Revisiting the Determinants of Foreign Direct Investment in Africa: the role of Institutions and Policy Reforms

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Abstract

This paper investigates the key determinants of net FDI inflows in Africa using a recent panel data of 31 countries for 26 years (1984-2009). By adopting both baseline static and dynamic panel data models, we provide evidence that market size, past levels of inward FDI, corruption, domestic credit, share of oil in exports and religious tension risk are significant drivers of inward FDI in Africa. Our work reveals that FDI to Africa is market-seeking and follows oil economies. The significance of the lagged dependent variable is an evidence of another concentration pattern (i.e. agglomeration effects). FDI to the continent seems to be concentrated in places where there is already prior inward FDI. Most of the political and institutional risk indicators are found to be insignificant. Domestic bank credit is instrumental to FDI inflows, but only in the presence of quality bureaucracy. To attract FDI into the continent, besides policies to expand markets through regional integration, credible institutional policy reforms are urgently needed to improve economic governance and political stability, particularly by enhancing the quality of civil services, and combating corruption and religious tensions.

1. Introduction

Over the last two decades, financial globalisation has witnessed an increasing integration of the global economy, and the growing involvement and widening global distribution of multinational corporations and their activities. Foreign Direct Investment (FDI) has since 2005 become the main source of foreign capital inflows to Africa, overtaking overseas development assistance (ODA) in terms of size. FDI contributed 20% of fixed capital formation in Africa over the last decade, but continue to be unevenly distributed across countries and sectors with 15 oil-rich countries accounting for 75% of FDI flow (AfDB *et al*, 2011). However, in terms of sector, while resource-driven FDI dominated over the last decade, the service sector attracted the largest share of FDI and cross-border merger and acquisitions in Africa in 2009. Net FDI flows to Africa rose from US$38.2 billion in 2005 to the highest level of US$72.2 billion in 2008 before falling to US$ 47.6 billion in 2010. Meanwhile, ODA flows to Africa fluctuated, between US$35.7 billion in 2005 and US$47.6 billion in 2009. Although it has been increasing over time, Africa's share of 2.8% of global FDI flows during 1991-2009 is very small in view of its huge untapped resources and growth potential (table 1).

Whereas ODA flows increased in the immediate aftermath of the recent global financial and economic crises owing to long-term planning and commitments by donors, they are expected to at least stagnate in the medium term due to ensuing debt crises and fiscal consolidation in many donor countries. Meanwhile, although FDI flows declined in absolute terms as a result of the crisis, they are projected to increase over time as the global economic recovery gathers momentum. More importantly, since the start of this century, the continent has attracted increasing and more diversified FDI inflows from emerging and developing economies of the South that are driving growth in the aftermath of the global crisis (AfDB *et al*, 2011). At the same time, Africa's trade with emerging and developing economies is increasing at high rates,

contributing to increasing diversification of production and exports, a factor that would, in turn, stimulate market-seeking FDI.

On the basis of its huge untapped natural and human resources, attractive investment opportunities, relatively high and sustained growth since 2000 and swift recovery from the recent crises, Africa is projected to be the fastest growing region of the world over the next decade (IMF, 2010; McKinsey Global, 2010). But, the continent needs to address a number of development constraints in order to attract large and increasing investment flows and become an attractive investment destination as well as a source of global rebalancing. Global macroeconomic imbalances arising from huge surpluses and savings in emerging and developing economies and unsustainable deficits in advanced economies that underpinned the global crises should provide an incentive for African countries to create the necessary conditions for attracting these surpluses, especially in the form of market-seeking FDI that will help create jobs and reduce unemployment and poverty on the continent. Hence, contributing to addressing development challenges, including poverty reduction.

