ENERGY / MINERAL RENTIERISM AND GLOBAL CIVIL CONFLICT, 1991-1999

DISSERTATION

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By

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ABSTRACT

Results from the natural resource-civil conflict literature are mixed. Some seminal studies assert that revenue or rents accrued to governments from the extraction and export of energy or mineral-based resources increase a country's propensity toward civil conflict due to "looting" or "greed" from rebel insurgency, an aggrieved populace (Collier and Hoeffler 2004, Collier and Hoeffler 2006) or weakened state capacity (Fearon and Laitin 2003). Yet, other scholars contend that the resource-conflict relationship is negative (Smith 2004) or possibly spurious (Ross 2006). However, past research has focused too narrowly on civil war battle-deaths as an outcome, virtually ignoring low-intensity conflict. Additionally, most measures of natural resource dependence or rentierism are too crude to draw a strong connection to conflict. This dissertation incorporates a more refined measure of energy and mineral-based resource dependence from the World Bank Adjusted Net Savings database coupled with a broader definition of "civil conflict" using data from the World Handbook for Political Indicators IV. Utilizing a robust set of indicators in annualized time-series cross-section models, I explore whether energy or mineral rentierism is a predictor of nonviolent protest, civil violence or intrastate war.

Estimates from a sequence of negative binomial regression equations for 104 countries indicate that the effects of energy and mineral rentierism on civil protest and violence are largely contextual. Religious fractionalization, political repression and state

relaxation tend to make mineral-dependent states more susceptible to protest. While "keeping the peace" is difficult to sustain within religiously plural, mineral-wealthy societies, these results further imply that increased repression or regime concessions also create opportunities for protest within this context. Religious and ethnic diversity additionally contribute to civil violence amongst mineral rentiers. In contrast, energy rentiers with high military expenditures enjoy relative respite from protest and civil violence. The prospect of confronting a strong military apparently makes violent and nonviolent rebellion unattractive options. Wealth also serves as a deterrent to protest amongst energy-rich countries, suggesting that affluent citizens are unlikely to express political dissent at the risk of economic loss. Furthermore, separate logit estimates for 116 countries indicate that religiously fractionalized energy rentiers are less civil war-prone, signifying a "peace dividend" created by religious diversity.

Overall, these analyses illustrate that the effects of energy and mineral rentierism on civil conflict are fundamentally context-specific and highly sensitive to model specification. While some mineral rentiers are predisposed to conflict and certain types of energy states are less vulnerable, there is little evidence to support a universal theory for the natural resource-conflict nexus. These findings merit further debate and empirical investigation to discern the specific characteristics of energy and mineral-dependent states that experience or evade widespread civil conflict.

Dedicated to my friends and family

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CHAPTER 1

INTRODUCTION

1.1 SHORTCOMINGS OF RESOURCE-CONFLICT LITERATURE

The cross-national literature on natural resource-conflict has explored the influence of a wide range of commodity exports on civil conflict. However, these studies have suffered from three major deficiencies: (1) Crude measurement of natural resources (2) A predominant focus on civil war, and (3) Econometric models that are insufficiently robust. In this dissertation, I employ two new datasets to enable a more refined critique of the resource-conflict nexus.

Measurement of Natural Resources

The measurement of resource rent has been a great challenge to civil conflict scholars. Researchers have sought to examine the influence of energy and mineral resources on war using a variety of measures including primary exports as a fraction of GDP (Sachs and Warner 1995; Collier and Hoeffler 1998; Collier and Hoeffler 2002a; Collier and Hoeffler 2002b; Elbadawi and Sambanis 2002a; Elbadawi and Sambanis 2002b; Fearon and Laitin 2003; Hegre 2002; Reynal-Querol 2002; Collier, Hoeffler and Söderbom 2004; Doyle and Sambanis 2000; Ross 2001), total oil production and reserves

(Humphreys 2003), natural resource stocks per capita (de Soysa 2002), mineral stocks per capita (deSoysa 2003), mineral exports as a fraction of total exports (Hegre 2002), a dummy variable for mineral resources located in a conflict zone (Buhaug and Gates 2002), in addition to the oft used oil exporter dummy variable (Fearon and Laitin 2003; deSoysa 2002).

However, the use of these measures has come under heavy criticism. Ross (2006) questions the veracity of many of these research results and asserts, "(s)tudies of natural resource wealth and civil war have been hampered by measurement error, endogeneity, lack of robustness, and uncertainty about causal mechanisms" (265). Ross (2004, 2006) proceeds to summarily critique dozens of publications that were produced during the 1990s and 2000s on the grounds that most measures of resources are too rudimentary to accurately capture their influence on war. For example, civil wars often cause major irreparable damage to a country's industrial sector, reducing the output of goods and services in any given year; civil war itself is likely to cause resource dependence. Therefore measuring primary commodity exports as a fraction of GDP may overstate the importance of resources on war, when war is quite possibly causing an increased dependence on resources (Ross 2006). Additionally, countries with weak capacity and rule of law may be unable to attract industrial investment leading to an increased dependence on resource exports. Ross (2006) further suggests that war and resource dependence may be caused by unknown, extraneous factors. In addition, the "oil

exporter" dummy arbitrarily designates countries based on whether oil exports exceed one-third of total export revenues, a highly restrictive threshold that includes very few-already war prone-countries. More accurate analyses require the use of a continuous measure of resource dependence, allowing testing for non-linearities between resources and conflict. Replicating de Soysa and Neumayer (2007) I utilize a measure of resource rents from the World Bank Adjusted Net Savings dataset which more accurately calculates the value of extractive resources from energy and minerals (excluding diamonds). The value of extractive resources is calculated as the market price of the particular resource minus extraction costs, which includes the costs of refining petroleum or milling and smelting metals. This total amount is multiplied by the quantity of the particular resource extracted. In short, revenue above and beyond the expenditures used to extract substances accrues directly to a government as "rent."

To illustrate this point, Table 1.1 offers a side-by-side comparison of countries based on the Fearon and Laitin (2003) oil exporter designation and energy rents as a fraction of gross national income (GNI) for 143 countries. For example, while oil only comprises about 2.3% of domestic revenue for Norway, Fearon and Laitin (2003) designate the country as an "oil exporter," grossly overstating the importance of fuel exports to Norway's overall economy. In addition, there are fifteen countries with a much greater reliance on oil revenues than Norway that would be completely excluded from studies utilizing the oil exporter dummy including Tajikistan for which fuel exports

	Country	Energy Rents*	Oil Exporter Statuts**
1	Tajikistan	.745744	Non-Exporter
2	Turkmenistan	.495329	**EXPORTER**
3	Azerbaijan	.444264	**EXPORTER**
4	Saudi Arabia	.406818	**EXPORTER**
5	Oman	.382114	**EXPORTER**
6	Nigeria	.376841	**EXPORTER**
7	Kuwait	.338865	**EXPORTER**
8	Yemen***	.292193	**EXPORTER**
9	Angola	.285925	**EXPORTER**
10	Syria	.282608	**EXPORTER**
11	United Arab Emirates	.274370	Non-Exporter
12	Iran	.271950	**EXPORTER**
13	Republic of the Congo	.252497	**EXPORTER**
14	Venezuela	.245632	**EXPORTER**
15	Algeria	.190936	**EXPORTER**
16	Kazakhstan	.183373	**EXPORTER**
17	Russia	.181381	**EXPORTER**
18	Uzbekistan	.175870	Non-Exporter
19	Trinidad and Tobago	.172085	**EXPORTER**
20	Gabon	.154590	**EXPORTER**
21	Ecuador***	.130322	**EXPORTER**
22	Papua New Guinea	.068871	Non-Exporter
23	Cameroon***	.065340	**EXPORTER**
24	Indonesia***	.062807	**EXPORTER**
25	Malaysia	.059586	Non-Exporter
26	Ukraine	.056409	Non-Exporter
27	China	.050095	Non-Exporter
28	Mexico	.049987	Non-Exporter
29	Colombia***	.045261	**EXPORTER**
30	Egypt***	.043580	**EXPORTER**
31	Vietnam	.042343	Non-Exporter
32	Albania	.034742	Non-Exporter
33	Romania	.031807	Non-Exporter
34	Tunisia	.030389	Non-Exporter
35	Canada	.027247	Non-Exporter

Table 1.1: Energy Rentiers and Oil Exporters, 1991-1999

Table 1.1 Continued

	Country	Energy Rents*	Oil Exporter Statuts**
36	India	.026547	Non-Exporter
37	Bolivia	.025516	Non-Exporter
38	Norway	.022826	**EXPORTER**
39	Pakistan	.021102	Non-Exporter
40	Estonia	.017713	Non-Exporter
41	South Africa	.017629	Non-Exporter
42	Mongolia	.016941	Non-Exporter
43	Kyrgyzstan	.013915	Non-Exporter
44	Belarus	.012192	Non-Exporter
45	Croatia	.010614	Non-Exporter
46	Yugoslavia	.010469	Non-Exporter
47	United States	.009756	Non-Exporter
48	Poland	.009733	Non-Exporter
49	Peru	.009281	Non-Exporter
50	Democratic Republic of the Congo	.009240	Non-Exporter
51	Zimbabwe	.008956	Non-Exporter
52	Argentina	.008936	Non-Exporter
53	Brazil	.007762	Non-Exporter
54	Australia	.007308	Non-Exporter
55	New Zealand	.007014	Non-Exporter
56	Bulgaria	.005511	Non-Exporter
57	Hungary	.005098	Non-Exporter
58	Guatemala	.004378	Non-Exporter
59	Bangladesh	.004124	Non-Exporter
60	Turkey	.003896	Non-Exporter
61	United Kingdom	.003829	Non-Exporter
62	Thailand	.003620	Non-Exporter
63	Benin	.003411	Non-Exporter
64	Barbados	.003219	Non-Exporter
65	Georgia	.003128	Non-Exporter
66	Chile	.002738	Non-Exporter
67	Czech Republic	.002390	Non-Exporter
68	Netherlands	.001971	Non-Exporter
69	Lithuania	.001370	Non-Exporter
70	Greece	.001361	Non-Exporter

Continued

Table 1.1 Continued

	Country	Energy Rents*	Oil Exporter Statuts**
71	Botswana	.001148	Non-Exporter
72	Denmark	.001087	Non-Exporter
73	Zambia	.001029	Non-Exporter
74	Bosnia and Herzegovina	.000944	Non-Exporter
75	Slovenia	.000943	Non-Exporter
76	Cote d'Ivoire	.000880	Non-Exporter
77	Niger	.000768	Non-Exporter
78	Slovakia	.000634	Non-Exporter
79	Austria	.000558	Non-Exporter
80	Italy	.000515	Non-Exporter
81	Germany	.000504	Non-Exporter
82	Philippines	.000489	Non-Exporter
83	Ireland	.000303	Non-Exporter
84	South Korea	.000288	Non-Exporter
85	Spain	.000287	Non-Exporter
86	France	.000197	Non-Exporter
87	Morocco	.000192	Non-Exporter
88	Mozambique	.000189	Non-Exporter
89	Jordan	.000072	Non-Exporter
90	Israel	.000026	Non-Exporter
91	Rwanda	.000021	Non-Exporter
92	Sweden	.000021	Non-Exporter
93	Japan	.000021	Non-Exporter
94	Belgium	.000010	Non-Exporter
95	Laos	.000009	Non-Exporter
96	Tanzania	.000007	Non-Exporter
97	Portugal	.000006	Non-Exporter
98	Switzerland	.000000	Non-Exporter
99	Guinea Bissau	.000000	Non-Exporter
100	Central African Republic	.000000	Non-Exporter
101	Uganda	.000000	Non-Exporter
102	Costa Rica	.000000	Non-Exporter
103	Jamaica	.000000	Non-Exporter
104	Puerto Rico	.000000	Non-Exporter
105	Mauritania	.000000	Non-Exporter
106	Malawi	.000000	Non-Exporter

Continued

Table 1.1 Continued

	Country	Energy Rents*	Oil Exporter Statuts**
107	Sierra Leone	.000000	Non-Exporter
108	Sri Lanka	.000000	Non-Exporter
109	Ethiopia	.000000	Non-Exporter
110	Sudan	.000000	Non-Exporter
111	Kenya	.000000	Non-Exporter
112	Lesotho	.000000	Non-Exporter
113	El Salvador	.000000	Non-Exporter
114	Chad	.000000	Non-Exporter
115	Singapore	.000000	Non-Exporter
116	Nicaragua	.000000	Non-Exporter
117	Ghana	.000000	Non-Exporter
118	Dominican Republic	.000000	Non-Exporter
119	Namibia	.000000	Non-Exporter
120	Uruguay	.000000	Non-Exporter
121	Paraguay	.000000	Non-Exporter
122	Gambia	.000000	Non-Exporter
123	Cambodia	.000000	Non-Exporter
124	Macedonia	.000000	Non-Exporter
125	Panama	.000000	Non-Exporter
126	Honduras	.000000	Non-Exporter
127	Senegal	.000000	Non-Exporter
128	Lebanon	.000000	Non-Exporter
129	Moldova	.000000	Non-Exporter
130	Latvia	.000000	Non-Exporter
131	Eritrea	.000000	Non-Exporter
132	Nepal	.000000	Non-Exporter
133	Mali	.000000	Non-Exporter
134	The West Bank	.000000	Non-Exporter
135	Finland	.000000	Non-Exporter
136	Togo	.000000	Non-Exporter
137	Armenia	.000000	Non-Exporter
138	Burkina Faso	.000000	Non-Exporter
139	Mauritius	.000000	Non-Exporter
140	Haiti	.000000	Non-Exporter
141	Burundi	.000000	Non-Exporter
142	Madagascar	.000000	Non-Exporter
143	Guinea	.000000	Non-Exporter

Mean of Energy Rents=.05

S.D. of Energy Rents=.11

*Mean value of Energy Rents over time. Estimated as a fraction of GNI.

**Oil Exporters = Countries with >1/3 export revenue from fuels (Fearon and Laitin 2003).

***Designated as an Oil Exporter for only part of the time-series.

comprise a staggering 74.5% of GNI. The following chapters will more definitively explore the importance of energy and mineral rents to a country's economy, using an arguably superior measure of resource rents. However, measurement specification is not the only issue plaguing the current resource-conflict literature. The very definition of what defines a "conflict" has too often been narrowly construed.

Expanding the "Civil Conflict" Focus

While the effects of resource wealth on civil war have been well-documented (Collier et. al. 2003; Fearon 2005; Fearon and Laitin 2003; Ross 2004a; Ross 2004b), little research has been conducted on the effects of resource wealth on other forms of civil contention, specifically, nonviolent protest and civil violence. While the devastating effects of war have generated increased awareness amongst the public and policy-makers, widespread protest and civil violence also have the potential to have adverse consequences on human welfare and security. Data from one of the more influential studies on civil war (Fearon and Laitin 2003) establish a 1000 battle-death threshold before a conflict is classified as a 'civil war.' However, in an examination of petroleum-induced civil wars, Humphreys (2003) finds that most conflicts surrounding oil are brief, reducing the likelihood that battle-deaths would approach those numbers. Furthermore, deSoysa and Neumayer (2007) find no resource-conflict relationship using the 1000 battle-death threshold, although the more inclusive 25 battle-death threshold does reveal a

causal link between oil rent and the onset of civil war. This classification still excludes low-intensity conflicts which may not result in battle-deaths, but nevertheless, have the potential to contribute to a breakdown in state authority. Based on case-study research Ross (2004a) contends that low-level conflicts rarely lead to civil war, however others contend that extraction processes can lead to community-level grievances and subsequently facilitate larger violent conflicts (Switzer 2001, Klare 2001). Conflict scholars have neglected to systematically analyze the effects that natural resources and rentierism can have on the incidence of protest and civil violence as well as the reciprocal effects that these forms of civil contention can have on one another. Further investigation can give us significant insight into how governments respond to mass grievances either through repression, pacification or some combination of both strategies. More in-depth analysis will also expand our understanding of the mechanisms through which civil protest can devolve into violent conflict.

My additional "value-added" contribution to the resource-conflict literature will be to examine the effects of resource rents on the incidence of civil conflict inclusive of war and other low-intensity activities such as nonviolent protest and civil violence. A newly available dataset from the World Handbook of Political Indicators (Jenkins, Taylor and Abbott forthcoming) that utilizes event counts from Reuters® newswire to enable quantitative analysis of civil protest and violence outcomes on a global scale.

Do Resource Rents Hinder Democracy?

Demonstrating the legitimacy of the oil-hinders-democracy thesis, Ross (2001) asserts that oil states utilize resource wealth to insulate governments from the populace. For example, a 2006 report by the International Crisis Group, details that when oil prices rose above $70 a barrel, the Nigerian government reaped approximately 95% of the profits, though exact figures remain a state secret. With the oil industry in Nigeria generating about $45 billion in 2005 alone, this estimate is indicative of the autonomous wealth that the government accrues annually and has serious implications for the democratization process. While a growing bourgeoisie is theorized to facilitate democracy, increasing wealth tends to operate peculiarly amongst petroleum-rich countries. Revenues enable the state to operate independent of citizen input, effectively undermining the influence of civil society groups. Additionally, oil states also tend to heavily invest in a military apparatus to protect its wealth from foreign invasion as well as civil insurgency. Both of these factors work against the evolution of democratic governance in which the political process is open to public participation as well as allowing citizens to live free of a repressive and coercive state.

Table 1.2 shows a time-lagged correlation matrix between democracy, energy rents and minerals rents using same year and three-year time lagged values of each. The bivariate relationships between democracy and energy rents are telling. Time-lagged values for both variables are moderate, between -.31 and -.33, but highly significant at the $p<.0001$

level. In contrast, mineral rentierism has a weak non-significant bivariate relationship with democracy. Not only do energy rents work against democracy, but there are distinct differences between minerals and energy indicating that a particular type of the resource is important to governance patterns. Within the oil extraction industry, the state benefits from the production and export of petroleum while largely outsourcing the work necessary for extraction. These revenues are then utilized to "purchase" public support and loyalty to government elites. In this case, only political elites are involved in the generation of wealth, while the majority are involved in the distribution and utilization of it. In contrast, mineral extractive economies are labor intensive industries that rely on local labor. This distinction underscores the importance of analyzing energy rent and mineral rent in separate quantitative models. As Chapter 2 will describe, this reliance makes the state more susceptible to conflict as civil protest and violence can directly affect the flow of resource revenue, empowering laborers to bargain with the state. The current project seeks to take a closer look at this picture in an effort to further general knowledge on the impact that resource-reliant economies have on democracy.

1.2 Theoretical Development of the Rentier Concept

Cyrus Bina (1985) traces the development of modern theoretical thinking of "rent" in a critique of the classical work on capitalist economic systems. Drawing upon the writings of Ricardo, Marshall and Marx, the propositions on agricultural systems are

	Democracy$_{(t)}$	Democracy$_{(t-1)}$	Democracy$_{(t-2)}$	Democracy$_{(t-3)}$	Energy Rents$_{(t)}$	Energy Rents$_{(t-1)}$
Democracy$_{(t)}$	1					
Democracy$_{(t-1)}$	.94 *	1				
Democracy$_{(t-2)}$	.88 *	.94 *	1			
Democracy$_{(t-3)}$	.84 *	.88 *	.94 *	1		
Energy Rents$_{(t)}$	-.32 *	-.32 *	-.32 *	-.32 *	1	
Energy Rents$_{(t-1)}$	-.33 *	-.32 *	-.31 *	-.31 *	.94 *	1
Energy Rents$_{(t-2)}$	-.33 *	-.33 *	-.32 *	-.31 *	.91 *	.94 *
Energy Rents$_{(t-3)}$	-.32 *	-.33 *	-.32 *	-.31 *	.92 *	.91 *
Mineral Rents$_{(t)}$	.01	.01	.01	.01	-.06	-.06
Mineral Rents$_{(t-1)}$	.01	.01	.01	.02	-.06	-.06
Mineral Rents$_{(t-2)}$	.01	.01	.02	.02	-.06	-.06
Mineral Rents$_{(t-3)}$	.00	.01	.01	.03	-.06	-.06

	Energy Rents$_{(t-2)}$	Energy Rents$_{(t-3)}$	Mineral Rents$_{(t)}$	Mineral Rents$_{(t-1)}$	Mineral Rents$_{(t-2)}$	Mineral Rents$_{(t-3)}$
Energy Rents$_{(t-2)}$	1					
Energy Rents$_{(t-3)}$	.94 *	1				
Mineral Rents$_{(t)}$	-.06	-.06	1			
Mineral Rents$_{(t-1)}$	-.06	-.06	.96 *	1		
Mineral Rents$_{(t-2)}$	-.07	-.06	.93 *	.96 *	1	
Mineral Rents$_{(t-3)}$	-.06	-.07	.92 *	.93 *	.95 *	1

Democracy = Polity2 score>6

*p<.0001

Table 1.2: Zero-Order Correlation Matrix of Democracy, Energy and Mineral Rent variables with one, two and three-year time-lagged values.

extrapolated to modern oil production. From Ricardo's perspective, certain tracts of land possess "peculiar advantages," which enables the owner to apply usage charges. Land that can be easily cultivated or, for extraction purposes, contains a substance of value will garner more rent than land that lacks nutrients or is barren because of the scarcity of arable land and valuable materials borne by the earth. While the distinction between rent and profit is a principal component in the Ricardian tradition, Marshall conflates the two perspectives, essentially arguing that rent is not only due to the value of the land but also improvements that are implemented as well as the development of an infrastructural network and high population. However, Marshall does reiterate that rent is a universal concept that cannot be tied to any specific time period or region. Marx argues against the "universalism" of the rent concept, asserting that a commodity has two distinct values-aspects, (1) Value in use, and (2) Value in exchange. These differences cannot be understood without taking social context into account.

States that rely heavily on external rents have been observed to develop unique patterns of development. Within a rentier state, this revenue accrues directly to the state without necessarily being channeled to any other domestic actors (Cardin 1993). Corporations may facilitate the paying of rent, in addition to bilateral and/or multilateral agreements with other foreign governments or entities. Mahdavy's (1970) in-depth study of Iranian development opened the gateway for a slew of literature examining the rentier thesis from a cross-national perspective. In an effort to define the rentier state, Mahdavy

suggests that at the most basic level, rentiers are states that maintain an external revenue source that pays dividends on a regular basis (Mahdavy 1970). From this standpoint, a wide variety of sources could serve as rent sources including aid from foreign governments, fees paid for the use of military bases, or water passageways such as the Suez Canal as well as airspace or oil pipelines that pass above or below sovereign territory. Indeed many studies have been explored these ideas in the literature while concluding that different types of rent have varied implications for development patterns (cite). Additionally le Cardin (1993) illustrates that pre-rentier political patterns have important implications for the political path the governments follow upon receiving rent. Subsequent researchers have expanded upon the theoretical underpinnings of the rentier state, most notably Hazem Beblawi (1976) who notes that:

> "Rent enters the into the composition of the price of commodities in a different way from wages and profit. High or low wages and profit are the causes of high or low price; high or low rent is the effect of it."

