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MINERAL RESOURCE ABUNDANCE AND VIOLENT POLITICAL CONFLICT:
A CRITICAL ASSESSMENT OF THE RENTIER STATE MODEL

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Introduction

Since the end of the Cold War, interest in analysing conflict in low and middle-income countries has expanded exponentially.¹ The demise of the Cold War inspired a new search for the causes of conflict in poor economies since it could no longer be claimed that wars in late developing countries were the result of ‘external’ conflict between superpowers. There has been a proliferation of research agendas and labels for conflict, which include the study of ‘civil wars’, ‘new wars’, intra-state conflicts, ‘complex emergencies’ and so on.² One of the more influential propositions of recent times is the so-called “resource curse” argument—the idea that abundance of natural resources causes poor growth, and raises the incidence, intensity and duration of conflict. While natural resource abundance has long been considered beneficial to economic and political development, the recent poor economic performance of oil exporters and the growing incidence of civil wars in mineral-rich economies has revived the idea that their resource abundance may be more of a curse than a blessing. The main model used to explain the mechanisms through which resource abundance generates negative outcomes is the rentier state model. The basic logic of this model is that large levels of natural resource rents relative to income generate disproportionate levels of rent-seeking. These supposedly increase the level of distributive conflicts, which increases both the incidence of civil war and levels of corruption. The rentier state model thus has two variants: first, mineral resource-rich late developers are more prone to violence; second, mineral-dominant economies generate higher levels of corruption and lower rates of long-run growth.

This paper critically examines the first variant of the rentier state model both on methodological and empirical grounds. The core argument of the first variant, which has been called “political Dutch Disease”, is that rentier state leaders, by relying on ‘unearned’ income (in the form of mineral rents and/or aid), do not develop a set of reciprocal obligations with citizens via the nexus of domestic taxation.³ The rentier state model has been useful in bringing issues of the source of taxation and resource mobilization back into a discussion of state capacity and accountability. The model also posits that the more leaders can finance state activities through ‘unearned’ income’, the more likely predatory behaviour, including violence, will follow. The policy implications that follow from this reasoning are that aid may fuel further violence and that natural resource (and particularly, mineral) extraction can promote violence in poor countries. Section 2 presents the main premises of the first variant of the rentier state model. Section 3 examines empirically the validity of the idea that

³ The economic concept of Dutch Disease refers to the potential negative effects natural resource windfalls and accompanying appreciations of exchange rates can have for the rest of the economy. One of the potential dangers of oil booms, for example, is that exchange rate appreciation renders the manufacturing sector less competitive and thus can generate de-industrialisation.
mineral-dominant poor economies generate significantly higher levels of political violence than non-mineral dominant poor economies. Section 4 provides a conclusion, suggestions for future research and some implications for policy.

**Rentier State and Political Violence**

For the rentier state theorists, the classification of a rentier economy, or a rentier state as a unit of analysis, is based on the World Bank classification of a mineral economy. From this perspective, a mineral economy is one where mineral production constitutes at least 10 percent of gross domestic production and where mineral exports comprise at least 40 percent of total exports. In this classification, Venezuela, for instance, can be considered a rentier state, or what Karl calls a ‘petro-state’, throughout the period 1930-1995. Mineral rich economies are considered distinct and thus defensible as a separate category of analysis by rentier state theorists because these economies generate natural resource rents that emanate from ‘point’ resources rather than from ‘diffuse’ resources such as land under small farms. Point rents, according to Auty, are associated with staples that are relatively capital-intensive and thereby concentrate ownership. ‘Point’ resources can include plantations where the crop requires immediate processing such as sugarcane. In contrast, where the staple or resource poses more modest investment barriers to entry, as with rice and maize, and some tree crops such as coffee and cocoa, the rents are likely to be more widely dispersed through the population. ‘Point’ resources are also similar in that they are ‘enclave’ industries in the sense that they generate fewer production, consumption and socio-economic linkages in poor economies than more ‘diffuse’ resources. Within this classification of point resource economies, oil economies are considered to be the proto-typical example. The main premise of the rentier state model of governance is that when states gain a large proportion of their revenues from external sources, such as resource rents, the reduced necessity of state decision-makers to levy domestic taxes causes leaders to be less accountable to individuals and groups within civil society. The theory of the rentier state develops two main strands. The first argument identifies a supposed mismatch between jurisdiction and authority, and develops the proposition that such a mismatch generates predatory states, greater distributional conflicts, and the militarization of politics, all of which increase the risk of civil war and humanitarian emergencies. The second argument is that the relatively higher level of rents generates greater levels of rent-seeking and corruption than in non-mineral economies. I will consider the first argument in this paper.

