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# State fragility, rent seeking and lobbying: evidence from African data

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## Abstract

This paper assesses the determinants of state fragility in sub-Saharan Africa using hitherto unexplored variables in the literature. The previously missing dimension of nation building is integrated and the hypothesis of state fragility being a function of rent seeking and/or lobbying by de facto power holders is tested. The resulting interesting finding is that, political interference, rent seeking and lobbying increase the probability of state fragility by mitigating the effectiveness of governance capacity. This relationship (after controlling for a range of economic, institutional and demographic factors) is consistent with a plethora of models and specifications. The validity of the hypothesis is confirmed in a scenario of extreme state fragility. Moreover, the interaction between political interferences and revolutions mitigate the probability of state fragility while the interaction between natural resources and political interferences breeds the probability of extreme state fragility. As a policy implication, there is a ‘sub-Saharan African specificity’ in ‘nation building’ and prevention of conflicts. Blanket fragility oriented policies will be misplaced unless they are contingent on the degree of fragility, since ‘fragile’ and ‘extreme fragile’ countries respond differently to economic, institutional and demographic characteristics of state fragility.

*JEL Classification:* C43; H11; O20; O43; O55

*Keywords:* State fragility; rent seeking; lobbying; nation building; Africa

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## 1. Introduction

There has been renewed interest in state fragility by scholars and international development agencies. It has been substantially documented that, sub-Saharan Africa (SSA) is one of the regions in the world that eloquently reflects characteristics of state fragility<sup>2</sup>: weak governments, insufficient security and legal frameworks, ineffective administration, poor public services, high rates of conflicts and civil wars, growing extreme poverty, inter alia (European Report on Development, 2009; Marshall & Cole, 2009).

Since the 1990s, the performance gap between fragile states and non-fragile states has continued to widen over time. Empirical studies have established the perilous effect of this trend (Iqbal et al., 2008). Baliamoune-Lutz (2009) has shown that, the incidence of state-fragility on per capita income plays out with many other development factors. Bertocchi & Guerzoni (2011) have concluded that, SSA's sluggish development could be explained by state fragility. However, most of these authors are consistent with the position that, 'extreme fragility' is the major cause for worry. The Burnside & Dollar (2000) conclusion on the effectiveness of foreign aid in developing countries with better institutions has been contested in many policy and academic circles (Hansen & Tarp, 2001; Dalgaard et al., 2004; Easterly et al., 2004; Chatelain & Ralf, 2012; Asongu, 2012a). In spite of this interesting debate, Chauvet & Guillaumont (2004) have postulated that internal political instability substantially limits the effectiveness of aid. Accordingly, aid effectiveness in post-conflict situations is way higher than in the first decade of peace, notably, as from 4-5 years (Collier & Hoeffler, 2004).

There is increasing evidence on the persistent character of the phenomenon of state fragility. In fact, the probability that a country that was classified as fragile in the year 2001 remains in the same category in 2009 is 0.95. Accordingly, the 35 countries that were

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<sup>2</sup> 22 of the 48 sub-Saharan African countries are classified by the World Bank as fragile.

qualified as fragile by the World Bank in 1979 still had the same fragile quality in 2009 (European Report on Development, 2009). As shown by Andrimihaja et al. (2011), beside the common characteristic of weak economic growth among fragile states in comparison to non-fragile states, the former states appear to be engulfed in a “fragility trap”. The results show a substantial qualitative difference between the former and the latter states. In fact, the glaring difference is the possibility of falling into a trap of inferior equilibrium: a country reflecting characteristics of a fragile state is susceptible of being engulfed in a vicious cycle of weak investment, feeble growth and poverty. Hence, it could be inferred from the highlighted consequences of state-fragility that, African countries which are already suffering from a plethora of economic woes are paying the hard price (Easterly et Levine, 1997; Sachs & Warner, 1997).

In light of the above, very few studies have examined the determinants of state fragility. Bertocchi & Guerzoni (2012) have postulated that their predecessors have not gone in depth (Vallings & Moreno-Torres, 2005; Carment et al., 2008). They have complemented the existing literature by incorporating many factors: historical, institutional, demographic, social and economic. Their study is focused on SSA for many reasons. Firstly, as highlighted above, the issue is of crucial policy relevance in this sub-region. Secondly, state-fragility appears to be a multidimensional phenomenon. Hence, by limiting themselves to one specific zone, their results have more useful and focused policy implications. Moreover, the emphasis on one region mitigates issues of heterogeneity.

The present study is an extension of Bertocchi & Guerzoni (2012) for two main reasons: on the one hand, we are using the same data base and; on the other hand, we are integrating a dimension not taken into account by Bertocchi & Guerzoni. In SSA, states are not only fragile; many can also be qualified as “Nation-Building” (Green & Bandyopadhyay,

2012). Notwithstanding country-specific ‘nation-building’ and management processes, African states are also the result of politico-economic equilibriums (Green, 2012ab). Within this framework, fragility is characteristic of an institutional game. Accordingly, as substantially documented in recent literature, state actions and political regimes are largely determined by political economy (North, 2005; Acemoglu & Robinson, 2005; North et al., 2010; Baland et al., 2010 ; Acemoglu, 2006, 2008 ; Acemoglu & Robinson, 2008a, 2008b, 2000, 2005 ; Acemoglu et al., 2008, 2012 ; Acemoglu et al., 2012, 2011). The political game depends on those who hold *de facto* power and on those who determine *de jure* power. The dominant expression emanates from those who have the power to change circumstances.