From the landlord - tenant perspective, rent sources not only emerge from payment for the use of a domicile, but also ownership from that domicile. Furthermore, the collection of revenue requires virtually no work or effort on part of the owner in order to be lucrative. This lays the foundation of the rentier mentality, which posits that

rewards do not have to be the result of hard work. Beblawi (1976) further outlines the distinction between internal rents, which are drawn from the populace and the external rents that characterize the majority of natural resource producing countries. External rents rely heavily on foreign capital and undermine the development of a productive domestic sector, the quintessential, albeit vulnerable, characteristic of the rentier state. In a rentier state, only a few are engaged in the generation of wealth; the majority are involved in the distribution and utilization of it. Beblawi further articulated the consequences of the distributive state, which uses revenue as a tool to exclude citizens from the political process. Remittances to the government become one of the most dominant forces in the economy. Windfall profits enable officials to co-opt the populace by providing jobs in an ever-expanding government bureaucracy, infrastructural investment or even direct payments in return for political support. In addition, external rents usually preclude the need to develop or maintain a system for income tax collection. This characteristic of the rentier state violates one of the fundamental components of democracy, which is based on the premise of "No Taxation Without Representation." The distributive state essentially embodies the inverse; "No Representation due to No Taxation." Without a tax apparatus, regimes lack an incentive to include citizens in the political process. Many countries including Bahrain, the Democratic Republic of Congo, Iran, Oman, Yemen and the United Arab Emirates collect less than half as much revenue in taxes as they spend and Kuwait in particular relies on taxes to finance only 3 percent of

expenditures (Fish 2005). Rather than relying on the citizenry for revenue, the distributive state spreads the wealth (usually unevenly) to purchase support while diminishing a citizen's interest in the functioning of government.

During the 1990s, the scholarly focus of rentierism expanded from the Middle East to sub-Saharan Africa; an historical source of raw materials for the West including minerals and fuel, but also a region that began to take control of its own resources. In his analysis of natural resources in sub-Saharan Africa, Yates (1996) further clarifies the defining characteristics of rentier economies which involves a complex of ideas that not only describe the source of rent, but also patterns of development amongst states that rely on rent sources. Drawing upon Beblawi (year) and Luciani (year), Yates posits that:

- There is no such thing as a "pure" rentier. This determination is largely arbitrary, but rent situations must predominate.
- The origin of rent *must* be external to the domestic economy.
- Only the few are engaged in the generation of rent, while the majority is involved in its distribution and consumption, and
- The government must be the principal recipient of the external rent.

As with most other rentier states, African rentier states have also become distributive in their use of rent. While not necessarily distributing money to citizens, spending is still the "primary" goal and monetary windfalls have enabled governments to embark on large-scale capital-intensive development projects. However, these countries

are also particularly vulnerable to market price shocks created by the complex relationship between supply and demand of natural resources, which has a particularly disruptive effect on the energy industry. When African regimes are awash on the foreign currency provided by high market prices and demands for oil, these governments will often expand and embark on major infrastructural projects. However, this behavior cannot be maintained when the market demand and prices inevitably drop. In contrast, countries with developed and diversified domestic economies are often able to withstand price shocks on particular industries because no one commodity makes up the majority of their imports. In many "monoproducing" countries where there is disproportionate reliance on one particular export, African countries such as Nigeria where oil accounts for nearly 40% of GDP, negative price shocks reverberate throughout the economy causing a major growth slumps comparable to the Great Depression.

In addition, rentier economies are often awash in foreign currency, which can lead to an input-output imbalance. Increased wealth precipitates an influx of imports including luxury goods. Yet, domestic economies are not developed enough to export goods and domestic currency is usually too high to stimulate exports. The cycle becomes more damaging as cheap imported goods have a tendency to replace domestically produced goods particularly in agriculture and manufacturing causing further damage to any local industry.

The Increasing Salience of Resource Rents

Recognizing the growing importance of petroleum commodities to the West and desiring a greater share of the windfall profits that oil multinationals had been experiencing, nationalist sentiment took hold in many oil producing nations. Initially led by Venezuela, a growing number of sovereignties entered into deals with the oil and mineral multinationals that would create a 50/50 split of production costs and/or profits, or give extraction rights to companies in return for the payment of "rents." The disassembling of the British Empire and independence movements throughout Latin America, sub-Saharan Africa, Asia and the Middle East also led to the emergence of patrimonial regimes and military "strongmen" who often directed profits gained from oil extraction to their personal coffers and offshore accounts. Meanwhile many of their citizens live in impoverished conditions and often suffer from the adverse environmental produced by extraction processes. The political history of these countries left them organizationally and politically weak, prime targets for domestic insurgencies. Corruption caused by the vast wealth offered through the natural resource extraction industry has also contributed greatly to the development of conflict. These issues were further exacerbated by the collapse of the Soviet Empire.

Globally, countries that were dominated by military juntas and neo-patrimonial regimes both before and after the soviet collapse, witnessed not only a dramatic wave of democracy (Huntington 2000) during the 1990s, but also bottom-up opposition from

citizens. This challenge manifested through mass civil protest and violence and, under the most fragile regimes, turned natural resources into an important source of rebel funding (Keen 1998; Le Billon 2003). For example, the government of Nigeria has generated billions of dollars in revenues from abundant petroleum reserves in the Niger Delta. Armed militias from the Movement for the Emancipation of the Niger Delta (MEND) have sabotaged and drained oil pipelines, severely disrupting exports. The accessible location of pipelines to where MEND operates has enabled the group to siphon oil from broken lines and utilize this raw crude as a lootable resource. The sale of this "black-market" petroleum is often used to purchase weapons, ammunition as well as funding other insurgent activities, a major cause of this extended conflict. In contrast, offshore oil rigs in Angola make this type of "lootability" prohibitive as conflict zones in this region are very distant from where petroleum reserves are located. commonly employed measure of primary commodity exports over GDP (Sachs and Warner 1995) which suffers from endogeneity issues (Ross 2004b).

1.3 Rentierism in the Post-Soviet Era

The 1990s witnessed a rash of civil contentious activity - frequently ethno-political in nature - throughout the developing world as competing factions sought to secure and consolidate power in government and, often, control over the spoils of natural resource extraction. In a post-Soviet world, an increasing global demand for

commodities such as petroleum, diamonds and other valuable minerals, influenced the rise in conflict intensity among many resource-wealthy countries; often spilling over into neighboring states. However, civil war during this era was often the result of long-standing conflicts from the 1950s and 1960s (Fearon and Laitin 2003).

The 1990s marked a critical shift in global politics. Proxy wars that had been fought for decades throughout Africa, Asia and Latin America began to fizzle as the last vestiges of the Soviet Empire were dismantled. A global competition that pitted Western political and economic values against the spread of Soviet style communism was no longer salient. While, American-allied countries emerged relatively unscathed from this shift, there were many countries that had relied heavily on Soviet aid and still others that played both sides of the coin; with this group consisting of countries that that drew aid revenue from the Soviets, Americans or both. However, the imminent collapse of the Soviet empire marked an end to at least this stream of military and non-military aid. U.S. foreign assistance simultaneously decreased across the board as the cold War threat had virtually disappeared. Policy priorities shifted to the development of post-Cold War Russia and the Eastern Bloc states, while aid to former "Axis" countries decreased.

During the same period, riding on the wave of political liberalization in Eastern Europe, decolonization movements continued to spread throughout Africa, Latin America and Asia. Additionally, strongman regimes that had been buoyed by foreign aid and military support in return for foreign allegiance, found themselves losing popular support

and subsequently overthrown and ousted by domestic opponents. With independence and democratization movements also came a demand for greater autonomy over domestic natural resources that were often controlled by Western-based multinational corporations. Countries that had primarily served as sources for raw materials to be shipped to industrialized nations for processing and manufacturing began to take ownership of these extractive industries. Nigeria began to nationalize the oil exports and negotiated deals with Shell and Exxon for a greater share of profits. South Africa formed a 50/50 development and marketing partnership with British-based DeBeers for exclusive access-rights their vast diamond reserves and Venezuela established state-owned Petrobás to regulate the awarding of oil-related contracts to multinational corporations. Newly discovered oil deposits and alluvial diamond tracts in Western African nations provided optimism for economic stability after decades of dependence on the West. This new-found wealth generated by global demand, provided optimism for facilitating economic development. Indeed, some countries such as Botswana managed to translate economic prosperity from diamond mining into a comprehensive social development plan. However, this success was not mirrored in other countries such as Nigeria, which was reeling from a history of other countries an historical legacy of ethnic and religious conflict. Unfortunately, for many regimes, huge windfall profits from controlled supply and high demand of natural resources fostered corruption throughout the ranks of government. The spoils of holding political office often meant the ability to "skim off the

top" of oil profits as well as taking kickbacks for the awarding of infrastructural contracts and other discretionary projects with little to no accountability. While vast oil profits were being realized, citizens continued to live in impoverished conditions while fighting to survive on the equivalent of two US dollars per day in the very regions where oil is being extracted. Many more resource-rich countries lacked the experience became mired embroiled. Yet in other nations, the severe underdevelopment of democratic institutions led to the exclusion of major stakeholders from the political process and thus, the removal of public input on how this new-found wealth would be distributed necessary to develop democracy and functional governance. Political democratization, especially within the sub-Saharan African region also allowed for the emergence of civil challenge, characterized by protest and civil violence, but falling short of full-scale civil war to become a useful tool in voicing grievances against the government. Oppressive regimes that had previously been able to quickly dissolve any acts of civil aggression were now susceptible to protest demonstrations, strikes and boycotts from an increasingly active civil society, war however continued to rage on in other countries that were still dominated by autocratic governments and lacked the political opportunities afforded to politically liberalizing states. Developing countries that were not as susceptible to price shocks are also able to benefit form the enhanced lifestyle that oil has been able to provide, while those countries that have a disproportionate dependence on oil and mineral exports, are highly susceptible to supply and demand forces which can have a devastating

effect when the price of commodities drops on the world market. During the 1990s there was also an increasing awareness of the environmental degradation caused by oil drilling, especially in the region of the Amazon basin as well as a backlash from organized workers movements in the mines of South Africa and Central America. Often, with the assistance of international non-governmental organizations indigenous populations and other exploited populations employed collective action techniques to challenge backroom deals that their governments and multinational corporations had colluded without any consideration for how those business would affect the lifestyle of citizens. While the development of the modern rentier state was in full process, it also spurred the development of widespread social movements that sought to challenge the adverse effects of mineral and oil rent dependence.

In writing this narrative, I essentially seek to set the background for the historic conflict that have surrounded the pursuit of oil and place its importance both in economic and political terms. Following the tragic era of World War II, Western dominance of the petroleum industry prevailed and . However, as the devastation of nuclear holocaust and the emergence international treaties and governing bodies such as the United Nations sought to mitigate the potential for a possible third World War, interstate conflict declined in prevalence. The sovereignty of governments began to take on greater importance; however the need and demand for oil did not wane and continued to increase exponentially. Colonial history coupled with ethnic and religious antagonisms can often

spark support for insurgency when vast inequalities exist and are divided along ethno-religious lines. This lays the background for the emergence of intrastate war as the dominant source on global conflict.

1.4 Rentierism as a Source of Conflict

We have thus far established the political implications of rentier states as well as the potential for wealth and resource dominance to influence particular patterns of political development. However, following from these premises, a growing corpus of literature has drawn strong links between natural resources and violent civil conflict, specifically civil war. Continuing in the same vein of global affairs in the pre and post-Soviet eras, it was during this time period that conflict scholars began to observe a shift in global conflict patterns. This pattern transitioned from interstate conflicts - primarily influenced by WWII and the subsequent series of proxy battles between Axis and Allied powers - to intrastate conflict, which involved various actors within one nation-state. Table X illustrates the decline of interstate wars and the growing frequency of intrastate wars. However, this now leads us to investigate the relationship between rentier states and civil conflict while seeking the answers to three specific questions: 1. Why do natural resource rents promote conflict? 2. Do abundant natural resources promote also promote low-intensity forms of civil conflict including protest and civil violence? And 3. Do other forms of civil conflict precipitate war? These three main questions will guide this

research study as well as leading to the development of further investigative inquiries into the complexities of the natural resource-conflict relationship.

The Resource Curse

The natural resource boom in the developing world, fueled by petroleum and mineral discoveries in the 1950s created unimaginable prospects for the future of developing countries, many who had for so long relied on aid to . A wealth of literature emerged both from economists and political scientists in an attempt to gauge the possibilities and consequences of this enormous potential wealth. Ross's (1999) review essay of three seminal books in the field by Karl (1997), Sachs and Warner (1995) and Shafer (1994) highlights some of the major concerns of this resource boom, primarily centering on the lack of economic planning and the corrupting effects of "overnight" wealth.

Greed and Grievance

In a series of papers that sought to develop a more refined examination of how natural resources influence civil wars, Collier and Hoeffler (1998a, 1998b, 2005) explore the all-important role that economics and politics or, using the more popular terminology, "greed" and "grievance" play in the onset, duration and frequency of civil conflict. In any rebellion, rebel groups seek to either gain control over or secede from the state often

utilizing violent tactics. The grievance models presumably emerge from a variety of circumstances related to perceived corruption or repression from a particular regime. In contrast, greed explanations are largely economic and establish civil conflict as a zero-sum game. Countries that are well-endowed with natural resources are more likely to experience civil conflict if rebel groups determine that the potential for "post-conflict payoffs," particularly from gaining control over natural resource deposits, outweigh the costs incurred through engaging in protracted battle. To be sure, plundering of resources often serve to finance wars on both ends. In the first of these two papers, Collier and Hoeffler explore the pure economic dynamics of civil war and find conflicting effects of natural resource endowments on conflict. Fractionalized populations, those with many ethno-linguistic groups are no more prone to war than those with highly homogenous populations, however, polarization between two large groups creates the greatest risk of civil war. The scenario likely entails two groups, both vying for political and economic power, while in the process oppressing members of the other group and hence, fostering feeling of discontent. As the level of natural resources increases so to does the risk of civil war, likely due to the opportunity costs of rebels who recognize how lucrative control of the particular resource can be. However, at high levels, natural resources have a lower risk of civil war. Increasing revenues presumably enable state actors to contain any possible insurgency through heavy investment in a military apparatus. While these presumptions are theoretically sound, the elementary nature of the statistical models

incorporated no control variables, a prime shortcoming of much of this stream of literature. Grievance indicators, however, provide little explanation for the onset or duration of civil conflict (Collier and Hoeffler 1998b).

Consequentially, the spoils of high-level government positions become very competitive as political power in the rentier state is often akin to economic power. With the prospect of little retaliation from civil society, officials are able to take kickbacks for the awarding of contracts to local and multinational corporations, "skim off the top" and encourages other various forms of graft. This is not to say that corruption is not present in non-rentier states, however, the opportunities are much higher while the probability of sanctions are minimal or non-existent. As such, in those few countries with an electoral process, elections and the stakes of running for political office can literally become a matter of life and death.

1.5 Current Study: Issues Explored

While the current chapter explored the cumulative literature on rentierism, its relation to civil conflict and the emerging salience of resource rents in the post-Soviet era, the following chapters represent three distinct quantitative studies that seek to examine the empirical linkages between energy and mineral rentierism. In Chapter 2, I focus on protest outcomes through an examination of two rentier states, Nigeria and Bolivia within the context of protest and rentier theory. Nigeria is a unique case, in that

the country has experienced periods of protest, violence and war, simultaneously since independence. The government of Bolivia, a resource-wealthy country with large deposits of energy and mineral-based resources, has faced formidable challenge from the indigenous populations that are often involved in the mining process.

I segue into Chapter 3 with a discussion of the effects of energy and mineral rentierism on civil violence. I discuss current theories of civil war and protest as well as the overlap and shortcomings of how those theories relate to instances of civil violence. I continue with an exploration of how protest in Nigeria ultimately devolves into a series of violent standoffs between Nigerian security forces and civil society groups. I also examine how patronage from the Moroccan monarchy has served to counter the threat of insurgency within a country that is rich in phosphate minerals.

Finally, Chapter 4 serves as a comparative study to investigate the influence of energy and mineral on civil war during the 1991 to 1999 time period. I juxtapose energy-wealthy states, Nigeria and Venezuela, and discuss how one country was able to avoid the threat of civil war, while the other was forced stave off coups attempts related to the government's mismanagement of oil wealth.

This dissertation ultimately aims to expand current conceptualizations of civil conflict to be inclusive of both civil protest and violence as these forms of civil contention have also been illustrated in the case literature to be induced or repressed

directly by rentier regimes. Using a series of robust models, refined measures and well-defined theoretical perspectives, I seek to fully explore rentier effects on civil conflict.

CHAPTER 2

RENTIERISM AND CIVIL PROTEST

> "I object to violence because when it appears to do good, the good is only temporary; the evil it does is permanent."
>
> ~Mahatma Gandhi

The case study literature has explored the genesis of anti-oil protests and miner strikes within Nigeria and Bolivia, two countries with a strong economic reliance on energy and mineral exports (Osaghae 1995; Frynas 2001) yet cross-national research on the resource-conflict relationship have given little attention to the protest dynamic[1]. Most quantitative studies have focused on the likelihood that oil and mineral-rich countries will devolve into civil war (Collier and Hoeffler 1998, 2004; deSoysa 2002; Reynal-Querol 2002; Fearon and Laitin 2003; Fearon 2004; deSoysa and Neumayer 2007; Humphreys 2005) while overlooking the impact of rentierism on low-intensity conflict. The dearth of large-N research examining the effects that resource rents may have on civil protest have limited the ability to develop generalized knowledge around this phenomenon. Are rentier states just as susceptible to demonstrations and civil discontent as they are supposedly war-prone? Are there distinctions in civil protest outcomes between

[1] One notable exception is Smith (2004) who finds that oil wealth is associated with a lower likelihood of antistate protest.

countries that export energy-based as opposed mineral-based commodities? Utilizing refined measures of energy and mineral resource rents (deSoysa and Neumayer 2007) and civil protest event counts (Jenkins, Taylor and Abbott forthcoming) I seek to close this empirical gap.

2.1 Rentierism and Protest in Context: Nigeria and Bolivia

Nigeria, as Africa's largest oil exporter, has witnessed widespread protest demonstrations specifically targeted against the government and oil industry. Nigeria has a legacy of oil reliance, with exports representing over 90% of total government revenue, and has further been ruled by repressive military regimes since independence. Emerging from 16 consecutive years of military rule, some semblance of democracy only recently took hold in 1999 and has been tenuous at best. The first civilian-to-civilian government handover of power in 2007 was overshadowed by an election that was criticized by international observers as being rife with irregularities. Ethno-religious tensions have historically been prevalent as inhabitants of the Northern regions are mainly Muslim with Southern states being primarily comprised of Christians. Although Nigeria has a plethora of distinct ethnic groups the Hausa/Fulani, Yoruba and Igbo ethnic groups have dominated the corps of the political elite. Decades of ethnic and religious cleavages have rendered the government largely ineffective at addressing the grievances of minorites.

Reeling from decades of civil war and regime changes, ethnic tensions continue to be a mainstay in Nigerian politics and are most apparent when examining the oil industry. During the 1990s, Nigeria's expansive petroleum industry primarily operated out of Ogoniland province, in the Southern region of Nigeria. The ethnic minority Ogoni tribe is primarily concentrated in the Rivers state region of the Niger Delta, an area rich in natural resources and coveted by the government and oil corporations for its petroleum reserves. However, the Ogonis had little voice in political affairs and an inability to influence any legislation that would alleviate major concerns regarding environmental degradation and a severe lack of community reinvestment from oil corporations operating in the region. The tribe relies on fishing and subsistence agriculture; however frequent oil spills and gas flares have had adverse ecological impacts on the region.

The culmination of grievances and lack of attention paid by the state eventually led to the Ogoni Uprisings between 1990 and 1993 which ultimately became a massive collective action effort to confront the Nigerian political elite. Numerous scholars have chronicled plight of the Ogoni ethnic community and this watershed event (Osaghae 1995; Yeomans 2004). The Movement for the Survival of the Ogoni People (MOSOP), a civil society group led by community leader Ken Saro-Wiwa developed a Bill of Rights that outlined the group's grievances, specifically demanding regional autonomy. MOSOP sought to empower themselves to handle their own internal political affairs which included diverting shares of oil revenue into local development projects.

Finding no recourse with the military regime in power, the Ogoni took their grievances directly to the oil companies themselves; Shell BP and Chevron were the three most dominant multinational corporations engaged in oil extraction at this time. In addition to demanding a direct share of oil revenue, the Ogoni coalition stipulated that the oil corporation offer restitution for the ecological damage that had already been caused by the drilling and the laying of above ground pipelines. According to a critique "…(the) MOSOP succeeded in shutting down Shell operations using nonviolent demonstrations throughout the region" (Yeomans 2004:85). The Ogoni leaders engaged in a series of acts of passive resistance to express their displeasure with the poor stewardship of oil resources and the lack of development in the region. This strategy, predictably, garnered no favor from oil multinationals or the Nigerian government. The reaction to the disruption of the flow of petrodollar was swift and harsh. Military personnel were dispatched in droves to the Niger Delta region; nonviolent action against the state and the state-protected oil industry eventually devolved into a series of frequent violent clashes between ethnic minority groups and security forces. However, this phenomenon is not unique to the Nigerian case. Widespread protest has emerged in a variety of contexts, spurned by natural resources disputes. Turning attention to Latin America, I explore how protest emerged in Bolivia, a country with sizeable mineral resources.

Bolivian tin miners have long been involved in both active and symbolic protests to bring attention to the dangerous labor conditions of the mines as well as questioning

the government's implementation of economic austerity policies and the lack of underdevelopment of the indigenous areas within the country. The Bolivian case paints a similar picture of state repression against popular uprisings, however with a much different outcome. The genesis of social movements in Bolivia particularly stemmed from the disputes over the abundance of natural resources that the country exports including tin, silver, oil and natural gas. Indigenous Bolivians make up over 70% of the population, are primarily poor and rely on agriculture or employment in the natural resource extraction sector for survival (Ho 2004).

