficient (\( p<0.01 \)) supports H3. Model 5 tests H4, and a positive and statistically significant coefficient (\( p<0.05 \)) confirms a positive relation between greater development of Rule of Law and the countries’ ability to attract FDI inflows. Model 6 tests H5 and a positive and significant coefficient (\( p<0.05 \)) confirms that regulatory quality is positively related to FDI. Finally, model 7 confirms H6 revealing that greater government effectiveness is positively related to FDI.

In model 8 we run the regression with the calculated ‘Political stability and freedom’ variable, as explained previously. A positive and significant coefficient (\( p<0.05 \)) confirms a positive relation with FDI. In model 9 we used the ‘Government efficiency’ variable, and a positive and statistically significant coefficient (\( p<0.01 \)) reveals a positive relation between this institutional quality and FDI inflows.
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5. Discussion

In this paper we examined empirically the impact of a set of selected institutional variables – the governance indicators developed by Kaufmann et al. (2003, 2009) – in the sub-Saharan African countries’ ability to attract foreign direct investment (FDI) inflows. We sought to better understand how the quality of the host countries’ institutional environment might impact FDI inflows, thus complementing extant studies (e.g., Asiedu, 2004, 2006; Bénassy-Quéré et al., 2007; Busse & Hefeker, 2007; Daude & Stein, 2007; Cuervo-Cazurra & Genc, 2008; Kaditi, 2010; Asiedu & Lien, 2011) even if many of these have looked primarily into developed, transition and emerging countries. The African countries have been rather under-studied in international business research, perhaps because they account for only a minute share of the worldwide economic activity, trade and investment flows, although they represent about 15% of the world population (and the sub-Saharan countries for about 12%). As a group, these countries stereotypically hold high institutional deficiencies and MNCs seeking to enter these countries need to have the ability of operating in under-institutionalized environments.

Hence, examining the institutional determinants of FDI is important for academics, policy-makers and managers of multinational corporations. For academics the sub-Saharan context provides a setting to test theory under extreme institutional conditions not found in the western countries that are more often studied. The results may provide insights for theory building. For policy makers it is important to attract FDI that contributes to develop multiple areas of the countries and alleviate poverty (Asiedu, 2004). Thus, understanding what can be improved to attract more foreign investment is relevant. For instance, policies to reduce bureaucracy, based on strategies for transparent regulation, and establishing a sound managerial system for the collection of taxes are pertinent since they need to understand the multiple facets of the environments in the foreign countries they expand to so that risk reduction strategies may be formulated and deployed.

The results reveal the positive impact of institutional development on the sub-Saharan countries’ attractiveness to FDI. An analysis of the coefficients permit us to observe that control of corruption and government effectiveness are the institutional dimensions with greater impact. Results also permit us contrast with existing studies. For instance, Daude and Stein (2007) and Kaditi (2010) did not find a significant relationship between political stability and FDI, however they did not target African countries where the problems and risks related to political stability have a much higher

### Table 3

**Variables and sources of data**

<table>
<thead>
<tr>
<th>Variables</th>
<th>DEPENDENT VARIABLE LN OF FDI INFLOWS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
</tr>
<tr>
<td>------------------------------------</td>
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</tr>
<tr>
<td>Voice and accountability</td>
<td>0.684**</td>
</tr>
<tr>
<td>Political stability</td>
<td>0.495*</td>
</tr>
<tr>
<td>Control of corruption</td>
<td></td>
</tr>
<tr>
<td>Rule of law</td>
<td></td>
</tr>
<tr>
<td>Regulatory quality</td>
<td></td>
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<tr>
<td>Government effectiveness</td>
<td></td>
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<tr>
<td>Political stability and freedom</td>
<td></td>
</tr>
<tr>
<td>Government Efficiency</td>
<td></td>
</tr>
<tr>
<td>Ln GDP</td>
<td>0.1004***</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>0.0002***</td>
</tr>
<tr>
<td>Macroeconomic stability</td>
<td>0.0221</td>
</tr>
<tr>
<td>Ln population</td>
<td>0.6116***</td>
</tr>
<tr>
<td>Trade freedom</td>
<td>-0.0172</td>
</tr>
<tr>
<td>Natural resources</td>
<td>0.0159</td>
</tr>
</tbody>
</table>

**Source:** Data of Research
magnitude in comparison to transition and emerging countries. The frequent coup d’etat and military governments are just one of the visible signs. Cuervo-Cazurra and Genc (2008) also failed to find significant effects but raised the possibility that we ought to examine the source countries of the FDI as there might be a positive relation between the host country being a former colony and the likelihood that MNCs from these former colonial powers will invest. Kaditi (2010) identified a statistically significant, but negative, relation of control of corruption with FDI, contrasting with a positive relation in our study, which may be due to the higher levels of pervasive and arbitrary corruption in, at least, some of the African countries. In fact, Kaditi’s (2010) negative coefficient may indicate what Cuervo-Cazurra (2006) referred to as corruption as “grease”. Thus, our study further contributes to understand that the analysis of well-established institutional indicators (such as those advanced by Kaufmann et al., 2009) need to be contextualized. And, when we examine extreme conditions, as seem to occur when analyzing sub-Saharan Africa, the results may differ from previous studies in different institutional milieus.