In light of the above, we derive the hypothesis we shall test in the present study. The hypothesis could be stated as follows: state fragility is a function of lobbying by those holding *de facto* power, principally because they hold the voice of those who possess *de jure* power. And it is because of the desire to maintain their rents (maximize their utility function) that the powers in place sustain the fragility situations. The premise for this hypothesis is that, it is easier to enliven renting activity in fragile situations. Ultimately, this could reduce the effect of reforms and maintain the ‘equilibrium trap’ recently documented by Andrimihaja et al. (2011) and Andrews et al. (2012).

This hypothesis is particularly relevant in Africa, owing to the high influence of political actors (and the power grapping process) on informal institutions. Kodila-Tedika (2012) from the RDC<sup>3</sup> perspective has emphasized how family influence (in the name of African solidarity) could be considered as a form of lobbying, susceptible of breeding corruption. This viewpoint is shared by Sardan (1996) and Sindzingre (1997). Indeed the African social fabric is largely influenced by social references like ethnic relationships, tribal

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<sup>3</sup> CDR: Congo Democratic Republic.

links and clientelism. With the administration confiscated and personalized, it is not surprising to notice that, everybody wants to become a politician. This is essentially because, these so-called politicians believe politics is the fastest and least risky means of self and family aggrandizement. While logically valid, empirical analysis of these behaviours has stopped short of going in-depth due to the absence of relevant data. François et al. (2012) have recently constructed a database with which to appraise the sharing of power in autocratic African regimes. The constitution of coalitions is defined along ethnic lines, a situation that could be explained by the apprehension of tensions. From a conceptual framework, North et al. (2010) have established that, insiders only accept newcomers into the elitist group only if it guarantees the clubs stability and sustainability. The growing relevance of diversity owing to rent seeking substantially reduces social welfare because lofty qualities (like competence) are no longer taken into consideration. The above scenarios have been summarized by Jacquemot (2005: 175)<sup>4</sup>. In such a social dynamic, our postulated hypothesis which is not incompatible with Besley & Persson (2009, 2010) is justified. The rest of the paper is organized as follows. Section 2 presents the data. The empirical results and corresponding discussion are covered in Section 3. Section 4 concludes.

## 2. Data

It is well acknowledged that fragility as discussed in the preceding section is a complex and multidimensional concept. In spite of the significant common characteristics in

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<sup>4</sup> We cite the author in verbatim : “...Certains vivent du politique et d’autres travaillent pour eux. Le chef exerce son pouvoir par le canal de la famille, mais aussi du clan rapproché et de l’ethnie dans son ensemble qui constitue le vivier des fidèles, des serviteurs et des clients. Le fonctionnement du système est ainsi fondé sur l’obligation acceptée et la loyauté des membres à l’égard du chef, et non pas, à titre principal, sur la compétence. Cette obligation et cette loyauté sont en retour rémunérées : c’est la redistribution en argent, en ouverture de crédits bancaires, en terrains, mais aussi en postes, en licences d’importation, en autorisations d’exploitation, en rentes diverses ... L’adhésion aux normes abstraites de « l’État impartial » et de l’éthique de « l’intérêt général » peut coexister chez les gouvernants et les fonctionnaires avec un attachement tout aussi sincère à des pratiques qui favorisent l’enrichissement personnel et les intérêts factionnels. Les institutions héritées du système colonial (administration, justice, police), gardent leur valeur formelle, mais elles sont perverties par la personnalisation du pouvoir et les stratégies particulières des groupes qui se retrouvent à chaque niveau de la hiérarchie, du sommet à la base, en passant par divers intermédiaires. L’État se révèle inapte à réaliser ses objectifs de gestionnaire impartial et efficace “.

fragile countries, a consensus in the definition of fragility has been hard to come by. This position on the conception and definition has been sustained by Bertocchi & Guerzoni (2012), from whom we borrow an index with which to appreciate the notion of state fragility. The binary variable assumes the value 1 for IDA (International Development Association) countries in the bottom two CPIA (Country Policy and Institutional Assessment) quintiles or without a CPIA rating, 0 otherwise.

Consistent with Bertocchi & Guerzoni (2012), since our goal is to generate findings with relevant policy implications, for the empirical assessment, we select a definition of fragility that is in line with the direct influence on concessional lending and grants assigned by the World Bank (WB) via the IDA. With respect to the WB, fragile states are defined as low-income countries scoring 3.2 and below (over a 1-6 range) on the CPIA ratings. The Organization of Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) defines state fragility as those countries in the bottom two CPIA quintiles, as well as those which are not rated. Owing to the limited time series properties of CPIA ratings (which have been publicly available only since 2005), for the purpose of our empirical investigations, we use the OECD-DAC data on the distribution of the IDA member countries by CPIA quintiles which is available for the period 1999-2007.

