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Reverse FDI in Europe: An Analysis of Angola's FDI in Portugal

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ABSTRACT

This paper analyses investment from Angola in Portugal. An open economy model with money laundering is proposed and then tested with a time series Bayesian regression. The result reveals that exports and corruption are the positive determinants of Angola FDI in Portugal. Policy implications are derived.

KEYWORDS: FDI, Angola, Portugal, corruption and exports.

JEL CLASSIFICATION NUMBERS: F29, O55, F41

REVERSE FDI IN EUROPE: AN ANALYSIS OF ANGOLA'S FDI IN PORTUGAL

1. INTRODUCTION

The literature on Foreign Direct Investment (FDI) is large and wide and has examined a number of diverse issues, among them, to list a few, domestic capital stock (Desai et al, 2005), economic growth (Prasad et al., 2007), employment protection (Dewit et al., 2009), exports (Helpman et al., 2004), knowledge capital (Carr et al., 2001), location choice (Becker et al., 2005), multinational characteristics (Zhang and Markusen, 1999), productivity spillovers (Barrios and Strobl, 2002), total factor productivity (De Mello, 1999), and technology transfer (Glass and Saggi, 2002).

This paper contributes to the literature by examining Angola's FDI in Portugal. This is a new topic in the literature, since most studies focus on FDI flows from developed countries to poor countries (e.g., De Mello, 1997), either adopting a micro approach with company data (Alfaro et al, 2010; Gorg, Muhlen and Nunnenkamp, 2010) or adopting a macro approach with national data (Fernandes and Paunov, 2011). However, the analysis of FDI from former colonial African countries in the former colonial European ruler has not attracted attention so far.

In our study of Angola's FDI in Portugal we also assess the impact of corruption. According to IMF Country Report No. 11/346 from December 2011, Angola's fiscal accounts have exhibited large residual financing items, cumulatively equivalent to about US$32 billion (25 percent of GDP) from 2007 to 2010. Angolan authorities put forward a number of explanations for this unaccounted money; however Human Rights Watch (2011) has identified a previous major gap in funds, in which more than $4 billion in oil revenues from 1997 through 2002 disappeared, pointing to mismanagement and suspected corruption. According to the corruption index 2011 from transparency international [Guardian, 2011] Angola is among the most corrupt countries in the world, ranking 168th in a list of 182 countries.

Theoretically corruption may act as deterrence or as a helping hand for FDI. On the one hand, corruption is costly for firms (e.g., Murphy et al., 1991), on the other hand, corruption helps firms in the presence of government failures (e.g., Lui, 1985). Empirically the literature finds evidence that corruption has a negative impact on FDI (e.g., Zhao et al., 2003), specifically, Hakkala et al. (2008) find that horizontal investments (sales to the local market) are deterred by corruption to a larger extent than are vertical investments (which are made to access lower factor costs for export sales). Egger and Winner (2006) show that the importance of corruption has declined over the years and that growth of FDI in non-OECD countries is mainly driven by economic growth and change in factor endowments.

In this paper we address the relation between corruption and FDI differently from the above literature. In our approach corruption is one of the main sources of Angola's FDI in Portugal. Thus corruption in our theoretical and empirical framework has the role of causing and stimulating FDI, rather than being an obstacle to FDI.

The motivations for the present research are the following: First, FDI from former colonies in Europe is a recent event not yet studied and understood. Second, Angola is oil producing African country that is investing heavily in the former colonial ruler, Portugal. It is rather interesting to analyze Angolan FDI in Portugal since Angola is a poor

country, while Portugal is a middle income country, and the flow from capital-scarce country such as Angola to a relatively richer capital-endowed country as Portugal is an unexpected and curious recent development. Finally, corruption in Angola is widespread, and as the main Angolan investors in Portugal are related to Angola's government officials, based in this motivation we investigate the role of corruption as facilitating these FDI flows.