Offering a stark contrast of protest outcomes in comparison to the Nigerian case, Nash (1993) develops an illuminating examination of the development of class solidarity amongst members of the Bolivian tin-mining communities. The author asserts that historical social cohesion and resistance to colonists, invaders and that movements have been largely influenced by the Marxist ideology that empowers the exploited proletariat to develop class-consciousness, transitioning actions from becoming a class "of itself" to a class "for itself." The men and women that have been drawn from indigenous communities were often forced to work under harsh conditions and were ill equipped to properly cope with the rigors of tin mining. Collective action focused on improving working conditions, were often met with swift retaliatory action by the military to quickly quell the potential for mass uprisings.

Kohl (2002) describes how global economic and political pressures caused the Bolivian government to implement unpopular economic policies that led to reemergence of widespread civil unrest during the 1990s. With the implementation of Structural Adjustment Programs and government decentralization, the Bolivian government sought to reduce expenses as well as increasing foreign investment and efficiency amongst is local industries. In an effort to more effectively deal with local municipalities, Lozado's government also shared 20% of the central budget with local governments. The combination of these events led to a "perfect storm" of civil contention that led to unintended economic and political outcomes. In 1994, the Law of capitalization partially privatized the telecommunications, electricity and railroad industries. The oil and gas sectors, which represented almost 48% of the government's revenue, were also entered into 50/50 partnerships with foreign investors. However, increased efficiency often met massive layoffs and workforce reductions, the oil industry alone shed 3,000 jobs within the first 5 years of capitalization. Due to other agreements and tax incentives, the Bolivian government's share of oil revenues also took a huge hit, dropping from 50% to 18%.

Bolivia was rocked with further protest when an executive decision was made to further reduce spending on social services and eventually eliminate subsidies on liquefied natural gas, causing the price to spike almost 25%; the vast majority of Bolivians use natural gas for cooking fuel. This price spike had a rippling effect throughout the

national economy as the prices for transportation were also raised, further agitating an already agitated populace. Protest demonstrations almost became a daily way of life throughout the country as interethnic and rural-urban coalitions were formed to contest the government's decision to implement these austerity measures in the face of a widening deficit. While it has had pitfalls along the way, Kohl (2002) chronicles how social protest led the government to develop an increased focus on incorporating citizens that had been denied routine access into the polity:

> …for many Bolivians it created the sense for the first time that as citizens they were entitled to make demands on their government. In some areas indigenous groups have formed separate indigenous municipal districts, which allow them to opt out of their respective municipalities and gain control over their share of revenue-sharing funds. It was this sense of entitlement that would complement a new focus on local demands that have shaped ongoing protests (465).

The LPP has had the most direct effect on facilitating social protest and meeting the needs of indigenous populations. However, the divvying of funds or revenue sharing has, by law, completely excluded the natural resource sector, over which the government still retains eminent domain. Although oil and gas extraction in particular still have a heavy hand in the environmental degradation, local municipalities have been rendered powerless in affecting change in that arena.

The country's historical legacy of mass collective action and grassroots organization culminated in the toppling of President Sanchez de Lozado and the eventual election of Bolivia's first indigenous president in 2003, Evo Morales. This watershed election also led to an executive agenda bent on land and natural resource wealth redistribution, to the benefit of the poor indigenous, who had been excluded from the political system and denied an interest in the revenue generated by resource extraction.

Qualitative studies have been useful is expanding scholarly knowledge on how protest emerges within diverse social contexts. As the two cases illustrate, citizens directly involved in the mining and extractive labor process as in Bolivia and those affected by the economic impact of extractive industry as in Nigeria both found common grievance brought on by rentierism. However, drawing general comparisons is a greater challenge given the lack of large-scale cross-national studies that focus specifically on protest as an outcome.

2.2 Theories of Civil Protest

Smith (2004) examined the effects of oil exports on antistate protest such as peaceful demonstrations, riots, and strikes and finds oil wealth to be strong predictor of regime stability with resource-endowed countries experiencing lower levels of protest. Seeking to explain why oil states are seemingly immune from protest, Smith only asserts "…that mechanisms other than repression drive the relative respite from protest that oil-

rich states enjoy" (2004:241). Smith's study however, fails to control for a number of other important socio-political factors that may contribute to protest such as those used in the natural resource-civil conflict literature. In addition, Smith's measurement of oil (value of oil exports normalized over GDP) suffers from endogeneity problems (Ross 2004). In spite of these shortcomings, Smith (2004) provides the most comprehensive empirical study to date for the resource wealth-protest relationship.

Protest and Rentierism

Collier and Hoeffler (2004, 2006) assert that natural resources are a major determinant of civil war, because they provide a financing source for rebellion. Rebels will seek to overthrow the government if the potential wealth of holding domain over natural resource revenues outweighs the potential risks. However, Collier further asserts that natural resource wealth will only initially cause an upsurge in rebellion as rents would eventually enable states to use revenues to invest in a repressive apparatus to further discourage the potential for civil disturbances. Given that Collier's model is focused on war and not low-intensity conflicts like protest, this theory provides little explanation for the effects of natural resource revenue on civil protest based on the current case-study evidence.

However, shifting the focus of the impact of resource rents from war to low intensity conflict such as protest can further illuminate the mechanism through which natural resource wealth can have on civil conflict. In contrast to the Collier and Hoeffler

model, actors involved in nonviolent protest, presumably, do not set out with the intention of organizing violence against the state. Though in Bolivia, increasing pressure on the executive from widespread protest eventually led to the resignation of President Lorenzo. This process occurred without the use of weapons, did not cause any conflict-related deaths, but was arguably connected to the state's perceived misuse of revenue from oil, gas and tin exports. Additionally, while MOSOP's Bill of Rights called for regional autonomy in Nigeria, violence was not initially used as a strategy to persuade that state to relent to the group's demands. As later chapters will explore, violent confrontations with the state eventually did become a form a resistance.

Another major component of Collier and Hoeffler's arguments is that violent conflict is likely to occur as a result of "greed" on part of the actors who would seek to attain a greater share of the wealth generated by the exports. They further assert that "grievance" is rarely a consideration in precipitating violence. Additionally, because the state owns the legitimate means of force, those whom would take violent action against the state are engaged in quasi-criminal activity. Indeed, one of the major grievances voiced by Saro-Wiwa and MOSOP was that the Ogonis should maintain autonomy over the land in which oil extraction is occurring. Simultaneously, however, the adverse ecological impacts of the extraction process rendered land and marine-life virtually unlivable as the Ogoni lifestyle is primarily reliant on subsistence farming and fishing. This is another major area where the natural resource-civil conflict literature falls short.

Actors do not necessarily seek to become "rich" from an eventual domination of resource wealth, most grievances are usually centered on the impacts of the natural resource economy on environmental degradation, fair pay and other labor rights issues. However, others scholars have also theorized on the mechanisms through which resource rents affect the state.

Main Hypotheses

Fearon (2005) argues that oil wealth reduces state capacity as dependence on resource rents grows; this operates through several mechanisms. Due to the high global demand of energy resources, especially oil, windfall profits can bring in vast amounts of revenue from the exports of energy resources. This dependence has a tendency to weaken state capacity as the state is largely funded by corporate "sponsors" in exchange for extraction rights and no longer relies on public taxation for revenue; states have little incentive to invest in diversifying the economy. Additionally, others have asserted that resource-reliance leaves countries susceptible to price shocks when the price of a particular resource drops on the world market, which can have reverberating effects throughout the economy and ultimately lead to political and economic decay. If we extrapolate Fearon's arguments and examine protest outcomes, we observe that oil wealth indeed had affects on nonviolent social movements within Bolivia. Following the negative price shocks that were experienced globally in the oil industry, the Bolivian

government was forced to rely on international donors for an economic bailout, in particular the IMF and World Bank, that instituted SAPs and austerity measures to reorganize the Bolivian economy. In an effort to increase the efficiency of local industries, the government also made the decision to partially privatize many critical local industries including the gas and oil. This move eventually led to increases in prices and Bolivians took to the streets to voice their displeasure. An increasingly weak Bolivian state allowed protest to become an effective tool and the Bolivian government responded by largely acquiescing to the demands of protesters that virtually shut down the country. There were no collective action problems to overcome, as Bolivians were united and steadfast in their demands. With the further implementation of the LPP, indigenous Bolivians were incorporated into the political fabric of society, which enabled them to seek economic redress. In contrast, oil-rich Nigeria was able to swiftly dispatch security forces to quell uprisings from the Niger Delta, demonstrating the strength that rentierism enables resource-wealthy states to put down insurgency, therefore:

H1: Higher energy-based resource rents will result in lower protest frequency

H2: Higher mineral-based resource rents will result in lower protest frequency

In contrast to political opportunity theory, some scholars have argued that threats and sanctions against citizens from a repressive regime are more of a motivating factor to

challenge the state through protest (Francisco 1995; Rasler 1996) and rebellion than the opening of a "political space" (Berejikian 1992; Goldstone and Tilly 2001); this is especially true for groups that are highly organized. Autocratic governments are notorious for using a heavy hand to quell any form of resistance against the regime. Rentier states make particular use of terror techniques in an effort to secure political and economic interests. Nigeria is illustrative, as the Babidinga government did not hesitate to use military force against member of the minority Ogoni ethnic clan in the wake of civil uprisings that disrupted petroleum operations. When the dust settled on the mass protests against Royal Dutch Shell Corporation, dozens of unarmed Ogoni protesters had been shot dead and several more were arrested. Sham trials were conducted and summary public executions were implemented for Ken Saro-Wiwa, the president of MOSOP, and his followers. The Nigerian government was swift to punish groups that had the potential to disrupt the flow of petrodollars or cause a reduction in extraction productivity. While the regime used heavy force either in response to civil uprisings and as a deterrent to future potential uprisings, communities in the region regrouped and continued to oppose the government. Jenkins and Schock (2003) additionally assert that the ability for social groups to mobilize resources around perceived threats is considerably lower than the cost of developing movements emerging from new political opportunities. The largest rentier states tend to be autocratic for which the use of violent force is typical. Additionally, autocratic regimes are also notorious for investing in and

maintaining standing militaries that can be called upon to quell hotspots of civil contention, hence:

H3: Resource wealthy states with strong militaries will experience fewer incidents of civil protest.

While rentier states are primarily developing countries, they are also subject to similar dynamics of the international trade system, often lack a well-developed domestic industry as well as relying on foreign aid for humanitarian and military support. However, what separates rentier states from other developing countries is the ability to "buy off" political support through the popular distribution of resource revenues. Within other political contexts, increased wealth would likely have enabled citizen access to organizational resources, which would precipitate increased political action. However, wealthier rentier states will be expected to experience fewer instances of protest as a result of "political patronage."

H4: Wealthier rentier states will experience fewer instances of protest

As asserted by Horowitz (1985) religious and ethnically plural societies are especially prone to conflict due to historical cleavages that have pitted one group against

another. These cleavages are usually manifested in the political and economic realms, which disadvantages certain groups that may not be members of the tribal elite. The differences between a minority group(s) and dominant group(s) will likely foster conflict through a variety of mechanisms and the magnitude of the difference will determine whether assimilation is possible. For example, the Hausa/Fulani, Yoruba and Igbo ethnic groups of Nigeria have historically dominated government, hereby putting them in direct conflict with the Ogoni ethnic groups that reside in the Niger Delta, the oil-rich areas of the country that provide the largest source of revenue for the government. Within the realm of ethnic divisions, numerical proportions can also play an important role as well. Horowitz (1985) and others further contend that where there exists a large ethnic majority and a smaller, but substantial ethnic minority, the majority is likely to maintain dominance in national political office. In this case, ethnic dominance of the political spheres has led to the repression of minority ethnic groups and created barriers to addressing their grievances.

H5: Greater ethnic heterogeneity within rentier states will lead to a higher risk of civil protest.

Political process theorists have taken the lead in helping to explain how and why protest emerges, primarily due to political opportunities. Some scholars argue that the

non-violent expression of grievance is likely to be levied in democratic environments where citizens can play a more active role in the political process (Gurr 1989; Davenport 1999). Democracies and states that create an environment for free expression through "political relaxation" tend to be more permissive of public expression of grievances and practice greater restraint in containing protest. In contrast, Eisinger (1973) offers a more nuanced perspective on protest; politically closed and repressive regimes are unlikely to allow any opportunity for political expression. He argues that citizens have little need for engaging in civil contentious activity in more politically open, democratic environments, therefore I expect that:

H6a: Politically open rentier states will encourage greater protest, and
H6b: Politically repressive rentier states will encourage greater protest

Many scholars have sought to draw distinctions between civil violence or rebellion and non-violent protest. However, Jenkins and Schock (2003) illustrate the two phenomena have quite similar origins. The socio-political conditions that foster protest are also likely to foster violence as well; therefore I expect that:

H7: Civil violence will stimulate greater protest

As Fearon and Laitin (2003) assert, contrary to popular belief, the end of the Cold War marked no significant increase in the onset of civil war and conflicts actually declined following the Soviet collapse. Many conflicts that were ongoing were primarily due to unresolved disputes that dated pre-dated the Soviet collapse. However, a legacy of intense conflict is likely to have a dampening effect on civil protest. States that have experienced civil uprisings are unlikely to create political opportunities that would enable behaviors that would challenge the state, thus I hypothesize that:

H8: Prior experience with civil war will deter protest

Countries with mixed elements of governance are more subject to protest and other forms of rebellion (Muller and Weede 1990; Hegre et.al. 2001; Marshall 2001; Hegre 2002), therefore political unstable and anocratic regimes, will be subject to higher levels of protest.

2.3 Model Statement and Variables

Method and Measurement

My primary aim is to identify whether socio-structural changes produce short-term changes in protest activity. To capture this phenomenon I employed panel cross-sectional time-series regression to see if annual changes in dependent variables affects

annual changes in the count of protest events. Protest is measured using event count data from the World Handbook of Political Indicators (Jenkins, Taylor and Abbot Forthcoming). Due to over dispersion of protest counts, a poisson regression model would produce standard error estimates that are biased and inefficient, so I employ a negative binomial regression model using the *xtnbreg* routine in Stata 10, which controls for the over dispersion of protest counts occurring over the course of a given year. Due to the nature of the data, which occurs across 104 panels or countries and 843 country-years, I correct for population averaged first order autocorrelation.

Dependent Variable

To capture nonviolent protest, I utilize annual event counts coded by Virtual Research Associates (VRA) KnowledgeManager™ from Reuters® Business Briefs (Jenkins, Taylor and Abbott forthcoming). For international news, Reuters® is the most comprehensive English language news source available (Gerner et.al. 1994; Sommers and Scarritt 1999); stories are written using uniform journalistic standards creating a reliable basis for automated coding. Through limiting incidences of protest to international new stories, I am more likely to identify events that have a far-reaching impact that catch the attention of political elites (Moulta-Ali and Jenkins 2008). Civil protest entails a variety of nonviolent civil actions including demonstrations, strikes and boycotts. Additionally, the data incorporate the defacement of public or private property.

Also included are protest obstructions such as those strategies utilized by indigenous groups in Bolivia whom formed human road blocks in response to the government's removal of fuel subsidies and served to essentially cut the entire country off from imports transported via roads and highways.

Independent Variables

To capture energy and mineral rentierism, I use data from the World Bank's Green Money Project (Bolt et.al 2002) and replicate the data used by deSoysa and Neumayer (2007). This data provides several distinct advantages over Fearon and Laitin's (2003) oil exporter dummy, which only includes countries in which fuel exports comprise greater than one-third of total exports. As Ross (2005) asserts, during times of war, a nation's domestic production capacity is adversely affected as the state's resources are usually channeled towards containing conflict resulting in oil exports being normalized over an unusually lower denominator due to conflict. In an attempt to develop a more refined measure of rentierism, Bolt et.al (2002) calculate the value of extractive resource using the following formula:

Rent = (Production Volume) (International Market Price – Average Unit Production Cost)

Through capturing actual revenue accumulated to the government minus production costs, this calculation avoids the endogeneity issues inherent in calculating oil exports over a declining domestic economic indicator (deSoysa and Neumayer 2007). However, energy rent maintains a moderately strong (.4), but statistically significant correlation with the oil exporter dummy variable at the .001 level (Appendix X). In addition, much of the natural resource-conflict literature draws an empirical link using a broad construction of "rent" and often conflating energy-based and mineral-based resources (cite) together along with other sources from which rents can be drawn including illicit drugs (cite), agricultural products (cite) and, foreign aid (cite). The Green Money Project draws upon data from several sources including British Petroleum, the International Energy Agency, International Petroleum Encyclopedia and the United Nations (see Bolt et.al. 2002:8), providing a robust database that enables scholars to distinguish between energy-based and mineral-based resources. As illustrated in deSoysa and Neumayer (2007) this dataset contains information on total rent accumulated from fuel-based resources including oil, natural gas and coal as well as total rent from mineral-based resources including bauxite, copper, iron ore, lead, nickel, phosphate rock, tin, zinc, gold, and silver. For comparability, the rent valued is normalized over gross national income which results in a continuous measure of what proportion of a country's economy is dominated by the natural resource sector without the use of an arbitrary cut-off point.

Control Variables

I expect that civil violence will have a strong influence on the frequency of protest due to the common origins of both forms of civil challenge (Jenkins and Schock 2003); to test this assertion, I include a measure of political violence by all civil actors from the *World Handbook of Political Indicators IV*, which includes event count data of armed attacks, assassinations and bombings (Jenkins, Taylor and Abbott forthcoming).

I also replicate a host of additional political indicators that have been shown to be important explanatory factors for civil war (Fearon and Laitin 2003; Collier and Hoeffler 2004; Collier 2005, deSoysa and Neumayer 2007). Levels of anocracy, democracy, and state instability are extracted from Polity IV data (Gurr and Jaggers 2003), which taps into the institutional dynamics of the political process including the recruitment and competitiveness of the executive office as well as the openness of popular participation in elections. The democracy and autocracy measures are dummy variables (1=democracy/anocracy, 0=no democracy/anocracy). Presence of democracy is drawn from the interpolated POLITY2 variable, which measures the level of democratic or autocratic institutionalism on a scale of -10 (full autocracy) to +10 (full democracy), whereas any country with a score greater than 6 is considered a consolidated democracy. In contrast, anocratic regimes contain mixed elements of both democracy and autocracy and are defined by a country that scores higher than a 4 in both categories. I measure

political instability using the Polity IV, REGIMECHANGE variable defined by a country that moves 2 or more points in either direction on the POLITY2 scale.

In examining ethnic and religious cleavages, I follow Fearon and Laitin's (2003) use to the ethnolinguistic fractionalization (ELF) index (Atlas Narodov Mira 1964) as well as their own measure of religious fractionalization . The ELF uses a combination of three factors: 1. The probability that two randomly drawn individuals in a country are from different ethnolinguistic group; 2. A measure of the share of population belonging to the largest ethnic group that we constructed from the CIA Factbook and other sources (Fearon 2002); (3) the number of distinct languages spoken by groups exceeding 1% of the country's population, based on Grimes and Grimes 1996; and (4) a measure of religious fractionalization (analogous to the ELF) that we constructed using data from the CIA Factbook and other sources.

Citizens are more likely to engage in protest under governments that create an open space for the expression of political grievance, I therefore include a one-year lagged measure of state relaxation from the *World Handbook of Political Indicators IV* (Jenkins, Taylor and Abbott forthcoming) that uses event count data to assess. Protest activity could be greatly encouraged or impeded depending on the nature of the regime response, I therefore draw a measure of state repression from Gibney and Dalton's (1996) Political Terror Scale which calculates individual country scores on a range of 1 (least repressive) to 5 (most repressive) according to the descriptions of countries in annual reports from

the US State Department using a one-year lag. This measure identifies the repressive characteristics of a regime based upon the frequency and scope of people being sanctioned for political views through imprisonment, torture and/or murder. Military and security forces are often deployed to contain protest activity and represent the long arm of the state, thus I included an indicator of state strength using a measure of military expenditures as a percent of GDP.

The validity of event count data has been the subject of much scholarly debate (Earl et.al. 2004). As the dependent measure of civil protest is based upon the frequency of news reports sent through protest outcomes could be directly affected by the independence of local journalists to report on incidents that occur. I control for possible news reporting bias using the van Belle's (2003) measure of Press Freedom. In addition, larger countries are likely to have more frequent protest events I therefore incorporate a one-year lagged measure of population size, which is also logged due to considerable skewness. I also include a one-year lagged measure of wealth based on GDP/capita. Researchers have argued that intermediate levels of development encourage protest. Hence I include a squared term of GDP/capita to determine if there are any additional non-linear effects of wealth on protest. As a country experiences longer periods of peace, the likelihood of conflict will decrease. Hence, I measure peace as an annual count of the years since the last time a country experienced civil war prevalence.

To examine states that may be subject to civil protest due to being recently created, I incorporate a dummy measure for states that have only been established within the prior two years. Additionally, countries that are physically divided (e.g. Pakistan, Indonesia, Palestinian Territories, etc.) are especially susceptible to secessionist war, I therefore also include a dummy measure for non-contiguous entities (1=contiguous, 0=non-contiguous). And finally, to measure geo-political variations in protest, I include a set of dummy measures based on world region, coded as '1' if the country resides in sub-Saharan Africa, the Middle East & North Africa, Latin America & the Caribbean, Europe, South Asia or East Asia and '0' if otherwise using western democracies (i.e. the United States, Australia and Western European countries) as a reference category (World Bank 2008). The base regression equation in Model 1 of Table 2X.a is as follows:

$$\text{Civil protest incidence} = \beta_0 + \beta_1\, \text{civilviolence} + \beta_2\, \text{priorwar} + \beta_3\, \text{wealth}_{(t-1)}$$
$$+ \beta_4\, \text{(ln)population}_{(t-1)} + \beta_5\, \text{noncontiguousstate} + \beta_6\, \text{newstate}$$
$$+ \beta_7\, \text{instability}_{(t-1)} + \beta_8\, \text{ethnicfract} + \beta_9\, \text{religiousfract}$$
$$+ \beta_{10}\, \text{anocracy}_{(t-1)} + \beta_{11}\, \text{democracy}_{(t-1)} + \beta_{12}\, \text{staterelaxation}_{(t-1)}$$
$$+ \beta_{13}\, \text{staterepression}_{(t-1)} + \beta_{14}\, \text{pressfreedom} + \beta_{15}\, \text{peaceyears}$$
$$+ \beta_{16}\, \text{wealth}^2_{(t-1)} + \beta_{17}\, \text{statestrength}.$$

2.4 RESULTS

Tables 2.2a and 2.2b show the results of the negative binomial regression analyses of energy rents on civil protest for the years 1991 through 1999. I begin by examining a standard set of control variables in Model 1 of Table 2.2a which includes civil violence, prior civil war, wealth (and a squared term), population, several institutional variables including state contiguity, state inception, state instability, ethnic and religious fractionalization, anocracy, democracy, state relaxation, state repression, press freedom, years of peace and military expenditures. For comparative purposes, I include the oil exporter dummy variable in Model 2 and the energy rents measure in Model 3. To identify any quadratic effects, I test both a squared and linear term of energy rents in Model 4. In Models 5 and 6, I explore whether wealth and state strength moderate the effects of energy rentierism on protest by testing individual interaction terms for both variables. Similarly, Table 2.2b shows the results of mineral rentierism on civil protest using a duplicate set of control variables in Models 7 and 10. Models 2 through 4 examine the interaction between mineral rentierism with religious fractionalization, state repression and state relaxation respectively.