For the purpose of this paper, to refer to CPIA ratings<sup>5</sup> offer three main advantages. Firstly, the ratings have a crucial practical relevance, since as previously stated; they substantially affect aid allocation according to a specific formula. Secondly, information on

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<sup>5</sup>CPIA ratings are annually prepared by the WB staff and are intended to capture the quality of a country's policies and institutional arrangements, with a focus on the key elements that are within the country's control, rather than on the outcomes (such as growth rates) that are influenced by elements without the country's control. Scores are assigned on the basis of sixteen criteria (20 until 2003) which are grouped in four equally weighted clusters: economic management, structural policies, policies for social inclusion and equity and, public management and institutions. Accordingly, the ratios mirror a variety of indicators, observations and, judgments based on country knowledge (originating from the WB and elsewhere) and on relevant publicly available indicators.

their distribution by quintiles is now available for a relatively extended time period (1999-2007). Thirdly, owing to their design, they do not mechanically reflect any of the variables we employ as regressors, so they can safely be employed to define our outcome variable<sup>6</sup>. We construct a dataset of 41 sub-Saharan countries for which we have relevant data from the CPIA ratio distributions by quintiles. For the selected countries, we defined a fragility dummy variable that takes the value 1 if a country belongs to the bottom two CPIA quintiles or if it is not rated, 0 otherwise.

The outcome variable is the ‘capacity to govern effectively’. This indicator is produced by the Bertelsmann Transformation Index (BTI). It evaluates the effectiveness in governing capacity by democratically elected officials as well as the existence of blocking powers (or political enclaves). The organs of government include, the head of state (or government) and parliament. States for which the government is not the outcome of elections which meet a minimum level of freedom and transparency (autocratic regimes) are evaluated according to their nature: dictatorial/autocratic or judicial/bureaucratic. ‘Blocking powers’ could be in the hands of the military, the clergy, land owners, the business world, inter alia; with the capacity to partially deviate from the democratic system without questioning it altogether. These actors can block the implementation of democratic decisions or preserve certain prerogatives (like the nomination of the chief of command in the arms forces). This point does not refer to the existence of the state itself. Hence, Guerilla movements, paramilitaries or outside the state (suburbs or rural zones) do not make-up the blockages outlined in the indicator. Accordingly, the indicator is evaluated by a scale of 1 to 10. The

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<sup>6</sup> In spite of the above considerations, it should be noted that, the CPIA ratings are not criticism-free. Doubts have been raised both on the methodology of the assessments and the confidence with which they should be used as a basis for aid allocation. A common criticism put forward is that, they implicitly rely on a uniform model of what counts in development (Kanbur, 2005). Another issue raised has been transparency and accountability which could be addressed more accurately. Some have professed that; the lack of reliable information may prevent objective assessments by the WB staff. To this effect, the WB Independent Evaluation Group (2010) has recently reviewed the ratings and proposed recommendations for revision.



higher the scale, the more there is a true capacity to govern and hence, less interferences linked to rent seeking and lobbying. When data is not available for a given country, we resort to the estimation in the note proposed by the Mo Foundation.

In the choice of the control variables, we consider certain statistically significant variables from the Bertocchi & Guerzoni (2012) regressions. Education (*Enrollprim*) is measured by ‘primary enrollment over official school age population’. This proxy that is consistent with recent literature (Bertocchi & Guerzoni, 2012; Kodila-Tedika, 2013) is sourced from the World Bank Education Statistics 5.3. Life expectancy (*Lifeexp*) in accordance with Banks (2001) is measured by the ‘number of years of life expectancy at birth’. Fertility rate (*Fertrate*) in logarithm of the number of children per woman is obtained from the World Bank (2010). Government expenditure (*Governm*) and real per capita GDP (in logarithm) are obtained from the Penn World Table 6.2. These proxies are also consistent with recent literature (Bertocchi & Guerzoni, 2012; Kodila-Tedika & Agbor, 2013; Kodila-Tedika, 2013). The ethnic fractionalization (*Ethnicfract*) measure is obtained from Alesina et al. (2003). Revolution (*Rev*) is captured by the number of revolutions, in line with the literature (Banks, 2001; Bertocchi & Guerzoni, 2012; Kodila-Tedika & Agbor, 2013; Kodila-Tedika, 2013). Resource abundance (*Natural resources*) is measured by a dummy variable. A country is considered as rich in natural resources if it is classified in the Collier & O’Connell (2006) list. Otherwise, a value of 0 is assigned it. Hence, resource-rich countries are those which have a behavior that is modeled by natural resources. Simply put, a country is qualified as rich in the list when rents resulting from primary products exceed 30% of GDP. Hence, on the basis of this criterion, South Africa is not classified as rich in natural resources.

### **3. Regression Results**

#### **3.1 Without interactions**

Table 1 below presents the results of binomial estimations of state fragility. The target group (or case) is 'state fragility' while the reference group (or noncase) is 'non-state fragility'. The results show Probit regressions without interactions (in the first two columns) and a robustness check with Logistic regressions without interactions (in the third column). The results of the former regression specifications are broadly consistent with those of the latter specifications.

From the Probit estimation output, the following findings could be established. (1) The level of education, life expectancy, the degree of ethnic fractionalization and the weight of natural resources all insignificantly increase government effectiveness and hence, insignificantly reduce the probability of state fragility. (2) The fertility rate, government expenditure and per capita economic prosperity insignificantly mitigate government effectiveness and corrolarily; insignificantly increase the probability of state fragility. (3) Political interference and revolutions significantly reduce and increase government effectiveness respectively. Hence, increasing and reducing the probability of state fragility respectively. While a unit change in revolutions increases by more than 68% the probability of government effectiveness, a unit change political interference mitigates the same probability by about 1%. It is worth noting that, the effect of our variable of interest is highly significant. Political interferences in the forms of rent seeking and lobbying decrease (increase) the probability of effective governance (a country entering a situation of state fragility). Hence, an increase by 10% in governing capacity due to a decrease in political interferences also decreases the probability of state fragility by the corresponding percentage.

