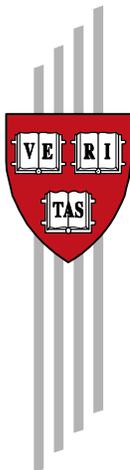


# **Political Insecurity and State Failure in Contemporary Africa**

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**Abstract:** Noting data that suggests that Africa oversupplies state failure, the paper probes the sources of political insecurity in the continent. It explores the logic that underlies an equilibrium in which governments employ force to protect rather than to predate and in which citizens engage in productive activity and refrain from military activity. It isolates the variables that define the region in which this conduct is in equilibrium values that lie outside that region define the conditions under which states fail. The analysis illuminates the impact of political and economic forces in contemporary Africa: political reform, economic collapse, and the increased relative importance of “loot-able” resources. In an effort to evaluate the arguments of the paper, it provides as well a series of statistical tests of its arguments.

**Keywords:** development, Africa, political economy, institutions, conflict

**JEL codes:** O19, P48, P51, E66

Conflict, and the threat of conflict constitute powerful and characteristic features of Africa's political economy. At the end of the Cold War – 1989-1991—Africa contained 30% of the world's nations; roughly 10 % of the world's population and 5% of the world's economic product.<sup>1</sup> If marked by the toppling of the Berlin wall in 1989, the end of the Cold War found 46% of the world's civil wars taking place in Africa, however; if by the fall of the Soviet Union in 1991, a full 53%.<sup>2</sup> While peace has returned to such war torn societies as Liberia, Sierra Leone, and Angola – other regions, such as Congo, remain embattled. Africa over supplies political conflict.

The sources of disorder in Africa have varied. The colonial legacy shaped political relationships in the post-independence period. The struggle against minority regimes extended from Zambia and Tanzania, coursed through Rhodesia and South-South-West Africa and flooded into the townships of South Africa. In the Horn of Africa, when the imperialists departed, they arbitrarily parceled out territories amongst those now claiming sovereignty. Conflicting claims over territory precipitated conflict both between and within the newly-independent nations, with Eritrea resisting incorporation by Ethiopia and Somalia protesting the apportionment of Ogaden among its neighbors.

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<sup>1</sup> We can select as our denominator the number of members of the United Nations (call that number UN) or the number of nations with a population of one-million or more (call that number POP). We can select as our numerator the number of countries in Sub-Saharan Africa (call that number SSA); the total number of countries on the African continent (AF); or the number of countries in Africa (SSA-POP) or on the continent (AF-POP) with a population of one million or more.

Africa's percentage of the world's nations(WT for world total; WT-POP for the total number of nations in the world with one-million or more people) can then be calculated as:  
SSA/UN= 25%; AF/UN=28%; SSA/WT = 22%; AF/WT=27%;(SSA-POP)/(WT-POP) = 23%;(AF-POP)/(WT-POP) = 29%.

<sup>2</sup> The figures are calculated from data gathered by the Peace Research Institute in Oslo on conflicts between insurgent groups and governments that generate 1,000 or more battle deaths per annum.Strand, H., L. Wilhelmsen, et al. (2002). Armed Conflict Data Codebook. Oslo, Peace Research Institute.

In the 1970s, a second source of conflict intruded upon the continent: the Cold War. The late 1970s and early 1980s represented the “hottest” decade of the “cold” war since the end of hostilities in Korea. In Angola in the South and Ethiopia and Somalia in the Horn, Russia, Cuba, China and the United States manipulated and exacerbated the conflicts bequeathed by the colonial powers, rendering the period one of the deadliest since independence.

As the post-independence period lengthened, yet another source came into play: forces emanating not from the colonial past or from outside Africa but rather from politics as practiced within the nations of Africa. By the 1980s, this new source of conflict had acquired a name -- state failure. State failure forms the focus of this paper.

## **The Present Consensus**

To many, the sources of state failure in Africa appear obvious: Africa is poor. It is therefore little wonder that political order remains fragile. This argument forms the present consensus within the development field. As stated by the World Bank, “the key root cause of conflict is the failure of economic development” (Collier, Elliott et al. 2003), p. 53. Stated more fully, the consensus holds that in

countries with low, stagnant, and unequally distributed per capita incomes that have remained dependent on primary commodities for exports face dangerously high risks of prolonged conflict. In the absence of economic development, neither good political institutions, nor ethnic and religious homogeneity, nor high military spending provide significant defenses against large scale violence. (Collier, Elliott et al. 2003), p. 53

It is incontrovertible that there is a significant relationship between poverty and political conflict. But without depicting the causal mechanisms that generate that relationship, our understanding remains incomplete. Posed more abstractly, the current consensus centers on a set of relationships between macro-economic aggregates and political behaviors – average incomes and outbreaks of war, for example. – without specifying the micro-level mechanisms that generate those relationships. A goal of this paper is to move toward an account based on micro-foundations.

## **Framing the Problem**

In choosing a vantage point from which to proceed, we take counsel from the theory of the state and the realities that prevail in contemporary Africa.

According to Weber, the distinctive property of politics is “physical force.” And the state is “a human community that successfully claims the monopoly of the legitimate use of physical force within a given territory” ((Weber 1921), p. 1). Two features of this definition command attention: the importance of coercion and the state’s claim to a monopoly of it.

Many who study the advanced industrial nations find Weber’s emphasis on physical force largely irrelevant to the study of politics. They focus instead on civic participation – voting or lobbying or running for office – and on the civilian branches of government – the legislature or the party system. In the context of Africa, however, Weber’s position rings true.

Consider, for example, at the prominence of the military. In a sample of 46 African countries over a 26 year period (1970-1995) (see Table 1), in over a third of the 1196 observations, the armed forces provided the Head of State (see Table 2). In recent

years civilians have increasingly replaced military officers as chief executives; but one need only roam down the Eastern portion of Africa to appreciate the military continues to play a central role in politics. The presidents of Eritrea, Ethiopia, Uganda, Rwanda – the so-called “new generation” of African leaders – led armed movements to victory in the competition for power. So too did the presidents of Burundi, Zimbabwe, Mozambique, and – turning northward – Namibia. At the head of each of these nations stands the leader of a movement that captured power by force of arms.

Table 1: The Sample Set of Countries

1. Angola	24. Madagascar
2. Benin	25. Malawi
3. Botswana	26. Mali
4. Burkina Faso	27. Mauritania
5. Burundi	28. Mauritius
6. Cameroon	29. Mozambique
7. Cape Verde	30. Namibia
8. Central Africa Republic	31. Niger
9. Chad	32. Nigeria
10. Comoros	33. Rwanda
11. Congo, Republic	34. Sao Tome & Principe
12. Cote d'Ivoire	35. Senegal
13. Djibouti	36. Seychelles
14. Equatorial Guinea	37. Sierra Leone
15. Ethiopia	38. Somalia
16. Gabon	39. Sudan
17. The Gambia	40. Swaziland
18. Ghana	41. Tanzania
19. Guinea	42. Togo
20. Guinea-Bissau	43. Uganda
21. Kenya	44. Democratic Republic of Congo
22. Lesotho	45. Zambia
23. Liberia	46. Zimbabwe

Table 2: Military  
Chief Executive

Time Period	Chief Executive		
	No	Yes	
1970-74	129	63	192
	67.19	32.81	
1975-79	141	79	220
	64.09	35.91	
1980-84	146	74	220
	66.36	33.64	
1985-89	149	71	220
	67.73	32.27	
1990-95	164	49	213
	77.00	23.00	
Total	729	336	1065
	68.45	31.55	

Source: D:\Summer\_Papers\Democratization

While some might dismiss this pattern as distinctive of Africa, idiosyncratic and therefore of no general significance, a glance at the history that informed Weber’s vision should provoke reappraisal. In Medieval Europe, the Angevines and Lancasters placed generations of warriors on the throne of England and the Merovingians and Capetians on the throne of France. As Tilly famously states, throughout the Medieval and Early Modern period, “war made the state and the state made war” ((Tilly 1975), p. 42).

In response to Weber’s formulation and the ease with which it maps on to the realities of Africa, we will focus on the use of force. We will focus on the state. And we shall conceive of those who head it as “specialists in violence.”

Weber emphasizes not only the importance of force; he also suggests that a political community becomes a state when it can successfully command a *monopoly* over its use. In a “Weberian state,” people no longer privately exercise the power of coercion but instead yield (or delegate) it to those who govern.

This argument too informs our analysis. The symptom of state failure is the inability of governments to secure a monopoly of violence. In some, it takes the form of

civil war; as already noted, states in Africa disproportionately exhibit that symptom. In others, it takes the form of the militarization of civic societies; in such instances, private groups – political parties, ethnic groups, firms, or communities – take up arms. By the first criterion, roughly one fifth or the data from the 46 nations in our sample, 1970-1995, contain evidence of state failure; by the second, roughly one-quarter.

Political theorists make one last claim: that the role of the state is to provide security. For Locke, the state provides a defense of property: “Government has no other end but the preservation of property”(Locke 1991), p. 391. For Hobbes, the state provides personal security; absent the state, “Man” is left in the state of nature and must fear death midst the war of “all against all” ((Hobbes 1947), Chapter 13).