These results reveal that the effects of energy rentierism on protest are sensitive to model specification. Moreover, mineral rents only show as significant, but positive in one model outside of the South Asian mineral rentier context (Table 2.2c, Model 7). When placed in comparable models, both the oil exporter dummy and the continuous energy rent measure show as negative, but non-significant. In terms of protest outcomes,

the energy rent measure offers no considerably different result than Fearon and Laitin's (2005) dichotomous variable. Energy rents exhibit an overall negative and significant effect on civil protest when I control for regionalism in Models 7 to 10.

Civil violence has a strong influence on protest incidence in energy and mineral rentier states indicating that, net of repression, groups already engaged in violent activity may simultaneously utilize non-violent strategies as well. Additionally, large populations and state instability also promote protest in both energy and mineral rentier states. States that have experienced a past civil war are unlikely to experience protest.

The interaction terms also illustrate some interesting nuances amongst both energy and mineral rentiers. Wealth overall operates as a catalyzing force for protest in most contexts, demonstrating that affluence prompts the use of non-violent strategies. However wealth serves as a deterrent in energy rentier states specifically. Affluent citizens in these societies are unlikely to pose a challenge to government through protest. Additionally, state strength alone has a no influence on protest except in Table 2.2a, Model 6 where it has a positive, significant effect. However, protest is muted amongst strong energy rentiers, highlighting the ability of military forces to deter non-violent approaches. In contrast, mineral rentier states that are strong (Table 2.2c, Model 3) or are run by governments that open up a space for political expression (Table 2.2c, Model 4) experience more protest. Religiously fractionalized mineral rentiers also encounter greater instances of protest.

VARIABLES	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Oil Exporter		-.351				
		(.250)				
Energy Rents$_{(t-1)}$			-1.753	-3.244**	-.426	-.162
			(1.090)	(1.273)	(1.114)	(.987)
Energy Rents$^2_{(t-1)}$				3.084**		
				-(1.569)		
Civil Violence	.010***	.009***	.009***	.009***	.009***	.008***
	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)
Prior War	-.257	-0.278*	-0.273*	-0.288*	-0.296*	-0.287*
	(.171)	(.166)	(.161)	(.161)	(.161)	(.152)
Wealth$_{(t-1)}$	.133	0.137*	0.149*	0.154**	0.165**	.134*
	(.076)	(.074)	(.077)	(.076)	(.075)	(.072)
Weath$^2_{(t-1)}$	-.006	-.006	-.006	-0.006*	-.006	-.005
	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)
log$_e$Population$_{(t-1)}$	.628***	.639***	.658***	.670***	.655***	.660***
	(.067)	(.068)	(.068)	(.068)	(.066)	(.067)
Non-contiguous state	.065	.054	.060	.053	-.010	.111
	(.203)	(.196)	(.193)	(.189)	(.194)	(.170)
New State	-.269	-.238	-.230	-.214	-.211	-.234
	(.377)	(.384)	(.391)	(.394)	(.391)	(.405)
Regime Instability	.227*	.249**	.249**	.257**	.243**	.280***
	(.108)	(.106)	(.107)	(.107)	(.105)	(.106)
Ethnic Fractionalization	-.015	.040	.090	.128	.036	.141
	(.387)	(.378)	(.377)	(.376)	(.375)	(.393)
Religious Fractionalization	-.222	-.301	-.305	-.339	-.374	-.296
	(.315)	(.327)	(.314)	(.315)	(.304)	(.291)
Anocracy$_{(t-1)}$	-.027	-.059	-.072	-.088	-.122	-.076
	(.220)	(.215)	(.208)	(.206)	(.207)	(.207)
Democracy$_{(t-1)}$	.173	.116	.073	.048	.021	.120
	(.234)	(.219)	(.220)	(.216)	(.220)	(.222)
State Relaxation$_{(t-1)}$	.008	.009	.007	.007	.006	.003
	(.008)	(.008)	(.008)	(.008)	(.008)	(.008)
State Repression$_{(t-1)}$	-.054	-.033	-.031	-.024	-.019	-.022
	(.064)	(.064)	(.065)	(.065)	(.065)	(.063)
Military Strength	.004	.011	.018	.020	.024	0.101***
	(.029)	(.030)	(.030)	(.030)	(.027)	(.037)
Press Freedom	.046	.037	.030	.022	.003	.024
	(.062)	(.061)	(.062)	(.062)	(.062)	(.061)
Peace Years	.007	.007	.007	.007	.007	.007
	(.005)	(.005)	(.005)	(.005)	(.005)	(.005)
Energy Rents*Wealth					-0.468**	
					(.200)	
Energy Rents*Military Strength						-0.472***
						(.154)
Constant	-5.362***	-5.458***	-5.629***	-5.732***	-5.533***	-5.876***
	-(.630)	-(.640)	-(.627)	-(.642)	-(.618)	-(.624)
	(.630)	(.640)	(.627)	(.642)	(.618)	(.624)
Countries	104	104	104	104	104	104

Standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05

Table 2.1a: Negative Binomial Regression of Civil Protest and Energy Rents, 1991-1999

VARIABLES	Model 7	Model 8	Model 9	Model 10
Mineral Rents$_{(t-1)}$	2.451	-1.522	-4.322	-.746
	(2.160)	(2.256)	(3.836)	(2.204)
Civil Violence	0.010***	0.010***	0.010***	0.008***
	(.002)	(.002)	(.002)	(.002)
Prior War	-.249	-.247	-.246	-.252
	(.171)	(.169)	(.169)	(.159)
Wealth$_{(t-1)}$	.139	0.137*	0.135*	0.129*
	(.078)	(.077)	(.077)	(.075)
Weath$^2_{(t-1)}$	-.006	-.006	-.006	-.006
	(.004)	(.004)	(.004)	(.004)
log$_e$Population$_{(t-1)}$	0.634***	0.626***	0.634***	0.621***
	(.068)	(.069)	(.068)	(.071)
Non-contiguous state	.059	.058	.061	.018
	(.206)	(.203)	(.205)	(.205)
New State	-.272	-.246	-.275	-.299
	(.377)	(.384)	(.375)	(.370)
Regime Instability	0.226*	0.224**	0.224**	0.223**
	(.109)	(.111)	(.109)	(.113)
Ethnic Fractionalization	-.021	-.059	-.025	-.116
	(.389)	(.388)	(.387)	(.380)
Religious Fractionalization	-.189	-.320	-.182	-.148
	(.324)	(.331)	(.325)	(.327)
Anocracy$_{(t-1)}$	-.008	.004	-.004	.014
	(.224)	(.224)	(.224)	(.222)
Democracy$_{(t-1)}$	.186	.188	.196	.226
	(.236)	(.232)	(.238)	(.238)
State Relaxation$_{(t-1)}$	.008	.009	.008	.007
	(.008)	(.008)	(.008)	(.007)
State Repression$_{(t-1)}$	-.057	-.048	-.062	-.057
	(.064)	(.064)	(.063)	(.063)
Military Strength	.004	.004	.005	.013
	(.029)	(.029)	(.029)	(.029)
Press Freedom	.043	.045	.042	.060
	(.062)	(.062)	(.062)	(.061)
Peace Years	.006	.007	.007	.007
	(.005)	(.005)	(.005)	(.005)
Mineral Rents*Religious Fractionalization		32.686**		
		(13.129)		
Mineral Rents*State Repression			2.423**	
			(.950)	
Mineral Rents*State Relaxation				3.742**
Constant	-5.446***	-5.358***	-5.437***	-5.350***
	(.657)	(.656)	(.656)	(.661)
Country-Years	843	843	843	843
Countries	104	104	104	104

Standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05

Table 2.1b: Negative Binomial Regression of Civil Protest and Mineral Rents, 1991-1999

Many variables were unexpectedly non-significant including ethnic and religious fractionalization as well as state repression and state relaxation, which had no effect on protest. Status as a democratic or anocratic society also has no influence on protest incidence. Most of the regional dummy variables also offered no explanatory power, with the exception of East Asian states in Models 9 and 10, which exhibit a significantly lower susceptibility to protest. Years of peace was also inconsistent in its effects on protest, only showing as positive and significant in Table 2.2b, Model 9 when controlling for a South Asian energy rentier interaction.

2.5 Discussion

These results reveal that when examining protest outcomes, the continuous energy rentier variables provides no significant empirical advantage over the oil exporter dummy, as both measures are nonsignificant in comparable models. Protest is largely unaffected by energy rents except when controlling regional variations and the squared term of energy rents. This quadratic equation reveals the linear term of energy rent to be negative and significant while the squared term of energy rent is positive and significant. This indicates a U-shaped curve in which lower and higher levels of rentierism are associated with higher protest frequency. Why this U-shaped relationship between protest and energy rentierism? To explore this further I plotted a quadratic fit of the observations for protest frequency and squared values of mineral rents (Figure 2.1).

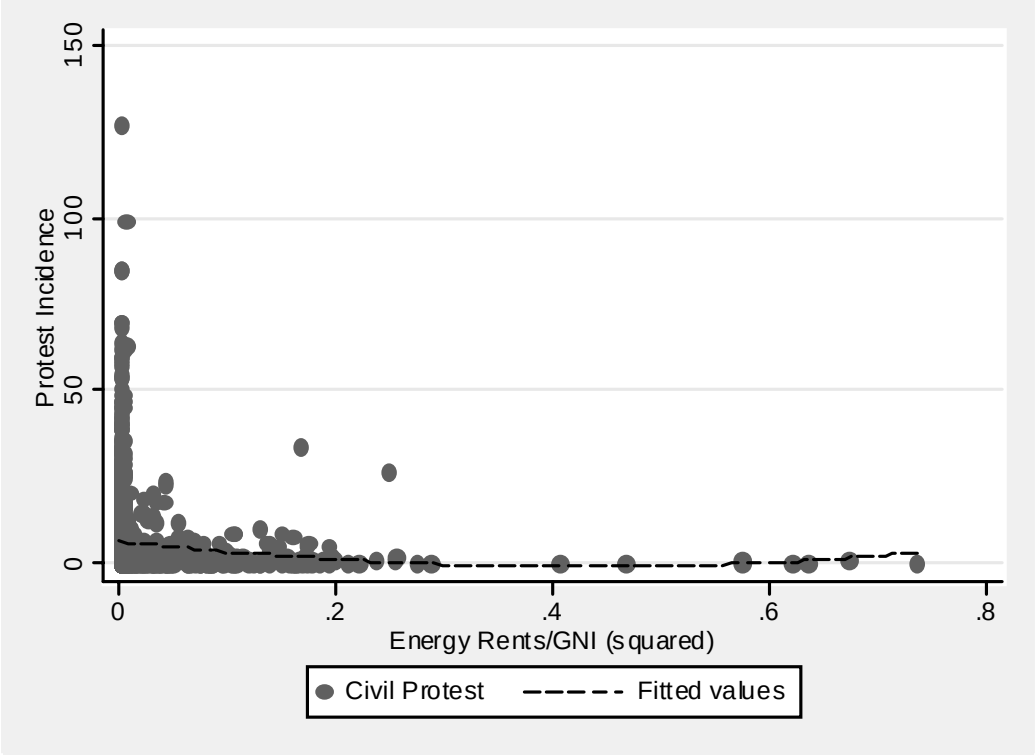

Figure 2.1: Scatterplot and quadratic fit line of Protest Incidence and Energy Rents (squared)

Increasing from low to intermediate levels of energy rent is associated with decreasing levels of protest, while increasing from intermediate to higher levels of energy rentierism will lead to greater incidence of protest. The majority of cases are concentrated at the lower end of the energy rent spectrum suggesting that higher protest is largely associated with countries that generate lower levels of energy rent revenue[2]. Protest is also mostly unaffected by mineral rents and only shows as significant when controlling for an interaction term that isolates South Asian mineral rentiers in Model 7 of Table 2.2c. However, religiously fractionalized, politically repressive and mineral rentiers that provide openings for political expression are highly susceptible to protest.

Overall, both energy and mineral rentiers states are largely insulated from protest, but these findings also describe several novel characteristics of rentier states:

(1) The effects of energy and mineral rent on protest are context-specific. While there is little evidence to support the notion that rent induces or restricts protest, energy rentiers with strong militaries as well as wealthy energy rentiers enjoy relative immunity from protest. Wealthy states can afford to pay "oil dividends" to their citizens and, as a result,

[2] I replicated the quadratic equation of energy rents (Table 2.1a, Model 4) excluding Nigeria, the largest energy rentier in the analysis. The significant effect of the squared energy rent term disappears, while the negative linear term remains significant (results not shown) indicating that the U-shaped effects of energy rents on protest are driven by civil contention in Nigeria.

maintain higher standards of living, which is likely to decrease the chances of revolt[3]. Protest becomes more risky as levels of affluence increase, as the costs of challenging a regime become much higher. However, in many neo-patrimonial regimes, in which states function under military rule or at the will of military commanders, citizens rarely realize the benefits of increased resource which may create an ideal environment for rebellion. In contrast, religiously fractionalized mineral states experience greater protest, likely due to difficulties in maintaining peace within pluralistic societies. Additionally, repressive mineral rentier spark protest, indicating that collective action problems are overcome when groups are faced with direct threats from a regime. Following from this premise, when opportunities for political expression are exposed through the relaxation of regime sanctions, citizens in mineral rentier states also seize this occasion to protest.

(2) The relationship between energy rent and protest occurrence is a U-curve, meaning that, countries at both the low and high ends of the energy-rent spectrum generally experience greater protest than countries that generate intermediate levels of energy rent, although considerable levels of protest in Nigeria are driving this result

[3] Wealth and energy rents were not significantly correlated in a separate matrix (not shown) between one, two and three-year lagged values of both variables.

(3) Energy rents have major regional differences in how they interact with protest. Countries within the Middle East and North Africa have generally been able to avoid the protest movements that are largely prevalent in sub-Saharan Africa.

2.6 Conclusion

The dichotomy between oil-exporting Nigerian and mineral-rich Bolivia are telling. The case evidence illustrates that both countries experienced widespread protest activity during the 1990s yet regime responses to civil challenge were vastly different. Oil extraction in Nigeria primarily relies on a specialized labor force. Due to the specialized nature of the oil industry, most employees of oil corporations are expatriates that are brought in from abroad to operate capital-intensive machinery to extract oil from deep beneath the surface of the earth. In contrast, mineral extraction in Bolivia relies heavily on human labor drawn primarily from an indigenous labor force. With the ultimate goal of minimal disruption to the extraction industry, Nigerian security forces were dispatched to violently suppressed threats from civil society groups, who were of no particular importance. Ironically, the Bolivian government's dependence on manual labor empowered indigenous workers to force the Bolivian government into a bargaining position. No workers in the mines meant a severe slowdown or possible downturn to their domestic economy.

In conclusion, to fully understand the effects of rentierism on protest, context matters. Rentierism does not generally have an influence on protest, however within certain energy rentier states protest is greatly suppressed, while specific mineral rentiers experience higher levels of protest. The following chapter will explore how rentierism affected protest within this time period.

CHAPTER 3

RENTIERISM AND CIVIL VIOLENCE

> "The cause of violence is not ignorance. It is self-interest. Only reverence can restrain violence - reverence for human life and the environment."
>
> ~ William Sloan Coffin
> Peace Activist

3.1 RENTIERISM AND VIOLENCE IN CONTEXT: NIGERIA AND MOROCCO

Following the execution of MOSOP leader Ken Saro-Wiwa, the Niger Delta conflict continued to devolve into interethnic clashes between groups with claims to oil territory while the Nigerian military utilized repressive tactics to protect the oil industry. The emergence of youth gangs hijacking oilrigs and sporadic oil pipeline vandalism signaled the spread of discontent throughout the region. While the non-violent protest movements MOSOP staged during the early 1990s aimed to correct a perceived social injustice, the military government of Sani Abacha dispatched their resources to repress potential insurgency. Military repression, as evidenced in the previous chapter, had no effect.

Indeed, protest has often escalated into violence when either side of a given conflict failed to reach an accord (Almeida 2003). Nigeria is especially salient because

promises of a democratic transition in the latter half of the decade never came to fruition. In a context where organized citizenry are empowered to hold politicians accountable for their actions as well as maintaining the ability to install and remove elected officials from power through the electoral process (cite). During the rash of "third wave" democracies throughout Latin America, Eastern Europe and parts of sub-Saharan Africa, civil protest was often a salient factor in prompting regime change or moves towards democracy. Non-violent strategies were often coupled with violent rebellion often with active support from various International non-governmental organizations. Civil society, however, is severely hindered in oil and mineral-reliant countries primarily through the process of purchasing loyalty to the regime and repressing potential dissidents. In this vein, the Three R's, while inhibiting the development of democracy, also restrict the ability of civil actors to engage in non-violent political strategies to express their grievances. The continual discovery of new and proven inland and off-shore oil reserves within developing countries has revived hopes of a development agenda for many cash-strapped governments. In Venezuela, the Chavez government has won the hearts and minds of many constituents through the use of strategies that divert oil revenues to poorer communities. Chavez, however, has been criticized for neglecting the importance of diversifying the economy rather than solely relying on oil wealth. In Nigeria, the promise of oil has been hampered by a variety of factors related to corruption and repression, the inequitable distribution of wealth and ethnic competition; 80% of oil and natural gas

revenues went to 1% of the population while 70% of the population lives on less than $1/day. These vast inequalities are further exacerbated by the exploitative nature of multi-national petroleum companies within the country. British oil company, Shell, has made over $30 billion in profits from extraction in Nigeria, but has only a 30% success ratio for proposed village improvement projects in the Niger Delta region, which is central to Nigeria's extraction industry. This lack of commitment and accountability has led to increasing levels of violence against the Nigerian government and oil workers by various ethnic groups occupying the Delta region. Due to increased exploitation of petroleum in Nigeria, violent insurgency has become one of the few options that disenfranchised indigenous peoples have been able to exercise. In response to rising levels of violence in the Niger Delta, the government has adopted a "zero-tolerance" policy on kidnappings and acts of terror. If it is true that extractive economies have a repressive effect we would expect to see one of two outcomes: 1. Increasing levels of repression will cause insurgent factions to lash out at the government in demand for greater shares of profit or 2. Government repression will be institutionalized in the form of an increased size of the military and other repressive forces to keep insurgent forces in check.

An examination of Middle East and North African (MENA) countries offer an interesting perspective of rentierism as well. The MENA region has been particularly devoid of democratic institutions of which the case literature has attributed to patronage

(cite). While much attention has been focused on the oil extraction industry, there has been little scholarly focus on the mineral richness of this region as well. For example, Morocco, a country in the North African/Mahgreb region, is not endowed with the oil resources of its regional neighbors, but holds domain over two-thirds of the world's phosphate resources (cite)[4], a valued ingredient in commercial agricultural fertilizers.

However, Morocco has not been plagued with the widespread civil violence that its Eastern neighbor Algeria, which has been the target of several terrorist attacks in recent years. Ruled by a monarchy since independence, Morocco heavily invested in a repressive apparatus that could be called upon to quash any dissent to the ruling monarchy and was used with relative impunity. Pressure from civil society groups during the 1990s to move the country on a path towards democracy drew a visceral response from the ruling family. Under the rule of Hassan II, Amnesty International notes that scores of political dissenters were jailed, tortured or otherwise exiled during he rule of notes that during this period. Urban protests in the major cities of Fez, Casablanca and Marrakesh, highlighted widespread discontent with the authoritarian regime and its handling of political affairs. Facing a declining economy, reductions in foreign aid and an international backlash against human rights abuses, the palace was coerced into changing its approach to the handing of opposition groups. Haddidi (2002) chronicles how the king took unprecedented steps throughout the 1990s towards liberalization

[4] Much of Morocco's mineral resources are located within the phosphate-rich region of Western Sahara, which is currently involved in a territorial dispute with the Moroccan government. However, for the purposes of this analysis, Western Sahara is considered as part of Morocco.

including the release of hundreds of political prisoners and the establishment of a convention to review the constitutionality of many of the country's laws. Liberalization reforms instituted by the succeeding monarch, Mohammed VI witnessed the release of thousands of political prisoners and further opened up the legislature to a free-and-fair electoral process.

However, other scholars suggest that Morocco has been able to successfully execute a "divide and conquer" strategy in its approach to political opposition groups. Cavatorta (2007) posits that the Moroccan monarchy walks a fine line between instituting liberalization reforms and quashing political dissent. While many civil society groups seek to officially end the monarchy's rule and establish a republic, the royal palace has routinely and systematically undermined the opposition's efforts to usurp the regime. Cavatorta (2007) also asserts that many charities in Morocco appear to operate independently, but rely on the monarchy as a primary funding source. While the groups are often in engaged in social service activities their major purpose is to "…show the general population that the king cares about their wellbeing" (199). (cite) argues that this form of social patronage serves to co-opt any possible opposition to the status quo and ultimately reinforces the political power of the rentier regime. Instead of becoming a liability to his grip on executive powers, in a sense, civil society groups have inadvertently served to legitimize the king, as their reliance on and the fear of Islamism has placed the king in a position

Despite the liberalization progress made during the 1990s, towards the close of the decade, Morocco still teetered on the brink of authoritarianism, with the king maintaining control over day-to-day political decisions. As Cavatorta (2007) illustrates, the palace has successfully managed to finagle the political system in its favor. (Cite) would contend that this "anocracy," a political system that contains both democratic and autocratic elements, is most susceptible to political violence as total freedom of expression is difficult to express, but there is simultaneously a lack of total repression that could possibly serve to circumvent potential insurgency. This is further supported by Layachi's (1999) observation that Morocco laid on the brink of social implosion during the 1990s. Economic reforms promoted by trade agreements with the European Union within the country fell short of expectations; unemployment remained high in the urban centers and was exacerbated by a demographic youth "bulge." Massive outbreaks of protest prompted by frustrated students, trade unions and members of other social groups brought fear of a possible eruption of violence similar to the occurrences in bordering Algeria. The monarchy's dominance and mismanagement over development programs placed the stability of the kingdom at risk. I seek to further explore the role that rentierism had on the advent of civil violence both in Morocco, the Mahgreb and globally.