This paper presents a theoretic model of a commodity producing developing country that invests in the former colonial ruler. It takes into account money laundering in the open economy framework. Corruption in Angola is one of the sources of the resources invested abroad, mainly in Portugal. The idea is that corruption in Angola needs to get out of the country to become legalized. Given the current levels of money laundering monitoring in the fiscal paradises, illegal money is being invested in real business enterprises, such as the Angolan investment in Portugal. We test the theoretical model using data from Angola FDI in Portugal with a Bayesian econometrics.

This paper is organised as follows. The next section presents the context of Angola's FDI in Portugal. The literature review appears in section three. Then the model is presented in section four, followed by the empirical methodology in section five, and the test of the model in section six. Concluding remarks are in section seven.

2. ANGOLA FDI IN PORTUGAL

Angola obtained its independence in 1975 after a long war of liberation against the former colonial ruler, Portugal. However, ideological and ethnic fractionalization ensured that peace did not follow independence, igniting a brutal, costly civil war that only came to an end in 2002 (Ferreira and Barros, 1998).

Angola changed from a one-party Marxist-Leninist system system ruled by the MPLA, in place since independence in 1975, to a multiparty democracy based on a new constitution adopted in 1992. In that year the first parliamentary and presidential elections were held. In the former, the MPLA won an absolute majority. In the latter, José Eduardo dos Santos, President and the MPLA candidate, won the first round election with more than 49% of the vote defeating UNITA candidate Jonas Savimbi's 40%, so that a runoff would have been necessary, but never took place. The renewal of civil war immediately after the elections, which were considered as fraudulent by UNITA, created a split situation and the armed forces of the MPLA (now the official armed forces of the Angolan state) and of UNITA fought each other until the leader of UNITA, Jonas Savimbi, was killed in action, in 2002.

Since the adoption of a new constitution, early in 2010, the politics of Angola takes place in a framework of a presidential republic, whereby the President of Angola is both head of state and head of government, and of a multi-party system. Executive power is exercised by the government. The political system adopts the neopatrimonialism system, with the President of Republic as leader which is common in Africa countries (Brinkerhoff, 2000). From 2002 to 2010, the system defined by the constitution of 1992 functions in a relatively normal way. Therefore the semi dictatorial or semi-democratic neopatrimonialist regime exists supported in MPLA members that dominate the state. The neopatrimonialism is a form of governance in which all power flows directly from the leader with the blending of the public and private sector. These regimes are autocratic or oligarchic and exclude the upper and middle classes from power. The leaders of these countries typically enjoy absolute personal power. Usually, the armies of these countries are loyal to the leader, not the nation (Weber, 1947). Oil rents provide

a sufficient fiscal base of the state and thus reduce the necessity of the state to tax citizens. This in turn reduces political bargaining between state and interest groups, which makes governance more arbitrary, paternalistic and even predatory. Fourth, the absence of incentives to tax internally weakens the administrative reach of the state, which results in lower levels of state authority, capacity and legitimacy to intervene in the economy.

Given its exceptional potential wealth thanks to raw materials, particularly oil and diamonds, present-day Angola, with a democratically-elected government, is well placed to embark upon a process of growth. The country is currently the world's fourth-largest producer of diamonds and the second-largest producer of oil in Sub-Saharan Africa, after Nigeria. Output in 2010 reached 590 million barrels, providing 91.94% of Angola's total export revenues. The present rise of oil prices has boosted the economy's growth to its current 15% annual increase rate. However, without this rise in the price of oil, growth would decline to small values, which highlights Angola's strong economic dependency on oil. With the end of the civil war, Angola was in a condition of macro-economic turmoil, with rising inflation and a devalued national currency (the kwanza). The intervention of the IMF was reinforced in 2000 with the adoption of a macro-economic stabilization program that has started to achieve its aims. The bank sector is a potential growth industry financing the present growth rate.

From 2008 on Angola started buying stakes in important Portuguese companies such as the Millenium bank and the oil company Petrogal. Table 1 presents some characteristics on the problem analysed.