By this criterion as well, the state in Africa remains problematic. The International Country Risk Guide publishes ratings by investors of governments throughout the world for their likelihood to repudiate debt or to confiscate private investments; the ratings run from 1 to 10, with 10 being most and 1 being least likely. As seen in Tables 3 and 4, governments in Africa received lower ratings than did those in other developing regions, thus indicating investors’ pessimistic appraisal of their tendency to secure property rights. In both instances, the average ratings of Africa’s governments was significantly lower (at the 0.5 level) than those for governments from other regions.

Table 3: Likelihood of Expropriation

Region	Mean Rating
Europe & N. America	9.48
Oceania & Australia	9.48
East. Europe & FSSR	7.83
Central, Southern & Eastern Asia	7.08
Latin America	6.09
N. Africa and Middle East	6.10
Sub-Saharan Africa	5.58

Source: D:\Africa\_World.log

Table 4: Likelihood of Repudiation

Region	Mean Rating
Europe & N. America	9.16
Oceania & Australia	9.00
East. Europe & FSSR	6.22
Latin America	5.54
Central, Southern & Eastern Asia	6.36
N. Africa and Middle East	5.39
Sub-Saharan Africa	4.68

Source: D:\Africa\_World.log

Freedom House provides comparative measures of the defense of political rights and civil liberties. The Freedom House indices form seven point scales (where 1 is high and 7 low). As seen in Tables 5 and 6, African states join those from North Africa and the Middle East at the lower end of these ratings.<sup>3</sup>

<sup>3</sup> Save in the case of North Africa and the Middle East, the mean African ratings are significantly lower (at the 0.0 level) than those for other regions.

Table 5: Political Rights

Region	Mean Rating
Europe & N. America	1.18
Oceania & Australia	1.70
Latin America	2.97
East. Europe & FSSR	4.45
Central, Southern & Eastern Asia	4.87
N. Africa and Middle East	5.33
Sub-Saharan Africa	5.32

Source: D:\Africa\_World.log

Table 6: Civil Rights

Region	Mean Rating
Europe & N. America	1.45
Oceania & Australia	1.73
Latin America	3.11
East. Europe & FSSR	4.54
Central, Southern & Eastern Asia	4.95
N. Africa and Middle East	5.26
Sub-Saharan Africa	5.10

Source: D:\Africa\_World.log

In probing the political foundations of economic development in Africa, this paper will explore the conditions under which governments – or specialists in violence – succeed or fail to claim a monopoly over the use of force. It will explore the conditions under which governments use their control over force to enhance, or to violate, the security of life and property among those whom they govern.

## The Logic of Political Order

The interplay between theories of the state and observations from Africa informs both the language and the logic of this analysis. Heads of state shall be deemed “specialists in violence.” But they will not possess an effective monopoly over it; citizens will be able to arm themselves, should they wish to do so. And political order therefore remains problematic. It is achieved when it is chosen. That it, it is achieved when governments refrain from predation and secure the lives and property of their people and when the citizens refrain from the use of arms.

Given this framework, three questions set the agenda for our inquiry into the logic of political disorder:

- 1) Under what conditions would specialists in violence choose to employ force to defend their citizens rather than to prey upon them?
- 2) And under which conditions will citizens choose to disarm, leaving the government to protect their life and property?

And because neither political order nor the “Weberian state” are givens:

- 3) When will these choices prevail as an equilibrium? Alternatively, when will there be state failure?

In search of answers, we turn from the theory of the state to the theory of games. The players are a specialist in violence and two citizens. The equilibria of this game suggest the conditions under which order can prevail. By the same token, the equilibrium suggest the conditions under which political disorder can arise. In this section, we limn the logic of our argument; in the next, we use evidence of political disorder in contemporary Africa to assess its validity.

## ***The Model<sup>4</sup>***

To uncover sources of order, we introduce three players: G, a specialist in violence, and two citizens,  $i \in \{1, 2\}$ . G is a specialist in violence. But he is not endowed with a monopoly over it; the citizens too have access to arms and G can achieve a monopoly of physical force only when the citizens set theirs aside.

To be more specific, each citizen possesses a given amount of resources, denoted by  $T_i$  (as in time), that she can allocate between work ( $w_i$ ), military preparedness ( $m_i$ ), and leisure ( $l_i$ ). That is,

$$i \in \{1, 2\} \text{ chooses } w_i, m_i, l_i \geq 0 \text{ s.t. } w_i + m_i + l_i \leq T_i.$$

The resources devoted to work,  $w_i$ , are productive; they result in an output of  $F(w_i)$  for player  $i$ .<sup>5</sup> Those devoted to military activity are unproductive. Rather than creating wealth, they merely redistribute it – or provide a defense against its redistribution.

After allocating their resources, each citizen observes the decision of the other; each then (sequentially) decides whether or not to attempt to raid the others' possessions. To capture this decision, define  $r_i$  where  $r_i = 1$  if player  $i$  raids and  $r_i = 0$  if she does not. The amount the one can gain from raiding depends not only on the quantity of the other's assets but also on the relative strength of the players: if player  $i$  attacks and player  $-i$  defends,  $M(m_i, m_{-i})$  is the share of player  $-i$ 's wealth that player  $i$  is able to expropriate if she allocates  $m_i$  units of effort to perfecting her military capabilities and the other player,

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<sup>4</sup> For proofs of the claims made in this section, consult Bates, R. H., A. Greif, et al. (2002). "Organizing Violence." *Journal of Conflict Resolution* 46(5): 599-628.

<sup>5</sup>  $F(\bullet)$  is assumed to be a twice continuously differentiable, concave function that maps from player  $i$ 's effort to her income.

– $i$ , allocates  $m_i$  units.<sup>6</sup>

The citizens derive their utility from income and from leisure,  $U(I_i, l_i)$ . They can increase their incomes by working or by employing their military capabilities to raid.

Their incomes can thus be written:

$$I_i = F(w_i) + r_1(F(w_2)M(m_1, m_2) - k) - r_2[F(w_1) + r_1(F(w_2)M(m_1, m_2) - k)]M(m_2, m_1)$$

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<sup>6</sup> More generally, throughout the paper we ignore the possibility that one agent eradicates the other. We maintain this assumption because we want to consider stateless societies in which there are on-going possibly violent interactions between groups -- be they tribes, communities, lineages, or villages. Similarly, we don't consider a situation in which one gain military resources by raiding the other. When this is the case, one group is likely to come to dominate the other. This is the situation we are not considering here. Alternatively, one can consider our analysis as related to a situation in which property rights are determined endogenously through interactions among the economic agents. The degree to which one can secure property rights depends upon relative coercive capabilities. See, for example, Skaperdas, S. (1992). "Cooperation, Conflict, and Power in the Absence of Property Rights." American Economic Review **82**(4): 720-738.

; Grossman and Kim Grossman, H. I. (1995). *The Economics of Revolutions*. Providence RI, Department of Economics, Brown University.

, and Muthoo, A. (2000). *On the Foundations of Property Rights, Part I: A Model of the State-of-Nature with Two Players*. Typescript, Department of Economics. Essex, UK.

. Although the model's formulation is inspired by the historical experience of stateless societies, at the same time it ignores, for simplicity sake, potentially important aspects of conflict situations of the sort we seek to explore. It puts to the side, for example, evolutionary forces and specialization in the use of violence (as in Moselle, B. and B. Polak (1999). *A Model of the Predatory State*. Paper Prepared for Conference on the Breakdown of States, Princeton University. Princeton NJ.

asymmetries among the agents (as in, for example, Grossman and Kim 1995 and Muthoo, A. (2000). *On the Foundations of Property Rights, Part I: A Model of the State-of-Nature with Two Players*. Typescript, Department of Economics. Essex, UK.

; the impact of past conflicts on one's current military capabilities (discussed in Fearon, J. D. (1996). *Bargaining Over Objects that Influence Future Bargaining Power*. Paper Presented to the 1997 Annual Meeting of the American Political Science Association. Washington DC.

, Fearon, J. D. and D. D. Latin (1996). "Explaining Interethnic Cooperation." American Political Science Review **90**(December): 715-735.

, Laitin, D. and J. Fearon (1996). "Explaining Interethnic Cooperation." American Political Science Review **90**(4): 715-35.

uncertainty and loss of potential exchange (discussed in Skarpedas, S. (1996). *Gangs and the State of Nature*. The New Palgrave Dictionary of Economics and the Law. P. Newman. London, Palgrave.

and moral hazard issues (explored in Addison 2000). By the same token, this framework enables us to extend the analysis beyond that possible in other works. Specifically, it allows us to examine the endogenous determination of prosperity and violence. See the papers cited above as well as Usher, D. (1989). "The Dynastic Cycle and the Stationary State." American Economic Review **79**(5): 1031-1044.

; and Skaperdas, S. (1992). "Cooperation, Conflict, and Power in the Absence of Property Rights." American Economic Review **82**(4): 720-738.