3.3 Theories of Civil Violence

Civil Contention

As illustrated in Nigeria, protest has had catalyzing effects on subsequent violence. The grievances of residents in the oil rich regions of Southern Nigeria were often met with disproportionate levels of repression from security forces. As framed by Moore (1998), tactical shifts to violence inevitably result in tit-for-tat acts of aggression between militants and government forces. What the current literature has failed to address is the fact that not all episodes of civil violence result in full-blown civil war. Hence, the inclusion of conflict hot zones, such as those in Nigeria, goes largely ignored in current quantitative models of the resource-conflict literature. Incidences of violence can have equally detrimental effects on societal decay even though a battle for control over central state authority - as through civil war - may not be a factor. In Nigeria, violence is largely concentrated in a Southern region that is remote from the state capital and seat of central government in Abuja, so the threat of a government overthrow remains minimal. And although one of the major grievances from rebels in the region entails greater autonomy over resource wealth, there has been no major effort to officially secede from the country. Despite this fact, the rash of violence in the region has resulted in a vehement response from military forces in addition to significantly reducing oil production, Nigeria's primary source of revenue. However, through a narrow examination of war alone, scholars have missed other deteriorating conditions that can be created in violence-prone rentier states. Utilizing event-count data from a newly

available World Handbook for Political Indicators IV (Jenkins, Taylor and Abbott forthcoming) we can analyze the relative frequency of such incidents that deserve further scholarly inquiry.

Despite the fact that systematic violence has been overlooked in the literature, many of the social, political, and economic factors that lead to civil war, also have an important influence on civil violence. The seminal paper by Fearon and Laitin (2003) laid the groundwork for many recent studies of civil war while emphasizing ethno-religious tensions as a major cause of conflict. As Smith (1998) asserts, it is imperative for quantitative scholars to test alternative models and measures to increase our faith in our theoretical perspectives.

Violence and Rentierism

Collier and Hoeffler (2003) affirm that natural resources are a major determinant of civil war, because they provide a financing source for rebellion. Rebels will seek to overthrow the government if the potential wealth of holding domain over natural resource revenues outweighs the potential risks. However, Collier (2005) further asserts that natural resource wealth will only initially cause an upsurge in rebellion as rents eventually enable states to use revenues to invest in a repressive apparatus to further discourage the potential for civil disturbances. Indeed, Nigerian rebels were able to

utilize “black market” oil and kidnapping ransoms to finance the insurgency against the government through the purchase of small arms and weapons training.

Conflict-related deaths are a usual occurrence during protracted conflicts, but may lack the threshold numbers to be considered a civil war by the standard battle-death thFearon (25 battle-deaths) or Collier and Hoeffler (1000 battle-deaths) standards. As the following chapter will explore, violent confrontations with the State did eventually lead to a battle of over central state authority in some contexts.

Another major component of Collier and Hoeffler’s (2005) arguments is that violent conflict is likely to occur as a result of “greed” on part of the actors who would seek to attain a greater share of the wealth generated by the exports. They further assert that “grievance” is rarely a consideration in precipitating violence. Additionally, because the state owns the legitimate means of force, those whom would take violent action against the state are engaged in “quasi-criminal” activity. Indeed, one of the major grievances voiced by Saro-Wiwa and MOSOP was that the Ogonis should maintain autonomy over the land in which oil extraction is occurring. Simultaneously, however, the adverse ecological impacts of the extraction process rendered land and marine-life virtually unlivable, as the Ogoni lifestyle is primarily reliant on subsistence farming and fishing. This is another major area where the natural resource-civil conflict literature falls short. Actors do not necessarily seek to become “rich” from an eventual domination of resource wealth; most disturbances do indeed evolve from legitimate grievance and in

rentier state have usually centered on the impact of the natural resource economy on environmental degradation, fair pay and other labor rights issues. On the other hand, some scholars speculate that resource rents have peculiar effects on the state as well.

Fearon (2005) argues that oil wealth reduces state capacity as dependence on resource rents grows; this operates through several mechanisms. Due to the high global demand of energy resources, especially oil, windfall profits can bring in vast amounts of revenue can be realized from the exports of energy resources such as oil, gas and to a lesser extent, coal as well as valuable minerals such as gold and diamonds. This dependence has a tendency to weaken state capacity as the state is largely funded by corporate "sponsors" in exchange for extraction rights and no longer relies on public taxation for revenue; states have little incentive to invest in diversifying the economy. Additionally, others have asserted that resource-reliance leaves countries susceptible to price shocks when the price of a particular resource drops on the world market, which can have reverberating effects throughout the economy and ultimately lead to political and economic decay. Therefore, I hypothesize that:

H1a: Rents from energy resources are associated with a lower risk of civil violence; and

H1b: Rents from mineral resources are associated with a lower risk of civil violence

Autocratic regimes are notorious for investing in and maintaining standing militaries that can be called upon to quell hotspots of civil contention. The state's superior resources often result in a further imbalance of force against dissidents (Davenport 2004). By all accounts, violence in the Niger Delta region did not escalate until the state took disproportionate measures to repress citizens in the region. Mass arrests, jailing and gun battles in these regions prompted the emergence of ethnic militias. The magnitude of a government's response to civil insurgency will force rebels to weigh the costs of engaging in violent action with the state. Deployment of strong military is likely to serve as a deterrent to violent activity, therefore:

H2: Rentier states with strong militaries will have a lower incidence of civil violence

Religious and ethnically plural societies are especially prone to conflict due to historical cleavages that have pitted one group against another for political and economic power (Horowitz 1985). These cleavages are usually manifested in the political and economic realms, which disadvantages certain groups that may not be members of the tribal elite. The differences between a minority group(s) and dominant group(s) will likely foster conflict through a variety of mechanisms and the magnitude of the difference will determine whether natural tolerance is possible. For example, the Hausa/Fulani, Yoruba and Igbo ethnic groups of Nigeria have historically dominated government,

hereby putting them in direct conflict with the Ogoni ethnic minority that reside in the Niger Delta, the oil-rich areas of the country that provide the largest source of revenue for the government. Within the realm of ethnic divisions, numerical proportions can also play an important role as well. Horowitz (1985) and others (cite) further contend that where there exists a large ethnic majority and a smaller, but substantial ethnic minority, the majority is likely to maintain dominance in national political office and likely control over natural resource extraction. In this case, ethnic dominance of the political spheres has led to the repression of minority ethnic groups and created barriers to addressing their grievances in a nonviolent When nonviolent tactics were employed against the Nigerian government, a severe military backlash led to the use of violence therefore,

H3a: Religiously diverse rentier states will be violence-prone, and

H3b: Ethnically diverse rentier states will be violence-prone

Jenkins and Schock (2003) argue that democratization creates increased opportunities for civil violence as those who seek to challenge the state are enabled to further advance their political claims. Democratic states are more permissive of expression of grievances and tend to practice greater restraint. Others contend that countries with mixed elements of governance are more subject to violent rebellion

(Muller and Weede 1990; Hegre et.al. 2001; Marshall 2001; Hegre 2002). Hence I hypothesize that:

H4a: Democracy creates opportunities for civil violence, and
H4b: Countries with mixed elements of democracy and autocracy or "anocracies" create opportunities for civil violence

A related argument stems from state control. The relaxation of political controls will enable civil challengers to engage in violence if they are optimistic about their chances of success (Jenkins and Schock 2003). In contrast, the most autocratic governments are notorious for using a heavy hand to silence any form of resistance against the regime (Almeida 1993). Nigeria is illustrative, as the Babidinga government did not hesitate to use military force against member of the minority Ogoni ethnic clan in the wake of civil uprisings that disrupted petroleum operations. When the dust settled on the mass protest against Royal Dutch Shell Corporation, dozens of unarmed Ogoni protesters had been shot dead and several more were arrested. States often employ disproportionate force in response to civil uprisings to serve as a deterrent. However, some scholars argue that repression is a greater motivator for violent civil action than opportunities created by state relaxation (Berejikian 1992; Goldstone and Tilly 2001).

Indeed, armed Nigerian militias subsequently attacked oil facilities, kidnapped oil workers and engaged military forces in numerous gun battles. Thus I hypothesize that:

H5a: State relaxation stimulates greater civil violence, and

H5b: State repression stimulates greater civil violence

Many scholars have sought to draw distinctions between civil violence or rebellion and non-violent protest. However, Jenkins and Schock (2003) illustrate the two phenomena have quite similar origins. The socio-political conditions that foster protest are also likely to foster violence as well; therefore I expect that civil violence activity will simultaneously be a catalyzing force for protest.

3.3 Model Statement and Variables

Method and Measurement

My primary aim is to identify whether socio-structural changes produce short-term changes in violent activity. To capture this phenomenon I employed panel cross-sectional time-series regression to see if annual changes in dependent variables affect annual changes in the cumulative frequency in acts of violence. Civil violence is measured using event count data from the World Handbook for Political Indicators IV (Jenkins, Taylor and Abbot forthcoming). Due to over dispersion of the protest counts, a

poisson regression model would produce standard error estimates that are biased and inefficient, so I employ a negative binomial regression model using the *xtnbreg* routine in Stata 10, which controls for the over dispersion of protest activity occurring over the course of a given year. Due to the nature of the data, which occurs across 104 panels (countries) and 843 country-years, I correct for population averaged first order autocorrelation.

Dependent Variable

To capture civil violence, I utilize annual event counts coded by Virtual Research Associates (VRA) KnowledgeManager™ from Reuters® Business Briefs (Jenkins, Taylor and Abbott forthcoming). For international news, Reuters® is the most comprehensive news source available (Gerner et.al. 1994; Sommers and Scarritt 1999); stories are written using uniform journalistic standards creating a reliable basis for automated coding. Through limiting incidences of civil violence to international new stories, I am more likely to identify events that have a far-reaching impact that catch the attention of political elites (Moulta-Ali and Jenkins 2008). Civil violence entails a variety of nonviolent civil actions including demonstrations, strikes and boycotts. Additionally, the data incorporate the defacement of public or private property. Also included are protest obstructions such as those strategies utilized by indigenous groups in Bolivia whom formed human road blocks in response to the government's removal of fuel subsidies and

served to essentially cut the entire country off from imports transported via roads and highways.

Independent Variables

To capture energy and mineral rentierism, I use data from the use of the World Bank's Green Money Project (Bolt et.al 2002) and replicate the data used by deSoysa and Neumayer (2007). This data provides several distinct advantages over Fearon and Laitin's (2003) oil exporter dummy, which is normalized over GDP. As Ross (2005) asserts, during times of war, a nation's domestic production capacity is adversely affected as the state's resources are usually channeled towards containing conflict resulting in oil exports being normalized over an unusually lower denominator due to conflict. In an attempt to develop a more refined measure of rentierism, Bolt et.al (2002) calculate the value of extractive resource using the following formula:

Rent = (Production Volume) (International Market Price – Average Unit Production Cost)

Through capturing actual revenue accumulated to the government minus production costs, this calculation avoids the endogeneity issues inherent in calculating oil exports over a declining domestic economic indicator (deSoysa and Neumayer 2007).

However, energy rent maintains a moderately strong (.4), but statistically significant correlation with the oil exporter dummy variable at the .001 level (Appendix X). In addition, much of the natural resource-conflict literature draws an empirical link using a broad construction of "rent" and often conflating energy-based and mineral-based resources (cite) together along with other sources from which rents can be drawn including illicit drugs (cite), agricultural products (cite) and, foreign aid (cite). The Green Money Project draws upon data from several sources including British Petroleum, the International Energy Agency, International Petroleum Encyclopedia and the United Nations (see Bolt et.al. 2002:8), providing a robust database that enables scholars to distinguish between energy-based and mineral-based resources. As illustrated in deSoysa and Neumayer (2007) this dataset contains information on total rent accumulated from fuel-based resources including oil, natural gas and coal as well as total rent from mineral-based resources including bauxite, copper, iron ore, lead, nickel, phosphate rock, tin, zinc, gold, and silver. For comparability, the rent valued is normalized over gross national income which results in a continuous measure of what proportion of a country's economy is dominated by the natural resource sector without the use of an arbitrary cut-off point.

Control Variables

I expect that civil protest will have a strong influence on the frequency of violence due to the common origins of both forms of civil challenge (Jenkins and Schock 2003); to test this assertion, I include a measure of violence by civil actors from the *World Handbook of Political Indicators IV*, which includes event count data of attacks, assassinations and bombings (Jenkins, Taylor and Abbott forthcoming).

I also replicate a host of additional political indicators that have been shown to be important explanatory factors for civil war (Fearon and Laitin 2003; Collier and Hoeffler 2004; Collier 2005, deSoysa and Neumayer 2007). Existence of anocracy, democracy, and state instability are extracted from Polity IV data (Gurr and Jaggers 2003), which taps into the institutional dynamics of the political process including the recruitment and competitiveness of the executive office as well as the openness of popular participation in elections. The democracy and autocracy measures are dummy variables (1=democracy/anocracy, 0=no democracy/anocracy). Presence of democracy is drawn from the interpolated POLITY2 variable, which measures the level of democratic or autocratic institutionalism on a scale of -10 (full autocracy) to +10 (full democracy), whereas any country with a score greater than 6 is considered democratically entrenched. In contrast, anocratic regimes contain mixed elements of both democracy and autocracy and are defined by a country that scores higher than a 4 in both categories. I measure political instability using the Polity IV, REGIMECHANGE variable defined by a country that moves 2 or more points in either direction on the POLITY2 scale.

In examining ethnic and religious cleavages, I follow Fearon and Laitin's (2003) use to the ethnolinguistic fractionalization (ELF) index (Atlas Narodov Mira 1964) as well as their own measure of religious fractionalization. The ELF uses a combination of three factors: 1. The probability that two randomly drawn individuals in a country are from different ethnolinguistic group; 2. A measure of the share of population belonging to the largest ethnic group that we constructed from the CIA Factbook and other sources (Fearon 2002); (3) the number of distinct languages spoken by groups exceeding 1% of the country's population, based on Grimes and Grimes 1996; and (4) a measure of religious fractionalization (analogous to the ELF) that we constructed using data from the CIA Factbook and other sources.

Citizens are more likely to engage in nonviolent civil challenge under governments that create an open space for the expression of political grievance; I therefore include a one-year lagged measure of state relaxation from the *World Handbook of Political Indicators IV* (Jenkins, Taylor and Abbott forthcoming) that uses event count data to assess. Protest activity could be greatly encouraged or impeded depending on the nature of the regime response, I therefore draw a measure of state repression from Gibney and Dalton's (1996) Political Terror Scale which calculates individual country scores on a range of 1 (least repressive) to 5 (most repressive) according to the descriptions of countries in annual reports from the US State Department using a one-year lag. This measure identifies the repressive characteristics of a regime based upon the frequency

and scope of people being sanctioned for political views through imprisonment, torture and/or murder. Military and security forces are often deployed to contain protest activity and represent the long arm of the state, thus I included an indicator of state strength using a measure of military expenditures as a percent of GDP.

Reuters® newswire uses local reporters that are knowledgeable and experienced with local culture and political environment (Moulta-Ali and Jenkins 2008) however, the validity of event count data has been the subject of much scholarly debate (Earl et.al. 2004). As the dependent measure of civil protest is based upon the frequency of news reports sent through protest outcomes could be directly affected by the independence of local journalists to report on incidents that occur. I control for possible news reporting bias using the van Belle's (2003) measure of Press Freedom. The size of a country's population and the level of wealth generated are also likely to have an effect on protest outcomes, therefore I incorporate a one-year lagged measure of population size which is also logged due to considerable skewness. I also include a one-year lagged measure of wealth based on GDP/capita. Researchers have argued that violence is encouraged in very poor and very wealthy countries, hence I add in a squared term of GDP/capita to determine if there are any additional non-linear effects of wealth on protest. The longer a country experiences periods of peace, the likelihood of conflict will decrease hence, I measure peace as an annual count of the years since the last time a country experienced civil war onset.

To examine states that may be subject to civil protest due to being recently created, I incorporate a dummy measure for states that have only been established within the prior two years. Additionally, countries that are physically divided (e.g. Pakistan, Indonesia, Palestinian Territories, etc.) are especially susceptible to secessionist conflict; I therefore also include a dummy variable for non-contiguous entities (1= non-contiguous, 0=contiguous). The base regression equation in Model 1 of Table 3.2a is as follows:

$$\begin{aligned}\text{Civil violence} = {} & \beta_0 + \beta_1\,\text{civilprotest} + \beta_2\,\text{priorwar} + \beta_3\,\text{wealth}_{(t-1)} \\ & + \beta_4\,\text{wealth}^2_{(t-1)} + \beta_5\,\log_e\text{population}_{(t-1)} + \beta_6\,\text{noncontiguousstate} \\ & + \beta_7\,\text{newstate} + \beta_8\,\text{regimeinstability}_{(t-1)} + \beta_9\,\text{ethnicfractionalization} \\ & + \beta_{10}\,\text{religiousfractionalization} + \beta_{11}\,\text{anocracy}_{(t-1)} + \beta_{12}\,\text{democracy}_{(t-1)} \\ & + \beta_{13}\,\text{staterelaxation}_{(t-1)} + \beta_{14}\,\text{staterepression}_{(t-1)} + \beta_{15}\,\text{militarystrength} \\ & + \beta_{16}\,\text{pressfreedom} + \beta_{17}\,\text{peaceyears}.\end{aligned}$$

3.4 RESULTS

Model 1 on Table 3.2a begins with a standard set of control variables that explore the effects of civil protest, prior civil war, wealth (and a squared term), population (logged), state contiguity, regime instability, ethnic and religious fractionalization, anocracy, democracy, state relaxation and repression, military strength, press freedom, and years of peace on civil violence outcomes. To test the differences between the oil

exporter dummy variable and the continuous energy rents variables I include both measures in separate equations in Models 2 and 3 respectively. Model 4 includes an interaction term between energy rents and military strength to assess the theoretical proposition that resource revenue enables energy rentiers to suppress protest through a coercive military apparatus.

Models 5 through 7 on Table 3.2b examine a separate set of equations using the mineral rents measure. Model 5 replicates the baseline Model 1, with the addition of the mineral rents variable; Models 6 and 7 test the assertion that religious and ethnic fractionalization influence violence in rentier states.

In Model 2, Fearon and Laitin's (2003) oil exporter dummy shows a negative, but non-significant effect on civil violence while energy rents are significant in a parallel Model 3. The energy rent measure clearly offers an advantage over the oil exporter dummy in explaining civil violence incidence. However, this finding disappears when and interaction term between military strength and energy rents is included in Model 4[5], which suggests the suppressor effects of energy rent on civil violence are largely concentrated amongst highly militarized states.

In contrast to the civil protest models, mineral rentierism consistently suppresses the incidence of civil violence throughout Table 3.2b. This finding is curious

[5] Some scholars suggest that only high levels of rent have an effect on civil conflict (cite). I tested quadratic effects using linear and squared terms of both energy and mineral rents (not shown) and neither showed as significant.