**Table 1. Main results**

	Model 1		Model 2
	Probit regression	Probit regression, reporting marginal effects	Logistic regression
Polinter	<b>-0.0309***</b> <b>(0.000)</b>	-0.0110	<b>-0.0525***</b> <b>(0.000)</b>
Enrollprim	0.0012 (0.878)	0.00004	0.0027 (0.862)
Lifeexp	0.03879 (0.340)	0.0139	0.0738 (0.331)
Fertrate	-0.1122 (0.743)	-0.0401	-0.2584 (0.693)
Governm	-0.0053 (0.760)	-0.0019	-0.0112 (0.728)
Ethnicfract	0.3546 (0.793)	0.1266	0.4837 (0.846)
Real per capita GDP log	-0.1007 (0.844)	-0.0360	-0.2710 (0.777)
Natural resources	0.4923 (0.414)	0.1834	0.9434 (0.450)
Rev	<b>1.9281***</b> <b>(0.004)</b>	0.6886	<b>3.4585**</b> <b>(0.010)</b>
Wald chi2	44.82		30.04
Prob > chi2	0.000		0.000
Pseudo R2	0.503		0.496
Obs	65		65

All regressions are estimated using White (1980) heteroskedasticity correction. All regressions include a constant term. P-values are in parentheses. Explanatory variables: Polinter, political interference; Enrollprim, Primary enrollment; Lifeexp, Life expectancy; Fertrate, Fertility rate (log), Govern, Government expenditures; Ethnicfract, Ethnic fractionalization, Rev, Revolutions.

From the estimations in Model 1, of the 25 countries that experienced state fragility crisis, 20 have been rightly predicted (with a probability higher than 0.5), while for countries that did not experience such a crisis, 34 of the 40 have been well predicted. In other words, the prediction rate of our model is at the height of 83.08%.

The third column entails a logit model. Its specification is simply a replication of the model in the first column. This gymnastic is a purely for robustness purposes, which is the reason we have not reported the marginal effects. Accordingly, but for a slight variation in the significance of the *revolution* variable, the logit results are broadly consistent with the probit findings. Hence, *political interference* and *revolutions* significantly reduce and increase the probability of governing capacity respectively. This conclusion is empirically in accordance with what Green (2011) qualifies as “Tanzania exceptionalism”: the success of Tanzania in the formation of a nation and prevention of ethnic conflicts.

### 3.2 Results with interactions

Table 2 below shows results that replicate the specifications of Table 1 while taking the interaction effects into account. This enables the assessments of how the interactions (*rent seeking & revolution* and *rent seeking & natural resources*) play out on state fragility. Accordingly, the logit model serves as a robustness check. Based on the results, the following conclusions could be drawn. (1) The significance and signs of the estimated coefficients as well as the corresponding marginal effects are broadly consistent with those in Table 1. (2) The logit model estimations are also consistent with the probit specification output. (3) While the interaction of ‘*rent seeking* and *revolution*’ increases the probability of effective governance, the interaction between ‘*rent seeking* and *natural resources*’ does not have a significant positive incidence on the effectiveness of government. Hence, while the former interaction decreases the probability of state fragility, the latter does not have a significant negative effect on the probability of dissolving the state into chaos. (4) The marginal effect of the significant interaction term is around the height of 1%; implying a unit change in the interaction between ‘*rent seeking* and *revolution*’ increases the probability of government effectiveness by 1.31%. Hence, the inherent negative mechanism of *revolution* outweighs the established positive effect of *rent seeking* on state fragility. More so, the fact that rent seeking

in ‘resource’-rich countries has no significant negative incidence on the probability of state fragility is an indication that, the presence of natural resources somewhat attenuates the ability of rent seeking to independently increase the probability of state fragility. (5) The prediction rates for Model 1 and Model 3 are 87.69% and 83.08% respectively.

**Tableau 2. Estimation with interactions**

	Model 1		Model 2	Model 3		Model 4
	Probit regression	Probit regression, reporting marginal effects	Logistic regression	Probit regression	Probit regression, reporting marginal effects	Logistic regression
Polinter	<b>-0.0519***</b> (0.000)	-0.0138	<b>-0.0928***</b> (0.000)	<b>-0.031***</b> (0.000)	-0.0113	<b>-9.0552***</b> (0.000)
Enrollprim	0.0009 (0.911)	0.0002	0.0019 (0.889)	0.0017269 (0.825)	0.0006	0.0043 (0.769)
Lifeexp	0.0467 (0.260)	0.0124	0.0962 (0.231)	0.0391 (0.338)	0.0139	0.0750 (0.324)
Fertrate	-0.1662 (0.651)	-0.0441	-0.3996 (0.557)	-0.1270 (0.711)	-0.0451	-0.3103 (0.638)
Governm	-0.0069 (0.690)	-0.0018	-0.0159 (0.590)	-0.0052 (0.766)	-0.0018	-0.0106 (0.740)
Ethnicfract	0.4098 (0.753)	0.1087	0.3892 (0.873)	0.4355 (0.761)	0.1546	0.7545 (0.777)
Real per capita GDP log	-0.1508 (0.792)	-0.0400	-0.3744 (0.718)	-0.0989 (0.847)	-0.0351	-0.2578 (0.787)
Natural resources	0.5508 (0.372)	0.1633	1.2626 (0.369)	0.3325 (0.677)	0.1220	0.4404 (0.763)
Rev	0.2949 (0.692)	0.0783	0.5945 (0.649)	<b>1.9689***</b> (0.009)	0.6966	<b>3.6011**</b> (0.030)
Polinter * Rev	<b>0.0493***</b> (0.004)	0.0131	<b>0.0944**</b> (0.021)			
Polinter * Natural resources				0.0037 (0.845)	0.0013	0.0125 (0.759)
Wald chi2	37.67		29.23	48.50		32.90
Prob > chi2	0.000		0.001	0.000		0.000
Pseudo R2	0.567		0.569	0.503		0.497
Obs	65	65	65	65		65