Table 1: shares in % of angolans in portuguese companies in 2011

Companies	Isabel dos Santos	Sonangol	Other
Galp a)	7.50	7.50	
BPI	9.99		
BES Angola	10.00		
Amorim Energia b)	22.50	22.50	
BCP		9.60	
PT	10.05		
REN	via EDP	via EDP	
EDP	via PT	via BCP	
ZON	via Ongoing, BPI, PT, BES		
BIC	25.00		35.00
BPN	via BIC e Amorim Energia	via Amorim Energia	via BIC
Banco BIC		5	11.15

a) via amorim energia

b) via ezperanza holding

Source: financial reports of companies above.

Isabel dos Santos is the daughter of Angola's long lived ruler, president Eduardo dos Santos, she is one of the continent's wealthiest women (Forbes (2011) estimates her net worth is $170 million); Sonangol is the Angola public oil company and other is Angolan wealth generals or politicians. The account holders of this FDI are politicians and

cronies of the rulers of Angola, which suggests that Angola's political elite capture a big share of the wealth generated in the country (see appendix 1). The investment is concentrated in banking, oil and information technologies with many companies quoted in the stock exchange.

3. RELATED LITERATURE

The FDI literature is a trade-based literature that typically focuses on issues such as the interdependence of FDI and trade in goods and the ensuing industrial structure. For instance, they attempt to explain how a source country can export both FDI and goods to the same host country. The explanation rests on productivity heterogeneity within the source country, and differences in setup costs associated with FDI and export of goods. The trade-based literature on FDI is thus geared towards a firm-level decisions on exports and FDI in the source country (see Zhang and Markusen, 1999, Carr, Markusen and Maskus, 2001, and Helpman, Melitz and Yeaple, 2004, Razin, Sadka and Coury, 2003). FDI flows are actually observed only when their profitability exceeds a certain (unobserved) threshold, taking into account social characteristics such the effect of productivity variables instrumented by capital per worker and education attainment, financial risks, GDP per capita, population size. These are meaningful variables for traditional FDI investment but not necessarily for our set up.

Another part of the literature on FDI of our interest relates FDI and corruption (Mauro, 1995; Wei, 1997, 2000; Habib and Zurawicki, 2002; Larrain B. and Tavares, 2004; Al Sadig, 2009; Cole, Elliot and Zhang, 2009). This line of research finds that corruption lowers investment, and economic growth (e.g., Mauro, 1995, Habib and Zurawicki, 2002). Wei (1997, 2000) finds that corruption deters FDI. Larrain B. and Tavares (2004) found that foreign direct investment is a robust determinant of corruption. According to Cole, Elliot and Zhang (2009) FDI has a negative relation with corruption in China intra province relationship, signifying that this relationship is not only observed at international level but also at a national level.

This brief survey shows that there is consistent research on FDI from developed countries in developing countries and that corruption has a negative impact in these FDI flows. However, there is no research on reverse foreign direct investment, i.e., FDI from developing countries in developed countries, which is analysed in this paper. Moreover, we also assess the role of corruption in developing countries stimulating FDI in rich countries.

4. MODEL

The model introduces Araújo and Moreira (2005) dirty money[1] formulation in Faria and Léon-Ledesma (2005) open economy framework. The representative agent is an Angolan investor with close ties with the Angola's political elite as shown in section 2. The open economy model is for a commodity producing, and exporting, country that makes investments abroad. The representative agent derives utility from the consumption of the domestic good (c), imported good (c*), clean real money balances (m_1), which captures monetary base, and dirty money (m_2). The

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[1] See, also, Araújo (2006), and for an overview of the literature on money laundering, Masciandaro (2007).