Table 1: Average FDI Inflows for the World and Selected Regions; 1970-1990 and 1991-2009

	1970-1990		1991-2009	
Regions	Average Inflows (in Mill.)	As a Share of World Inflows	Average Inflows (in Mill.)	As a Share of World Inflows
World	65,533.5	100	810,274.3	100
All Developing Economies	14,291.1	21.8	247,719.5	30.6
All Developed Economies	51,234.9	78.2	536,695.6	66.2
Africa	1,719.2	2.6	23,081.5	2.8
Eastern Africa	150.1	0.2	2,015.4	0.2
Central Africa	227.1	0.3	5,846.2	0.7
Northern Africa	568.8	0.9	7,681.5	0.9
Southern Africa	115.8	0.2	2,936.2	0.4

Western Africa	657.5	1.0	4,602.4	0.6
America	4,898.8	7.5	74,861.4	9.2
Asia	7,529.2	11.5	149,154.9	18.4
Oceania	143.9	0.2	621.6	0.1
Developing Economies Excluding China	13,354.3	20.4	196,489.8	24.2
Africa Excluding South Africa	1,672.3	2.6	20,667.3	2.6
Northern Africa Excluding Sudan	566.2	0.9	6,660.1	0.8
Sub-Saharan Africa	1,153.1	1.8	16,421.5	2.0
Sub-Saharan Africa Excluding South Africa	1,106.2	1.7	14,007.2	1.7

Source: World Investment Report (2010); Constant and Tien (2010)

In this regard, many African nations are taking important steps to improve their investment climate, governance institutions and structures, human capital and infrastructure, and overall macroeconomic management and services in order to boost the FDI inflows as well as domestic investment (UNECA and AUC, 2011). Africa, however, still lags behind all other regions of the world in creating the necessary conditions for attracting FDI. It is, therefore, important to understand the underlying factors, which are significantly linked with net FDI inflows to guide policy and institutional reforms and their effective implementation in Africa.

This study is particularly timely and relevant in the context of the increasing role of FDI as a source of investment and development in Africa and the changing global financial and economic architecture as highlighted above. It is also timely and important in view of the fact that rigorous empirical literature on determinants of FDI is still at early stages (Blonigen, 2005) and most existing works are also statistically fragile (Chakarabarti, 2001). The paper analytically investigated the determinants of FDI in Africa using recent econometric techniques and a range of robustness/sensitivity analysis applied to data from 31 African countries. The findings of this paper corroborate existing evidence that both natural resource and market factors are important determinants of FDI flow to Africa, underscoring the

adverse effect of weak economic governance and political instability as manifested in high levels ofcorruption and religious tensions. Financial development, proxied by bank credit, is found to be conducive to FDI in the presence of quality bureaucracy.

The next Section of this paper reviews the literature on the determinants of FDI in the context of Africa, whereas Section 3 presents the model to be estimated. Data and results are presented and analyzed in Section 4 and Section 5 concludes with key policy implications.

2. Determinants of FDI Flows to Africa

This section provides a brief review of the literature on the determinants of FDI in Africa. The focus of the section is essentially influenced by the data used to estimate our empirical work. As we use aggregate data at country level to compare our results to those used by previous work in this area, studies on the industry and firm levels as well as literature focusing on bilateral data will not be covered in this paper.

2.1 Classical determinants of FDI

The categorization of the plethora of factors influencing FDI location decisions has been a central question in international economics. The emerging consensus is based on the widely quoted taxonomy by Dunning (1993) and his earlier work on the eclectic (OLI) paradigm. Dunning divided the FDI motives into four main types – resource seeking, market seeking, efficiency seeking and strategic asset / knowledge seeking. The most influential motives for transnational corporations investing in developing countries have however been market seeking and resource seeking (Dunning, 1998). The large host country's market size and high growth prospects are the main drivers of FDI market seeking. If it is resource-seeking, FDI is drawn to the location endowed with abundant natural resources.

Dunning's work has motivated a bulk of empirical literature on developing countries to pinpoint the main factors which hosts countries have to provide to secure FDI inflows (for

recent work see Wernick et al., 2009; Buckley., 2008; Bevan and Estrin, 2004, Blonigen, 2005).