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One important version of the idea that rentier states generate greater violence has been developed by Mick Moore. The logic of Moore’s model is as follows. The core argument is that contemporary rentier states, by relying on ‘uneared’ income, do not develop a set of reciprocal obligations with citizens via the nexus of domestic taxation. Drawing on the work of Tilly, Moore compares the process of state formation in rentier states with the process of state formation in Europe. In the latter cases, state-making proceeded through two main processes: the threat of war through inter-state military competition; and an intrastate process of resource mobilization that involved explicit political bargains and relations between state rulers and interest groups. The latter process induced the creation of state-society links, markets, and bureaucratic capacity, including tax collection capacity. In the process of ‘war making states’, the nature of states changed. State leader’s despotic power was reduced, but their infrastructural power (capacity to penetrate society, to extract resources from it and cooperate with social classes to achieve collective goals) increased. The interpretation that Moore, and others such as Karl and Reno, draw from this historical period is that the emergence of representative government, and more generally, of interdependence and mutual obligation and accountability between states and citizens is more likely when there are incentives and mechanisms for states to increase their revenues through domestic taxation, which, in turn, requires political bargaining with citizens.

Moore argues that the mechanisms through which state formation takes place in the poorest late developers, particularly in sub-Saharan Africa, are very different from the European experience analyzed by Tilly. For one, states in sub-Saharan Africa have not been established by inter-state warfare, which rules out the possibility that external threat and Darwinian competition will shape state formation. After 1945, legitimate successors to colonial rule were sufficient grounds for recognition of borders by the international community.

However, the main difference, in contemporary late developers is the much greater availability of uneared income in the form of aid flows and mineral rents, which according to Moore generates a series of outcomes that worsens governance and increases the risk of political violence. The first outcome of increased uneared income is a growing independence of states from citizens. This increased autonomy of states from citizens can increase the ability of state leaders to act in predatory ways, or at the very least reduces the need for state leaders to develop long-run political bargains with interest groups. This, in turn, makes taxation and revenues more unpredictable, which may increase arbitrary confiscation when volatile mineral rents suddenly collapse. The second retarding effect on state capacity of uneared income is the decline in bureaucratic capacity. With little bureaucratic presence in tax collection and limited information about what goes on at the grassroots level, states may be vulnerable to organized predators including guerrillas and private armies. The third way mineral rents can aggravate the predatory nature of states is via the relative ease with which coercion can be purchased. Compared to 17th century Europe,
mineral wealth provides financing possibilities for purchasing arms, which has become a more accessible market in the post-Cold War period. This reduced need for more labour-intensive military operations supposedly increases the independence of state leaders from making bargains with a wider section of the citizenry. The risk of predation is thus increased in rentier states by the growing power of states vis-à-vis society and may lead to an increase in the militarization of politics.

Supporters of the rentier state model suggest that reducing a state’s ‘unearned income’ from either mineral rents or international aid will enhance the prospects of peace. Policy recommendations include either reducing the levels of international aid and/or monitoring aid more effectively through conditionality, or avoiding extractive industries altogether and concentrating efforts in order to diversify mineral-dominant economies towards agriculture and manufacturing.

There are several assumptions in the rentier state model that drive the results. First of all, leaders are implicitly assumed to “own” the natural resources, that is, they are assigned the ‘property rights’ over resources. How rulers appropriate and maintain power is not adequately analysed. By assigning “rights” to leaders (whether in the state or civil society), the whole problematic of how “common pool resources” are managed is neglected, when the real problem of common pool resources is, in fact, analysing the processes through which rights are assigned, enforced, maintained and changed. In other words, it is assumed that there are no collective actors within the society that can impose some domestic conditionality on how those who occupy the state exercise their power.

Second, leaders are assumed to have predatory as opposed to developmental aims. The neglect of the political processes through which a leader appropriates power limits our understanding of the motivations of state leaders. The state is not a thing, such as ‘a predator’, but a set of social relations. The existence of natural resource abundance does not preclude the possibility that state leaders share income from resource rents with groups that comprise their political support base. Even if it is assumed that the leader has absolute power and is thus the ‘owner’ or ‘residual claimant’ in an economy, it does not necessarily follow that leaders will act in predatory ways. Following Olson, a leader that has a long time horizon, what he calls a ‘stationary bandit’, has the incentive to maximise the rate of economic growth as this will maximize the resources accruing to the state in the long-run. A dictator who does not have to tax citizens to maintain power, still can rationally have developmental as opposed to predatory motivations. Predatory behaviour on the part of leaders - that is, making money out of perpetuating civil war - cannot be assumed or simply described, but needs to be explained. Predation will occur as a consequence of the failure to adopt much more lucrative and broad-based legitimacy-enhancing developmental aims. The decision of leaders to purposefully engage in rapacious acts to accumulate capital thus assumes that they have made a prior decision that long-run economic development is either

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15 M. Ross, ‘How Does Natural Resource Wealth Influence Civil War?’ Mimeo, Department of Political Science, UCLA (mross@polisci.ucla.edu), 2001a.
17 In the neoclassical theory of the firm, the residual claimant refers to the firm owner (A. Alchain & H. Demsetz, Production, Information Costs, and Economic Organization, American Economic Review, 62, 1972). The firm owner in this theory is assigned the right to appropriate the residual, that is, profits, of the firm’s team production. According to this theory, private ownership of firms provides the incentives for owners to monitor team production efficiently.
undesirable or politically and/or economically infeasible. However, the conditions under which predatory behaviour dominates developmental behaviour in a mineral-dominant economy is not addressed in the rentier state model.