Albeit all hypotheses were confirmed, the analysis warrants additional comments. The indicator of ‘voice and accountability’ captures the perception of freedom (Kaufmann et al., 2009) and may be especially important in sub-Saharan countries where both the citizens and the media are denied of basic rights and freedoms, and some countries have authoritarian regimes (Harms & Ursprung, 2002). Political instability is particularly notorious in some of these countries, with military governments that came to power through coups, and where political changes are frequent (Peng & Health, 1996; Li & Resnick, 2003). According to Anyanwu (2006), one of the biggest obstacles to conducting business in Africa is corruption. If corruption is endemic in both the public and private sectors, the mechanisms of control are not effective in preventing those behaviors and bribing may have become the legitimised way of doing business (Ades & Di Tella, 1997). In sum, it is important to understand the local idiosyncrasies pertaining to the institutional indicators to fully understand both their impact and what needs to be changed to improve the countries ability to attract foreign investors (Darley, 2012).

5.1 Beyond the region: A country analysis
Albeit there are similarities among the 48 Sub-Saharan countries, there are also notable differences. For instance, these countries are relatively poor, with primitive financial markets, lacking infrastructures, unqualified population and with governance deficiencies (Asiedu, 2004; Khalil & Dahou, 2009). The evidence is that 23 out of the 48 countries in the region have a GDP lower than 3 billion USD. However, there are also differences in relative wealth, human and natural resource endowments, political and social stability, and even economic development.

The performance of the Sub-Saharan countries is poor in all institutional indicators. For instance, the indicator of control of corruption shows that corruption in endemic to these countries (Khalil & Dahou, 2009), with Angola, Equatorial Guinea, Democratic Republic of Congo and Somalia holding the worst values. The deficiencies extend to government ineffectiveness, with South Africa, Botswana, Mauritius, Namibia and Seychelles the only countries with positive values. Moreover, some countries are very small and lack natural resources, such as Cape Verde, Mauritius and Seychelles. Nonetheless, observing that Angola, Congo, Nigeria and Sudan, jointly captured a total of 115,689 million USD in FDI and that these are countries with the lowest values in all institutional indicators, we have evidence that we ought to consider the impact of other factors beyond the institutional quality when assessing the sub-Saharan countries’ attractiveness to FDI. The natural resource endowment is an important determinant of FDI into Africa (Kinoshita & Campos, 2004; Asiedu, 2006). According to Adams (2009) the increased FDI inflows from 18 billion USD in 2004 to 36 billion in 2006, was due to the foreign interest in exploiting these countries’ natural resources. Thus, it is not surprising to find among the largest recipients of FDI in Africa countries with the largest natural and mineral resource pools (UNCTAD, 2002) – the three largest FDI recipients in Africa, in the period 2000 to 2002, were Angola, Nigeria and South Africa, jointly absorbing 65% of the FDI inflows into the region (Asiedu, 2006) – especially given the increases in the prices of the mineral commodities (Ndikumana & Verick, 2008). Resource seeking FDI (see Dunning, 1993) is particularly influenced by such aspects as the availability, cost and quality of the natural resources, their development (transformation and commercialization) and the
infrastructure required for the exploitation and transport of those resources.

5.2 Limitations and future research

This study is not without limitations. Some are limitations pertain to the nature of the data on the countries examined, where we have serious scarcity of secondary reliable data that render unviable both studying other dimensions of the institutional environment, and delving into firm-level research. We have relied on the Worldwide Governance Indicators as veritable measures of institutional environments. However, albeit many studies have used these indicators, there have been criticisms pertaining to whether these indicators measure what they purport to measure, construct validity and estimated standard errors of estimation (see, Knack, 2006; Iqbal & Shah, 2008; Thomas, 2010). Nonetheless, future research may, not without substantial cost, use a survey to firms in the region or employ other institutional indicators and perhaps better capture differences among this group of countries that have had different historical, economic and political trajectories. These studies may, for instance, better disentangle why Angola, Congo, Nigeria and Sudan that had a higher share of FDI and yet they among the lowest values in the institutional dimensions. Other aspects related to the natural resource endowments and cultural heritage of differential institutional quality may help understand better what is happening with FDI.