illegal origin of m_2 can be corruption[2]. The representative agent produces a single commodity, oil, through a production given by $Y = A(\alpha L)R^{1-\beta}$, which in per-capita terms become $y = \alpha AR^{1-\beta}$ where α is the time spent in the legal, productive sector, A is a vector of exogenous foreign labor and technology and R is the known and fixed reserves of oil. The exogenous parameter A is associated with foreign investment and foreign technical assistance in Angola's oil sector. The agent allocates her savings in foreign bonds (b), which stands as FDI from the country into the rest of the world, that pay an exogenously given world interest rate (i^*).

$$\underset{c,c^*,m_1,m_2,\alpha}{Max} \int [u(c,c^*) + z(m_1,m_2)]e^{-\theta t}dt \quad ,$$

subject to

$$\dot{b} + \dot{m_1} + \dot{m_2} = \sigma^{-1}[\alpha AR^{1-\beta} - c - \sigma c^* + \sigma i^* b + x_1 + (1-\varepsilon)^{2-\varepsilon}(1-\alpha)^{\phi} - \pi(m_1 + m_2)] \quad (1)$$

$$u(c,c^*) + z(m_1,m_2) = \ln c + \ln c^* + \ln m_1 + \ln m_2 \quad (2)$$

where θ is the rate of time preference, σ is the relative price of the foreign good in terms of the domestic good, i.e., the real exchange rate, and x_1 is legal government lump-sum transfers, defined as $x_1 = \vartheta m_1$, where ϑ is the exogenous growth rate of money.

Following Araújo and Moreira (2005), the term $(1-\varepsilon)^{2-\varepsilon}(1-\alpha)^{\phi}$ captures the embezzlement of government transfers given by $x_2 = (1-\varepsilon)^{1-\varepsilon}(1-\alpha)^{\phi}$, multiplied by the fraction of government transfers that escapes anti-money laundering regulation effectiveness given by $(1-\varepsilon)$, where the term $0 < \varepsilon < 1$ is a proxy to the anti-money laundering regulation effectiveness. The term $(1-\alpha)$ is the fraction of the agent's time spent to deviating illegal government transfers in the form of currency that circulates in the economy as dirty money, m_2. The parameter $0 < \phi < 1$ is the elasticity between the illegal government transfers and the time allocated to illegal activity.

The current value Hamiltonian of this problem is:

$$H = \ln c + \ln c^* + \ln m_1 + \ln m_2 + \lambda \sigma^{-1}[\alpha AR^{1-\beta} - c - \sigma c^* + \sigma i^* b + x_1 + (1-\varepsilon)^{2-\varepsilon}(1-\alpha)^{\phi} - \pi(m_1 + m_2)]$$

(3)

where the λ is the shadow price of private wealth. Optimality conditions are:

$$H_C = 0 \Rightarrow c^{-1} - \lambda \sigma^{-1} = 0 \quad (4)$$

$$H_{C^*} = 0 \Rightarrow c^{*-1} - \lambda = 0 \quad (5)$$

$$H_{m_1} = 0 \Rightarrow m_1^{-1} - \lambda \sigma^{-1} \pi = 0 \quad (6)$$

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[2] According to Human Rights Watch (2011) "A December 2011 report by the International Monetary Fund revealed that the government funds were spent or transferred from 2007 through 2010 without being properly documented in the budget. The sum is equivalent to one-quarter of the country's Gross Domestic Product (GDP)".

$$H_{m_2} = 0 \Rightarrow m_2^{-1} - \lambda\sigma^{-1}\pi = 0 \qquad (7)$$

$$H_\alpha = 0 \Rightarrow \lambda\sigma^{-1}[AR^{1-\beta} - \phi(1-\varepsilon)^{2-\phi}(1-\alpha)^{\phi-1}] = 0 \qquad (8)$$

$$\dot{\lambda} - \theta\lambda = -H_b \Rightarrow \dot{\lambda} - \theta\lambda = -\lambda i^* \qquad (9)$$