Apart from Moore’s historical political economy perspective on the violence-inducing effects of predatory rentier states, mainstream economic analyses have also recently proposed that presence of mineral resource wealth increases the incidence, duration and intensity of civil wars.\(^{19}\) There are two mechanisms proposed about how this may occur. The first is a “looting” mechanism proposed by Collier and Hoeffler. If rebel organizations have the opportunity to extract and sell resources (or extort money from those who do), then they are more likely to launch a civil war.\(^{20}\) Collier and Hoeffler note that natural resources offer rebel groups a funding opportunity because they produce rents that are location-specific and can be looted on a sustained basis. The possibility of looting or extorting money from manufacturing firms is less because these firms are more mobile. The looting mechanism would suggest that rebel organizations should be raising money prior to the start of civil war, a prediction interestingly not borne out by the evidence.\(^{21}\) What is more important for the rentier state argument is that the looting mechanism is not so relevant since mineral rents are point resources, not diffuse, and thus should be less likely to be ‘lootable’.\(^{22}\)

The second mechanism involves disputes or grievances over the distribution of mineral rents. There are several scholars who have found distributive conflicts generally increase the risk of civil war.\(^{23}\) If resource extraction leads to land expropriation, environmental damage and large-scale migration and displacement, then it is possible that extraction-related disputes could increase the risk of civil war.

The idea that the mere existence of mineral rents necessarily generates greater conflict is consistent with mainstream theories of rent-seeking.\(^{24}\) Is it, however, necessarily the case that

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\(^{20}\) Collier & Hoeffler (1998) estimate that the correlation between resource dependence and civil war is curvilinear, suggesting that the risk of civil war declines when resource dependence reaches exceptionally high levels, at which point, “the increased tax revenue eventually augments the capacity of the government to defend itself sufficiently to offset the enhanced finances of the rebels.” Other studies such as de Soysa (2000) find the relationship linear.

\(^{21}\) Ross (2001a).

\(^{22}\) P. Le Billion, ‘The Political Ecology of War: natural resources and armed conflicts’, *Political Geography*, 20 (2001) argues that the type and location of resources matter for the duration (though not the incidence) of a civil war. The two main distinctions with respect to resources are: those that are close to the capital (and hence easier for governments to capture) and those that are distant (and hence easier for rebels to hold) and between “point source” resources which are concentrated in a small area (and therefore easily controlled by a single group) and “diffuse” resources which are scattered over a large area (and hence harder for any one group to capture). These two categories he suggests produce a fourfold typology of conflict: point resources near a capital create violent incentives to control the state and hence produce coup d’etats; point resources that are far from the capital produce secession movements; diffuse resources near the capital produce rebellions and rioting; and diffuse resource far from the capital lead to “warlordism”.


the increases in natural resource rents, of whatever type, induce increases in rent-seeking? The answer would depend on the political conditions that induce struggle in the first place and the relative power of competing groups to engage in rent-seeking struggles, including violent ones. One of the possible factors that may induce rent-seeking struggle could be a dispute over the distribution of rights and assets sanctioned by the state. If there is at least a passive acceptance of the distribution of rights and rents that emanate from mineral income, then rent-seeking struggles may be low. This means that the issue of political legitimacy needs to be central to any analysis of the impact of mineral abundance or rent-seeking on political outcomes, including patterns of conflict and violence. It is when the distribution of rights is perceived as illegitimate by significant groups within a society that conflict and violence becomes more likely. It is not clear, a priori, why mineral-dominant economies generate a more unjust or illegitimate distribution of rights and income than non-mineral dominant economies. Even if it were the case that mineral economies generate a greater inequality of income, the evidence suggests that injustice and inequality do not inevitably generate conflict.

The possibility of violent rent-seeking activities also depends on the expectations of the combatants. Engaging in conflict requires collective action, which, in turn, requires that political entrepreneurs can persuade groups to support resistance and rebellion against the status quo. For this to happen, however, it is necessary for political entrepreneurs to mobilize the marginalized groups into a relevant political force. Because collective action is subject to problems of free-riding, there is no necessary reason that the opportunity to engage in rent-seeking struggles will generate a collective response. If the organisational and collective capacity of a potential rebel group is low, then rent-seeking activities will, in turn, be low since the probability of victory is small. There is no reason to assume that mineral rents will generate a balance of political power that induces greater rent-seeking, including its violent manifestations.

The Rentier state model and political violence: Is there convincing evidence?

Several studies have found that natural resources and civil war are highly correlated. This would appear to support the idea that rentier states are more likely to generate violence. According to Collier and Hoeffler, the incidence of civil war increases with the dependence of a state on natural resource exports. In Collier and Hoeffler’s earlier work, natural resources include both agricultural and mineral exports. According to de Soysa, the
incidence of civil war is not correlated with the per capita availability of natural resources, defined as the stocks of both renewable resources and non-renewables. However, de Soysa does find that, once the independent variable of natural resources includes only mineral resources, the correlation with the incidence of civil war becomes highly significant. In Collier and Hoeffler’s later work, based on data covering the period 1960-1999, they find that a state that depends heavily on the export of oil and minerals faces a risk of civil war of 23 percent for any given five-year period; an identical country with no natural resource exports has a civil war risk of just 0.5 percent. That is, in otherwise similar economies (controlling for income per capita, ethnic fragmentation, income inequality, etc), dependence on oil and/or minerals increases the risk of civil war by 46 times!