In addition to the role of classical determinants identified above, a number of recent studies have attempted to identify the role of structural reforms as key determinants in attracting FDI inflows in developing countries (Morisset, 2000, Ali, Fiess and Macdonald, 2010; Asiedu and Freeman, 2009; Mumtaz, 2011; Asiedu 2004 and 2006). This strand of literature focuses on the impact of business environment and trade and financial liberalization. The key determinants of FDI in the literature include inflation, exchange rate effects, taxes, tariffs, trade openness and financial liberalization, the size of the manufacturing sector (i.e. agglomeration economies) and time dummies to allow the shifts of the intercepts over time. The size of the manufacturing sector relative to GDP is used in the literature to investigate whether there is an 'industrial tradition' which implies the existence of a skilled labour force and network facilities. Exchange rate variables are included to examine the impact of bilateral exchange rate and its volatility. For instance, devaluation in poor countries is expected to increase the level FDI to these countries because foreign firms' cost of assets would be lower relative to other destinations. In the literature, the tax elasticity of FDI is also of interest. Trade protection or tariff jumping FDI is also well investigated.

Underlying this strand of literature is the assumption that investors see 'sound economic policies' as synonymous to 'austere' macroeconomic policies. Therefore, there is much emphasis on law inflation as the main target of macroeconomic policy in conjunction with industrial and trade policies that move away from subsidies and tariffs that give investors protected markets, towards a greater reliance on market-led support measures. As Morisset (2000), for example claims, African countries with more liberal investment environments were able to attract more substantial FDI flows than countries with larger local markets and/or natural resources. Other researchers show that high inflation rate would impact negatively on investors confidence and profitability as it sends negative signals about the state of economic management in the host country (Yartey and Adjasi ,2007; Onyeiwu & Shrestha, 2004). The

World Bank has also attempted to calculate, as part of its Global Economic Prospects series, the expected benefits from trade liberalization (World Bank, 2002).

2.2 The role of governance and institutions

Over the last 3 decades African governments have undertaken major economic reforms to facilitate higher inflows of foreign direct investment (FDI). This set of liberal reforms includes financial sector liberalization, trade liberalization, labour market deregulation and privatization. Despite these reforms, the level of FDI inflow to Africa has been low relative to other developing regions, mainly concentrated in few countries, most of which are classified as oil and mineral dependent. This has prompted some researchers to advocate that African countries are somewhat different from other developing countries. Governance in African countries is beset by a relatively higher degree of political uncertainty compared to the rest of the world. In addition, policy making is often ad hoc and confusing. Few countries pursue sensible macroeconomic management policies and FDI as a credible source of alternative funds is relatively new (Addison and Heshmati, 2003).

Based on a cross-country regression model, Asiedu 2002) argues that all else being equal, FDI is uniformly lower in Africa, and that this would imply that a country in Africa will "receive less FDI by virtue of its geographical location". Although trade openness would increase the level of FDI to the continent, trade liberalization will generate more FDI flows to non-African countries than to Africa. Therefore, these authors advocate for the establishment of credible institutions that would provide investor protection. This has been confirmed by other studies, which show that availability, reliability and development of infrastructure and indicators of political stability such as government stability, the absence of internal and external conflicts, basic democratic rights and efficient law and order systems are key determinants of FDI inflows (Busse and Hefeker, 2005).

The quality of institutions such as poor legal protection against asset appropriation and high cost of doing business, and in particular the level of corruption has attracted a rising level of interest (Jensen et al, 2010). The seminal work by Wei (2001) highlights a close linkage between the structure of capital flows to a country and its degree of corruption, arguing that a country with a more severe problem of crony capitalism is more likely to have a distorted structure of capital flows that makes it more vulnerable to a sudden reversal in international capital flows.

One main reason for the interest in the links between institutions and FDI in the literature identified above is the rise of neo-institutional economics as a dominant school of thought since the 1990s, with its emphasis on property rights, lack of information and the various factors affecting transaction costs (North, 1990). This may explain the overemphasis on transaction-cost related variables such as intellectual property protection, corruption and institutional uncertainty and their impact on FDI flows using cross country data

There have been few attempts to get beyond reducing the conceptualization of institutions to those related solely to transaction costs approach. A limited body of research attempts to highlight social development indicators as determinants of FDI inflows. A number of social development indicators have been constructed to examine the impact of social development goals such as empowerment, inclusion, participation, open societies with extensive networks. However, previous attempts at providing empirical evidence in this area have been met with mixed results (Kolstad and Tøndel 2002).

3. Econometric Methodology

Following on from the literature review identified above, this section provides the empirical methodology for examining the main determinants of FDI in Africa. Specifically, we test for three main categories of FDI determinants: traditional or classical factors such as market size, infrastructure, and macroeconomic environment, and the various institutional factors and structural reforms, which are designed to attract FDI to the Continent.