The steady-state equilibrium of the model is given by the following equations:

$$c^{-1} = \lambda\sigma^{-1} \qquad (4')$$

$$c^{*-1} = \lambda \qquad (5')$$

$$m_1^{-1} = \lambda\sigma^{-1}\pi \qquad (6')$$

$$m_2^{-1} = \lambda\sigma^{-1}\pi \qquad (7')$$

$$\alpha AR^{1-\beta} = \phi(1-\varepsilon)^{2-\phi}(1-\alpha)^{\phi-1} \qquad (8')$$

$$\theta = i^* \qquad (9')$$

$$\alpha AR^{1-\beta} = c + \sigma c^* - \sigma i^* b \qquad (10)$$

$$x_1 + (1-\varepsilon)^{2-\varepsilon}(1-\alpha)^\phi = \pi(m_1 + m_2) \qquad (11)$$

This is a block-recursive system of equations. As *A*, the vector of exogenous foreign labor and technology given by foreign FDI, aid and technical assistance in the oil sector, and *R,* the exogenous reserves of oil, are given, then Equation (8') determines the equilibrium value of ⍺ , and consequently the output per capita through, $y = \alpha AR^{1-\beta}$. Notice that given the equilibrium value of ⍺ it also determines the embezzlement of government transfers given by $x_2 = (1-\varepsilon)^{1-\varepsilon}(1-\alpha)^\phi$, which is a proxy for the level of corruption in the country. Then Eqs. (6'), (7') and (11) determine simultaneously the equilibrium values of ⍺𝜋, m_1, and m_2. Given the equilibrium value of ⍺ Eqs. (4'), (5') determine the steady-state equilibrium values of domestic good *c*, and imported good *c**, finally equation (10) determines the equilibrium value of foreign bonds *b*.

It is important to stress that the equilibrium value of foreign bonds *b* is the endogenous variable of the empirical model, i.e., the foreign investment of Angola in Portugal. Therefore according to the model Angola's investment in Portugal is explained by, among other variables, corruption in Angola, foreign investment and foreign technical assistance in Angola *A*, Angola GDP given by its oil production *y*, and Angolan exports which is a share of *y*, and Angola monetary base.

5. METHODOLOGY

The model is tested estimating Angola FDI in Portugal with a Bayesian regression model using Bayesian MCMC. Based in the theoretic model the Angola FDI in Portugal (FDIA) is explained by the (i) Official development assistance (ODA) Portugal to Angola at constant price (ii) Angola GDP at constant price; (iv) Angola exports (Exports) at constant price; (v) Total foreign direct investment, net inflows on Angola (FDI); (vi) Money and quasi money M2 (vi) Angola private consumption at constant price. (vii) Angola corruption and (viii) Angola oil production, Vicente (2010). The variable description and its sources are in the appendix.

The equation to be estimated is:

$$FDIA_t = \beta_0 + \beta_1 FDIA_{t-i} + \beta_2 ODA_{t-i} + \beta_3 GDP_{t-i} + \beta_4 Exports_{t-i} +$$
$$\beta_5 FDI_{t-i} + \beta_6 M2_{t-i} + \beta_7 Consump_{t-i} + \beta_8 Corrup_{t-i} + \beta_9 Oil_{t-i} + \varepsilon_t \quad (12)$$

This linear autoregressive equation is estimated with the Bayesian econometrics (Van der Broeck et al., 1994).

In classic statistic context, the model parameter has a hypothetical (unknown) true value. Therefore, it is not considered as a random variable, so it does not have a density. In Bayesian theoretical framework, both variables and parameters are random vectors. Therefore, for purposes of inference only we are interested in what was actually observed – Likelihood principle. Conclusively, through the possibility of incorporating not observable information, we expect to significantly improve the quality of estimates. Because the predictive distribution does not depend on any parameter we can expose Bayes rule as follows:

$$h(\theta \mid y) \propto g(\theta) f(y \mid \theta) \quad (13)$$

Where the posterior is proportional to prior distribution times the likelihood distribution. Where, $g(\theta)$ is the prior distribution; $f(y \mid \theta)$ is the population distribution; $f(y)$ is the predictive distribution (does not depend on any parameter); $h(\theta \mid y)$ is the posterior distribution.