A recent survey of the above evidence generates a more indeterminate picture. According to Ross, the incidence of civil wars in oil and gas exporters is not much greater than for other natural-resource exporters. In the period, 1990-2000, 32 out of 161 countries surveyed had civil wars; which means that for any random country, there was a 0.199 chance (i.e., approximately one in five) of a country suffering a civil war at some point in the 1990’s. Without controlling for income per capita, civil wars occurred at slightly lower rates among states that were highly dependent on resource exports in four different categories of resource dependence: oil and gas; other mineral exporters (not including gemstones); food crop exporters; and non-food crop exporters. When controlling for income per capita (that is by dividing the resource export-to-GDP ratios by each country’s income per capita producing a figure that simultaneously reflects both resource dependence and per capita wealth), then resource dependent countries appear to have a noticeably higher risk of civil war. However, there is no obvious difference among resource types—that is, all types of resource dependence seem to make conflicts more likely, once per capita income has been accounted for. This evidence does not support the rentier state hypothesis. Mineral-dominant poor economies seem no more prone to political violence than non-mineral-dominant natural resource exporting poor economies.

There are, however, several methodological problems with the econometric evidence that makes it difficult to draw policy conclusions. The first concerns the very wide (and rather) arbitrary range in the definitions of what constitutes ‘war’ and ‘violence’ in the econometric studies. In the Collier and Hoeffler paper, a conflict is defined as 1,000 or more battle deaths in a year. This very high threshold of deaths makes the ‘event’ of war very rare and is really attempting to measure large-scale or very intensive wars. In the de Soysa study, conflict is measured at a much lower threshold of 25 battle-related deaths on the justification that a lower threshold will reflect better the nature of ‘eco-violence’ and/or criminalized violence.

It is thus an open question as to what the appropriate threshold of deaths should be to define a ‘war, or ‘political violence’. Why, for example, should homicides that result from gang wars and drug-running mafia activities not count as ‘battle-related deaths’, and therefore, ‘war’. Gang murder, like tax evasion, is surely an instance of a failure to accept the political rules of the game (i.e. thou shall commit murder) and thus constitutes, in part, a rebellion against the institutional structure of the state. Furthermore, it is not clear that political violence only involves deaths related to rebellion against the state. Since the state is the set of institutions in charge of defending the rule of law, the inability of the state to defend citizens from violent

32 Collier & Hoeffler (2000).
33 M. Ross, (2002), ‘Oil, Drugs, and Diamonds: How Do Natural Resources Vary Their Impact on Civil War?’ Produced for the International Academy Project on Economic Agendas in Civil Wars (mlross@polisci.ucla.edu), 2002.
34 Collier & Hoeffler (1998).
35 De Soysa (2000).
aggression from other civil society members constitutes a form of ‘political’ violence. In
many Latin American or South African cities (e.g. Sao Paulo, Medellin, Caracas,
Johannesburg), the annual homicide rates generate more deaths per year than the minimum
threshold of even 1,000 battle deaths per year used by Collier and Hoeffler.\textsuperscript{36} The absence
of effective policing and the presence of the state (especially in shantytowns) and/or the right
to possess a gun, both political issues, contribute to the death toll in these cities. In this sense,
homicide is a type of ‘political’ violence or ‘war’. Long ago, Hobbes pointed out that the
source of conflict is largely a question of conflicts within civil society and not just between
the state and civil society. State weakness can be as easily the source of violence as state
predation. The methodology of defining categories is always open to (philosophical)
interpretation, and therefore, it is advisable to be extremely cautious in using any econometric
study as the focal point of policy-making concerning political violence.

The second concern is that correlation does not demonstrate causality. For instance, it is at
least as probable that civil wars might produce or sustain resource dependence. This could
occur if conflict raised transaction costs and risk and thus reduced the amount of
manufacturing investment, which tends to have a longer gestation period. At the same time,
the mineral investment may continue through conflict since the returns are higher given the
higher level of ground rent and given that investment in the sector cannot flee because
mineral resources are location-specific. Even though Collier and Hoeffler employ lagged
independent variables in their regressions, this does not rule out reverse causality; since civil
wars are not recognized as “beginning” until they have generated at least a thousand combat-
related deaths, they might be preceded by significant enough levels of violence and political
conflict that is a disincentive to long-run manufacturing investment, generating a higher level
of resource dependence before the civil war technically begins.