VARIABLES	Model 1	Model 2	Model 3	Model 4
Oil Exporter		-.018		
		(.322)		
Energy Rents$_{(t-1)}$			-1.484**	-.460
			(.639)	(.701)
Civil Protest	0.027***	0.027***	0.027***	0.026***
	(.006)	(.006)	(.006)	(.006)
Prior War	0.526*	0.525**	0.583***	0.560***
	(.228)	(.229)	(.217)	(.206)
Wealth$_{(t-1)}$	.057	.057	.075	.065
	(.091)	(.096)	(.087)	(.084)
Weath$^2_{(t-1)}$	-.002	-.002	-.002	-.001
	(.005)	(.005)	(.005)	(.004)
log$_e$Population$_{(t-1)}$	0.453***	0.455***	0.444***	0.439***
	(.067)	(.064)	(.066)	(.065)
Non-contiguous state	-.024	-.024	.002	.052
	(.236)	(.236)	(.215)	(.197)
New State	-5.521*	-5.511**	-7.200	-6.606
	(2.549)	(2.536)	(6.415)	(4.286)
Regime Instability	-.076	-.075	-.033	-.026
	(.175)	(.176)	(.171)	(.174)
Ethnic Fractionalization	-.258	-.261	-.165	-.079
	(.390)	(.408)	(.372)	(.369)
Religious Fractionalization	-.598	-0.603*	-0.725*	-0.742**
	(.386)	(.365)	(.372)	(.365)
Anocracy$_{(t-1)}$	0.513*	0.509**	0.518**	0.565***
	(.205)	(.211)	(.203)	(.209)
Democracy$_{(t-1)}$	0.420*	0.414**	0.341*	0.400*
	(.202)	(.206)	(.203)	(.205)
State Relaxation$_{(t-1)}$	0.016*	0.015**	0.019***	0.018**
	(.007)	(.007)	(.007)	(.007)
State Repression$_{(t-1)}$	0.315***	0.313***	0.357***	0.365***
	(.061)	(.060)	(.061)	(.062)
Military Strength	0.090**	0.090**	0.101***	0.165***
	(.035)	(.037)	(.033)	(.046)
Press Freedom	.188	0.187*	.167	.162
	(.108)	(.109)	(.104)	(.099)
Peace Years	-0.011*	-0.011**	-0.010**	-0.010*
	(.005)	(.005)	(.005)	(.005)
Energy Rents*Military Strength				-0.269**
				(.122)
Constant	-4.297***	-4.300***	-4.343***	-4.540***
	(.627)	(.626)	(.616)	(.631)
Country-Years	843	843	843	843
Countries	104	104	104	104

Standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05

Table 3.2a: Annualized Negative Binomial Regression of Civil Violence and Energy Rents, 1991-1999

VARIABLES	Model 5	Model 6	Model 7
Mineral Rents$_{(t-1)}$	-5.978*	-12.158*	-13.966***
	(2.508)	(4.773)	(4.630)
Civil Protest	0.028***	0.028***	0.028***
	(.006)	(.006)	(.006)
Prior War	0.526*	0.559*	0.551**
	(.223)	(.220)	(.222)
Wealth$_{(t-1)}$	0.043	.047	.047
	(.091)	(.089)	(.088)
Weath$^{2}_{(t-1)}$	-0.001	-.001	-.001
	(.005)	(.005)	(.005)
log$_e$Population$_{(t-1)}$	0.440***	0.423***	0.433***
	(.065)	(.064)	(.065)
Non-contiguous state	-0.012	-.017	-.018
	(.234)	(.227)	(.229)
New State	-5.704*	-6.512	-6.028*
	(2.850)	(4.510)	(3.354)
Regime Instability	-0.078	-.080	-.074
	(.176)	(.173)	(.172)
Ethnic Fractionalization	-0.237	-.234	-.297
	(.384)	(.375)	(.379)
Religious Fractionalization	-0.657	-0.775*	-0.652*
	(.386)	(.392)	(.385)
Anocracy$_{(t-1)}$	0.488*	0.526**	0.513**
	(.202)	(.202)	(.203)
Democracy$_{(t-1)}$	0.407*	0.424*	0.417**
	(.202)	(.202)	(.203)
State Relaxation$_{(t-1)}$	0.016*	0.018**	0.018**
	(.007)	(.007)	(.007)
State Repression$_{(t-1)}$	0.319***	0.340***	0.333***
	(.061)	(.060)	(.060)
Military Strength	0.091**	0.091**	0.090***
	(.034)	(.033)	(.033)
Press Freedom	0.192	.192	0.191*
	(.108)	(.108)	(.107)
Peace Years	-0.010*	-.010	-0.010*
	(.005)	(.005)	(.005)
Mineral Rents*Religious Fractionalization		31.960*	
		(13.711)	
Mineral Rents*Ethnic Fractionalization			19.565**
			(9.135)
Constant	-4.132***	-4.066***	-4.138***
	(.627)	(.621)	(.621)
Country-Years	843	843	843
Countries	104	104	104

Standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05

Table 3.2b: Annualized Negative Binomial Regression of Civil Violence and Mineral Rents, 1991-1999

given the fact that the labor-intensive mineral extraction industry empowers social groups to "force the hand" of the state to bargain, so I proceed to explore specific contextual influences. Indeed, Models 6 and 7 illustrate that mineral rentiers with high levels of ethnic and religious diversity are highly susceptible to civil violence. The distinctions between the mineral and energy rents interactions are consistent with prior interaction models in Chapter 2. Revenue from capital-intensive industries such as oil extraction enables the state to engage in a pattern of patronage while silencing social opposition. In contrast, competition between diverse social groups within mineral rentier states creates an environment where violence is used to advance specific political and economic goals. However, many of the explanatory variables have similar effects on both energy and mineral rentierism. As expected, both anocratic and democratic governments spur violence, indicating that both political systems create opportunities for civil challenge. Additionally, due to the combination of loosening political controls and aggressive insurgent responses to political tyranny, both state relaxation and state repression are consistent catalysts for civil violence. Following from the Chapter 2 findings, protest and violence seemingly have reciprocal effects on one another, supporting the argument that both forms of civil challenge have common origins (Jenkins and Schock 2003). In contrast, peace years has a significant dampening effect on civil violence except in Model 6 when an interaction for mineral rents and religious fractionalization is introduced, indicating that the peace dividends are likely eclipsed by violence within religiously

diverse mineral rentiers. On the other hand, many independent variables were less consistent in their effect on civil violence, giving credence to the contextual sensitivity of civil violence outcomes.

While religious fractionalization has a negative effect on civil violence in most contexts, indicating that outside of the rentier context, religious diversity may force groups to negotiate power, it shows as nonsignificant in baseline Models 1 and 5(+mineral rents). Press freedom shows as positive and significant in two models; net of the oil exporter dummy (Model 2) and in an equation that combines the mineral rents measure with the mineral rents*ethnic fractionalization term (Model 7). Additionally, new states are demonstrated to be less susceptible to civil violence in six models; within the baseline of Models 1 and 5(+mineral rents), and net of the oil exporter dummy in Model 2. New states also show as significant in Model 10 net of the mineral rents*ethnic fractionalization term. The control variables of prior civil war and population both have consistent, positive effects on civil violence. A discussion of these varying effects proceeds below.

3.5 Discussion

Similar to the rentier effects in Chapter 2, the contextual influences of rentierism illuminate the vast differences between the energy and mineral extraction industries. Table 3.2 lists the mean civil violence counts for the top 5 energy rentiers interacted with

military strength as well as mineral rentier countries interacted with religious and ethnic fractionalization. While mineral rentiers overall suppress civil violence, ethnically and religiously diverse states are more violence-prone. Table 3.2 also illustrates that the states most susceptible to violence are characterized by a combination of ethnic and religious diversity which includes Papua New Guinea, Zambia and Guinea.

The 1-year lagged values of resource rents served to repress the emergence of civil violence globally. These results indicate that while a combination of state relaxation and repression promote violence throughout the world, by and large, resource rentierism enables countries to avoid violent conflict. For example, during this time period, India, Israel, Egpyt and Sri Lanka had the highest combined levels of state relaxation and civil violence, but also garnered some of the lowest levels of rent from natural resources. In contrast, the most dominant energy rentiers including Saudi Arabia, Nigeria and Oman maintained some of the lowest levels of violence amongst all countries in the dataset. Despite the media sensationalism of violence in the Niger Delta, these isolated conflicts pale in comparison to the widespread violence experienced in many other countries that have little reliance on energy exports. These results also ring true for the world's most repressive governments as well. While repression promotes violence, energy and mineral rent greatly reduce the frequency of violent conflict even when controlling for a host of other factors.

As hypothesized, non-violent protest also has catalyzing effect on violent civil conflict. The Nigerian oil-protests staged by MOSOP in the early 1990s are illustrative. While the issues presented by MOSOP primarily stemmed from grievances associated with environmental degradation and distribution of oil wealth, those grievances eventually turned to all out anger. This finding indicates that protest is an important factor in explaining outbreaks of violence, but how have revenues from energy from minerals and energy enabled countries to enjoy relative respite from civil violence? Democracy is significant catalyst for civil violence, so does the oil-hinders-democracy thesis explain the absence of violence amongst rentier states?

Reexamining Table 3.2, reveals that four of the top five energy rentiers with strong militaries are located in the Middle East/North Africa (MENA) region. The anomalous inclusion of Angola precludes that fact that many Middle Eastern countries have proven successful at suppressing civil violence. As evidenced in Morocco, the state heavily invested in maintaining a strong military and police force which were readily deployed in many situations to restrict pro-democratic movements as well as dissidents that spoke out against human rights abuses in the country. Any possible gains from engaging in civil violence would pale in comparison to the costs and would likely make no progress in advancing the goals of groups engaged in violent activity. In addition, the Moroccan monarchy's patronage toward civil society groups has clearly served to clearly circumvent the likelihood that citizens would organize against the state.

Energy Rents*Military Strength		Mineral Rents*Religious Fractionalization		Mineral Rents*Ethnic Fractionalization	
1	Oman .00	**Papua New Guinea**	2.40	**Papua New Guinea**	2.40
2	Saudi Arabia 1.40	**Zambia**	1.80	Mauritania	.30
3	Angola 25.00	Jamaica	.60	**Guinea**	1.20
4	Yemen 5.40	Zimbabwe	3.00	**Zambia**	1.80
5	Tajikistan 3.25	**Guinea**	1.20	Mongolia	.29
	Mean 7.01	*Mean*	*1.80*	*Mean*	*1.20*
	S.D. 10.26	*S.D.*	*.95*	*S.D.*	*.93*

Table 3.2: Mean Civil Violence event-counts for Top 5 countries (interaction terms)

In addition table 3.3 illustrates that the nine of top ten energy rentiers are devoid of democracy throughout this time period. While Angola and Iran have relatively high violent event-counts, the majority of energy rentier states are well below the mean. In contrast, the class of top mineral rentier states represents a combination of both democracies and non-democracies with neither regime type particularly prevalent.

Many of the other independent control variables operated as expected including prior civil war, population size, state relaxation, state repression and in some contexts, military expenditures, all served to promote civil violence. In contrast, years of peace served to deter civil violence. The assertion that "time heals" holds true within this context. Extended periods of non-violent activity truly have a dampening effect on the prospect of subsequent violence. In addition, ethnic fractionalization has no significant effect on civil violence, which is a finding that is in line with other scholars (Fearon and Laitin 2003; deSoysa and Neumayer 2007) who conclude that civil conflict is not

influenced by ethnic or religious differences. Curiously, religious fractionalization serves as a deterrent to violence in most contexts. Indeed several of the most religiously diverse countries in the dataset including Australia, Trinidad and Tobago and well as Kenya and Ghana enjoyed stability and strong democratic governance during this time period. Perhaps religious diversity prompts citizens to establish power-sharing and peace agreements in an effort to steer clear from the prospect of conflict. This finding that requires further empirical exploration.

In conclusion, resource rents have a strong influential effect on containing violence net of state repression. Descriptive statistics also support the oil-hinder-democracy thesis as institutionalized democracy is lacking amongst the top energy rentier states that are especially adept at controlling violence utilizing a well-funded military. The following chapter will explore whether energy rentiers, while successful at suppressing protest and violence, can also avoid precipitating into civil war. Will the insulating of effects of natural resources protect states in that context?

	Country	Energy Rents*	Regime Status	Violent Events-Count
1	Tajikistan	.718273	**NON-DEMOCRACY**	3.25
2	Turkmenistan	.495329	**NON-DEMOCRACY**	.00
3	Azerbaijan	.444264	**NON-DEMOCRACY**	1.14
4	Saudi Arabia	.418419	**NON-DEMOCRACY**	1.40
5	Nigeria	.389626	**NON-DEMOCRACY**	7.80
6	United Arab Emirates	.291416	**NON-DEMOCRACY**	1.78
7	Syria	.284063	**NON-DEMOCRACY**	2.00
8	Angola	.282691	**NON-DEMOCRACY**	25.00
9	Iran	.266464	**NON-DEMOCRACY**	12.75
10	Venezuela	.259202	Democracy	5.10
		Mean = .38		Mean = 6.02
		S.D. = .14		S.D. = 7.69

*Mean value of Rents over time. Estimated as a fraction of GNI.

Table 3.3a: Regime status and Violent events-count for Top 10 Energy Rentiers, 1991-1999

	Country	Mineral Rents*	Regime Status	Violent Events-Count
1	Mauritania	.189226	**NON-DEMOCRACY**	.30
2	Mongolia	.106383	Democracy	.29
3	Chile	.071904	Democracy	2.80
4	Zambia**	.060266	Democracy	1.80
5	Zimbabwe	.035127	**NON-DEMOCRACY**	3.00
6	Namibia	.019561	Democracy	.60
7	Peru**	.019273	Democracy	59.30
8	Democratic Republic of the Congo	.019273	**NON-DEMOCRACY**	13.30
9	Australia	.015502	Democracy	8.10
10	Bolivia	.013834	Democracy	.80
		Mean = .06		Mean = 9.03
		S.D. = .06		S.D. = 18.05

*Mean value of Rents over time. Estimated as a fraction of GNI.

**Designated a "democracy" for only part of the time-series.

Table 3.3b: Regime status and Violent events-count for Top 10 Mineral Rentiers, 1991-1999

CHAPTER 4

Rentierism and Civil War

> "The power which establishes a state is violence; the power which maintains it is violence; the power which eventually overthrows it is violence."
>
> ~ Kenneth Kaunda
> First President of Zambia

Cross-national studies within the natural resource-conflict literature have primarily focused on the influence that rentier goods have on facilitating civil war. However, scholars have clashed on the issue of whether this relationship is spurious (Ross 2006), what particular natural resources actually have a significant effect on conflict (cite) as well as the possible mechanisms through which this relationship operates. There is also a lively debate on how "civil war" should be defined based on the actors involved and the number of battle-deaths necessary to designate a civil conflict as a civil war. Additionally, other scholars have argued that the natural resource-civil war relationship is not particularly robust and its presence is often sensitive to "model specification", the types of measures integrated into the analysis as well as the time period under examination (Fearon and Laitin 2003). Integrating the major themes from the most influential studies in the literature, I seek to determine: 1. Does energy and/or

mineral rentierism have an influence on civil war onset? 2. If so, which measures most accurately reflect the natural resource-civil war relationship for rentierism? And 3. At which battle-death threshold can this relationship be observed?

4.1 Rentierism and "War" in Context: Nigeria and Venezuela

Case studies, while often centered on conflict and political structure within a select few resource-wealthy states, offer a rich perspective on the mechanisms that form the natural resource-conflict relationship as it relates to intrastate war. For example, Nigeria experienced military rule for most of the 1990s until oft-delayed democratic elections were held in 1999. As discussed in previous chapters, the country was rife with protest from MOSOP and other disaffected civil society groups opposed to petroleum exploitation in the oil-rich Niger Delta. Although the country avoided coup attempts in 1990 and 1995, Nigeria never reverted to all-out civil war during this decade. Nigeria's increased ability to contain civil insurgents can be attributed to the repressive regimes of Ibrahim Babaginda (1985-1993) and Sani Abacha (1993-1998). During this period, political promises led to a roadmap for transition to civilian rule, however military and security forces were still swift to violently suppress any outbreaks of defiance against the government. Widespread protest and violence often emerged over oil-price spikes, electoral irregularities, religious clashes between the citizens of the Muslim-majority Northern states and those of the Christian-majority South as well as ethnic conflict

amongst members of Nigeria's diverse array of ethno-linguistic groups. However, not all resource-wealthy countries were successful on repressing popular discontent during the 1990s.

During the 1980s Venezuela's economy was in serious decline, falling victim to oil price shocks from the previous decade, highlighting the country's over-reliance on petroleum revenue. An increasingly oil-dependant Venezuela witnessed the decline of its domestic agricultural industry and an upsurge in urbanization as rural dwellers sought work in the ever-expanding petro-economy. However, in her examination of the petroleum industry in Venezuela, Karl (1987) hailed the benefits of oil exports in inducing a democracia pactada, hence facilitating a transition to democratic rule due to the structural pressures of integrating into the global market. Yet, more recent research has illustrated that this glut of oil wealth has increased dependence on foreign rents and is potentially leading to the installation of authoritarian rule in Venezuela (Briceño-León 2005). Venezuela is one of the top oil producers in Latin America, with energy rents alone making up about 80% of total exports, about half of government expenditures (Tucker 2004) and, based on the rentier data, just over a quarter of the country's total gross national income in any given year during the 1990s, which was a particularly tumultuous period for the country. As petrodollars flooded into government coffers, there created ample opportunity for corruption and embezzlement, charges that were eventually levied again the president Carlos Andrés Pérez Rodríguez during the latter half

of the decade. During his presidency, inequality became widespread and it became apparent that not only a wealthy were truly benefiting from the country's oil riches.

Cannon (2004) asserts that the political struggle in Venezuela is less about economics and more about the "…expression of the multiple economic, social, cultural and racial fractures that have defined Venezuela since colonial times" (286). The societal fractures went virtually ignored by the political and economic elite, ushering Chavez into power due to his populist agenda to achieve economic equality and wealth distribution to the poor working class and indigenous populations within the country. As the country sought to recover from the massive oil slump of the early 80s, splits between the economic elite and populous working class became salient. Cannon (2004) chronicles how the political elite flexed their influence to create policies that would place the major economic burden on the popular classes. Under pressure from the International Monetary Fund president Pérez swiftly implemented a series of economic austerity measures to shore up the economy and reduce wasteful spending. This move proved unpopular and set off a spate of protests by trade unions and other civil society groups that viewed

Under the austerity measures, poverty and unemployment continued to increase causing simmering discontent amongst working class and indigenous population. This anger came to a head in 1989 as state food and fuel subsidies were reduced or removed and prices for basic foodstuffs and petrol skyrocketed. Violence broke out the capital of Caracas as residents from shantytowns proceeded to raid shops. Military force was used

to quell the outburst and at the end of the day, death tolls stood in the thousands. The culmination of civil discontent, increased wealth disparities and a lack of governmental transparency set the perfect stage for an attempted coup in 1992. A band of soldiers and other militants known as the 'Movimiento Bolivariano Revolucionario 200' or MBR-200, led in part by Lieutenant Colonel Hugo Rafael Chávez Frías, stormed the presidential palace, forcefully overtook several television broadcast stations and announced that the president had been overthrown. The much more powerful and better-armed Venezuelan military forces loyal to the president subsequently put down the insurrection as the rebel fighters surrendered.

While rebels movements against the government were swiftly neutralized, the rebellion had broader implications for Pérez' domestic economic policy which had led to the first attempted coup in 30 years of Venezuela's 34 year-old democracy. The president promptly sacked several top cabinet ministers responsible the formulation and implementation neo-liberal reforms. He additionally pledged to increase minimum wage, promulgate merit-based promotion in the military ranks and to focus on addressing social welfare issues (Philip 1992).

While coups in Latin America and the Caribbean are not unique to Venezuela, civil war has not emerged within this region and time period and countries have largely been able to avoid the plethora of internal conflicts that plagued sub-Saharan Africa throughout the 1990s. The largest energy rentiers in the region to actually experience

widespread conflict (including Venezuela, Mexico and Trinidad and Tobago) were largely subject to relatively minor skirmishes that lasted over the course of several days and resulted as opposed to bloody, protracted conflicts characteristic of war.

While the aforementioned studies have elucidated the country-level dynamics and general pattern of governance in some of the major oil-reliant countries, they fall short of illustrating whether these patterns are significantly different from non-oil states and also fail to identify the significance of any intervening variables which may facilitate or mitigate the impact of oil-reliance on regime characteristics. Scholarly attention has been focused on major oil exporting states such as Nigeria, Venezuela and Saudi Arabia, little interest has been generated in examining the relationship between oil and democracy in smaller non-OPEC countries such as Angola, Qatar and Oman. To bridge this gap, I approach this problem from a cross-national perspective.

4.2 Theories of Civil War

Looting Rebels

Based on a increasingly growing body of research, Collier (2000a, 2000b) and Collier and Hoeffler (2001, 2004) assert that natural resources provide a major source of funding for insurgents. Rebels will seek to overthrow the government if the potential wealth of holding domain over natural resource revenues outweighs the potential risks. Collier (1999) analyzes this propensity towards civil war as a result of either "greed" in

which rebels may benefit economically from conflict and "grievance" in which rebellions are steeped in the desire to usurp an unjust regime. Collier primarily attributes these conflicts to greed, asserting that rebels are more likely to have an economic agenda and can usually "do well out of war." Collier and Hoeffler (2002, 2004) also assert that states that rely heavily on the export of primary commodities face a higher risk of civil war than resource-poor states. They further indicate that this risk is associated with primary commodities of all types including oil, minerals, and agricultural goods. Collier (2005) also asserts that natural resource wealth will only initially cause an upsurge in rebellion as resource rents eventually enable states to use revenues to invest in a repressive apparatus to further discourage the potential for civil disturbances. If the state is able to invest revenues into a military that can successfully contain rebel advances, violence will plateau.

Another major component of Collier and Hoeffler's (2005) arguments is that violent conflict is likely to occur as a result of "greed" on part of the actors who would seek to attain a greater share of the wealth generated by the exports. They further assert that "grievance" is rarely a consideration in precipitating violence. Additionally, because the state owns the legitimate means of force, those whom would take violent action against the state are engaged in quasi-criminal activity. Indeed, one of the major grievances voiced by Saro-Wiwa and MOSOP was that the Ogonis should maintain autonomy over the land in which oil extraction is occurring. Simultaneously, however,

the adverse ecological impacts of the extraction process rendered land and marine-life virtually unlivable, as the Ogoni lifestyle is primarily reliant on subsistence farming and fishing. This is another major area where the natural resource-civil conflict literature falls short. Actors do not necessarily seek to become "rich" from an eventual domination of resource wealth, most disturbances Examining this dynamic from a protest perspective seems unlikely, as grievances are usually centered on the impacts of the natural resource economy on environmental degradation, fair pay and other labor rights issues.

However, Collier and Hoeffler's in-depth analyses of civil war are inherently flawed on several fronts. The data used in all of relies on 5-year intervals of civil war onset. For example, a 1992 civil war in Venezuela would, in essence, be predicted based on the characteristics of the country during 1990. Hypothetically speaking, a conflict outbreak in 1998 would be predicted by conditions present in 1995 and so on and so forth. This type of analysis is not fine-tuned enough to capture the time-varying nuances that occur within a country on a year-to-year basis. Additionally, conflict-related deaths are a usual occurrence during protracted conflicts, but may lack the threshold numbers to be considered a civil war by Fearon (25 battle-deaths) or Collier and Hoeffler (1000 battle-deaths) standards. As the following chapter will explore, violent confrontations with the State did eventually lead to a battle of over central state authority in some contexts.

State Capacity

Other scholars have also theorized on the mechanisms through which resource rents affect the state. Fearon (2005) argues that oil wealth reduces state capacity as dependence on resource rents grows; this operates through several mechanisms. Due to the high global demand of energy resources, especially oil, windfall profits can bring in vast amounts of revenue can be realized from the exports of energy resources such as oil, gas and to a lesser extent, coal as well as valuable minerals such as gold and diamonds. This dependence has a tendency to weaken state capacity as the state is largely funded by corporate "sponsors" in exchange for extraction rights and no longer relies on public taxation for revenue; states have little incentive to invest in diversifying the economy. Additionally, others have asserted that resource-reliance leaves countries susceptible to price shocks when the price of a particular resource drops on the world market, which can have reverberating effects throughout the economy and ultimately lead to political and economic decay. However Collier and Hoeffler (2001, 2004) suggest that the relationship between natural resources and conflict is curvilinear. As natural resource exports approach approximately 33% of total exports, this indicates that a has gained further control over the extraction and distribution of lootable resources and places further constraints of the ability of rebels to exploit them for profit. Following from this, government control over natural resources should increase state capacity and reduce the likelihood of rebellion.

Further evidence suggests that lootable resources are more closely associated with the duration of conflict rather than the onset of conflict. The ability to "finance rebellion," after the fact, enables insurgents to shore up resources to train recruits as well as purchase weapons and support. The onset of war is likely the result of grievance issues, which may or may not devolve into rebel economic agendas. As the current study focuses on war onset rather than war duration, I will take my departure from the Fearon and Laitin (2003) state capacity perspective and explore the effects that resource rents have on either: 1. State decay, which will increase the propensity for civil war or, 2. Strengthening state capacity and reducing the likelihood of war onset.