Our econometric specification attempts to explain the factors associated with net inward FDI in Africa. The empirical strategy makes maximum use of both the time-series and cross-sectional aspects of our data. First, we adopt a baseline fixed effects panel model for a static analysis which can serve as a robustness check for our findings. Then, this is followed by a dynamic generalised method of moments (GMM) specification suggested by Arellano and Bond (1991). By employing the GMM estimator, we attempt to address some common empirical problems in the cross country FDI literature such as the unobserved country heterogeneity and the dynamics of the FDI process.

3.1 Fixed effects Model

Due to the bias of OLS estimators in a longitudinal data structures, we considered a baseline static panel model (i.e. fixed effects estimator) which is given as;

$$FDI_{it} = \beta_0 + \beta_1 x_{it} + \beta_2 I_{it} + u_{it} \tag{1}$$

Where FDI is net FDI inflow to country i at time t expressed as a percentage of GDP. X stands for a vector of explanatory variables which include GDP, share of natural resources in exports, domestic credit and inflation which are represented by a vector including all the institutional, governance and political risk variables from the ICRG database. The error term u_{it} contains both country and time fixed effects and can be represented as follows;

$$u_{it} = \mu_i + \varepsilon_t + v_{it} \tag{2}$$

Note that v is a well-behaved error term with a zero mean and constant variance. Hence, $v_{it} \sim iid(0, \sigma_v^2)$. In the final set of results reported in the results table below, we did not include random effects model estimates after conducting a Hausman test which suggests the use of fixed effects estimator.

3.2 Dynamic Panel GMM estimator

In the dynamic model, we include the lagged net inward FDI as an explanatory variable. This entails that there is a correlation between the explanatory variables and u_{it-1}. Given equation (2) above, the lagged error term (i.e. u_{it-1}) is a function of the country fixed effects μ_{i-}. As Baltagi et al (2009) argue, this correlation causes the dynamic version of equation (1) to suffer from the Nickell (1981) bias. The bias is eliminated if T is large. The appropriate and preferred estimator for the dynamic model is the GMM estimator proposed by Arellano and Bond (1991). This estimator removes the country fixed/time-invariant effects via differencing. Consequently, any endogeneity that might arise due to correlation of country fixed effects and explanatory variables is eliminated.

The dynamic version of equation (1), which includes a lagged value of net inward FDI, is given as follows;

$$FDI_{it} = \beta_0 + \gamma FDI_{it-1} + \beta_1 x_{it} + \beta_2 I_{it} + u_{it} \qquad (3)$$

4. Data and Estimation Results

4.1 Data

Our FDI dataset along with the key explanatory variables of interest are generated from GDF_WB (Global Development Finance of World Bank) and the period covered ranges from 1980 to 2009.

This is a panel data on a number of countries and our focus is only on the African sub-sample. The panel data on Africa is merged with the institutional variables obtained from the International Country Risk Guide (ICRG). ICR has an index based on institutional variables divided into 12 components such as government stability, socioeconomic conditions, investment profile, internal conflict, external conflict, corruption, military in politics, religion in politics, law and order, ethnic tensions, democratic accountability and bureaucracy quality.

In our analysis, we had considered a range of other sources of governance and institutional indicators from other sources. For instance, there are aggregate measures of institutional strength from Fraser Institute and Polity IV and Freedom House but the ICRG indices are appealing due to their disaggregated nature and helped us to capture some interesting country specific heterogeneity. From a technical perspective, it is useful to recognize the difficult of measuring institutions and their quality. Often, researchers use a composite index of a country's political, legal and economic institution. For example, Wei (2000) used a variety of corruption indices. Another technical problem is the lack of variation in institutions

The ICRG database is a country risk database. We presume that country risk is an important element affecting business/investment risk. Therefore, in our analysis we merged two data sources to investigate which aspects of the country risk guide indicators are associated with attracting or deterring inward FDI in Africa. Our primary data source, the Global Development Finance (GDF) of the world bank includes variables such as FDI, inflation, market size (GDP), infrastructure and share of natural resources in exports. The second data source merged with the GDF has 12 components of country risk from IGRG. We also use additional financial and trade liberalization indicators based on data from Thortsen Beck and Asli Demirgüç-Kunt. This is a World Bank's financial liberalization data for African and non-African countries[1].