The case of Angola in the 1960’s is instructive.\textsuperscript{37} According to Cramer, oil and diamonds had
little to due with the onset of war in the 1960’s.\textsuperscript{38} Minerals were a very small part of total
exports and gross domestic product at the onset of political conflict. War and policy-making
in the 1960’s can be seen to have created a dependence on mineral exports. The Angolan
economy was undergoing a dramatic structural change. Manufacturing accounted for 25
percent of GDP by independence in 1961 and the late 1960’s and early 1970’s saw Angola
achieve one of the most rapid manufacturing growth rates in sub-Saharan Africa. The onset
of war along with inefficient industrial policies led to falls in agricultural and industrial
production on the eve of oil windfalls in the early 1970’s. The direction of causality seems to
be the reverse of that posited by the rentier state model.\textsuperscript{39}

Third, the correlation could also be spurious since both civil war and mineral resource
dependence might be independently caused by some missing third variable, such as weak rule
of law, poor macroeconomic management, or corruption. A state where the rule of law is
weak will also generate high transaction costs, which may reduce manufacturing or non-
mineral agricultural investment with long-gestation periods such as coffee. As a result, the
economy may become more dependent on mineral exports. For instance, there is strong
evidence that the onset of civil war in Angola made the economy more dependent on resource
exports.\textsuperscript{40} To take another example, the weak rule of law in the mineral-rich Aceh province of
Indonesia has both provided the opportunity for independence fighters to organize and

\textsuperscript{36} Collier & Hoeffler (1998).
\textsuperscript{37} This paragraph draws primarily on Cramer (2002a), pp.13-14.
\textsuperscript{38} Cramer (2002a).
\textsuperscript{39} This is not to deny that oil revenues allowed the MPLA in Angola to wage one of the most expensive civil
wars in Africa, maintaining large armed forces and arms imports.
\textsuperscript{40} W. Minter, ‘Apartheid’s contras: an inquiry into the roots of war in Angola and Mozambique’, London: Zed
undertake rebellions and has hindered the diversification of the economy. Violence in Aceh after the fall of the Suharto regime in 1998 followed nearly 35 years of relatively more peaceful (if surely coercive, and at times, brutal) forms of conflict containment and management during the Suharto regime. The failure to specify a model fully limits the possibility of explaining the cycles of violent and non-violent institutions of conflict settlement in a mineral-rich country or region. It is also possible that an economy might face an increased risk of civil war through a different process. The result could be a statistically-significant correlation between resource-dependence and civil war even though neither factor would cause the other.

Fourth, it is also possible that war may prevent an economy from becoming more resource abundant in the first place. If state leaders are to appropriate oil revenues, for instance, they need to secure and enforce property rights in the territory where there is oil. Oil rents, like all rents, themselves require the specification of rights, which do not occur naturally. Moreover, state leaders need to be able to either extract taxation from multinationals, or what is even more difficult, extract the mineral through public enterprise production. Wars can just as easily prevent a state becoming a more abundant mineral producer. The case of war preventing the further development of oil in the Sudan in the 1990’s is a case in point. In this case, the causality between resource abundance and war would be the opposite of the rentier state argument.

Fifth, there is a neglect of the effect of prior wars as a cause of conflict. In the poorest region, sub-Saharan Africa (where most of the civil wars have occurred in the period 1960-1999), a main trait of many current conflicts is that they occur in countries or sub-regions that have had a previous conflict. Consider the following Table 1.

<table>
<thead>
<tr>
<th>Country</th>
<th>War before</th>
<th>War next door</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angola</td>
<td>Yes</td>
<td>Zaire/Congo</td>
</tr>
<tr>
<td>Burundi</td>
<td>(1970's)</td>
<td>Rwanda</td>
</tr>
<tr>
<td>Congo-Brazzaville</td>
<td>No</td>
<td>Zaire/Congo</td>
</tr>
<tr>
<td>Djibouti</td>
<td>No</td>
<td>All neighbours</td>
</tr>
<tr>
<td>Guinea Bissau</td>
<td>(1970's)</td>
<td>Casamance, Senegal</td>
</tr>
<tr>
<td>Liberia</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Mali</td>
<td>(1960's)</td>
<td>Algeria, Mauritania</td>
</tr>
<tr>
<td>Rwanda</td>
<td>(1960's)</td>
<td>Uganda</td>
</tr>
<tr>
<td>Senegal (Casmance)</td>
<td>border wars</td>
<td>border wars</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>No</td>
<td>Liberia</td>
</tr>
<tr>
<td>Somalia</td>
<td>Yes</td>
<td>Ethiopia</td>
</tr>
<tr>
<td>Sudan</td>
<td>Yes</td>
<td>Ethiopia, Uganda, Chad</td>
</tr>
<tr>
<td>Uganda insurrections</td>
<td>Yes</td>
<td>Sudan, D.R. Congo</td>
</tr>
<tr>
<td>Zaire/D.R. Congo</td>
<td>(1960's, 70's)</td>
<td>Rwanda, Angola</td>
</tr>
</tbody>
</table>

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<tr>
<th>Border Wars</th>
<th></th>
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</tr>
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<tbody>
<tr>
<td>Mauritania-Senegal</td>
<td>yes (Mauritania)</td>
<td>Western Sahara</td>
</tr>
<tr>
<td>Ethiopia-Eritrea</td>
<td>yes (both)</td>
<td>Sudan, Somalia</td>
</tr>
</tbody>
</table>