The model in Muthoo (2000) is closest to ours. While it explores the impact of asymmetries (which we do not), it does not enable agents to invest in military capabilities (as we do) or explore such issues as deterring raids by consuming leisure or the welfare implications of endogenous state.

where  $k$  is the fixed cost of raiding. The first term on the right hand side depicts what a citizen earns from working. The second is what he earns from raiding. And the third represents what one citizen loses when raided by the other.

G seeks to maximize his utility, which, like that of the citizens, derives from income and leisure. As a specialist in violence, however, G does not need earn his income from laboring in a farm or factory but rather from the use of force. He can increase his income by engaging in predation and seizing assets or earn it by collecting fees for the provision of a valued service: the provision of security for those who seek to relax or to create wealth.

In characterizing the military balance between G and private citizens, we make three assumptions. Given that private agents are themselves capable of violence, (i) when G preys upon the economic output of a player  $i$ , G succeeds in capturing her wealth only in a probability, denoted by  $q_i$ . (ii) G engages in predatory activity only if the expected revenues from its use of violence exceeds its costs of military activity, denoted by  $C_G$ , where  $C_G > 0$ . (iii) And G can dispossess only one agent per period.

G's income therefore can be written:

$$I_G(\bullet) = \{ [ p_i q_i \sum (F(w_i) + r_i F(w_{-i}) M(m_i, m_{-i}) - r_{-i} F(w_i) M(m_{-i}, m_i)) (1 - t_i \tau) ] + [ t_i \tau (F(w_i) + r_i F(w_{-i}) M(m_i, m_{-i}) - r_{-i} F(w_i) M(m_{-i}, m_i)) ] \} - C_G (p_i + p_{-i})$$

for  $i=1,2$ .

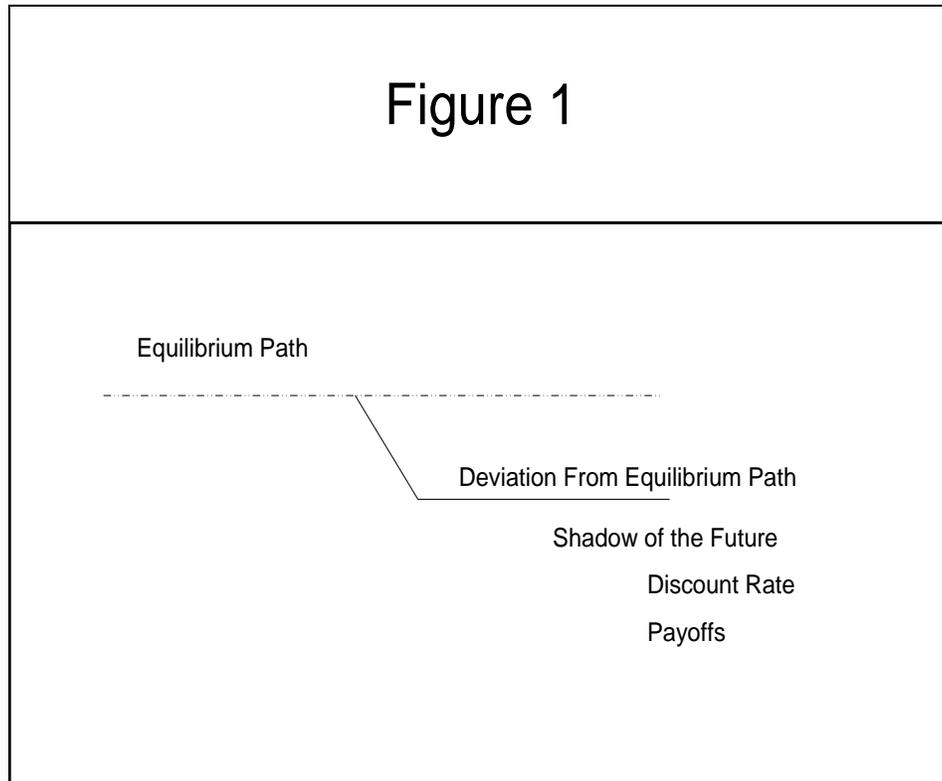
Should G engage in predation, then his income is captured by the first bracketed expression. The revenue he seizes from  $i$  equals the probability of successful predation,  $q_i$ , multiplied by player  $i$ 's income from work and raiding, net the amount  $i$  has paid in taxes. Should G choose to secure his income from taxes, then his income is captured by

the second bracketed term, which registers the amount of taxes paid by each private agent who has chosen to do so. Note that – as indicated by the last term of the equation -- if G decides to prey upon the wealth of either agent, that is, if  $p_i + p_{-i} > 0$ , then G has to bear the cost of the predatory activity,  $C_G(p_i + p_{-i}) > 0$ .

Our tableau is thus peopled by a specialist in violence and two citizens, each seeking to maximize her utility and each endowed with the capacity to consumer leisure or to secure income, if necessary by the use of force. Within this framework, we can probe the foundations of political order by seeking the conditions for an equilibrium in which the specialist chooses to refrain from predation and to provide security instead and in which the citizens refrain from taking up arms and instead engage in leisure and productive activity. Failure to adhere to this equilibrium choice of strategies results in state failure.

To locate such an equilibrium, we cast the interaction between G and the citizens as a repeated game; in such a setting, prospective losses help to define the equilibrium path of play. The principal threat of interest in this game is the losses that arise from state failure. When states fail, G engages in predation. Rather than earning his income from safeguarding the possessions of others, he instead seizes them. The citizens, for their part, stop paying taxes and re-arm, either so as to raid or to defend themselves against raids by others. Because the citizens re-allocate resources from leisure and production to military activities, both income and utility decline. People are insecure and poor. The equilibrium of this subgame we call the State Failure (SF) equilibrium. It is the possibility of a reversion to the payoffs of the State Failure (SF) equilibrium that

constitutes the threat that promotes – or fails to promote – the decision to adhere to the choices that yield political order.



### ***Political Order as an Equilibrium***

More precisely, then, we look for the conditions under which:

Each private agent chooses  $w_i, m_i, l_i$  optimally (given the strategies of other players); refuses to raid; and pays taxes to G, if the other agent has not raided or if G has refrained from seizing the wealth of a private agent. Otherwise, the private agents "revolt," refuse to pay taxes and revert to self defense.

G refrains from predating as long as neither private agent raids or fails to pay taxes. If either agent raids or fails to pay taxes, G then becomes predatory and seizes the wealth of the private agents.<sup>7</sup>

Under what conditions can these choices be sustained as an equilibrium? For a strategy to be an equilibrium strategy, no player should be able to gain from deviating after any history, when deviation results in a reversion to the State Failure (SF) equilibrium. That is:

- I. No private agent should be able to gain by raiding or refusing to pay taxes.
- II. Nor should an agent be able to gain by altering the allocation of her resources between work, leisure and military preparation.
- III. G's threat to predate must be credible.
- IV. And G must find it optimal *not* to predate if the economic agents adhere to their strategies.

In discussing these conditions, we focus upon G. We focus both upon the incentives that prevail in equilibrium and upon those that arise should a deviation occur (consult once again Figure 1).

G's incentives to adhere to the equilibrium choice of strategies derive from the revenues he can secure from taxation. To induce G to refrain from predation, the tax level,  $\tau$ , needs to be high enough that G finds it optimal, given the private agents' strategies, to refrain from confiscating the agents' wealth if they pay taxes. But it must also be sufficiently low that private agents prefer to purchase the services of G rather than

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<sup>7</sup> Considering a similar equilibrium in which G punishes an agent who raided or failed to pay tax without reverting to the State Failure equilibrium does not change the analysis.

to incur the costs of providing their own security. That is, the level of revenues needs to satisfy both G's and the citizens' participation constraints.

The tax level must also be sufficiently low that G's threat to predate if taxes are not fully paid remains credible. Should taxes not be fully paid, G must choose between punishing and thereby triggering a reversion to the State Failure equilibrium or continuing to play the strategies that define political order. If a receipt of a portion of the revenues accrued when there is political order exceeds the payoffs under the State Failure equilibrium, then G would rather not punish and continue to collect revenues than punish and then have to live on the low level of income that accrues under state failure. If even a portion of the public revenue is sufficiently high, then G's threat to punish will not be credible. Both the need to fulfill the citizen's participation constraint and the need to fill G's credibility constraint thus imply an upper bound on the level of public revenues.

Adherence to the equilibrium path also depends upon G's payoffs under the State Failure (SF) equilibrium. Should G have access to sources of income other than the payments he receives from his citizens, G may not fear the loss of tax payments that would result were it to trigger state failure. Also important is G's discount rate. Should the government place a low value on the losses that would accrue from state failure, then it would little fear the consequences that would follow an opportunistic deviation from the equilibrium path. Or should the government consider its future on the equilibrium path to be uncertain or the imperative of present action so powerful that it can pay scant regard for future consequences, then the threat of the low payoffs that accrue when in state failure would be insufficient to compel it to adhere to its choice of strategies.

The model thus suggests three propositions:

1. That the likelihood of state failure should be related to the level of public revenues.
2. That insofar as governments become more myopic when they face higher levels of risk, the likelihood of state failure should rise when their political fortunes become insecure.
3. And that governments in economies that contain valuable resources should experience higher levels of disorder than would governments in other economies.