All regressions are estimated using White (1980) heteroskedasticity correction. All regressions include a constant term. P-values are in parentheses. Explanatory variables: Polinter, political interference; Enrollprim, Primary enrollment; Lifeexp, Life expectancy; Fertrate, Fertility rate (log), Govern, Government expenditures; Ethnicfract, Ethnic fractionalization, Rev, Revolutions.

### 3.3 Extreme state fragility

Bertocchi & Guerzoni (2011, 2012) have constructed another proxy for extreme state fragility. This is simply a restriction of the fragility criterion from bottom two quintiles to the the bottom quintiles. Hence, in a hypothetical situation of extreme state fragility, the binary variables assume the value of 1 for IDA countries in the bottom CPIA quintile or without a CPIA rating, otherwise 0.

The estimations in Table 3 below are a replication of the specifications in the preceding two tables, with a change in the dependent variable (new state fragility index). Based on the results, two new findings could be established. Firstly, consistent with Bertocchi & Guerzoni (2011), we do not report the marginal effects because what matters at this juncture is the significance of the variable of interest. Hence, it is a means of testing the robustness of results in the preceding tables. Secondly, we notice a significant change in the behavior of the control variables, which confirms the empirical imperative of distinguishing ‘fragile’ states from ‘extreme fragile’ states on two counts: if these two groups of states are significantly different, the signs and significance of the control variables should also be some how different. As obvious as it is, a visual comparison of the tables confirms this fact. Ultimately, in terms of the tested hypothesis, the results in Table 3 are broadly consistent with those in Tables 1-2.

**Tableau 3. Estimation for extreme state fragility**

	Model 1		Model 2		Model 3	
	Probit regression	Logit regression	Probit regression	Logit regression	Probit regression	Logit regression
Polinter	<b>-0.0718***</b> (0.001)	<b>-0.1259***</b> (0.001)	<b>-0.0785*</b> (0.076)	<b>-0.1373*</b> (0.094)	<b>-0.0616***</b> (0.003)	<b>-0.1072***</b> (0.002)
Enrollprim	<b>0.0220*</b> (0.061)	<b>0.03843*</b> (0.063)	<b>0.02231**</b> (0.042)	<b>0.0386**</b> (0.042)	0.0221 (0.137)	0.0385 (0.100)
Lifeexp	-0.0683 (0.255)	-0.1169 (0.279)	-0.0656 (0.287)	-0.1119 (0.322)	-0.0545 (0.384)	-0.0923 (0.416)
Fertrate	<b>-2.1447***</b> (0.002)	<b>-3.709***</b> (0.001)	<b>-2.092***</b> (0.005)	<b>-3.607***</b> (0.006)	<b>-2.4617**</b> (0.023)	<b>-4.278**</b> (0.019)
Governm	0.0042	0.0071	0.0032	0.0052	-0.0035	-0.0046

	(0.839)	(0.834)	(0.882)	(0.875)	(0.874)	(0.899)
Ethnicfract	<b>6.2195**</b>	<b>10.8611***</b>	<b>6.0853**</b>	<b>10.586**</b>	<b>5.2647**</b>	<b>9.252**</b>
	<b>(0.011)</b>	<b>(0.009)</b>	<b>(0.016)</b>	<b>(0.018)</b>	<b>(0.037)</b>	<b>(0.021)</b>
Real per capita GDP	<b>-2.1303**</b>	<b>-3.6559**</b>	<b>-2.158***</b>	<b>-3.677***</b>	<b>-2.8391**</b>	<b>-4.860**</b>
log	<b>(0.012)</b>	<b>(0.016)</b>	<b>(0.005)</b>	<b>(0.009)</b>	<b>(0.013)</b>	<b>(0.012)</b>
Natural resources	-1.3332	-2.4167	-1.3085	-2.3667	1.1982	1.8036
	(0.145)	(0.107)	(0.155)	(0.123)	(0.412)	(0.448)
Rev	<b>3.637***</b>	<b>1.4990***</b>	<b>3.4316**</b>	<b>5.954*</b>	<b>4.0273**</b>	<b>7.068**</b>
	<b>(0.002)</b>	<b>(0.002)</b>	<b>(0.037)</b>	<b>(0.052)</b>	<b>(0.041)</b>	<b>(0.045)</b>
Polinter * Rev			0.0075	0.01354		
			(0.877)	(0.892)		
Polinter * Natural					<b>-0.1105**</b>	<b>-0.1853**</b>
resources					<b>(0.016)</b>	<b>(0.029)</b>
Wald chi2	31.39	29.55	29.85	29.12	28.94	28.37
Prob > chi2	0.0003	0.0005	0.0009	0.0012	0.0013	0.0016
Pseudo R2	0.6799	0.6751	0.6803	0.6755	0.7162	0.7117
Obs	58	58	58	58	58	58

All regressions are estimated using White (1980) heteroskedasticity correction. All regressions include a constant term. P-values are in parentheses. Explanatory variables: Polinter, political interference; Enrollprim, Primary enrollment; Lifeexp, Life expectancy; Fertrate, Fertility rate (log), Govern, Government expenditures; Ethnicfract, Ethnic fractionalization, Rev, Revolutions.