In the period, 1989-1999, de Waal shows that there are two important elements of war in Africa: first is the persistence of war and second, wars are readily transmissible from one country to another. Of the sixteen cases of war de Waal highlights, seven had recent wars
before and a further five suffered wars within twenty years of their most recent conflict.
Fifteen of the wars occurred in the countries where there was a recent war in a neighbouring
country (the so-called ‘war next door’ syndrome). Only one case, Liberia, is an exception. Of
these sixteen cases, seven cases (Burundi, Djibouti, Mali, Rwanda, Somalia, Sudan, Uganda,
and Ethiopia-Eritrea) were non-mineral dominant economies. The prevalence of the “wars
before, war next door” syndrome in both mineral resource-rich and mineral-resource poor,
suggest that the dynamics of persistence and contagion are the result of contingent issues of
political economy.41

Sixth, all of the statistical studies discussed are guilty of selection bias. By definition, most
countries that do not have a diversified agricultural and manufacturing base become mineral
dependent. In historical terms, almost all countries began as mineral-dominant economies.
For instance, the US, Canada, Norway, Sweden, the Netherlands, Australia, and Malaysia
were, in earlier stages of development, more mineral-dominant, less diversified economies.
The key policy question to ask is why natural resource revenues are used in ways that sustain
economic growth and diversification in some countries and not in others. Lack of economic
diversification and poor economic growth are why economies are mineral dependent. If that
is the case, then it makes sense to ask why political conflicts prevented growth in some
mineral dependent economies and not in others. This is also an important problematic
because the majority of countries suffering civil wars and humanitarian emergencies have
experienced several years, or even decades, of prolonged stagnation and/or decline in
economic growth.42 In the period 1980-1991, 40 of 58 (69%) African and Asian countries
experienced negative growth. In contrast, only 9 of 53 had experienced negative growth in
the period 1960-1980.43 While it is a complex issue to explain why there is such a difference
in this total between periods, one economic factor has been the deflationary impact of
structural adjustment programs throughout the region. An important political factor has been
the end of the regulation of the arms trade after the Cold War.

What is even more devastating for the resource curse argument is that, even when allowing
for selection bias, it is not the case that there is any determinate relationship between the
incidence of civil war and humanitarian emergencies and mineral dependence. Consider
Table 2:

Press, 2000, pp.1-34.
43 Nafziger & Auvinen (2002), p.155. There are several factors that may have contributed to this: a) poor and
decaying agricultural export growth, b) increasing debt burdens, and c) the deflationary impact of ongoing
structural adjustment policies. On the last point, see P. Mosely, T. Subasat & J. Weeks, ‘Assessing Adjustment

<table>
<thead>
<tr>
<th>Natural Resource-dominant Countries</th>
<th>Mineral/fuel exports, 1980 (% total exports)</th>
<th>Number of Casualties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angola</td>
<td>90+ %</td>
<td>100,000</td>
</tr>
<tr>
<td>Liberia</td>
<td>45</td>
<td>20,000-50,000</td>
</tr>
<tr>
<td>Afghanistan</td>
<td>40</td>
<td>6,000</td>
</tr>
<tr>
<td>Peru</td>
<td>64</td>
<td>3,100</td>
</tr>
<tr>
<td>Algeria</td>
<td>98</td>
<td>2,000-3,000</td>
</tr>
<tr>
<td>Iraq</td>
<td>98</td>
<td>2,000</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>90+</td>
<td>2,000-7,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-Mineral Dominant Countries</th>
<th>Mineral/fuel exports, 1980 (% total exports)</th>
<th>Number of Casualties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rwanda</td>
<td>4%</td>
<td>200,000-500,000</td>
</tr>
<tr>
<td>Burundi</td>
<td>0</td>
<td>100,000</td>
</tr>
<tr>
<td>Mozambique</td>
<td>7</td>
<td>100,000</td>
</tr>
<tr>
<td>Bosnia-Herzegovina</td>
<td>na</td>
<td>10,000-30,000</td>
</tr>
<tr>
<td>Croatia</td>
<td>&lt;10</td>
<td>10,000</td>
</tr>
<tr>
<td>Sudan</td>
<td>2</td>
<td>6,000</td>
</tr>
<tr>
<td>Somalia</td>
<td>0</td>
<td>6,000</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>&lt;10</td>
<td>4,000-30,000</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>15</td>
<td>4,000</td>
</tr>
<tr>
<td>Turkey</td>
<td>8</td>
<td>4,000</td>
</tr>
<tr>
<td>Colombia</td>
<td>3</td>
<td>3,500</td>
</tr>
<tr>
<td>South Africa</td>
<td>11</td>
<td>3,000-4,000</td>
</tr>
<tr>
<td>Georgia</td>
<td>na</td>
<td>2,000</td>
</tr>
<tr>
<td>Guatemala</td>
<td>6</td>
<td>2,000</td>
</tr>
<tr>
<td>Myanmar</td>
<td>11</td>
<td>2,000</td>
</tr>
</tbody>
</table>

Source: Nafziger (1996), Table 1, p.2; World Bank, World Development Indicators, 2000

Table 2 divides countries that were experiencing a complex emergency in the period 1992-1994 into mineral-dominant and non-mineral dominant economies. Of the 22 countries that had a complex emergency in that period, only 7 were mineral-dominant export economies. In terms of number of casualties in absolute terms, the non-mineral dominant economies experienced far more casualties than the mineral-dominant economies, which does not support the case that the intensity of civil conflict is likely to be greater in mineral-dominant economies.