## Empirical Testing

Before turning to quantitative data, it is useful to assess its plausibility. A positive feature of this account is that it so clearly maps onto the broad patterns that characterize Africa's development in the post-independence period.

**Revenue:** As stressed in the conventional interpretation, in the 1970s, Africa entered a period of economic decline. The oil price rises of 1973 and 1978 sparked a recession in the global economy, and the demand for Africa's exports shrank. Taxes on trade provide the bulk of public revenues in Africa; and with the decline in exports, government incomes atrophied. In an effort to reduce the impact of the fall in export earnings, governments borrowed from abroad. A subsequent spike in the interest rate exacerbated the costs of repayment. With reduced incomes and increased obligations, the revenues available to Africa's governments declined.

The period of economic decline was marked by the rise of the informal economy. Growing deficits sparked inflation. In the cities, where governments often sought to

impose price controls, production and exchange exited the formal economy and shifted to the shadow economy, where prices remained un-controlled and incomes not subject to taxation.<sup>8</sup> The over-valuation of national currencies drove exports into “illicit” channels; being smuggled, they remained un-taxed, resulting in further losses to government (Bank 1994). In the countryside, where crop prices were controlled by marketing boards, the rise in prices for goods bought off the farm posed a threat to farm incomes. In response, peasants either sold their crops in “parallel” markets, where they could command higher prices; or withdrew from the market economy ((Bates 1981) (Hyden 1981)). In both town and country, then, the response of the private sector to the policy choices of governments led to the contraction of the tax base.

**Uncertainty:** Note too the recent political history of Africa. Until the mid-1990s, the majority of the African governments were authoritarian: on average, a third of the heads of state came from the military and three quarters presided over no-party or single-party systems (Tables X and X). The late 1970s marked the peak period of military rule (Table x); the late 1980s that of single party systems (Table X). The period of reform came in the late 1980s and early 1990s. In that era, for the first time, the military furnished less and one-third of the heads of state: the percentage fell from 33 % to 23 %. The portion of the chief executives that presided over single party regimes fell from one half to one quarter. And for the first time in the period 1970-1995, competitive political systems became the modal form of government in Africa, albeit presiding over slightly less than half the sample.

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<sup>8</sup> See the remarkable trilogy: Macgaffey, J. (1987). Entrepreneurs and Parasites, Cambridge.  
, MacGaffey, J. (1991). The Real Economy of Zaire. Philadelphia, University of Pennsylvania Press.  
, MacGaffey, J. and R. Bazenguissa-Ganga (2000). Congo-Paris: Transnational Traders on the Margins of the Law. Oxford, James Currey.

As noted by Bratton and van de Walle (Bratton and van de Walle 1997), in 1980-85, 9 of the 17 countries in their sample held competitive elections; in the period 1990-94, the number rose to 38. And while before the 1990s only one African head of state had been voted out of office; between 1990 and 1994, the number rose to 11, with three others choosing not to run ((Block 2002), p. 206)).

**Natural Resources:** A third theme in Africa's political economy moves in concert with the logic of the argument: the link between political violence and natural resources. Cilliers (Cilliers 2000), Hirsch (Hirsch 2001) and others Human Rights (Watch 1999) stress the link between diamond deposits and the war in Angola; Reno, the link between natural resources and the wars in Sierra Leone and Liberia (Reno 1998; Reno 2000). Johnson has stressed the impact of oil on the civil war in Sudan (Johnson 2003) and Zinn and others (Kirk-Greene 1971; Suberu 2001; Zinn Forthcoming) on civil war in Nigeria. So common is the pattern that it has given rise to a literature on the "resource curse" -- a force disrupting politics, it is claimed, in Indonesia (e.g. (Ross 2003)), the Middle East (e.g.(Chaudry 1994)) and elsewhere

The logic that underlies our analysis of political disorder thus resonates with the literature on contemporary Africa, and other developing regions as well.

### ***Estimation***

Our analysis thus suggests propositions about the relationship between political order and three additional variables: government revenues, resource rents and political competition.

A glance at the qualitative literature suggests that the arguments are plausible. In this section we turn quantitative data to determine if they are valid.

## Variables

By our theory, when people anticipate that incentives now favor predation by the specialists in violence, they no longer expect the government to protect their lives or property and revert instead to the private provision of security. We therefore take as our indicator of state failure the formation of private militias. The question we ask of the data is: “For a given country in a given year: were there reports of a private military organization?”<sup>9</sup> If the answer is “yes,” then the dependent variable takes the value 1; if “no,” the value 0.

By dividing the magnitude central government’s revenue for a given year by the magnitude of its Gross Domestic Product (GDP), we calculate a measure of its public revenues. Using price data and production figures collected from commercial sources, we calculate for each year the value of each country’s production of petroleum. Lastly, we collected data on the political system, determining for each year whether the head of state then in place<sup>10</sup> presided over a no-party, one-party or competitive party system. These data enable us to capture the level of political competition faced by the head of state, thus suggesting his rate of discount. The theory outlined above links each of these variables to the likelihood of political disorder. Table 7 provides a list and description of the variables and the sources from which they were gathered.

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<sup>9</sup> Recall the sources in footnote 2.

<sup>10</sup> In coding this variable, we recorded the system in place at end of the calendar year (i.e. December 31).

Table 7: Variables: Definitions, Distribution and Sources

Variable	Units	Distribution	Source
<b>Dependent Variable</b>			
Formation of Domestic Military Groups?	0/1	0.247 0.431	Data collected by research team
<b>Independent Variables</b>			
INCOME	Log of GDP per capita (PPP)	6.835 0.021	Summers and Heston Penn World Tables
LITERACY	Percent of adult population literate	40.463 0.614	World Bank <i>World Development Indicators</i>
URBAN POPULATION	Percent of population living in cities	25.348 0.41	ditto
MODERNIZATION	Factor score derived from principal components factor analysis of INCOME, LITERACY, and URBANIZATION	-1.60E-02 0.024	
GROWTH	Annual rate of Growth of INCOME	-0.15 0.351	Calculated from data in Summers and Heston, <i>Penn World Tables</i>
REVENUES	Central government revenues as percent of GDP	18.106 0.381	World Bank <i>World Development Indicators</i>
ELECTIONS	1 if year before national election; 0 otherwise. as Percent of Central Government Budget	.191 0.013	ditto

PETROLEUM	Value of petroleum exports per capita in constant US dollars	81.38 14.574	Data collected by research team
DROUGHT	Hectares of arable land p.c.	.388 0.031	
DURATION	Length of time political system in place		Data collected by research team
	No-party	2.639 0.15	
	One-Party	3.747 0.176	
	Competitive	1.395 0.127	
No-party	Dummy Variable Is 1 if Chief Executive Assumes Power Without Facing Election	0.349 0.015	ditto
One-Party	Dummy Variable Is 1 if Chief Executive Elected to Office but Faced No Opposition Party	0.444 0.015	ditto
NEIGHBOR	Total level of Conflict(coups + military groups + civil wars) in Neighboring States	2.728 0.033	
CROSS	Percent of population belonging to ethnic groups that spill over national boundaries.	.733 .036	Englebort, <i>State Legitimacy and Development</i>

The dependent variable is qualitative. Because it is bounded from above by 1 and from below by 0, the errors from regression can not be identically distributed. We therefore employ the logistic rather than the normal distribution.

Political disorder in one country readily spills over into another; and the presence of military groups in one year can increase the likelihood of their presence in the next. To control for interdependence between state level observations, we fashion a variable that takes into account the total number of domestic military groups, civil wars, and international conflicts in neighboring countries. To control for the interdependence between the annual observations, we enter the number of “peace years” as a variable in the equation and introduce several (three) splines to capture the impact of past efforts at militarization(Beck, Katz et al. 1998). We also calculate robust estimates of the standard errors of the coefficients, thus further correcting for interdependence within and between cross-sections.

Perhaps the greatest problem arises, however, from missingness in the data.<sup>11</sup> Resorting to case-wise deletion – that is, to dropping observations which lack data for key variables – decreases the efficiency and increases the potential for bias in the estimates; reducing the number of cases relative to the depth of the panel increases the potential for further bias in our estimates. We therefore employ the methods developed by Rubin ((Rubin 1996), (Schafer 1997) to impute point estimates of the missing values and to calculate their distributions.

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<sup>11</sup> This will come as no surprise to anyone who studies Africa. See Honaker, J. (2000). Issues in Multiple Imputation of Data of the African Research Program. Cambridge MA, Department of Government, Harvard University.

Because of the possibility of heterogeneity between panels, we estimate our models while both pooling our data and introducing fixed effects. We simply find it difficult to believe that the expected level of insecurity in, say, Botswana is the same as that in, say, Sudan, even while controlling for the impact of the variables specified by the theory. And because we believe that temporal effects shape the level of insecurity, we explicitly introduce a measure of the time since the last report of civic militarization.

By taking these – and other – measures, we seek to extract the same kind of information from our panel of 46 African countries (see Table 1) over 26 years (1970-1995) that could be elicited through the application of Cox proportional hazard models. As stated by Beck, Katz and Tucker (1998): binary, time series cross national data “are *identical* to grouped duration data”(Beck, Katz et al. 1998), p. 1264, and we attempted to exploit that fact.