Before finding an explicit form of the posterior distribution, we need to specify the prior distribution, i.e., to materialize our beliefs and convictions. In this vein we chose non informative priors, in the sense that their impact on posterior is minimal.

In order to complete this section, it is important to clarify that the WinBUGS software (Lunn et al., 2000) will be used in that task. Prior distributions must be assigned to the parameters. The coefficients (β) follow a non-informative normal distribution with zero mean and infinite variance9. In the same spirit, a gamma distribution (0.001, 0.001) is assigned to the white noise variance.

6. TESTING THE MODEL

In order to test the model, a data set was organized for the years 2002-2010. Table 2 sumarizes the characteristics of the data.

Table 2: Characterization of the Variables

Variable	Description	Min[a]	Max[b]	Mean	Std. Dev	Expected signs of the variables
	Endogenous variable					
FDIA	Foreign direct investment of Angola on Portugal at constant price 2009=100.	0,25	136,02	12,26	31,95	
	Exogenous variables					
ODA	Official development assistance from Portugal to Angola at constant price 2009=100.	-9,85	715,48	50,61	152,58	+
GDP	Gross domestic product growth at constant price 2009=100.	-24,70	20,61	5,66	10,18	+
Exp	Primary commodities exports at constant price 2009=100.	2835,4	63268,5	13453,6	16451,3	+
FDI	Total foreign direct investment, net inflows on Angola at constant price 2009=100.	-4,26	40,16	8,27	10,77	+
M2	Money and quasi money (M2) at constant price 2009=100.	8,48	31,07	14,17	4,91	+
Consum	Final consumption expenditure at constant price 2009=100.	50,92	98,32	72,30	12,92	+
Corrup	Control of Corruption index.	-1,62	-0,82	-1,19	0,24	+
Oil	Energy production in tons	27189	111128	52237	25565	+

1. [a] Min – Minimum; [b] Max – Maximum. Corrup is an estimate (see : www.worldbank.org/wbi/governance), Oil is in kt of oil, all of restant variables are in 2009 US Milion Dollars

2. Source: ODA and FDI from OECD; all restant variables were taken from World Bank

A Gibbs sampler with data augmentation can be set-up for this model (see Koop et al., 1995, 1997). This ensures very diffuse prior information.

The results are presented in table 3. From these values it is straightforward to show (using e.g. a t-ratio test) that the vast majority of parameters are significantly different from zero at a 1% confidence level. Several alternative

specification were were also tested using the Deviance Information Criterion (DIC) (Spiegelhalter et al., 2002) but did not prove to be a better fit.

Based in the results presented in table 3 it is found that the variables that explain Angola FDI in Portugal are the lagged endogenous variable (FDIA), lagged ODA, lagged exports, lagged total Angola FDI and corruption at one percent significant level. Furthermore, at five percent significant level two other variables explain Angola FDI in Portugal, the Angola GDP and Angola Monetary base M2. These results confirm that the sign of each of the parameters is in line with the theoretical model. For instance, the sign of each of the positive coefficients indicates that an increase in the associated variable leads to an increase in Angola FDI in Portugal (exports and corruption). A negative coefficient indicates that the associated variable leads to a decrease in Angola FDI in Portugal (lagged Angola FDI in Portugal, ODA, GDP and FDI). Private consumption and oil production are statistically insignificants. The lags were established testing several specification models and using the the Deviance Information Criterion (DIC), Spiegelhalter et al. (2002), and opting for the best fit.

Table 3: Time Series Data Model Results (dependent variable:FDIA).