Of the 30 conflict onset-years, based on the Collier and Hoeffler civil war model that transpired during the 1990s, nearly half (12) occur within sub-Saharan Africa (see table 4.1). Additionally in the Fearon and Laitin civil war models (Table 4.2), one-third of the 73 conflict onset-years occurred in this region as well. Africa is especially conflict prone due to a variety of factors related to colonial heritage and a history of brutal neo-patrimonial regimes during the post-colonial era that exacerbated ethnic factions against one another. However, as indicated by the tables, energy rents only make up a considerable portion of income within several country-years and is largely concentrated in Angola and Republic of the Congo. Considering this fact, it is likely that there are factors, other than rentierism, at play in these civil war onsets. Therefore, I hypothesize that

H1a: Rentierism from energy resources have no influence on civil war onset; and

H1b: Rentierism from mineral resources have no influence on civil war onset.

4.3 Model Statement and Variables

Contrary to popular belief, Fearon and Laitin (2003) assert that global intrastate conflict declined following the end of the Cold War in addition to their being no significant increases in the onset of new civil wars. They conjecture that conflicts developing during the 1990s were attributable to unresolved disputes that pre-dated the Soviet collapse. However, as the data in Tables 4.1 and 4.1 illustrate, conflicts that may have experienced a lull in activity, reemerged sporadically in various countries.

The aim of this analysis is two-fold. Given the significant correlation between Fearon and Laitin's (2003) oil dummy (based on oil being >=33%of total exports), I seek to initially replicate DeSoysa and Neumayer's (2007) comparison with the continuous energy rents measure in an effort to determine which variable most accurately captures the civil war-natural resource relationship. In subsequent models, I examine whether changes in the resource rents variable coupled with a set of socio-structural measures has an effect on the onset based on the Correlates of War civil war data in addition to investigating whether resource rents holds any explanatory power if using the lower threshold of 25 battle-deaths (*a la* Gleditsch et al., 2002). To capture this phenomenon I

employed panel cross-sectional time-series regression to see if annual changes in dependent variables affect the onset civil war. Due to the dichotomous nature of civil war outcomes, I employ a logistic regression model using the *xtlogit* routine in Stata 10, with a random effects estimator.

Dependent & Independent Variables

This analysis involves the use of two distinct, but related outcome variables; one sourced from the oft used Correlates of War data as illustrated by Collier and Hoeffler (2004). The other dependent variable represents Fearon's (2005) extrapolation of Collier and Hoeffler's (2004) data. Within COW, an armed conflict will qualify as a civil war if it results in at least 1000 battle-deaths in a given year with both state military or militias as well as rebels comprising 5% of war fatalities. Utilizing these criteria ensures that the designation of "civil war" is distinct from what could also be considered a massacre or genocide. As mentioned before Collier and Hoeffler (2002) utilize five-year intervals of war to predict the effects of natural resources. Fearon (2005) converts these arbitrarily designated five-year intervals into annualized measures utilizing multiple imputation to estimate the onset of civil war based on values at the beginning and the end of the intervals.

Energy and Mineral Rent

To capture energy and mineral rentierism, I use data from the use of the World Bank's Green Money Project (Bolt et.al 2002) and replicate the data used by deSoysa and Neumayer (2007). This data provides several distinct advantages over Fearon and Laitin's (2003) oil exporter dummy which is percentized over gross domestic product. As Ross (2005) asserts, during times of war, a nation's domestic production capacity is adversely affected as the state's resources are usually channeled towards containing conflict resulting in oil exports being normalized over an unusually lower denominator due to conflict. In contrast, Bolt et.al (2002) calculate the value of extractive resource using the following formula:

Rent = (Production Volume) (International Market Price – Average Unit Production Cost)

Through capturing actual revenue accumulated to the government minus production costs, this calculation avoids the endogeneity issues inherent in calculating oil exports over a declining domestic economic indicator (deSoysa and Neumayer 2007). However, energy rent maintains a moderately strong (.40), but statistically significant correlation with the oil exporter dummy variable at the .0001 level (Table 4.3). In addition, much of the natural resource-conflict literature draws an empirical link using a broad construction of "rent" and often conflating energy-based and mineral-based

resources (cite) together along with other sources from which rents can be drawn including illicit drugs (cite), agricultural products (cite)and, foreign aid (cite). The Green Money Project draws upon data from several sources including British Petroleum, the International Energy Agency, International Petroleum Encyclopedia and the United Nations (see Bolt et.al. 2002:8), providing a robust database that enables scholars to distinguish between energy-based and mineral-based resources. As illustrated in deSoysa and Neumayer (2007) this dataset contains information on total rent accumulated from fuel-based resources including oil, natural gas and coal as well as total rent from mineral-based resources including bauxite, copper, iron ore, lead, nickel, phosphate rock, tin, zinc, gold, and silver. For comparability, the rent valued is normalized over gross national income which results in a continuous measure of what proportion of a country's economy is dominated by the natural resource sector without the use of an arbitrary cut-off point.

Control Variables

Conflicts that do not result in extensive casualties or whose aim is not to overthrow or secede form the government usually occur rather spontaneously, lack extensive resources or organization and are unlikely to garner the attention of officials other than the press. The civil violence measure is drawn from the World Handbook of Political Indicators IV (Jenkins, Taylor and Abbott forthcoming) which utilizes event

data coding from Reuters international newswire reports, allowing for a systematic examination of acts of civil violence such as armed attacks, assassinations and bombings. Armed attacks are the principle strategy used by militant groups in Nigeria and has been instrumental in their aim to paralyze the country's oil-export sector. Though Nigeria experienced mass political protest and violence during the 1990's, the country never devolved into civil war, and I expect that increasing challenge from the civil sector will not have an influence on the onset of civil war. However, as the state liberalizes and allows for the expression of grievance through non-violent means, insurgents will be unlikely to resort to violent measure to challenge the state, therefore state relaxation will decreases the likelihood of civil war onset. I also additionally include a measure of wealth using GDP/capita. More affluent societies are likely to use non-violent means to achieve political ends, therefore wealth should decrease the likelihood of civil war onset.

Additionally Collier and Hoeffler (2005) assert that as time since previous conflicts increase, the likelihood of subsequent conflict decreases. In a sense, "time heals" and has a dampening effect on the likelihood that civil war will break out. I therefore predict that as time passes, the chance of civil war will concurrently decrease. In contrast, long durations of peace should have a dampening effect on civil violence. Accordingly, Collier and Hoeffler (2005) find that in some contexts, peace duration can have a dampening effect on civil conflict. Following their lead, I include this variable as the total number of years of between the end and onset of civil wars.

I also replicate a host of additional political indicators that have been shown to be important explanatory factors for civil war (Fearon and Laitin 2003; Collier and Hoeffler 2004; Collier 2005, deSoysa and Neumayer 2007). Levels of anocracy, democracy, and state instability are extracted from Polity IV data (Gurr and Jaggers 2003). The democracy measure is drawn from the interpolated Polity2 variable, which measures democratic entrenchment on a scale of 0 to 10 through subtracting a total democracy score from a total autocracy score based on a scale of 0 to 10. As many formal democracies contain internal mechanisms that allow for the peaceful resolution of conflict, I expect that higher democracy scores (i.e. Polity2 scores) will be associated with lower likelihood of civil war onset. In contrast, countries that have mixed elements of democracy and autocracy are unlikely to maintain formalized democratic institutions therefore, anocratic regimes will be more prone to civil war.

I incorporate another set of control variables to discern how state structure may affect violence. States that have been newly established have not had sufficient time to fully entrench a political and economic culture; I therefore include a dummy measure for states that have been established within the prior two years. Additionally, I measure State Contiguity, because states that are physically divided (e.g. Pakistan, Indonesia and the Palestinian Territories) are especially susceptible to secessionist wars. Rebel groups wishing to form a separate state can only do so through physical confrontation, therefore non-contiguous states will have a greater occurrence of civil violence. I include a set of

dummy variables to observe any regional effects of violence in sub-Saharan Africa, the Middle East & North Africa, Latin America & the Caribbean, Europe, South Asia and East Asia using western democracies (i.e. the United States, Australia and Western European countries) as a reference category. Countries residing with each particular region are coded as '1' and '0' if otherwise based on World Bank (2008) categorizations.

As asserted by Horowitz (1985) ethnically plural societies are especially prone to conflict due to historical cleavages that have pitted one group against another. These cleavages are usually manifested in the political and economic realms, which disadvantages certain groups that may not be members of the tribal elite. The differences between a minority group(s) and dominant group(s) will likely foster conflict through a variety of mechanisms and the magnitude of the difference will determine whether assimilation is possible. For example, the Hausa/Fulani, Yoruba and Igbo ethnic groups of Nigeria have historically dominated government, hereby putting them in direct conflict with the Ogoni ethnic groups that reside in the Niger Delta, the oil-rich areas of the country that provide the largest source of revenue for the government. Within the realm of ethnic divisions, numerical proportions can also play an important role as well. Horowitz (1985) and others further contend that where there exists a large ethnic majority and a smaller, but substantial ethnic minority, the majority is likely to maintain dominance in national political office. In this case, ethnic dominance of the political spheres has led to the repression of minority ethnic groups and created barriers to

addressing their grievances. In examining ethnic and linguistic cleavages, I draw upon the commonly used Ethnolinguistic Fractionalization Index

The socio-political contexts of protest are likely to different significantly from the contexts that are conducive to civil war, so I include a number of other control measures. To minimize possible bias introduced by disproportionate news reporting, I include a measure of Press Freedom (van Belle 2003) based on the level of freedom allotted to he press in various countries. Protest activity could be greatly encouraged or impeded depending on the nature of the regime response, so my measure of state repression comes from Gibney and Dalton's (1996) Political Terror Scale which calculates individual country scores on a range of 1 (least repressive) to 5 (most repressive) according to the descriptions of countries in annual reports from the US State Department and Amnesty International that identify the characteristics of the government based upon the frequency and scope of people being sanctioned for political views through state actions such as imprisonment, torture and/or murder. For the purposes of consistency, I employ the score generated through country-reports from the US State Department in my analysis.

Fearon and Laitin (2003) assert that insurgents are relatively weak in comparison to the government forces that they are seeking to usurp. These groups therefore rely on the ability to elude security forces to facilitate recruiting and training of fighters. Bases of operations are usually centered in remote, rural or mountainous areas that make them difficult to detect, therefore a country with very mountainous terrain will be more subject

to civil war onset. Accordingly, states are better enabled to deter civil conflict with a well-trained and well-equipped military. Often the ability to capture or kill insurgents is reliant upon the resources at the disposal or military and/or other security forces, therefore countries with higher military expenditures as a percent of GDP will also be less prone to civil war onset.

4.4 RESULTS

During the course of this decade, violent conflict that resulted in 25+ battle-deaths occurred across 59 country-years, while fewer than half that number of country-years (24) experienced 1000+ battle-deaths[6] (see Tables 4.1a and b). Tables 4.2a and b show the results of the time-series cross-sectional logit analysis of civil war onset based on both the 25 and 1000 battle-death thresholds as well as the distinct multivariate differences between the two. In exploring Table 4.1, we observe that the oil exporter dummy is positive and significant (Model 2), while energy rent (in parallel Model 3) is positive and non-significant. This suggests that the crude measurement of oil exporters is inadequate to capture the specific nuances of the relationship between oil and civil conflict which is presumably non-existent based on this specific context. The overall effect of energy rent does become positively significant upon introducing a set of regional dummy variables and interaction terms (Models 4-7). However, energy rent is a

[6] This figure only includes those countries included in the multivariate analysis.

strong deterrent to war onset in Sub-Saharan Africa (Model 6) while Model 7 reveals that the positive effects of energy rent on civil war are largely concentrated in Latin America. Mineral rentierism and the civil challenge measures of protest and violence have no effect on civil war onset for either the 25 or 1000 battle-death thresholds (civil challenge results not shown).

Unexpectedly, religious fractionalization in energy rentier states deters war, suggesting that religiously heterogeneous nations with a heavy reliance on energy revenue may have an incentive to "keep the peace" to reduce the potential for conflict outbreak. As expected, wealthy nations are less likely to experience internal warfare in some contexts, in line with the argument that affluence prompts citizens to resolve conflicts using non-violent methods. In contrast, ethnic fractionalization increases the likelihood for civil war in specific contexts. However, regional variations have a mediating effect on both of these relationships as the results disappear when included in models without the oil dummy or resource rent variables and when coupled with the regional dummies. As predicted, geographically disconnected states have a strong proclivity towards civil war, most likely due to separatist rebellions.

Many of the other results were sporadic signifying that many explanatory variables on civil war are contextual in nature. Large populations have a positive effect on civil war within in three specific equations, Models 2, 4, and 6 while religious fractionalization is negative and significant in Models 2 and 3 when controlling

	Country	War-Year	Energy Rents*	Oil Exporter Statuts**
1	Algeria	1991	.199609	**EXPORTER**
2	Angola	1991	.148757	**EXPORTER**
3	Angola	1994	.383119	**EXPORTER**
4	Angola	1998	.191154	**EXPORTER**
5	Azerbaijan***	1992	-	**EXPORTER**
6	Azerbaijan	1993	.756843	**EXPORTER**
7	Bosnia and Herzegovina***	1992	-	Non-Exporter
8	Bosnia and Herzegovina***	1993	-	Non-Exporter
9	Burma***	1991	-	Non-Exporter
10	Burma***	1992	-	Non-Exporter
11	Burma***	1993	-	Non-Exporter
12	Burma***	1995	-	Non-Exporter
13	Burma***	1996	-	Non-Exporter
14	Burma***	1997	-	Non-Exporter
15	Burundi	1991	.000000	Non-Exporter
16	Chad	1997	.000000	Non-Exporter
17	Comoros***	1997	-	-
18	Croatia	1992	.020439	Non-Exporter
19	Democratic Republic of the Congo	1996	.012172	Non-Exporter
20	Egypt	1993	.050236	**EXPORTER**
21	Eritrea	1997	.000000	Non-Exporter
22	Ethiopia	1996	.000000	Non-Exporter
23	Ethiopia	1999	.000000	Non-Exporter
24	Georgia	1991	.001800	Non-Exporter
25	Georgia	1992	.003241	Non-Exporter
26	Guinea Bissau	1998	.000000	Non-Exporter
27	India	1992	.038725	Non-Exporter
28	India	1993	.029191	Non-Exporter
29	India	1994	.023065	Non-Exporter
30	Indonesia	1992	.078029	Non-Exporter
31	Indonesia	1997	.050812	Non-Exporter
32	Indonesia	1999	.063527	Non-Exporter
33	Iran***	1991	-	**EXPORTER**
34	Iran	1993	.399253	**EXPORTER**
35	Iran	1996	.262416	**EXPORTER**
36	Iran	1997	.261006	**EXPORTER**
37	Iraq***	1991	-	**EXPORTER**
38	Iraq***	1996	-	**EXPORTER**
39	Lesotho	1998	.000000	Non-Exporter

Continued

Table 4.1a: Energy Rents and Oil Exporter Status for Civil War (25 Battle-Death threshold) country-years by country, 1991-1999

Table 4.1a continued

	Country	War-Year	Energy Rents*	Oil Exporter Statuts**
40	Mali	1994	.000000	Non-Exporter
41	Mexico	1994	.038794	Non-Exporter
42	Moldova	1992	.000000	Non-Exporter
43	Nepal	1996	.000000	Non-Exporter
44	Niger	1992	.000826	Non-Exporter
45	Niger	1996	.000827	Non-Exporter
46	Niger	1997	.000720	Non-Exporter
47	Pakistan	1995	.016800	Non-Exporter
48	Philippines	1993	.001038	Non-Exporter
49	Republic of the Congo	1993	.205751	**EXPORTER**
50	Republic of the Congo	1997	.333526	**EXPORTER**
51	Russia	1993	.181480	**EXPORTER**
52	Russia	1994	.171131	**EXPORTER**
53	Russia	1999	.252559	**EXPORTER**
54	Rwanda	1997	.000000	Non-Exporter
55	Sierra Leone	1991	.000000	Non-Exporter
56	Spain	1991	.000568	Non-Exporter
57	Tajikistan***	1992	-	Non-Exporter
58	Togo	1991	.000000	Non-Exporter
59	Turkey	1991	.005749	Non-Exporter
60	Uganda	1994	.000000	Non-Exporter
61	United Kingdom	1998	.001733	Non-Exporter
62	Venezuela	1992	.272481	**EXPORTER**
63	Yugoslavia***	1991	-	Non-Exporter
64	Yugoslavia***	1998	-	Non-Exporter

Mean of Energy Rents=.10

S.D. of Energy Rents=.15

*Mean value of Energy Rents estimated as a fraction of GNI

**Oil Exporters = Countries with >1/3 export revenue from fuels (Fearon and Laitin 2003)

***Case deleted from analysis due to missing data on variable indicated by **(-)**

	Country	War-Year	Energy Rents*	Oil Exporter Statuts**
1	Afghanistan***	1992	-	Non-Exporter
2	Algeria	1992	.163329	**EXPORTER**
3	Angola	1992	.419823	**EXPORTER**
4	Azerbaijan***	1992	-	**EXPORTER**
5	Bosnia and Herzegovina***	1992	-	Non-Exporter
6	Burundi	1993	.000000	Non-Exporter
7	Central African Republic	1996	.000000	Non-Exporter
8	Chad	1994	.000000	Non-Exporter
9	China	1991	.093005	Non-Exporter
10	Croatia	1992	.020439	Non-Exporter
11	Democratic Republic of the Congo	1996	.012172	Non-Exporter
12	Democratic Republic of the Congo	1998	.005702	Non-Exporter
13	Ethiopia	1997	.000000	Non-Exporter
14	Georgia	1992	.003241	Non-Exporter
15	Guinea Bissau	1998	.000000	Non-Exporter
16	Haiti	1991	.000000	Non-Exporter
17	Indonesia	1991	.097798	**EXPORTER**
18	Moldova	1992	.000000	Non-Exporter
19	Nepal	1997	.000000	Non-Exporter
20	Pakistan	1993	.022715	Non-Exporter
21	Republic of the Congo	1998	.319479	**EXPORTER**
22	Russia	1994	.171131	**EXPORTER**
23	Russia	1999	.252559	**EXPORTER**
24	Sierra Leone	1991	.000000	Non-Exporter
25	Somalia***	1991	-	Non-Exporter
26	Tajikistan	1992	-	Non-Exporter
27	Uganda	1993	.000000	Non-Exporter
28	Yemen	1994	.437941	**EXPORTER**
29	Yugoslavia***	1991	-	Non-Exporter

Mean of Energy Rents=.09

S.D. of Energy Rents=.14

*Mean value of Energy Rents estimated as a fraction of GNI

**Oil Exporters = Countries with >1/3 export revenue from fuels (Fearon and Laitin 2003)

***Case deleted from analysis due to missing data on variable indicated by **(-)**

Table 4.1b: Energy Rents and Oil Exporter Status for Civil War (1000 Battle-Death threshold) country-years by country, 1991-1999

VARIABLES	Model 1	Model 2	Model 3	Model 4
Oil Exporter		0.842*		
		(0.479)		
Energy Rents$_{(t-1)}$			1.564	5.309**
			(1.356)	(2.278)
Mineral Rents$_{(t-1)}$			-13.444	-13.509
			(18.000)	(19.198)
log$_e$Percent Mountainous	.209	.201	.189	.157
	(0.161)	(0.162)	(0.163)	(0.169)
Prior War	-.543	-.490	-.523	-.665
	(0.557)	(0.561)	(0.563)	(0.575)
Wealth$_{(t-1)}$	-.372	-0.437*	-0.418*	-0.436*
	(0.242)	(0.243)	(0.243)	(0.244)
Weath$^2_{(t-1)}$	.016	.020	.018	.019
	(0.015)	(0.015)	(0.015)	(0.015)
log$_e$Population$_{(t-1)}$	.295	0.299*	.281	0.328*
	(0.181)	(0.181)	(0.183)	(0.187)
Non-contiguous state	1.397**	1.303**	1.352***	1.365***
	(0.518)	(0.515)	(0.523)	(0.524)
New State	-25.300	-25.824	-25.425	-25.229
	(1.423)	(1.423)	(1.423)	(1.423)
Regime Instability	-.173	-.295	-.298	-.407
	(0.525)	(0.540)	(0.546)	(0.550)
Ethnic Fractionalization	1.610	1.544*	1.598*	1.934**
	(0.875)	(0.882)	(0.888)	(0.925)
Religious Fractionalization	-1.833	-1.754*	-1.839*	-1.111
	(0.989)	(1.015)	(1.027)	(1.085)
Anocracy$_{(t-1)}$	.302	.301	.277	.422
	(0.510)	(0.505)	(0.508)	(0.523)
Democracy$_{(t-1)}$	-.479	-.298	-.381	-.302
	(0.581)	(0.601)	(0.595)	(0.598)
State Relaxation$_{(t-1)}$	-.021	-.015	-.013	-.005
	(0.054)	(0.053)	(0.053)	(0.054)
State Repression$_{(t-1)}$	-.108	-.150	-.134	-.166
	(0.249)	(0.247)	(0.251)	(0.260)
Military Strength	.047	.023	.035	.103
	(0.057)	(0.058)	(0.057)	(0.066)
Press Freedom	.013	.061	.054	.037
	(0.263)	(0.272)	(0.269)	(0.267)
Peace Years	-.016	-.016	-.014	-.013
	(0.013)	(0.013)	(0.013)	(0.013)
Energy Rents*Religious Fractionalization				-14.466*
				(7.958)
Constant	-5.452**	-5.484***	-5.240***	-6.126***
	(1.743)	(1.730)	(1.771)	(1.838)
Country-Years	906	906	906	906
Countries	116	116	116	116

Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05

#Standard error values multiplied by 1.e-6

Table 4.2a: Logit Regression of Energy Rents and Civil War (25 Battle-Death threshold) with random effects controls, 1991-1999

VARIABLES	Model 5	Model 6	Model 7
Oil Exporter		.800	
		(.800)	
Energy Rents$_{(t-1)}$			.397
			(2.361)
Mineral Rents$_{(t-1)}$			-.064
			(18.367)
log$_e$Percent Mountainous	.237	.259	.238
	(.243)	(.247)	(.245)
Prior War	.671	.820	.696
	(.839)	(.858)	(.858)
Wealth$_{(t-1)}$	-.643	-.753	-.657
	(.629)	(.599)	(.626)
Weath$^2_{(t-1)}$	.015	.023	.016
	(.071)	(.059)	(.069)
log$_e$Population$_{(t-1)}$	.296	.309	.298
	(.279)	(.281)	(.282)
Non-contiguous state	1.058	.844	1.015
	(1.038)	(1.040)	(1.073)
New State	-24.141	-23.529	-24.143
	(2.860)	(2.860)	(2.848)
Regime Instability	.528	.481	.514
	(.671)	(.672)	(.677)
Ethnic Fractionalization	.364	.212	.348
	(1.183)	(1.175)	(1.187)
Religious Fractionalization	1.705	1.933	1.744
	(1.849)	(1.902)	(1.880)
Anocracy$_{(t-1)}$	.411	.419	.418
	(.738)	(.732)	(.738)
Democracy$_{(t-1)}$	-.763	-.580	-.733
	(1.058)	(1.078)	(1.076)
State Relaxation$_{(t-1)}$	.023	.020	.024
	(.081)	(.082)	(.081)
State Repression$_{(t-1)}$	-.053	-.107	-.061
	(.369)	(.369)	(.372)
Military Strength	-.056	-.084	-.059
	(.092)	(.096)	(.094)
Press Freedom	-.125	-.083	-.119
	(.402)	(.412)	(.405)
Peace Years	.013	.013	.014
	(.023)	(.022)	(.023)
Constant	-7.575*	-7.643**	-7.592**
	(3.092)	(3.139)	(3.192)
Country-Years	906	906	906
Countries	116	116	116

Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05

#Standard error values multiplied by 1.e-6

Table 4.1b: Logit Regression of Energy Rents and Civil War (1000 Battle-Death threshold) with random effects controls, 1991-1999

for Oil exporters and both resource rent measures. Finally, years of peace are predictably a deterrent to civil war outside of the context of Latin American and Caribbean energy rentiers (Model 7).