## **Results**

Table 7 contains definitions of the variables, reports their distribution and the sources from which they were taken.

Tables 8-11 present estimates of the core model. Tables 8-9 present data from the pooled sample; Tables 10-11, estimates that control for country-specific effects. In all instances, the country specific coefficients, taken as a group, are significant. In Tables 9 and 11, we seek to control for potential endogeneity bias in the coefficient for government revenues; political security could, after all, be both a cause as well as a consequence of low government revenues.<sup>12</sup>

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<sup>12</sup> The instruments include the lagged value of the variable, taxes on trade as a percentage of revenues, and primary products as a percentage of total exports; and the current rate of growth of the OECD countries. Entered into a fixed effects of regression, this set of instruments is significantly related to the current level

Table 8: Covariates of Militarization  
(Pooled Sample)

	Coefficient	Std. Error	t-statistic	P> t
Revenues	-0.099	0.037	-2.696	0.009
Revenues2	0.001	0.001	1.594	0.117
No-Party	-0.742	0.382	-1.941	0.052
One-Party	-1.158	0.515	-2.249	0.025
<i>Duration</i>				
No-Party	0.112	0.033	3.431	0.001
One-Party	0.078	0.031	2.489	0.013
Competitive	-0.004	0.043	-0.085	0.932
Petroleum	0.005	0.005	0.997	0.319
Petroleum2	-7.00E-06	6.31E-06	-1.115	0.265
Time Since				
Last Report	-0.1839	0.039	-4.73	0

Note a: From

D://Summer\_Paper/Violence/Final\_Models\_Core\_Xsec.log

Note b: Collapsed states and non-independent states dropped from sample.

Table 9: Covariates of Militarization, With Estimated Revenues  
(Pooled Sample)

	Coefficient	Std. Error	t-statistic	P> t
Estimated				
Revenues	-0.168	0.114	-1.472	0.165
Estimated				
Revenues2	0.002	0.003	0.501	0.621
No-Party	-0.667	0.408	-1.636	0.102
One-Party	-0.997	0.528	-1.887	0.059
<i>Duration</i>				
No-Party	0.1223	0.032	3.842	0
One-Party	0.086	0.032	2.679	0.008
Competitive	0.026	0.046	0.563	0.573
Petroleum	0.005	0.005	1.087	0.277
Petroleum2	-7.30E-06	6.57E-06	-1.111	0.267
Time Since				
Last Report	-0.177	1.047	1.638	0.125

Note a: From D://Summer\_Paper/Violence/Final\_Models\_Core\_Hat\_Xsec.log

Note b: Collapsed states and non-independent states dropped from sample.

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of government revenues (overall  $R^2 = 0.89$ ) but not to the presence of domestic military groups (overall  $R^2 = 0.007$ ).

Table 10: Covariates of Militarization  
(Fixed Effects)

	Coefficient	Std. Error	t-statistic	P> t
Revenues	-0.044	0.043	-1.015	0.315
Revenues2	0.001	0.001	1.055	0.297
No-Party	-1.196	0.607	-1.972	0.049
One-Party	-2.399	0.726	-3.304	0.001
<i>Duration</i>				
No-Party	0.014	0.041	0.344	0.731
One-Party	0.178	0.05	3.528	0
Competitive	0.085	0.125	0.677	0.498
Petroleum	0.015	0.007	2.018	0.044
Petroleum2	-1.60E-05	7.01E-06	-2.327	0.02
<i>Time Since</i>				
Last Report	-0.016	0.035	-0.461	0.645

Note a: From

D://Summer\_Paper/Violence/Final\_Models\_Core\_FE.log

Note b: Collapsed states and non-independent states dropped from sample.

Table 11: Covariates of Militarization, With Estimated Revenues  
(Fixed Effects)

	Coefficient	Std. Error	t-statistic	P> t
Estimated				
Revenues	-1.536	0.131	-1.164	0.264
Estimated				
Revenues2	0.002	0.003	0.698	0.49
No-Party	-1.162	0.613	-1.895	0.058
One-Party	-2.286	0.734	-3.113	0.002
<i>Duration</i>				
No-Party	0.034	0.042	0.807	0.42
One-Party	0.18	0.051	3.549	0
Competitive	0.093	0.125	0.745	0.456
Petroleum	0.015	0.007	2.186	0.029
Petroleum2	-1.60E-05	6.55E-06	-2.477	0.013
<i>Time Since</i>				
Last Report	-0.011	0.036	-0.303	0.762

Note a: From D://Summer\_Paper/Violence/Final\_Models\_Core\_Hat\_FE.log

Note b: Collapsed states and non-independent states dropped from sample.

Tables 12-15 repeat these estimates while including the classic set of modernization variables – INCOME, LITERACY and URBANIZATION; measures of shocks – short term GROWTH, DROUGHT, and national ELECTIONS; and the level of

conflict among NEIGHBORS as well as the percentage of the nations population that belong to ethnic groups that CROSS national boundaries. For present purposes, adding these variables provides a check for the robustness of the theoretical variables. In the second equation in each table, the variable MODERNIZATION replaces the measures of income, literacy, and urbanization. Based on a factor score generated from an unrotated principal components analysis of those three variables, it provides a summary measure of the level of social and economic development and a check against estimating misleading coefficients as a result of colinearity. In all of the fixed effects estimates, the country dummies remain jointly significant, even when these controls are entered into the equation.

Table 12: Covariates of Militarization  
(Pooled Sample)

	Equation 1				Equation 2			
	Coefficient	Std. Error	t-statistic	P> t	Coefficient	Std. Error	t-statistic	P> t
Income	-0.464	0.551	-0.841	0.401				
Literacy	-0.008	0.009	-0.839	0.401				
Urban								
Population	0.001	0.017	0.036	0.972				
Modernization					-0.386	0.342	-1.127	0.26
Growth	-0.033	0.017	0.036	0.972	-0.035	0.011	-3.363	0.001
Drought	-0.878	0.439	-2.002	0.046	-0.902	0.435	-2.075	0.039
Elections	-0.586	0.236	-2.487	0.013	-0.592	0.234	-2.532	0.011
Revenues	-0.135	0.038	-3.594	0	-0.135	0.0367	-3.673	0
Revenues2	0.002	0.001	2.92	0.004	0.002	0.001	2.981	0.003
Petroleum	0.01	0.006	1.68	0.093	0.01	0.006	1.718	0.086
Petroleum2	-1.20E-05	7.19E-06	-1.639	0.101	-1.20E-05	7.21E-06	-1.678	0.093
No-Party	-0.913	0.422	-2.16	0.031	-0.923	0.423	-2.184	0.029
One-Party	-1.398	0.495	-2.825	0.005	-1.391	0.506	-2.751	0.006
<i>Duration</i>								
No-Party	0.094	0.045	2.11	0.035	0.095	0.044	2.169	0.03
One-Party	0.0315	0.04	0.789	0.43	0.032	0.04	0.79	0.429
Competitive	-0.0345	0.054	-0.646	0.052	-0.037	0.055	-0.669	0.503
Neighborhood	0.348	0.164	2.12	0.034	0.3102	0.163	1.903	0.057
Cross-Border	0.3686	0.288	-1.282	0.2	0.29	0.266	-1.09	0.276

Note: From D:\book\_04\DMG\_Core\DMG\_Core\_Miest\_New\_Oilcap

Table 13: Covariates of Militarization Using Estimated Values  
(Pooled Sample)

	Equation 1				Equation 2			
	Coefficient	Std. Error	t-statistic	P> t	Coefficient	Std. Error	t-statistic	P> t
Income	-0.497	0.488	-1.019	0.308				
Literacy	-0.007	0.009	-0.774	0.439				
Urban								
Population	0.002	0.017	0.087	0.931				
Modernization					-0.395	0.348	-1.135	0.257
Estimated								
Growth	-0.043	0.068	-0.641	0.522	-0.05	0.07	-0.748	0.455
Drought	-0.954	0.464	-2.057	0.042	-0.937	0.455	-2.14	0.034
Elections	-0.521	0.229	-2.271	0.024	-0.524	0.227	-2.308	0.021
Estimated								
Revenues	-0.285	0.089	-3.202	0.002	-.283	0.088	-3.217	0.002
Revenues2	5.00E-03	2.00E-03	2.416	0.017	0.005	0.002	2.379	0.018
Petroleum	0.01	0.006	1.723	0.085	0.01	0.006	1.769	0.077
Petroleum2	-1.20E-05	7.54E-06	1.575	0.115	-1.20E-05	7.51E-06	1.616	0.106
No-Party	-0.7442	0.43	-1.732	0.083	-0.748	0.436	-1.716	0.086
One-Party	-1.362	0.534	-2.542	0.011	-1.359	0.545	-2.489	0.013
<i>Duration</i>								
No-Party	0.087	0.041	2.146	0.032	0.087	0.04	2.156	0.031
One-Party	0.047	0.044	1.084	0.279	0.048	0.044	1.098	0.272
Competitive	-0.027	0.055	-0.487	0.626	-0.029	0.056	-0.523	0.601
Neighborhood	0.32	0.168	1.908	0.056	0.284	0.163	1.74	0.082
Cross-Border	-0.332	0.291	-1.239	0.255	-0.25	0.262	-0.95	0.34