	Mean	SE	MC error	Ratio t
FDIA $_{t-2}$	-52,69	5,818	0,2558	**-9.056**
ODA $_{t-3}$	-11,1	0,4325	0,003377	**-25.664**
GDP $_{t-3}$	-0,9987	0,6127	0,007721	**-1.629**
Exp $_{t-2}$	57,77	3,747	0,202	**15.417**
FDI $_{t-3}$	-3,687	0,8763	0,03738	**-4.207**
M2 $_{t-2}$	1,912	1,095	0,03763	**1.746**
Cons $_{t-1}$	-0,7773	0,5746	0,01396	-1.352
Corrup $_{t-4}$	2,846	0,6049	0,008696	**4.704**
Oil $_{t-1}$	2,07	3,703	0,2022	0.559

In bold coefficients significant at 1% and 5%.

7. DISCUSSION AND CONCLUSION

This paper is the first to analyze the reverse investment of a former African colony, Angola, in its former European ruler, Portugal. It presents an open economy theoretical model of reverse FDI in which corruption plays an important role. A Bayesian model tests the predictions of the theoretical model and shows that exports and corruption increase Angola FDI in Portugal. Other significant variables that affect negatively Angola's investment in Portugal are lagged Angola FDI in Portugal, Portuguese official development assistance (ODA) to Angola, and Angola's GDP.

The general conclusion is that exports and corruption are the main determinants of reverse investment of Angola in Portugal.

As Portugal desperately needs foreign investment due to its current sovereign debt crisis it is not paying attention to criminal issues related to Angola's money laundering and corruption. What should the public policy be in this context? Since Angola's political elite has benefited from corruption it seems unlike that they would fight corruption in Angola. Therefore it is the Portuguese government that should minimize corruption practices by imposing stricter money laundering controls. However, the weak political will displayed in the Portuguese parliament to restrict corruption in last years combined with financial crisis of public debt that erupted since 2009 and associated need of Portugal for foreign funds, will not result in any sensible ethical FDI policy. More research is needed to confirm these results and to generalize it to other former colonial countries.

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Appendix 1: Corruption practices in African countries

Country	Firms identifying corruption as a major constraint (% of firms) (1)	CPIA transparency, accountability, and corruption in the public sector rating (1=low to 6=high) (2)	Corruption (% of managers surveyed ranking this as a major constraint) (3)	Corruption Perceptions Index (rank) (4) d)	Control of Corruption (estimate) (5) e)
Algeria	64,33b)			105	-0,49056125
Angola	75,58e)	2,5	28,9e)	168	-1,336625966
Benin	67,82d)	3,5	6,34d)	110	-0,647749739
Botswana	27,36e)		10,12e)	33	0,857274233
Burkina Faso	70,45d)	3,5	9,74d)	98	-0,441572444
Burundi	19,72a)	2	2,25a)	170	-1,122327411
Cameroon	61,28d)	2,5	7,43d)	146	-0,919503465
Cape Verde	29,77d)	4,5	8d)	45	0,699253775
Central African Rep		2,5		154	-0,824929844
Chad	67,23d)	2	13,53d)	171	-1,385581635
Comoros		2,5		154	-0,752556892
Congo, Dem. Rep.	72,65e)	2	2,25e)	164	-1,416682527
Congo, Rep.	65,02d)	2,5	8,7d)	154	-1,217178366
Cote d'Ivoire	74,99d)	2,5	7,55d)	146	-1,163169386
Djibouti		2,5		91	-0,259699471
Egypt, Arab Rep.	45,2c)		8,08c)	98	-0,413353965
Equatorial Guinea				168	-1,58438277
Eritrea		2		123	-0,332574588
Ethiopia	23,08a)	2,5	2,91a)	116	-0,714705527
Gabon	41,35d)		10,26d)	110	-0,923691717
Gambia, The	9,78a)	2	0,59a)	91	-0,555368581
Ghana	9,86b)	4	0,28b)	62	0,062688688
Guinea	47,66a)	2	3,12a)	164	-1,227307318
Guinea-Bissau	44,01a)	2,5	7,51a)	154	-1,124156012
Kenya	38,35b)	3	9,59b)	154	-1,1084088
Lesotho	46,71d)	3,5	14,66d)	78	0,143276776
Liberia	31,19d)	3	11,93d)	87	-0,556744713
Libya				146	-1,095462473
Madagascar	42,71d)	2,5	2,5d)	123	-0,246567563
Malawi	12,83d)	3	2,55d)	85	-0,472675739
Mali	24,81e)	3,5	4,3e)	116	-0,689564695
Mauritania	17,1a)	2,5	1,51a)	143	-0,656720749
Mauritius	50,72d)		2,32d)	39	0,744569397