With regard to the other control variables, the expected changes could be observed. First of all, based on Model 1, irrespective of specification (logit or probit), education, ethnic fractionalization, demographic pressure and economic prosperity have significant effects on the probability of state fragility. The first-two (last-two) have a negative (positive) effect on the probability of state fragility. In essence, education (ethnic fractionalization) comes with an improvement in the possibility of citizens requesting checks and balances from the government (engenders the possibility of a political landscape based on ethnic lines). Also, economists have connected ethnic diversity with important economic phenomena like investment, growth, or the quality of government (Easterly & Levine, 1997; Alesina et al., 2003; La Porta et al., 1999; Montalvo & Reynal-Querol, 2005). The negative incidence of education on the probability of state fragility is logical because, literacy reinforces the constant quest for democratic institutions (and quality of government). The positive incidence of per capita economic prosperity on the probability of state fragility is logical from the perspective that, citizens would most probably engage in moves that threaten stability (political and economic) if they are unevenly benefiting from the fruits of national economic

prosperity. Even if the fruits of economic prosperity are evenly distributed, democracy and quality of government do not come with direct economic prosperity, but with respect to the time and level hypotheses (Asongu, 2011)<sup>7</sup>. The positive incidence of demographic pressures on the probability of a country descending into chaos could have a twofold justification: the absence of preemptive measures by authorities to satisfy the burgeoning population with policies that guarantee some hope for a bright future and; the willingness of the citizens to engage in activities that guarantee some hopes for the future generation and posterity. The former explanation is justified by recent African development literature which has concluded that, positive demographic change in African would strangle only public finances in the long-run (in comparison to private and foreign investments) if measures are not taken to encourage family planning and create a conducive investment climate (and ease of doing business) for private and foreign investments (Asongu, 2013a). The latter explanation on the willingness of citizens to demand, inter alia, social justice, employment and measures to curb inflation is eloquently justified by the recent Arab Spring (Asongu, 2013b).

#### **4. Conclusion**

This paper has assessed the determinants of state fragility in sub-Saharan Africa using hitherto unexplored variables in the literature. The previously missing dimension of nation building has been integrated and the hypothesis of state fragility being a function of rent seeking and/or lobbying by de facto power holders has been tested. The resulting interesting finding is that, political interference, rent seeking and lobbying increase the probability of state fragility by mitigating the effectiveness of governance capacity. This relationship (after

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<sup>7</sup> Moreover, as sustained by the literature (Asongu, 2012b; Dixit, 2004), attempts to effect the transition from informal to formal institutions is somehow complex since the introduction of top-down formal institutions have not fared well in the complicated maze of bottom-up arrangements. Dixit (2004) has presented an interesting argument as to how introducing imperfect rule-based institutions could actually make things worse, as they create outside opportunities for members of relationship based networks. Network members can then cheat on their partners and vamoose to operate in the rule-based system. A society could get caught in-between formal and informal institutional settings with neither working well.



controlling for a range of economic, institutional and demographic factors) is consistent with a plethora of models and specifications. The validity of the hypothesis is confirmed in a scenario of extreme state fragility. Moreover, the interaction between political interferences and revolutions mitigate the probability of state fragility while the interaction between natural resources and political interferences breeds the probability of extreme state fragility. As a policy implication, there is a ‘sub-Saharan African specificity’ in ‘nation building’ and prevention of conflicts. Blanket fragility oriented policies will be misplaced unless they are contingent on the degree of fragility, since ‘fragile’ and ‘extreme fragile’ countries respond differently to economic, institutional and demographic characteristics of state fragility.

## Références

- [1] Acemoglu, D. (2006), A Simple Model of Inefficient Institutions, *Scandinave Journal of Economics* 108(4), 515–546,
- [2] Acemoglu, D. 2008 Oligarchic versus democratic Societies, *Journal of the European Economic Association* March 6(1):1–44
- [3] Acemoglu, D. and Robinson, A.J., De Facto Political Power and Institutional Persistence, *American Economic Review Papers And Proceedings* 325-330
- [4] Acemoglu, D. and Robinson, A.J., (2008a), Persistence of Power, Elites and Institutions., *American Economic Review*, 98(1), pp. 267-93.
- [5] Acemoglu, D. and Robinson, A.J., 2000, Political Losers as a Barrier to Economic Development, *The American Economic Review*, 90, 2,, pp. 126-130
- [6] Acemoglu, D. and Robinson, J. 2005. *Economic Origins of Dictatorship and Democracy*. Columbia University Press, New York.
- [7] Acemoglu, D. and Robinson, J.A., 2008b Persistence of Power, Elites, and Institutions, *American Economic Review*, 98:1, 267–293
- [8] Acemoglu, D., Egorov, G. and Sonin, K. (2008), Coalition Formation in Non-Democracies., *Review of Economic Studies*, 75: 987-1009.
- [9] Acemoglu, D., Egorov, G. and Sonin, K., (2012) Dynamics and Stability of Constitutions, Coalitions, and Clubs, *American Economic Review*, 102(4): 1446–1476
- [10] Acemoglu, D., Ticchi, D. and Vindigni, A. (2012), A Theory of Military Dictatorships, *American Economic Journal: Macroeconomics*, 2:1, 1–42