Two regions in particular are highly susceptible to civil war, sub-Saharan Africa and the Middle East and North Africa. The states of South Asia also exhibit a strong, albeit inconsistent propensity towards war in Model 5 when no interaction terms are controlled for. The proportion of a country that is mountainous becomes salient when controlling for regional variations suggesting that these areas provide cover for rebels to hide, train and regroup during periods of conflict.

On Table 4.2, one observes that the standard explanatory factors are woefully inadequate to illuminate the reasons behind civil war onset during the 1990s based on the 1000 battle-death threshold. Wealth is the only variable to show as significant, having a dampening effect on war onset (Model 4). Wealthy countries are less likely to experience internal war, however the constrained time period restricts the ability to fully explain how this mechanism operates.

4.5 Discussion & Robustness Checks

The fundamental effects of resource rentierism on civil war are a firm departure from the observed effects on protest and violence, which were largely inhibiting. By and large, both energy and mineral rents have little effect on civil war. However, energy rent

presents an interesting dichotomy when examined in various regional contexts. While energy rents influence the onset of civil war in Latin America and the Caribbean, energy rentierism hinders the onset of civil war in sub-Saharan Africa. When the effect of energy rent in sub-Saharan Africa is isolated, energy exerts a positive influence on global civil war as well. The resource-wealthy states of …never fell under the onslaught of a civil war, though

Sub-Saharan has historically been plagued with civil conflict since the wave of anti-colonial independence movements. Indeed, of the 54 civil war onsets that occurred during the 1990s, just under half (20) of those conflicts occurred in that regions. However, as Model 6 illustrates, energy rentiers in sub-Saharan Africa are particularly adept at containing any internal claims to the state that may arise. Of the 20 country-years during which conflict was observed, only 8 of those country-years witnessed African states generating revenue from energy rent with the largest rentiers being Angola, Democratic Republic of Congo and Niger respectively. Given the very few cases involved, I reanalyze Model 6 with Angola excluded and the significance of this interaction disappears. It seems that the mechanisms through which civil war is avoided can be attributed to Angola.

In contrast to sub-Saharan Africa, Latin American and Caribbean countries have no overarching propensity towards civil war as indicated by the dummy variables, but energy rentiers in the region are highly susceptible to conflict. However, only three

countries in the sample experienced any semblance of civil war including Mexico in 1994 and Venezuela in 1992 at the 25 battle-death thresholds. Haiti, one of the poorest nations in the world with a heavy reliance on foreign aid, was the only country to experience conflict resulting in 1000+ deaths in 1991 yet generates no revenue from energy or mineral exports. The Mexican Chiapas rebellion marked a culmination of increased animosity amongst Indian groups towards the government's handling of the deteriorating economic and social conditions of indigenous regions. Rebels were particularly wary of economic inequality that expected to be caused by the ratification of the North American Free Trade Agreement (NAFTA). While a negotiated settlement to invest in indigenous regions eventually resolved the conflict, some sources estimate that up to 400+ rebels and military were killed in the conflict. However, Mexico's economy is fairly diversified and does not fit the profile of a country susceptible to state decay due to over-reliance on oil or mineral revenues. Venezuela offers a stark contrast to other countries in the region with energy rents contributing over 25% to the domestic economy. Given that the energy rent interaction reveals the civil war effects are largely concentrated in Latin America and the Caribbean, I ran a robustness check on the latter 4 Models with Venezuela excluded. In Model 5, the significant effects of energy rents on civil war disappear and in Model 7, the positive interaction of energy rents in Latin America and the Caribbean is no longer significant either. While energy rents in Venezuela played a significant role in the

revolution headed by General Hugo Chavez in 1992, the relationship in other parts of the world is spurious.

This suggests that the influence of energy rents on civil war is conflated in the general model and can only truly be observed when separating out the regional differences that rent wields on war. The effects of energy rent varies based on the geopolitical context, generally encouraging war, particularly within Venezuela in 1992, Trinidad and Tobago in 1990 and Mexico in 1994.

CHAPTER 5

CONCLUSIONS

5.1 EXPLAINING CIVIL PROTEST AND VIOLENCE

The cumulative literature on the resource-conflict nexus is mixed and the results from this study are no different. Past studies have varied in scope and focus, but a preponderance of resource-conflict research has trended towards a narrow focus of "conflict" by concentrating on the relationship between natural resource wealth and civil war outcomes. Recognizing that the socio-political factors that facilitate civil war also stimulate other forms of low-intensity clashes, this dissertation broadened the conceptualization of "conflict" to include both civil protest and violence. For example, while Nigeria has historically been subject to ethno-religious civil war as well as plagued with numerous military coup d'état dating back to the 1960s, the 1990s witnessed no instances of civil war. To be sure, the influence of resource rents on civil war onset during this restricted time period is marginal and only shows when using a lower threshold of civil war battle-deaths. However, as mentioned previously, oil-rich Nigeria faced widespread civil challenge during the 1990s directly related to the oil extraction industry. Ecological damage to the Niger Delta region caused by Oil companies operating in the region MOSOP and other civil society groups staged several nonviolent

demonstrations against the government, with the goal of influencing federal policy in the region to have a greater focus on environmental degradation and facilitating social development in the region. Sit-ins intended to disrupt the flow of petrodollars to the coffers of both oil companies and the government garnered a harsh response from regime security forces resulting in the deaths of many protesters as well as the summary execution of MOSOP leader Ken Saro-Wiwa. In response, a militant movement brewed in the region resulting in armed clashes between military and insurgent militias that have been mired in armed clashes that continue outside of the temporal scope of this study. As this study is focused on the post-Soviet era, confining to civil war would overlook the relationship between rentierism and low-intensity conflict. Findings from this dissertation illustrate a strong relationship between resource-wealth and civil protest and violence during the 1990s and understate the importance for future research to focus on cross-national analysis of low-intensity conflict outcomes. Furthermore, refined variable measurement also serves as an important contribution to the resource-conflict literature.

5.2 Refined Measurement of Resource Rents

Utilizing the continuous energy and mineral resource rents measure from the World Bank Adjusted Net Savings dataset to individually assess the importance of resources to a country's economy offers a distinct advantage over Fearon and Laitin's (2003) oil exporter dummy in explaining civil violence and civil war onset. Observing

comparable models of civil violence outcomes, the oil exporter dummy showed as non-significant while the resource rents variable illustrated that energy-reliant states are significantly less likely to experience intrastate violence. As mentioned in Chapter 1, Fearon and Laitin (2003) designate Norway as an oil exporter, even though energy exports only comprise approximately 2% of total national income. During the 1990s there were 15 countries, including Bolivia and Mexico, which maintained a greater reliance on energy exports than Norway. Yet, these countries were not considered to be oil exporters based on the Fearon and Laitin (2003) definition. An in-depth case analysis in Chapter 2, discusses how Bolivia, a country rich in both energy and mineral resources, experienced widespread civil discontent during the 1990s. In the process of instituting structural adjustment reforms imposed by international lenders, a number of financial assistance programs that subsidized fuel expenses, mass transportation and other public utilities were removed. Additionally, the government also privatized several industrial sectors including companies involved in the extraction of tin, oil and natural gas, which resulted in massive layoffs to in an effort to increase the efficiency of production. Indigenous workers and civil society groups responded by setting up road blockades, organizing mass demonstrations as well as calling for the subsequent resignation of president Perez. These actions essentially brought market activity to a standstill and highlighted the importance of resource exports to the Bolivian economy. The cross-national multivariate analysis illustrated that rentierism is an important explanatory factor

for civil protest and violence outcomes, but this relationship could only be captured using the continuous energy and mineral resource rents measures.

In addition, the oil exporter dummy showed as positive and significant on civil war based on the 25 battle-death threshold. Yet in a parallel equation, the energy rents variables revealed a non-significant relationship, indicating that energy exports generally do not put a country at a greater risk for civil war during this time period. The discrepancy in these findings is likely attributable, in part, to the deficiency of the oil exporter dummy. While Tajikistan, India and Mexico experienced intrastate war during the 1991 to 1999 timeframe and are excluded as "oil exporters," twelve additional countries with resources rents higher than Norway's never experienced war.

In summary, while energy rent is a considerable suppressant of civil violence and has no effect on civil war onset in the 25 battle-death and 1000 battle-death civil war models, results from the oil exporter dummy show the opposite. This finding supports the notion that the crude "oil exporter" dummy generates spurious results when examining civil wars (Ross 2006; deSoysa and Neumayer 2007). By distinguishing revenue generated from energy resources as opposed to mineral resources, analysis of the World Bank Adjusted Net Savings dataset also offers insight into the differences that these resources have on the advent of conflict. In addition, the dissimilarity between the measurements of civil conflict outcomes is likely a factor in the varying results. While civil protest and violence utilized event-counts, the development of the civil war

measures entailed qualitative analysis of structural changes within the social environment. Prior research has also found differing results of civil war outcomes also due to expanded time periods.

5.3 Energy Rents vs. Mineral Rents

One of the most notable findings is the stark contrast between energy and mineral rents. A series of interaction equations illustrate that the effects of energy and mineral rentierism on conflict are primarily contextual. Regimes that patronize citizens through investments in social welfare programs tend to be undemocratic. Protest and patronage have been especially prevalent throughout developing countries of the Middle East and North Africa, sub-Saharan Africa and Latin America and the Caribbean. Many countries within these regions have fallen victim to the "resource curse" is various ways. Some scholars have argued that the heavy endowments of energy resources such as oil, natural gas and coal throughout the Middle East have constrained democracy in countries such as Iraq, Iran and Kuwait (cite). Still, other nations such as the United Arab Emirates Profits from oil exports also enable wealthier energy rentiers, primarily in the Middle East, to invest in social development programs such as education, health care, employment and housing to essentially keep the prospect of popular uprisings at bay (Bayat 2002). This form of patronage can be observed amongst many Middle Eastern states including the United Arab Emirates (UAE) have flourished economically and, as a result, experience

little civil society cohesion or challenge to the status quo. The UAE enjoys high economic growth, and experiences little protest due in part to heavy domestic investment. This offers a stark contrast to some West African countries bordering the oil-rich Gulf of Guinea. For example, Nigeria experienced 16 consecutive years of brutal military rule until, under increasing pressure from civil society, held its first democratic elections in 1999. The country has reportedly earned upwards of $300 billion in oil revenue of the past 30 years yet, many citizens still live in abject poverty on less than $1/day. Separatist battles in the Niger Delta region are also a constant threat to the country's oil extraction industry. Rent enables energy export-reliant states to invest in building strong militaries are well equipped to contain civil protest and violence. Although Angola has been ravaged by an ongoing guerilla war throughout the 1990s, other forms of civil discontent were subdued by widespread corruption, economic mismanagement and regime coercion. It is not until the turn of the century (outside the scope of this study) that demands for accountability from civil society groups begin to take hold within the Angolan government.

Civil challengers face a vastly different political landscape within certain mineral rentier states. Religiously fractionalized, repressive and permissive mineral rentiers are all highly susceptible to civil protest. Relaxation of political strongholds will offer renewed confidence to those that wish to challenge the state (Jenkins and Schock 2003), thus leading to increased levels of violence. In addition, religiously and ethnically

fractionalized mineral-wealthy states are predisposed to violence. This finding is in line with the literature on nationalist conflicts that argues that domestic peace is difficult to keep within ethnically and religiously diverse states (Huntington 1996; Moynihan 1993; Rabushka and Shelpshe 1972; Smith 1986).

The dichotomy that influences conflict in mineral-reliant states and mutes conflict in energy-reliant states can also be attributed to the differences in how labor is used in the extraction industry. The International Labor Organization estimates that, world-wide, about 11 million people are employed in the mineral mining sector, but only about a million are involved in oil production. Additionally most employees are involved in refinement of petroleum products which is often conducted in more developed countries. The sheer number of laborers employed in mineral mining offers a competitive advantage in negotiating with regime leaders that rely on manual workers rather than machinery to extract resources.

5.4 Policy Implications

Results indicate that there is little evidence to suggest an *overall* effect of energy and mineral rentierism on civil conflict; rather the influence is largely contextual. Judging from the deluge of recent studies on the resource-conflict phenomenon and the impact of past studies on development strategies (especially Paul Collier's work at the World Bank), these results have important policy implications that can be initiated

specifically utilizing early warning systems or risk analysis of potential conflict. Recognizing the differences in conflict outcomes between energy and mineral rentiers, a thorough policy prescription should be based on the distinctions between both forms.

Risk Assessment: Mineral Rentiers

Nonviolent protest demonstrations enable citizens to voice grievances without the use of violence, but primarily prevail in developed democracies, which allow the space for political expression. In politically developing countries where citizens are often denied routine access to political resources, protest may be viewed by actors as an ineffective strategy, causing a reversion to rebellion and other form of violence against those in power (Tilly 2000). However, mass grievances that precipitate the onset of rebellion and protest are likely to have common origins (Jenkins and Schock 2003). A state that lacks the capacity to properly manage conflict or address grievances has the potential to devolve into protracted rebellion and civil violence. Prior identification of potential conflict "hotspots" is essential to diplomatic efforts to curb the onset of mass violence as well as providing risk assessments for countries susceptible to conflict. The using of quantitative conflict models has been useful in predicting conflict stemming from humanitarian, within ethnically plural societies (Gurr and Moore 1997), emergencies (Harff and Gurr 1998) as well as states vulnerable to collapse (Schmeidl and Jenkins 1998). Certain types of mineral-reliant rentier states present a particularly

interesting scenario for the prospect of widespread protest and violence. For example, Papua New Guinea, an ethnically diverse country rich in deposits of copper, petroleum gold and other minerals experienced widespread tribal fighting and sporadic ethno-political violence during the 1990s. These clashes often occurred just prior or subsequent to transfers of power and resulted in hundreds of deaths and further served to destabilize an already fragile regime. Utilizing prior quantitative frameworks, risk assessments could be developed to identify: 1. Ethnic and religious groups within mineral-reliant countries that are most susceptible to conflict and 2. The socio-political conditions that make certain states vulnerable. Coupling empirical models with qualitative country-assessments will enable policymakers to deploy peace keeping forces or institute diplomatic solutions that will circumvent conflict.

Risk Assessment: Energy Rentiers

While energy rentiers are seemingly successful at suppressing civil conflict, case study analysis, especially in Nigeria, reveals that these countries face a number of potential problems stemming pollution and the potential for resource scarcity. In a seminal critique of several studies, Gleditsch (1998) contends that resource scarcity and/or environmental degradation will eventually lead to violent conflict and identifies several potential sources of environmental conflict including the degradation or scarcity of minerals, fish, water and territory. Fossil fuels have had adverse impacts on the

environment and have the potential to fuel conflict due to pollution of water resources, arable land as well as disputes over ownership of oil fields.

Gleditsch (1998) further contends that regime type is a critical factor in the likelihood that a country will experience conflict. Energy-reliant states are usually non-democratic, relying little on the extraction of revenues from the populace to operate and likely indifferent to popular grievances. As such, potential problems are not likely to surface until widespread conflict actually begins. Monitoring the environmental impacts of oil extraction within energy-reliant states will be essential to preventing the onset of conflict. However, there are no distinctions drawn between rivers that flow through poor undemocratic countries which are more likely to experience conflict or wealthy democratic states in which inter-state war is an unlikely occurrence. In all, prior work has been unable to draw credible empirical links as to how this very general relationship will play out.

5.5 Future Research: Context Matters

The scope of the current natural resource-conflict literature is too narrowly focused and future studies of civil conflict should be expanded to include many different forms of civil challenge including nonviolent protest and civil violence, as these have been illustrated to be important outcomes of rentierism. The use of more refined data sources is essential to the study of natural resources and civil conflict. Aggregating protest and

violence to specific types could also elucidate whether rentierism has an effect on various types of civil insurgence. For example, a protest demonstration could be staged against a particular state policy, in response to corporate layoffs or used as a symbolic form or resistance. The current data is limited in the ability to determine exactly why a particular event occurred, but efforts should be made to distinguish the particular circumstances of conflict events.

In addition, developing general theories on the resource-conflict relationship are not likely to bear any considerable results. Future research should expand upon the contextual nuances that make certain rentiers susceptible to conflict and others immune. Most important is a further understanding of the mechanisms through which certain social conditions facilitate conflict. This line of research should initially focus on the impact of ethnic and religious diversity but should also potentially include structural factors such as regime type and international influences.

APPENDIX A

VARIABLE LIST

Variable	Obs	Mean	S.D.	Min	Max
Civil war onset	1367	.04	.20	0	1
Civil Protest incidence	1383	6.00	11.20	0	127
Civil Violence incidence	1383	13.07	28.36	0	192
Prior War	1335	.2	.40	0	1
Oil Exporter Dummy	1338	.14	.35	0	1
Mineral rents/GNI	1383	.01	.03	0	.22
Energy rents/GNI	1383	.05	.11	0	.86
Per Capita income$_{(t-1)}$	1257	4.65	4.89	.2	20.61
$\log_e$Population$_{(t-1)}$	1338	9.33	1.38	6.74	14.03
$\log_e$Percent Mountainous	1338	2.06	1.45	0	4.42
Non-contiguous State	1338	.17	.38	0	1
New State	1338	.03	.16	0	1
Instability$_{t-1}$	1338	.19	.39	0	1
Ethnic Fractionalization	1338	.41	.28	0	.93
Religious Fractionalization	1338	.39	.22	0	.78
Anocracy$_{t-1}$	1324	.27	.44	0	1
Democracy$_{t-1}$	1324	.52	.50	0	1
Peace Duration	1317	25	20.58	0	54
Military Expenditures	1123	2.98	3.26	.09	37.6
Press Freedom	1294	2.28	1.14	1	4
State Repression$_{t-1}$	1272	2.52	1.20	1	5
State Relaxation$_{t-1}$	1383	2.41	5.49	0	58

Middle East/North Africa	Sub-Saharan Africa	Latin America/Caribbean	Eastern Europe/Central Asia	South Asia
Algeria	Angola	Anguilla	Albania	Afghanistan
Bahrain	Benin	Antigua and Barbuda	Armenia	Bangladesh
Djibouti	Botswana	Argentina	Azerbaijan	Bhutan
Egypt	Burkina Faso	Aruba	Belarus	India
Iran	Burundi	Bahamas	Bosnia and Herzegovina	Maldives
Iraq	Cameroon	Barbados	Bulgaria	Nepal
Israel	Cape Verde	Belize	Croatia	Pakistan
Jordan	Central African Republic	Bermuda	Czech Republic	Sri Lanka
Kuwait	Chad	Bolivia	Estonia	
Lebanon	Comoros	Brazil	Georgia	
Libya	Republic of the Congo	Cayman Islands	Hungary	
Malta	Democratic Republic of the Congo	Chile	Kazakhstan	
Morocco	Côte d'Ivoire	Colombia	Kyrgyz Republic	
Oman	Djibouti	Costa Rica	Latvia	
Qatar	Equatorial Guinea	Cuba	Lithuania	
Saudi Arabia	Eritrea	Dominica	FYR Macedonia	
Syria	Ethiopia	Dominican Republic	Moldova	
Tunisia	Gabon	Ecuador	Poland	
United Arab Emirates	Gambia	El Salvador	Romania	
West Bank and Gaza	Ghana	Falkland Islands (Malvinas)	Russian Federation	
	Guinea	French Guiana	Serbia	
	Guinea-Bissau	Grenada	Slovak Republic	
	Kenya	Guadeloupe	Slovenia	
	Lesotho	Guatemala	Tajikistan	
	Liberia	Guyana	Turkey	
	Madagascar	Haiti	Turkmenistan	
	Malawi	Honduras	Ukraine	
	Mali	Jamaica	Uzbekistan	
	Mauritania	Martinique	Kosovo, FR of Yugoslavia	
	Mauritius	Mexico		
	Mayotte	Montserrat		
	Mozambique	Netherlands Antilles		
	Namibia	Nicaragua		
	Niger	Panama		
	Nigeria	Paraguay		
	Rwanda	Peru		
	Réunion	Puerto Rico		
	Saint Helena	Saint Kitts and Nevis		
	Sao Tomé and Principe	Saint Lucia		
	Senegal	Saint Vincent and the Grenadines		
	Seychelles	Suriname		
	Sierra Leone	Trinidad and Tobago		
	Somalia	Turks and Caicos Islands		
	South Africa	Uruguay		
	Sudan	Venezuela		
	Swaziland	Virgin Islands, British		
	Tanzania	Virgin Islands, U.S.		
	Togo			
	Uganda			
	Zambia			
	Zimbabwe			

*Based on countries for which energy and mineral rents data is available. Not all countries are included in multivariate analyses due to listwise deletion for missing data.

Appendix B: Country List

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