Note: From D:\book\_04\DMG\_Core\DMG\_Core\_Miest\_Hat\_New\_Oilcap

Table 14: Covariates of Militarization  
(Fixed Effects)

	Equation 1				Equation 2			
	Coefficient	Std. Error	t-statistic	P> t	Coefficient	Std. Error	t-statistic	P> t
Income	2.044	0.839	2.438	0.024				
Literacy	0.085	0.0381	2.233	0.026				
Urban								
Population	-0.052	0.057	-0.916	0.36				
Modernization					2.473	0.905	2.733	0.007
Growth	-0.03	0.013	-2.261	0.025	-0.026	0.011	-2.296	0.023
Drought	-0.185	0.787	-0.235	0.819	-0.161	0.772	-0.208	0.839
Elections	-0.69	0.342	-2.017	0.045	-0.677	0.333	-2.033	0.043
Revenues	-0.072	0.048	-1.515	0.14	-0.051	0.047	-1.088	0.283
Revenues2	0.001	0.001	0.598	0.554	0	0.001	0.312	0.757
Petroleum	0.015	0.008	1.894	0.058	0.013	0.008	1.561	0.119
Petroleum2	-1.80E-05	8.42E-06	-2.166	0.03	-1.60E-05	9.02E-06	-1.803	0.071
No-Party	-6.04	0.603	-1.001	0.317	-0.449	0.536	-0.838	0.402
One-Party	-2.016	0.752	-2.683	0.007	-1.789	0.779	-2.297	0.022
<i>Duration</i>								
No-Party	0.018	0.061	0.292	0.771	-0.009	0.043	-0.215	0.83
One-Party	0.161	0.053	3.054	0.002	0.156	0.048	3.228	0.001
Competitive	-0.007	0.12	-0.059	0.953	-0.002	0.12	-0.019	0.985
Neighborhood	0.09	0.242	0.0372	0.71	0.135	0.202	0.665	0.506
Cross-Border	-0.031	0.0466	-0.675	0.5	-0.039	0.041	-0.949	0.343
Time Since Last Observation	0.003	0.036	0.087	0.931	-0.002	0.038	-0.056	0.956

Note: From D:\\Summer\_Paper\\Violence\\Dropped\_Runs

Table 15: Covariates of Militarization Using Estimated Values  
(Fixed Effects)

	Equation 1				Equation 2			
	Coefficient	Std. Error	t-statistic	P> t	Coefficient	Std. Error	t-statistic	P> t
Income	1.699	0.87	1.952	0.06				
Literacy	0.093	0.039	2.406	0.016				
Urban								
Population	-0.062	0.056	-1.095	0.273				
Modernization					2.374	0.933	2.545	0.012
Estimated								
Growth	-0.097	0.092	-1.049	0.295	0.094	93	-1.012	0.312
Drought	-0.874	0.994	-0.879	0.385	-0.847	1.001	-0.841	0.405
Elections	-0.831	0.334	.2.488	0.013	-0.788	0.325	-2.423	0.015
Estimated								
Revenues	-0.206	0.128	-1.613	0.124	-0.184	0.125	-1.474	0.157
Revenues2	0.002	0.128	0.688	0.497	0.02	0.003	0.684	0.498
Petroleum	0.014	0.008	1.816	0.07	0.012	0.008	1.552	0.121
Petroleum2	-1.50E-05	7.57E-06	-1.991	0.047	-1.40E-05	7.89E-06	-1.716	0.086
No-Party	-0.425	0.622	-0.688	0.497	-0.263	0.551	-0.477	0.633
One-Party	-1.821	0.718	-2.535	0.011	-1.591	0.741	-2.147	0.032
<i>Duration</i>								
No-Party	0.02	0.063	0.323	0.747	-0.002	0.048	-0.045	0.964
One-Party	0.152	0.055	2.753	0.006	0.152	0.05	3.02	0.003
Competitive	0.022	0.123	0.18	0.857	0.026	0.12	0.216	0.829
Neighborhood	0.006	0.038	0.156	0.876	0.157	0.173	0.905	0.365
Cross-BorderX								
Neighborhood	-0.039	0.043	-0.892	0.372	-0.048	0.036	-1.328	0.184
Time Since								
Last								
Observation	0.006	0.038	0.156	0.876	-0.002	0.04	-0.039	0.969

Note: From  
D:\Summer\_Paper\Violence\Dropped\_Runs\_Hat

Recall that our reasoning suggests that the magnitude of government revenues should bear a negative relationship with the likelihood of civic re-armament, but that when “too high,” the relationship should reverse: excessive taxation should undermine the political contract between private citizens and the state. In *all instances* the signs of the coefficients are as expected. While the standard errors of the coefficients estimated from the pooled sample impart confidence in the argument, those for the coefficients

estimated in models that include fixed effects do not. Levels, not differences, bear significant relationships with the likelihood of the formation of private militias. Note that the coefficients for the estimated level of government revenues is greater than that of the “raw” variable, suggesting that government revenues do indeed respond negatively to increased levels of political threat. When the conventional control variables are entered into the model, the instrumented value of the revenue measure becomes statistically significant in estimates derived from the pooled sample (see Table 13).

By the logic of our argument, governments that are certain of positive economic prospects even in the midst of political disorder will be tempted to behave in ways that increase insecurity, thus increasing the likelihood of popular re-armament. The sign and significance of the coefficient on PETROLEUM lends mixed support to our reasoning, with the coefficient being significant in the fixed effects models but not in estimates drawn from the pooled sample. When controls are introduced, however, the coefficient on PETROLEUM exhibits the proper sign and attains statistical significance even when estimated from pooled samples.

It should be noted and stressed that the relationship between PETROLEUM and the likelihood of domestic militarization may not be robust. There are but ten petroleum producers in the data set and only five of major consequence: Nigeria, Congo, Cameroon, Gabon and Angola, with Nigeria being by far the largest. Using total production renders the estimates sensitive to the characteristics of but a few countries and one major outlier. The same is true if per capita figures are employed, with Equatorial Guinea then becoming the outlier. Given the possible leverage that extreme values can have on estimates, the finding of a significant relationship between petroleum exports and state

failure must be treated with caution (see also (Fearon Forthcoming). Another reason for skepticism is that the relationship is not robust for the change in indicator. Measures of the importance of other natural resources – the value of diamond exports or the share of primary products in total exports – do not significantly relate to the likelihood of a report of a private militia. And while the share of metals in total exports occasionally assumes a statistically significant relationship with the likelihood of state failure, the sign is the opposite of that expected: in several specifications, the greater the magnitude of metal exports, the lower the likelihood of the report of a private army.

Lastly, recall the importance of the discount rate: insofar as executives have reason to fear future political chaos, they will behave in ways that enhance collective security. Should they find themselves at political risk, however, and their prospects in office less certain, they will then place less weight on future losses and more readily succumb to present temptations.

Over the course of the sample period – 1970-1995 – the greatest challenge to incumbent elites came from democratic reforms. With the turn to democracy, elites that once faced no organized competition now had to face competitors for office. The level of political insecurity rose and, by our reasoning, so too the likelihood that the government would engage in predation. As seen in Tables 8-15, this implication is strongly supported by the data. In virtually every specification, the coefficients on the NO-PARTY and ONE-PARTY variables are negative and significant. As the dummy for COMPETITIVE political systems is lodged in the intercept term, the coefficients estimated from the pooled data indicate that single or no-party systems provide a higher level of political security than do competitive party systems. For their part, the coefficients in the fixed

effects models indicate that moving from a no- to single-party system to a competitive party system increases the likelihood that civic society will take up arms.

Two additional features of the data on political systems merit comment. The first is the coefficient on ELECTIONS, one of the variables introduced to control for the impact of shocks. The variable takes on the value 1 the year before a national election. In this instance, we ruled out the use of lagged values for the independent variable because we would then be excluding data from precisely the cases of greatest interest: authoritarian regimes that were adopting democratic practices. The coefficient of the variable is negative: during the run up to elections, the presence of armed groups is *less* frequently reported.<sup>13</sup>

Note that when this variable is introduced into the models, the coefficients on the no- and single-party variables remain statistically significant and negative in sign; if anything, they tend increase in magnitude. Clearly the inclusion of this measure fails to reduce the impact of political competition on the likelihood of militarization. Clearly too the link between political reform and political insecurity cannot run through political campaigns. Because this finding excludes a plausible alternative explanation for the relationship between competition and conflict, it enhances the credibility of our account, which runs through the impact of competition on the conduct of the incumbent regime.