- [11] Acemoglu, D., Ticchi, D. and Vindigni, A. 2011 Emergence and Persistence of Inefficient States, *Journal of the European Economic Association* April 9(2):177–208
- [12] Adachi, T. and Watanabe, Y. 2007. Ministerial Weights and Government Formation: Estimation Using a Bargaining Model. *Journal of Law, Economics, and Organization*. 24(1).
- [13] Aghion, P., Alesina, P. and Trebbi, F. 2004. Endogenous Political Institutions..*Quarterly Journal of Economics*. 119(2), May.
- [14] Alesina, A., Devleeshauwer, A., Easterly, W., Kurlat, S. and Wacziarg., R. 2003. Fractionalization. *Journal of Economic Growth*, 8(2): 155-194
- [15] Andrews, M., Pritchett, L. and Woolcock, M. (2012) "Escaping Capability Traps Through Problem Driven Iterative Adaptation (PDIA)," Working Papers UNU-WIDER Research Paper, World Institute for Development Economic Research (UNU-WIDER).
- [16] Andrimihaja, N. A., Cinyabuguma, M. and Devarajan, S. (2011) Avoiding the fragility trap in Africa. World Bank Policy Research Working Paper No. 5884.
- [17] Asongu, S. A. (2011). Law, democracy and quality of government in Africa, *MPRA Paper* No. 35502.
- [18] Asongu, S. A. (2013a). How would population growth affect investment in the future? Asymmetric panel causality evidence for Africa, *African Development Review*: Forthcoming.
- [19] Asongu, S. A. (2013b). Fighting consumer price inflation in Africa. What do dynamics in money, credit, efficiency and size tell us? *Journal of Financial Economic Policy*: Forthcoming.
- [20] Asongu, S. A. (2012a). On the effect of foreign aid on corruption, *Economics Bulletin*, 32(3): 2174-2180.
- [21] Asongu, S. A., (2012b). Institutional benchmarking of foreign aid effectiveness in Africa. *MPRA Paper* No. 38095.
- [22] Baland, J.-M., Moene, K.-O. and Robinson, J., 2010, "Governance and development", In Dani Rodrik and Mark Rosenzweig, (ed.), *Handbook of Development Economics*, Vol. 5, The Netherlands: North-Holland: 4039-4214.
- [23] Balamoune-Lutz, M. (2009) Institutions, trade, and social cohesion in fragile states: Implications for policy conditionality and aid allocation. *Journal of Policy Modeling* 31 (6): 877–890.
- [24] Banks, A. S (2011) *Cross-National Time-Series Data Archive*. Jerusalem: Databanks International.
- [25] Bertocchi, G. and Guerzoni, A. (2011) The fragile definition of state fragility. *Rivista Italiana degli Economisti* 16 (2): 337–354.
- [26] Bertocchi, G. and Guerzoni, A. (2012), "Growth, History, or Institutions: What Explains State Fragility in Sub-Saharan Africa? ", *Journal of Peace Research*. 49(6), 769-783
- [27] Besley, T. J. and Persson, T. (2010) State capacity, conflict and development. *Econometrica* 78 (1): 1–34.

- [28] Besley, T.J and Persson, T. (2009) The origins of state capacity: Property rights, taxation and politics. *American Economic Review* 99 (4): 1218–1244.
- [29] Burnside, C. and Dollar, D. (2000) Aid, policies and growth. *American Economic Review* 90(4): 847–868.
- [30] Carment, D., Samy, Y. and Prest, S. (2008) State fragility and implications for aid allocation: An empirical analysis. *Conflict Management and Peace Science* 25 (4): 349–373.
- [31] Chatelain, J.-B. et Ralf, K. (2012), “Les liaisons fallacieuses : quasi-colinéarité et « supprimeur classique », aide au développement et croissance”, *Revue économique* Vol. 63, No 3, pp. 557-567.
- [32] Chauvet L. et P. Guillaumont, 2004. *Aid and Growth Revisited : Policy, Economic Vulnerability and Political Instability*. In Tungodden B., N. Stern et I. Kolstad (eds). *Toward Pro-Poor Policies. Aid, Institutions and Globalization*. World Bank et Oxford University Press.
- [33] Chauvet, L. & Collier, P. (2008) What are the preconditions for turnarounds in failing states? *Conflict Management and Peace Science* 25 (4): 332–348.
- [34] Collier P. et A. Hoeffler, 2004. Aid, Policy and Growth in Post-Conflict Societies, *European Economic Review* 48, 1125-1145.
- [35] Collier, P., Elliott, L., Hegre, H., Hoeffler, A., Reynol-Querol, M. and Sambanis, N. (2003) *Breaking the Conflict Trap: Civil War and Development Policy*. New York: Oxford University Press.
- [36] Dalgaard, C.-J., Hansen, H. and Tarp, F. (2004) On the empirics of foreign aid and growth. *Economic Journal* 114 (496): F191–F216.
- [37] Dixit, A. (2004). *Lawlessness and Economics: Alternative Modes of Governance*. Princeton: University Press.
- [38] Easterly, W., R. Levine and D. Roodman, “New data, new doubts: A Comment on Burnside and Dollar’s “Aid, Policies, and Growth” (2004), *American Economic Review*, Volume 94, No. 3, June 2004, pp. 776-780.
- [39] Easterly, W.R. and Levine, R. 1997. Africa.s Growth Tragedy: Policies and Ethnic Divisions. *Quarterly Journal of Economics*, 112(4), pp. 1203-50.
- [40] European Report on Development (2009) *Overcoming Fragility in Africa*. San Domenico di Fiesole: Robert Schuman Centre for Advanced Studies, European University Institute.
- [41] Fearon, J. D. and Laitin, D. D. (2003). Ethnicity, Insurgency, and Civil War. *American Political Science Review*, 97(1), 75-90.
- [42] Francois, P., Rainer, I. and Trebbi, F. (2012), How Is Power Shared In Africa?, mimeo UBC.
- [43] Green, D. E. (2012a), On the Size and Shape of African States; *International Studies Quarterly* 56, 2, 229-244
- [44] Green, D. E. (2012a), The Political Demography of Conflict in Modern Africa; *Civil Wars* 14, 4, 477-498
- [45] Green, E. and Bandyopadhyay, S. (2012), Nation-Building and Conflict in Modern Africa, forthcoming at *World Development*.