A similar story on the indeterminacy of resource abundance on the incidence and intensity of civil conflict emerges when we examine the number of refugees and internally displaced persons in 1995, a year when comparative data is available. Consider Table 3:

<table>
<thead>
<tr>
<th>Mineral Dominant Economies</th>
<th>Mineral/fuel exports, 1980 (% total exports)</th>
<th>Refugees</th>
<th>Internally displaced</th>
<th>Total</th>
<th>Share of total Population (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghanistan</td>
<td>40%</td>
<td>2,328,000</td>
<td>500,000</td>
<td>2,828,000</td>
<td>14.1</td>
</tr>
<tr>
<td>Angola</td>
<td>90+</td>
<td>313,000</td>
<td>1,500,000</td>
<td>1,813,000</td>
<td>16.4</td>
</tr>
<tr>
<td>Liberia</td>
<td>45</td>
<td>725,000</td>
<td>1,000,000</td>
<td>1,725,000</td>
<td>56.7</td>
</tr>
<tr>
<td>Iraq</td>
<td>98</td>
<td>623,000</td>
<td>1,000,000</td>
<td>1,623,000</td>
<td>8.0</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>34</td>
<td>363,000</td>
<td>1,000,000</td>
<td>1,363,000</td>
<td>30.2</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>90+</td>
<td>390,000</td>
<td>670,000</td>
<td>1,060,000</td>
<td>14.0</td>
</tr>
<tr>
<td>Peru</td>
<td>64</td>
<td>na</td>
<td>480,000</td>
<td>480,000</td>
<td>2.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-Mineral Dominant Economies</th>
<th>Mineral/fuel exports, 1980 (% total exports)</th>
<th>Refugees</th>
<th>Internally displaced</th>
<th>Total</th>
<th>Share of total Population (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bosnia-Herzegovina</td>
<td>na</td>
<td>906,000</td>
<td>1,300,000</td>
<td>2,206,000</td>
<td>63.0</td>
</tr>
<tr>
<td>Sudan</td>
<td>2%</td>
<td>448,000</td>
<td>1,700,000</td>
<td>2,148,000</td>
<td>7.6</td>
</tr>
<tr>
<td>Rwanda</td>
<td>400%</td>
<td>1,545,000</td>
<td>500,000</td>
<td>2,045,000</td>
<td>25.7</td>
</tr>
<tr>
<td>Turkey</td>
<td>8</td>
<td>15,000</td>
<td>2,000,000</td>
<td>2,015,000</td>
<td>3.3</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>15</td>
<td>96,000</td>
<td>1,000,000</td>
<td>1,096,000</td>
<td>6.0</td>
</tr>
<tr>
<td>Myanmar</td>
<td>11</td>
<td>160,000</td>
<td>750,000</td>
<td>910,000</td>
<td>2.0</td>
</tr>
<tr>
<td>Somalia</td>
<td>0</td>
<td>480,000</td>
<td>300,000</td>
<td>780,000</td>
<td>8.4</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>8</td>
<td>500,000</td>
<td>111,000</td>
<td>611,000</td>
<td>1.1</td>
</tr>
<tr>
<td>Colombia</td>
<td>3</td>
<td>na</td>
<td>600,000</td>
<td>600,000</td>
<td>1.7</td>
</tr>
<tr>
<td>Mozambique</td>
<td>7</td>
<td>97,000</td>
<td>500,000</td>
<td>597,000</td>
<td>3.7</td>
</tr>
<tr>
<td>Eritrea</td>
<td>&lt;10</td>
<td>325,000</td>
<td>200,000</td>
<td>525,000</td>
<td>14.9</td>
</tr>
<tr>
<td>South Africa</td>
<td>11</td>
<td>10,000</td>
<td>500,000</td>
<td>510,000</td>
<td>1.2</td>
</tr>
<tr>
<td>Burundi</td>
<td>0</td>
<td>290,000</td>
<td>216,000</td>
<td>506,000</td>
<td>7.9</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>&lt;10</td>
<td>174,000</td>
<td>300,000</td>
<td>474,000</td>
<td>7.8</td>
</tr>
<tr>
<td>Croatia</td>
<td>&lt;10</td>
<td>200,000</td>
<td>225,000</td>
<td>425,000</td>
<td>9.6</td>
</tr>
<tr>
<td>Lebanon</td>
<td>&lt;10</td>
<td>na</td>
<td>400,000</td>
<td>400,000</td>
<td>13.2</td>
</tr>
<tr>
<td>Armenia</td>
<td>&lt;20</td>
<td>200,000</td>
<td>185,000</td>
<td>385,000</td>
<td>10.7</td>
</tr>
<tr>
<td>Georgia</td>
<td>&lt;10</td>
<td>105,000</td>
<td>280,000</td>
<td>385,000</td>
<td>7.1</td>
</tr>
</tbody>
</table>