4.2 Estimation results

Our empirical analysis is based on a fixed effects model of net inflows of FDI expressed as a percentage of GDP. The estimates are generated for all African countries with relevant and available data, including Sub-Saharan Africa and North Africa, for a period of 26 years (i.e. 1984-2009).[2] In table 1, we provide the baseline fixed effects estimates using two different specifications. The first model in column 2 shows the model of key FDI determinants that are conventionally controlled for. These include variables such as market size (proxied by log

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[1] The source for this data is, "Financial Institutions and Markets Across Countries and over Time: Data and Analysis", World Bank Policy Research Working Paper No. 4943, May 2009

[2] In relation to the institutional, policy and political risk variables, we used the lasts version of International Country Risk Guide dataset.

of GDP), natural resources (captured by the share of fuel and mineral ores in exports), infrastructure (proxied by the log of the telephones per 1,000 population in a given country), financial development or financial liberalisation (proxied by the log of domestic credit provided by the banking sector), inflation, corruption, bureaucratic quality and law and order.

The results reported in the last column are based on the same set of variables as in the second column but we interacted the bureaucratic quality indicator with the proxy for financial development/liberalisation and trade liberalisation. This is based on the premise that trade and financial markets work better in conjunction with effective institutions and that the latter has an important role to play in the performance of the former. The inclusion of the interactive term is an attempt to provide evidence on the hypothesis that economic reforms, which are unaccompanied by improved quality of civil servants are likely to be ineffective.

Table 3 provides the dynamic model of FDI inflows in Africa using the Arellano_Bond Generalised Method of Moments (GMM) estimator and has a similar set of variables in each of the two result columns as in table 1 above. The GMM estimator allows for dynamics and we can clearly see the strong state dependence FDI inflows. With the 2nd lagged value of FDI being insignificant, we used only one lag for the final estimates reported here. Except for some changes in levels of statistical significance, the GMM estimates are qualitatively similar to the fixed effects model estimates. Again our interesting result of interacting the proxy for financial liberalisation policy with the volume of credit suggests the effectiveness of the policy measure only if it is accompanied with good institutional structures as indicated by bureaucratic quality.

Table 2: Baseline Fixed Effects estimates of FDI determinants in Africa

Variables	Without Interaction	With Interaction
Log of GDP	7.816***	7.902***
	(0.089)	(0.912)
Share of fuel in exports	0.049***	0.049***
	(0.013)	(0.013)
Share of ores in exports	-0.002	-0.004
	(0.020)	(0.019)
Log of phones per 1000 population	-0.168	-0.273
	(0.475)	(0.475)
Policy variables		
Log of Credit	-0.264	-1.366***
	(0.224)	(0.502)
Log of Credit *Bureaucratic Quality	-	0.678**
		(0.277)
Inflation	0.002	0.003
	(0.003)	(0.003)
Political risk & Institutional variables		
Bureaucratic Quality	-0.147	-2.361**
	(0.256)	(0.941)
Reduced Corruption	0.541***	0.398*
	(0.218)	(0.225)
Law and order	-0.275	-0.307
	(0.199)	(0.199)

Constant	-176.69***	-174.79***
	(20.41)	(20.30)
R-squared	0.33	0.34
Sigma_u	11.98	12.12
Sigma_e	2.61	2.59
rho	0.96	0.96
No of observations	458	458

Note: Based on Hausman test, the fixed effects model was preferred to random effects of model. We found trade openness insignificant. Similar to the interaction of the financial development proxy with the bureaucratic quality index, we estimated the model by interacting the institutional quality indicator with the trade openness measure. The results neither change qualitatively with this interaction nor do we observe significance of the trade liberalization proxy and the interactive term.