## **Returning to Case Materials**

The logic of the model generated expectations of relationships between the value of natural resources in Africa's economies, the level of government revenues, and political

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<sup>13</sup> When a dummy variable for contemporaneous or past elections was entered into the equations, the coefficients proved insignificant.

reform, on the one hand, and the capacity of governments to claim a monopoly over force on the other. The statistical results largely support these expectations (although legitimate questions can be raised about those relating state failure to the importance of natural resources). To deepen our understanding of these relationships, we return to qualitative materials. Doing so enables us to locate more precisely the mechanisms that underlie these relationships and to grasp more fully the calculations that inform the choices of specialists in violence and of the citizens whom they rule.

### ***Revenues***

The logic of state failure suggests that specialists in violence can transmute force into security; but they need to be paid to do so. If the flow of earnings from the provision of this service are worth less than the immediate benefits from predation (less the subsequent losses from state failure), then they will instead use force to engage in predation, rendering the citizenry less secure and more likely to pick up arms. The empirical evidence lends support to this argument. When public revenues fall, people behave as if less secure: there is a negative relationship between public revenues and the likelihood of reports of private militias. When we turn to the qualitative literature, we see that the causal link between public revenues and civic militarization can run along several paths.

One is through the non-payment of the military. Rather than paying their salaries, some governments instead accumulate arrears. This form of non-payment characterizes the francophone states, which are unable to monetize their debts. Decalo discusses the example of Benin ((Decalo 1997), p. 11); O'Toole the case of the Central African

Republic (O'Toole 1997); Yates the case of Gabon (Yates 1996); and Mundt (Mundt 1997), Hills (Hills 2000), and Hubband (Hubband 1998) the example of the Ivory Coast. In each instance, non-payment resulted in riots and looting and in several attempted coups. Outside of the Franc zone, non-payment takes another form; the erosion of the real value of the soldiers' pay. Where central banks are able to lend to governments so that they can pay their debts, then governments can renege on those debts by increasing the supply -- and thus lowering the value -- of their currencies. Perhaps the best example comes from Zaire.<sup>14</sup> When in 1993 Mobutu tried – once again - - to pay his debts by issuing bank notes, his soldiers at last refused to accept them. They rebelled, refused payment and turned to looting.

When left unpaid by their governments, specialists in violence can then pay themselves. As stated by Kasozi (Kasozi 1994), in Uganda in the 1980s,

Any soldier who needed money ... would just pick an isolated ... part of the road, put logs or chains across it, and wait for unfortunate travelers. These twentieth century highwaymen would rob anyone of anything they fancied: cash, watches, cassette radios, clothes, and the like p. 164.

When provoked, they can loot, as in Kinshasa in 1993 (Nzongola-Ntanlaja 2002), Brazzaville in 1994 and 1997 (Bazenguissa-Ganga 2003), or Lome in 1992 (Hills 2000). Alternatively, they can extort. General Kpama Baramoto, commander of the Civil Guard in Zaire, levied a toll on mineral and diamond production in Eastern Zaire, issued trading

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<sup>14</sup> Among the numerous accounts, see Nzongola-Ntanlaja, G. (2002). The Congo from Leopold to Kabila. London, Zed Books.

licenses, and, for turning a blind eye, took payments from smugglers ((Pech 2000); (Macgaffey 1987), pp. 60-62). Or, as in Liberia, they can turn into “sobels”: soldiers by day, rebels by night, thus enjoying the non-monetary perquisites of public employment, such as housing, and the financial rewards of rebellion: ransoms, loot, and plunder ((Howe 2000), p. 57; see also (Ellis 1999)).

Soldiers possess another option, of course, and that is themselves to seize power over the state, and thus the power to set their own conditions of service. To illustrate the mentality underlying the making of military coups, consider the memoirs of one James Waore Dianga, a junior officer who helped to launch the attempt to overthrow the government of President Moi in August 1982. “A soldier,” he writes, signs a contract with the State ... The soldier, on his/her part, is under oath to defend the State.... The government enters into an agreement ... to supply the soldier” (Dianga 2002), pp. 48-49. Dianga and his colleagues witnessed a decline in the ability or inclination of the government to provide equipment that worked, uniforms that fit, housing that was adequate, or food that was palatable – and pay that would enable the soldiers to live in reasonable comfort. While the soldiers fell into poverty, officers and politicians appeared to prosper. The declining fortunes of the soldiers broke the letter and the rising fortune of the President’s cronies violated the spirit of the contract between the soldiers and the state, Dianga writes. In response, the soldiers rebelled, threatening Kenya’s security.

Thus far we have remained within the logic of our model. To trace a second link between public revenues and state failure, we make use of an alternative framework. As seen in Figure 2, we locate the ideal point of the government on the left (marked ‘C’ for

center) and that of a key group or region on the right (marked 'R' for region). The distance between them can stand for physical distance or differences in taste. The government provides a local public good ( $\lambda_c$ ), which it can place anywhere on the line spanning the ideal points. We can represent the preferences for this public good as quadratic loss functions that are convex to the ideal points; when a good is located at a given point, a person's sense of loss increases with the distance to her ideal point. Given the location of its ideal point, the government would therefore prefer to place the good on the left-most portion of the line, while the others would be happiest were it to locate that good on the end point on the right.

Assume that the group not in the government possesses another option, i.e. that it need not remain a member of this polity but could instead secede. To capture this possibility, we introduce **P**, a vertical line that represents the group's participation constraint. Failing to receive a level of satisfaction of P or more from the government, the group would then withdraw.

Within this framework, the government's problem is to maximize the utility of its political base without provoking defection of this key group. One solution is to locate the public good at its ideal point while compensating the key group by supplying it with private transfers. Evidence that governments adopt this tactic comes from Catherine Boone (Boone 2003) who argues that political order in Cote d'Ivoire was founded on a series of pacts negotiated between regional elites and the center. Among the most important was that which incorporated the Senoufo, a traditional state located in the north. Following independence, however, the north became increasingly restive. "The complaint of the north was that their region was impoverished and relegated to backward

political status ...,” Boone writes (2003), p. 263. To counter mounting discontent in the region, Houphouet-Boigny, President of Cote d’Ivoire, launched “a massive infusion of resources” (Ibid.) in the region: a series of development projects that led to the opening of parastatal agencies, the construction of roads, and the founding of cotton and livestock industries. While concentrating an intensive flow of benefits in the region, the government took care to incorporate the ruling clans of the Senoufo and the most influential personages in the region into the agencies that managed these programs ((Boone 2003), pp. 267ff).

The problem with this tactic is, of course, that it is risky: should revenues fall, then the government may be unable to fulfill the key group’s participation constraint. The group may then start to organize its own government, including security services.<sup>15</sup>

Returning to the case of the Ivory Coast, we learn that by the late 1970s it confronted the limits of its ability to finance development programs (Rapley 1993) The center could no longer credibly pledge to offset the peripheral status of the north by targeting it with projects. The north therefore began to mobilize against the center. In the confrontations that broke out after the death of Houphouet-Boigny, the forces of the north gathered about Allasane Outtara: once prime minister, he now sought to become

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15 This argument draws on the logic of the “security dilemma” that pervades multi-ethnic societies (see the argument of Posen, B. (1993). "The Security Dilemma and Ethnic Conflict." *Survival* 35(1): 27-47.

, Fearon, J. D. (1998). Commitment Problems and the Spread of Ethnic Conflict. *The International Spread of Ethnic Conflict*. D. A. Lake and D. Rothchild. Princeton, Princeton University Press.

. It also echoes what is advanced by Acemoglu and Robinson (2001). "A Theory of Political Transitions." *American Economic Review* 91: 938-63.

, Robinson, J. and D. Acemoglu (Forthcoming). *The Political Origins of Democracy and Dictatorship*.

, as they strive to identify when political order will give way to conflict or persist because of reform. It parallels most closely, however, the analysis of Jean-Paul Azam (2003). "Civil War and the Social Contract." *Public Choice* 115: 455-475.

, who strive to explain the disintegration of Cote d’Ivoire.

President. Led by Laurent Gbagbo, southern politicians rallied to check the rise of Outtara, portraying him as a non-national and therefore ineligible for high office. The courts agreed. And following a coup by soldiers whom the government had failed to pay, the political parties organized by the leaders from the two regions drew into their ranks disaffected military units. They formed their own armies. And Cote d'Ivoire – like its neighbors to the west – Liberia and Sierra Leone – slid into war.<sup>16</sup>

Regional tensions mark the political economy of many nations in Africa. Given divergent preferences over public goods, it is costly for governments to meet the aspirations – or to fulfill the participation constraints – of key groups of citizens. Given the limited revenues that governments can command, rulers face the prospect that regions might therefore rebel. And regional elites face the possibility that national governments might find it cheaper to suppress them than to accommodate their demands. The result is political insecurity.

### ***Democratization***

In probing the link between political reform and political conflict, we can turn to Sierra Leone, another of West Africa's failed states. Many accounts of political conflict in Sierra Leone begin with the 1991 invasion of the Revolutionary United Front (RUF). But others, especially scholars from Sierra Leone, start their accounts earlier and in particular with the violence surrounding the attempts of the All People's Congress (APC) to consolidate its hold on power by crushing the political opposition.

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<sup>16</sup> The split between the north and south was not the sole line of cleavage, it should be stressed. Particularly within the south, major animosities set the western regions against those of the east.