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Morocco	27,34b)			85	-0,231493431
Mozambique	25,36b)	3	4,13b)	116	-0,410176922
Namibia	19,14a)		9,57a)	56	0,234245427
Niger	83,73a)	2,5	13,8d)	123	-0,655308774
Nigeria	24,7b)	3	1,87b)	134	-1,065162388
Rwanda	4,35a)	3,5	0,83a)	66	0,125711468
S Tome and Principe		3,5		101	-0,396749811
Senegal	23,84b)	3	3,82b)	105	-0,528762848
Seychelles				49	0,325770729
Sierra Leone	36,87d)	3	8,61d)	134	-0,978212795
Somalia				178	-1,733629455
South Africa	16,87b)		7,09b)	54	0,102688487
Sudan				172	-1,243900918
Swaziland	24,89a)		5,15a)	91	-0,268559333
Sudan		1,5			
Tanzania	19,73a)	3	0,48a)	116	-0,418443721
Togo	70,15d)	2	8,98d)	134	-1,079790221
Tunisia				59	0,017381651
Uganda	23,57a)	2,5	2,45a)	127	-0,871080124
Zambia	12,08b)		4,49b)	101	-0,50559727
Zimbabwe		1,5		134	-1,48936138

1) Percentage of firms identifying corruption as a "major" or "very severe" obstacle.

2) Transparency, accountability, and corruption in the public sector assess the extent to which the executive can be held accountable for its use of funds and for the results of its actions by the electorate and by the legislature and judiciary, and the extent to which public employees within the executive are required to account for administrative decisions, use of resources, and results obtained. The three main dimensions assessed here are the accountability of the executive to oversight institutions and of public employees for their performance, access of civil society to information on public affairs, and state capture by narrow vested interests.

3) Is the share of senior managers who ranked corruption as a major or very severe constraint.

4) This is the ranking from the annual Transparency International corruption perceptions index, which ranks more than 150 countries in terms of perceived levels of corruption, as determined by expert assessments and opinion surveys. For more information on this indicator, please visit http://www.transparency.org/policy_research/surveys_indices/cpi the Transparency International page on the topic.

5) Control of corruption measures the extent to which public power is exercised for private gain, including petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. Further documentation and research using the World Governance Indicators (WGI) is available at www.worldbank.org/wbi/governance.

a) 2006 data

b) 2007 data

c) 2008 data

d) 2009 data

e) 2010 data

O CEsA

       O CEsA é um dos Centros de Estudo do Instituto Superior de Economia e Gestão da Universidade Técnica de Lisboa, tendo sido criado em 1982.

       Reunindo cerca de vinte investigadores, todos docentes do ISEG, é certamente um dos maiores, senão o maior, Centro de Estudos especializado nas problemáticas do desenvolvimento económico e social existente em Portugal. Nos seus membros, na maioria doutorados, incluem-se economistas (a especialidade mais representada), sociólogos e licenciados em direito.

       As áreas principais de investigação são a economia do desenvolvimento, a economia internacional, a sociologia do desenvolvimento, a história africana e as questões sociais do desenvolvimento; sob o ponto de vista geográfico, são objecto de estudo a África Subsariana, a América Latina, a Ásia Oriental, do Sul e do Sudeste e o processo de transição sistémica dos países da Europa de Leste.

       Vários membros do CEsA são docentes do Mestrado em Desenvolvimento e Cooperação Internacional leccionado no ISEG/"Económicas". Muitos deles têm também experiência de trabalho, docente e não-docente, em África e na América Latina.

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