Table 3: Dynamic Panel GMM estimates of FDI determinants in Africa

Variables	Without Interaction	With Interaction
Lagged FDI net inflows	0.529***	0.512***
	(0.046)	(0.046)
Log of GDP	4.856***	5.108***
	(1.097)	(1.096)
Share of fuel in exports	0.026*	0.027*
	(0.015)	(0.015)
Share of ores in exports	0.011	0.016
	(0.019)	(0.019)
Log of phones per 1000 population	-0.209	-0.293
	(0.523)	(0.522)
Policy variables		
Log of Credit	-0.284	-1.433**
	(0.218)	(0.592)
Log of Credit*Bureaucratic Quality	-	0.663**
		(0.316)
Inflation	-0.002	-0.001

	(0.003)	(0.003)
Political risk & Institutional variables		
Bureaucratic Quality	0.012	-2.185**
	(0.297)	(1.091)
Reduced Corruption	0.434**	0.357
	(0.243)	(0.249)
Law and order	-0.145	-0.160
	(0.205)	(0.204)
Constant	-110.09***	-112.09***
	(24.98)	(24.85)
Wald chi2(p-value)	305.7(0.000)	314.55(0.000)
No of observations	386	386

Note: Neither interacting trade openness with bureaucratic quality nor controlling for it change the results reported above qualitatively.

We now discuss the statistically significant results, which were found to be robust across the different specifications. In all models, market size, share of fuel in exports and corruption and religion tension risk indictors were found to be important drivers of net FDI inflows to Africa. Without interacting them, both bureaucratic quality indicator and credit provided by the banking sector of the host economy are found to be insignificant determinants of FDI and the volume of credit has a negative sign. The sign of this variable turned positive when interacted with bureaucratic quality. This is an interesting finding because it suggests that the role of expansion of credit by the banking sector in the host economy is instrumental to attracting FDI only if it is accompanied by good bureaucratic quality. Without this complementary institutional set up, the financial development/liberalization variable is associated with declining net FDI inflows as the significant and negative coefficient of the log of credit variable indicates in the last column.

In the cases where the log of bank credit is negative and significant, one may argue that there is lack of complementarity between domestic credit in the host economy and FDI. The

domestic credit provided by the banking sector of the host economy is essentially important for financing domestic investment. The negative coefficient, which is significantly associated with the volume of inward FDI points to the potential substitution between domestic investment and FDI in Africa.

Our key findings have the expected signs and our results confirms the findings by previous studies undertaken on FDI determinants in Africa (Asiedu, 2006). FDI inflows to Africa are concentrated in the relatively resource-rich countries or countries with a larger market size. This implies that productions of affiliate transnational corporations in Africa mainly target local sale rather than opting for an export platform, and that market seeking FDI is still dominated by the traditional horizontal mode with less emphasis on vertical integration.

It is also evident that FDI inflows are strongly associated with natural resource presence. However, instead of treating all natural resources together, we treated the share of fuel and mineral ores in total exports separately to investigate their relative importance. This clearly shows that it is not all natural resources that are the drivers of FDI inflows to Africa as indicated by the insignificant coefficient associated with ores. However, FDI inflows are still positively and significantly influenced by the presence of fuel/oil in a given African country. This confirms the high share of oil-exporting countries in FDI flows to Africa as indicated earlier. Yet, the positive and significant coefficient of the market-size variable suggests the importance of market-seeking FDI on the continent and calls for intensification of efforts by African countries to accelerate regional integration and create larger sub-regional and continental markets that could benefit all of them by stimulating FDI inflows and enhancing their global competitiveness.

The corruption risk indicator in the ICRG database is constructed in such a way that the higher the indictor, the lower the corruption risk. Thus, according to the results, the positive coefficient indicates that as the corruption risk declines, the volume of net FDI inflows increases. The disaggregated components of the weighted corruption risk indicator include financial corruption, which takes the form of demands for special payments, bribes in relation

to export and import licenses, exchange controls, tax assessments or loans. The indicator also takes into account corruption in the form of patronage, secret funding, and nepotism or job reservations. On a global sample analyzed by Hayakawa et al (2010) country risk indicators were found to be significant factors affecting inward FDI inflows.

Our findings with regard to country risk variables support the pattern of existing mixed evidence in the literature. Similar to Gastanaga et al (1998) and Wei (2000), we find that lower corruption is associated with greater FDI inflows. In cases where we include all country risk variables from ICRG, corruption's significance dropped. Most of the other political risk and institutional variables are not significant determinants of net FDI flows in Africa. Likewise, Asiedu (2002) concludes that neither political risk nor expropriation risk has any significant effect on FDI. Further, Noorbakhsh et al (2001) also report that democracy and political risk are not significantly related to FDI.