- [46] Green, E. (2011), The Political Economy of Nation Formation in Modern Tanzania: Explaining Stability in the Face of Diversity; *Commonwealth and Comparative Politics* 49, 2, 223-244.
- [47] Heston, A., Summers, R. and Aten, B. (2009). Penn World Table, Version 6.3, Center for Inter-national Comparisons of Production, Income and Prices at the University of Pennsylvania.
- [48] Iqbal, Z. and Starr, H. (2008) Bad neighbors: Failed states and their consequences. *Conflict Management and Peace Science* 25 (4): 315–331.
- [49] Jacquemot, P., 2005, Le traitement de la corruption. Le cas du Kenya, *Afrique contemporaine*, Vol. 213, No1, pp.165-178.
- [50] Kodila-Tedika, O. (2012), Anatomie de la corruption en République démocratique du Congo," MPRA Paper 43463, University Library of Munich, Germany.
- [51] Kodila-Tedika, O. (2012). "Determinants of Peace: A Cross-Country Analysis", *The Economic Research Guardian*, 2(2):180-200.
- [52] Kodila-Tedika, O. (2013). "Poor Numbers: explanation of Africa's statistical tragedy," MPRA Paper43734, University Library of Munich, Germany.
- [53] Kodila-Tedika, O. and Agbor Agbor, J. (2013), Religious Diversity and Economic Development in Sub-Saharan Africa: So Far So Good, mimeo.
- [54] La Porta R, Lopez-de-Silanes F, Shleifer A, Vishny R (1999). "The Quality of Government". *Journal of Law, Economics, and Organization*. 15(1): 222-279.
- [55] Lange, M. and Dawson, A. (2010). Education and Ethnic Violence: A Cross-National Time-Series Analysis. *Nationalism and Ethnic Politics*, 16(2), 216-239.
- [56] Marshall, M. G. and Cole, B. R. (2009) *Global Report 2009: Conflict, Governance, and State Fragility*. Vienna: Center for Systemic Peace.
- [57] McGillivray, M. and Feeny, S. (2008) Aid and growth in fragile states. UNU-WIDER Research Paper No. 2008/3.
- [58] Montalvo J.G, and Reynal-Querol, M. (2005), "Ethnic Polarization, Potential Conflict, and Civil Wars", *American Economic Review*. 95(3), 796-816, June.
- [59] North, D. (2005), *Le processus du développement économique*, Paris, Ed. Organisation.
- [60] North, D., Wallis, J. et Weingast, B., 2010, *Violence et ordres sociaux*, Paris, Ed. Gallimard.
- [61] Nunn, N. (2008) The long-term effects of Africa's slave trades. *Quarterly Journal of Economics* 123 (1): 139–176.
- [62] Olivier de Sardan J.P. (1996), "L'économie morale de la corruption en Afrique", *Revue Politique Africaine*, 63, pp. 97-116.
- [63] Ross, M.L (2003) What do we know about natural resources and civil war? *Journal of Peace Research* 41 (3): 337–356.
- [64] Sachs, J.D and Warner, M.A. (1997) Sources of slow growth in African economies. *Journal of African Economies* 6 (3): 335–376.
- [65] Sindzingre A. (1997), "Corruptions africaines : éléments d'analyse comparative avec l'Asie de l'Est", *Revue Internationale de Politique Comparée*, 4(2), pp. 377-412

- [66] Stewart, Frances & Graham Brown (2009) *Fragile states*. Crise Working Paper No. 51.
- [67] United States Agency for International Development (2005) *Fragile States Strategy*. Washington: USAID. Wan, DC
- [68] Urdal, H. (2006) A clash of generations? Youth bulges and political violence. *International Studies Quarterly* 50 (3): 607–629.
- [69] Vallings, C. and Moreno-Torres, M. (2005) Drivers of fragility: What makes states fragile? PRDE Working Paper No. 7.