In the 1970's, the APC faced electoral challenges from its traditional rival, the Sierra Leone People's Party (SLPP) and from dissidents disillusioned by the economic decline in Sierra Leone during the years of APC hegemony and by the rising wealth of those who held power. In the elections of that period, APC responded violently to these threats to its power. In a manner that foreshadowed later efforts in Zimbabwe and Rwanda, the governing party mobilized not only the APC youth league and party organizers but also the administration and military forces of the government that it controlled. It disrupted the rallies of the opposition parties, beat up its organizers, and sought to prevent its candidates from filing their papers, gaining access to the media, or meeting with their constituents. As stated by a prominent member of the opposition, the APC

had no support in the East. So how were they going to win? They knew they would win in the North and Western areas, but not in the East. Parliament would then be balanced between the two parties. They wanted to win, so there was violence (quoted in (Hayward and Kandeh 1987), p. 50.<sup>17</sup>

Fear of the loss of power also underlies the violence that broke out in Kenya following the end of single party rule in 1991. In a remarkable study, Kimenyi and Ndung'u (Kimenyi and Ndung'u Forthcoming) analyze in detail patterns of armed

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<sup>17</sup> See also Barrows, W. (1976). Grassroots Politics in an African State. New York, Africana Publishing. , Abdullah, I., Ed. (2004). Between Democracy and Terror. Dakar, CODESRIA. , Kandeh, J. D. (2004). In Search of Legitimacy: The 1966 Elections. Between Democracy and Terror. I. Abdullah. Dakar, CODESRIA.

conflict in Kenya in the early 1990s. Dismissing a variety of other explanations, they turn instead to politics: “the main motivation behind the violence,” Kimenyi and Ndung’u write, “was to influence voting in favor of the incumbent” p. 326.

Kimenyi and Ndung’u focus primarily on the Rift Valley, the political heartland of the incumbent President, Daniel arap Moi, and his inner circle. The Valley contained 44 of the 188 Parliamentary constituencies. As the President could fill 12 other seats with nominees of his own, could he consolidate his political base, he would be assured close to 30% of the Parliamentary seats even before the outset of the campaigns. But ethnic groups from other regions had migrated into the Rift Valley in search of land; and they tended to vote for the political parties that they had supported in their place of origin, which in key instances stood in opposition to the KANU government. The president and his backers, Kimenyi and Ndung’u claim, therefore launched a program of political intimidation.<sup>18</sup> Organizing private militias, they invaded settler communities, beat and killed their residents, drove off their livestock, and burnt down *dukas*, schools, and homes. Once the unchallenged leader of a single-party system, the President now had to compete for power against an organized opposition. Fearing the loss of power, the incumbent turned predatory and used force to violate, rather than to safeguard, the security of citizens.

To be noted is that it is not electoral competition itself, it would appear, that leads to state failure. As underlined by the empirical findings above, most elections do not

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<sup>18</sup> For confirmation of this account, see as well Kenya, R. o. (1992). Report of the Parliamentary Select Committee to Investigate Ethnic Clashes in Western and Other Parts of Kenya. Nairobi, Government Printer.

, Watch, H. R. W. A. (1993). Divide and Rule: State Sponsored Ethnic Violence in Kena. New York, Human Rights Watch.

And Hempstone, S. (1997). Rogue Ambassador. Sewanee, University of the South Press.

result in the taking up of arms; they instead appear to induce demobilization. Rather, it is the prospect of the loss of power that appears to trigger the militarization of political life. When incumbents sense that they will lose in open competition, they then mobilize the power of the state to defeat their challengers. In the apt phrase of Keen, there is then an “elite backlash” against democratization (Keen 2000), p. 24. And civic society – and in particular that portion opposing the incumbent regime – becomes more likely to take up arms in order to secure life and property.

### ***Petroleum Production***

Turning to the last major variable, the value of natural resources, we focus in particular on petroleum and on perhaps the earliest instance of state failure in Africa: the civil war in Nigeria. Among the issues that motivated the people of eastern Nigeria to take up arms against the central government in 1967 was their demand for control over petroleum deposits in the region (Khan 1994). According to the terms of the Aburi agreement negotiated by Colonels Chukwuemeka Odumegwo Ojukwi and Yakuba Gowon, representing the Eastern Region and Central Governments respectively, the East would remain within Nigeria were the nation structured as a confederation – one in which the East would retain control over its petroleum resources. The Central government refused to ratify this agreement, however, largely (in the words of (Khan 1994), p. 10) because of “the issue of oil revenue distribution.”

With the breakdown of negotiations came the outbreak of the war. Taking the oil fields was the Central Government’s primary military objective ((Dudley 1982), p. 113). Once a commander of central government forces during the war, Olesgun Obasanjo still

fighters for control over Nigeria's petroleum deposits. Now President of Nigeria, he has again moved troops to the oil-producing regions, seeking to repress rebels who, for their part, seek to check his attempts to seize the resources of their region on behalf of the central government (*New York Times* 30 September 2004, p. A11).

A similar narrative characterizes the Sudan. The Central Government and Southern Region had long struggled over issues as common place as political preferment and administrative primacy and so heated and volatile as religion and slavery. Fanned by a mutiny of southern units of the armed forces, shortly after independence, these issues led to the outbreak of war. A series of compromises led in 1972 to the reintegration of the south into the nation and of its political leadership into national politics. But in 1980 came reports of the discovery of oil deposits in the northern reaches of the southern region. At the behest of Hassan al-Tourabi – attorney general in the national government and the leader of the National Islamic Front – the national assembly then altered the regional boundaries, separating the oil fields from the south and placing them under *de facto* control of the central government by locating them in the north. The sequestering of the oil fields, the postponement of development projects, the marginalization of its leaders in national politics, and the imposition of Sharia law in the north, where many southerners lived – each represented an attack on the interests of the south. In 1983, war broke out again (Mitchell 1993; Ali and Matthews 1999; Johnson 2003) (Woodward 1995; de Waal 1997)).

Combining these narratives with those for other cases – such as Zaire with its minerals; Ghana, with its forests; or Angola, with its oil and diamonds – suggests a pattern: forces at the center mobilize their political and military might to capture the

stream of income that emanates from Africa's natural resources while those who dwell in the region themselves lay claim to that income, backing up their claims by taking up arms.

The evidence suggests an additional link between resource wealth and state failure. It suggests that when the center succeeds in appropriating the wealth generated by natural endowments, the government no longer strives to provide services for its citizens. Recoded in terms of our analysis, the political contract appears then to break down: the specialist in violence no longer needs to exchange services for tax payments.

In tracing the roots of Liberia's descent into civil war, Amos Sawyer – once an opponent of the government of William Tolbert and later himself Liberia's president – points to the growth of government revenues from natural resources and its impact on the government's behavior: “iron ore royalties and other forms of business, especially multinational corporations, relieved the government from reliance on hut taxes,” he writes, and “the government thus gained sources of income independent of the performance of its ... administrative apparatus...”(Sawyer 1992), p. 10. The result, in Sawyer's words, was the “emergence of autocracy”: a presidency that ruled the country as a “personal domain” (Ibid.). Cilliers notes a similar pattern in Angola, where the revenue-sated political elites have retired to the Presidential mansion, leaving it to the people themselves to provide their own health care, sanitation, housing – and security (Cilliers 2000). Cilliers (2000), like others (e.g. (Hodges 2001), underscores the disparity between the level of public services and the private incomes of those who job is to provide them. Returning to Nigeria, we can turn as well to the comments of Bill Dudley

(Dudley 1982): “the oil boom,” he writes, “was a disaster...” – one made worse by military rule. As Dudley states:

Under military rule, with no constituents to conciliate and no electorate to be accountable to – in however weak a sense one interprets the notion of accountability – the effect of the oil boom was to convert the military political decision makers into a new property-owning, rentier class working in close and direct collaboration with foreign business interests with the sole aim of expropriating the surpluses derived from oil for their own private benefit (Dudley 1982), p. 116.

Temptation, deviation, and the abandonment of behaviors consistent with the terms of the political contract: through the use of qualitative materials we see the linkages between petroleum production and political order. Note the difference with other accounts, which stress the attempts by local level militias to seize these assets. While valid, they omit the broader political story: the struggle over the locus of power and whether it is to reside in the center or the region of the state. Conflicts over resources, we learn, become wars when the impact upon the structure of institutions, not just the allocation of wealth. And it is not just redistribution that triggers such conflicts; it is also the impact of resources upon the incentives of those who govern. If they can secure a sure flow of income from natural resources, they appear ready to abandon costly efforts to provide security for their citizens and virtually to retire to lives of leisure midst the poverty and conflict that characterize failed states.

## **Conclusion**

In this chapter, I have probed the roots of political disorder. Taking counsel from theory and observations from contemporary Africa, I turned to the theory of games to determine the conditions under which governments would use force in ways that enhance rather than weaken personal security and under which citizens would set aside arms. The Weberian state, I argued, is not a given. It results when these choices form an equilibrium.

Testing the argument with data drawn from Africa, we conclude that the poverty of the state, the prospects of wealth from predation, and the fears arising from competition from office increase the likelihood that states will fail and political order break down.

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