Increased religious tensions (e.g. an attempted or actual domination of goverment by a single religious group) are found to lead to lower FDI inflows and this result is robust across different specifications. The positive coefficient indicates an increase in FDI inflows as the risk of religious tension declines. Religious tensions often lead to political uncertainty and intense rent-seeking behaviour on the part of public servants, creating uncertainties that disrupt economic activity and discourage investment. Our evidence highlight the vital role played by social and political development goals such as participation, inclusiveness and open societies with extensive freedoms and accountable governments in attracting further investment flows to Africa.

5. Conclusion and policy implications

Our study highlighted market size, fuel/oil exports, corruption, financial liberalization interacted by the quality of bureaucracy, and religion tensions as key determinants of FDI inflows in Africa. The results showed that market seeking FDI is significant in Africa. Agglomeration effects are evident from our dynamic analysis. To attract further FDI to the

Continent, African countries need to improve governance, fight financial corruption at all levels and address religious tensions. Depending on the quality of bureaucracy, financial liberalization can help African countries attract increased FDI inflows, but financial development alone might have a negative effect, suggesting the potential substitution between domestic and foreign investments.

These findings have important policy implications for African countries. While the resource factor remains an important determinant of FDI flows, other factors such as market size are assuming an increasing importance in stimulating investment in the continent. African countries need to attract increased and diversified market-seeking investment in order to promote high-level and sustainable growth that spurs economic transformation, job creation and poverty reduction. Market-seeking FDI normally flows to such labour-intensive sectors as services and processing that add value and create jobs. Therefore, in addition to policies aiming to expand markets, including regional integration and economic partnership arrangements, growth and development strategies of African countries should include specific policies aimed at attracting FDI. These measures would range from institutional reforms to improve the business environment to adequate public spending on infrastructure and human capital development.

In this context, many African countries have adopted international codes and standards and put in place policies aimed at improving the investment climate along with special incentives for foreign investment. However, owing to implementation gaps these policies remain ineffective for African countries to attract the desired amounts and quality of FDI despite their huge untapped economic potential and resource abundance. Strengthening policy making and implementation is, therefore, essential, particularly as it relates to the quality of civil servants and the fight against corruption.

Well trained and adequately paid bureaucrats have contributed to high-levels of investment and economic take-off in emerging economies in East Asia and Latin America. The evidence provided by this paper calls for more and effective efforts by African countries to improve the

quality of bureaucracy in order to ensure that financial development is conducive to FDI. In the absence of high quality bureaucracy, financial development may create a bias in resource allocation that discourages foreign investment and perhaps domestic investment as well.

Despite notable improvements in economic governance, corruption remains a serious development challenge in Africa owing to institutional weakness and declining economic and living standards of public servants, among other factors (2010 Transparency International's Corruption Perception Index (CPI)). The results of this paper show that corruption has a significant adverse effect on FDI inflows to Africa and should therefore remain a priority policy area especially if African countries are to attract competitive market-seeking foreign investments. Many African countries have identified corruption as "public enemy number one", however their approaches adopted to fight corruption remain ineffective.

Governments often lack commitments and/or the means to implement anti-corruption codes and standards they have already ratified and many of the anti-corruption bodies fail to meet the basic minimum requirements (independence; jurisdiction, powers and scope of activities of the institution; and cooperation between national authorities and non-state actors) to be effective (UNECA, 2009). In their efforts to combat corruption, in the context of good economic governance, African governments need to establish inclusive and transparent anti-corruption institutions that have the legal framework as well the human and financial resources to implement their mandate. A well-trained and adequately compensated bureaucracy and an independent judiciary system are essential for stemming corruption, enforcing laws and regulation and attracting FDI.

Weak political governance institutions in Africa allow the domination of special interest groups including religious and ethnic groups that undermine existing economic, political and social institutions. The evidence provided by this paper strongly underscores the disruptive effect of religious tensions that deter the flow of FDI. Governments should pay special attention to these tensions not just for attracting FDI but also for promoting political stability as a prerequisite for broader economic and social development.

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