Source: Nafziger (1996), Table 2, p.3; World Bank, World Development Indicators, 2000

Of the 25 countries that generated the greatest number of refugees and internally displaced people, only 7 were in mineral-dominant economies. Of the cases where the total number of refugees and internally displaced persons exceeded 10 percent of the population, both groups of economies had 5 cases each. This small sample corroborates evidence that when a conflict does occur, it is likely to be more intense in mineral-dominant economy. Nevertheless, there is no evidence that the likelihood of a conflict is greater in mineral-dominant economies—even after allowing for selection bias.

Conclusion

In sum, there seems to be little convincing evidence that mineral abundance per se causes conflict although there is some evidence that once a conflict is underway, some types of natural resources may facilitate the prolongation of war. The evidence thus suggests that factor endowments do not determine politics. The indeterminacy of natural resource wealth

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and violence suggests that the nature of conflicts in mineral-dominant economies does not exist prior to politics. Because political bargaining surrounding common pool mineral rents is historically specific, the case study and comparative political economy approach will be useful in furthering our understanding of political violence in poor economies.

A historically grounded research on the origins and nature of political organizations and their support base may enable us to develop a framework for understanding the extent to which conflict becomes more or less divisible. A systematic analysis of competing political party strategies and their effects in generating more or less divisible parameters of contestation should prove useful. The advantage of the case-study and comparative approach over the variable-oriented approaches is significant. The salience and intensity of ethnic, regional and/or religious cleavages is contingent on political party organization, co-optation and other strategies. Collier’s and Moore’s approaches cannot accommodate these important contingencies, sequences of action and interactions of political action. The most influential models of conflict do not examine important relationships between political parties and the state, the structural characteristics of inter and intra-party competition, and as such, cannot illuminate historically specific processes of conflict/cleavages in a given society. Ethnic conflict and natural resource plunder do not, like class, exist prior to politics.

The indeterminacy of natural resource abundance on conflict also suggests that examining historically specific processes of political conflict and conflict management in economies and the effect these processes have on economic growth and diversification defines a major research agenda to understand the genealogy of war in poor economies. Given the importance of low per capita income and economic decline in increasing the risk of war, I will examine, in a companion paper, the possibility that mineral resource abundance leads to conflict by perpetuating growth-restricting governance, Dutch Disease, and underdevelopment. While there may be nothing more practical than a good theory, it is clear that simplistic and deterministic theories of resource abundance, as posited in the rentier state model, do not adequately capture the range and interaction of factors that constitute a complex emergency. The focus on the role of natural resource abundance as a cause of conflict simply delves deeply into the surface of conflicts in poor economies. As a result, the rentier state model, while useful in bringing issues of the source of taxation and resource mobilization back into a discussion of state capacity and accountability, is an inadequate framework and guide for more profound, penetrating and lasting interventions to peace-building, state capacity-building and economic reconstruction in conflict-ridden societies.

Finally, if it is reasonable to conclude that politics and policy have been decisive to the trajectory of mineral-dominant economies, then several policy implications may be suggested. The first is that more effective intervention in humanitarian emergencies will require an account of the causes of conflict that move beyond economic and factor endowment determinism. Second, attention should shift toward understanding how past government policies affect the processes of growth and diversification of mineral-dominant economies. Very negative economic performance surely contributes to undermining regime and government legitimacy and therefore may increase widespread support for abrupt and even violent changes. Third, greater attention should be paid to understanding the political economy dynamics of regional war zones that transcend the nation-state. The econometric evidence focuses on the nation-state as the unit of analysis. This misses the importance of how easily war can spill over into neighbouring countries and perpetuate what Wallensteen

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and Sollenberg call “regional conflict complexes”. Fourth, more attention might be paid to the patterns of the arms trade and the extent to which changing patterns of production and distribution of arms in the post-Cold War period exacerbates ongoing violent conflicts in mineral dependent and more diversified economies.

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**References**


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Ross, M., ‘Oil, Drugs, and Diamonds: How Do Natural Resources Vary Their Impact on Civil War?’ Produced for the International Academy Project on Economic Agendas in Civil Wars (mlross@polisci.ucla.edu), 2002


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### Research Objectives

- We will assess how constellations of power at local, national and global levels drive processes of institutional change, collapse and reconstruction and in doing so will challenge simplistic paradigms about the beneficial effects of economic and political liberalisation.

- We will examine the effects of international interventions promoting democratic reform, human rights and market competition on the ‘conflict management capacity’ and production and distributional systems of existing polities.

- We will analyse how communities have responded to crisis, and the incentives and moral frameworks that have led either toward violent or non-violent outcomes.

- We will examine what kinds of formal and informal institutional arrangements poor communities have constructed to deal with economic survival and local order.

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