Our study employed data at the sub-Saharan country level as FDI recipients. Similar aggregation of countries was made in other works (Gupta et al., 2010; Darley, 2012). The institutional framework comprises both formal and informal components (Dumludag et al., 2009, Li & Ferreira, 2011). Formal rules are written rules, such as the laws concerning contracts, political systems, tariffs and quotas and the regulation of the financial system. Informal rules are unwritten and include such aspects as culture, behavioral norms and codes of conduct. For example, if the reality observed by the local firms differs from that perceived by foreign firms, then there may be evidence of the role of informal institutions (Peng & Heath, 1996; Peng, 2003). Future research may seek to better understand how the informal institutions differ among countries and how they impact FDI. Similarly, when the formal restrictions are absent or incomplete, the informal restrictions intervene to minimize uncertainty and provide a script managers may follow (Peng & Khoury, 2008). For instance, with the decline of the formal institutions in the transitions economies, informal ways of doing business gained strength in regulating economic activity during transition (North, 1990; Roth & Kostova, 2003). Hence, future studies may be relevant in understand how MNCs deal with the informal milieu of the host sub-Saharan countries.

We observed high correlation among the institutional indicators, raising the well-known statistical concerns of multicollinearity, making it more difficult to examine each institutional dimension as mutually exclusive. Albeit it is reasonable that countries that are more (less) developed have a set of institutions more (less) sophisticated – and hence we might expect a positive correlation among the institutional variables (Mauro, 1995) – the estimation of the coefficients may not be stable. For instance, corruption may induce a less efficient bureaucracy when governments establish additional obstacles with the aim of receiving bribes (Mauro, 1995). Nonetheless, there seems to be a positive relation between institutional quality and the sub-Saharan countries’ ability to attract FDI.

Scholars may also delve into the source countries of the FDI. To at least some extent, it is possible that MNCs from other under-institutionalized countries develop the ability to effectively operate in sub-Saharan Africa. These MNCs may have learned how to overcome the formal institutional voids and have developed manners to cope with it. In some sense, these MNCs may have developed political capabilities (Holtbrügge, 2007; Jiménez & Delgado, 2012) and are better prepared to deal under such institutional inefficiencies. In contrast, it is probable that MNCs from more developed countries simply avoid investing in such harsh environments and rather turn to other similarly developed nations (Cuervo-Cazurra & Genc, 2008), or, perhaps, nations that show progress in their institutional development.

6. Conclusion

In conducting FDI strategies MNCs need to consider the institutional differences to the host countries (Brouthers, 2002; Khoury & Peng, 2011) but also the specificities of the different facets of the institutional environments of the countries they are entering (Cuervo-Cazurra & Genc, 2008). Sub-Saharan countries are probably among the most extreme
cases of institutional voids, inefficiencies and ineffectiveness. Yet, some African governments have been putting in place reforms to improve the business environment for FDI, reducing investment barriers, privatizing state owned firms, increasing fiscal transparency, among others (Darley, 2012). Notwithstanding, institutional improvements have a long way to go to improve the investment climate of the countries in the region (Asiedu, 2006).

Governments may act to improve institutional quality using political and legal instruments to improve the quality of the regulation and lower corruption, but there are many other factors to consider such as the natural resource endowment, the quality of the human capital, the trade and investment obstacles, macroeconomic stability and the size of the host market to increase further FDI inflows into the region. For MNCs the crux is to identify how institutional inefficiencies may impact their operations and how to overcome those obstacles. Nonetheless, the prospects show business opportunities in Africa that MNCs ought to pursue, raising the need to understand the challenges that need to be surpassed to effectively operate in these countries.

7. References

The impact of selected institutional environment dimensions of sub-Saharan countries on their ability to attract foreign direct investment

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O impacto de dimensões selecionadas do ambiente institucional dos países da África Subsaariana na sua capacidade de atrair investimento estrangeiro

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RESUMO

A pesquisa em negócios internacionais aponta para o ambiente institucional como um determinante crucial da capacidade de os países atrairem investimento estrangeiro direto (IED). No entanto, a pesquisa existente tem estado mais focada em compreender o ambiente institucional específico de economias emergentes e em transição deixando descurados os países africanos. Neste artigo analisamos o impacto de seis dimensões institucionais selecionadas na capacidade de os países da África Subsaariana atrairem influxos de IED. Os resultados mostram que a qualidade do ambiente institucional está positivamente relacionada com o IED nestes países, confirmando estudos anteriores em outras localizações, mas mostrando algumas diferenças notáveis. Estendemos a pesquisa existente sobre os ambientes e distâncias institucionais para contextos de extrema sub-institucionalização que caracterizam muita da região da África Subsaariana.

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