

**Does Lootable Wealth Breed Disorder?  
A Political Economy of Extraction Framework\***

Richard Snyder  
Department of Political Science  
Brown University, Box 1844  
Providence, RI 02911

Richard\_Snyder@brown.edu

Forthcoming in *Comparative Political Studies* (October 2006).

---

\* I appreciate the comments and suggestions of Ravi Bhavnani, Ted Beatty, Catherine Boone, Jason Brownlee, Ruth Berins Collier, Matteo Colombi, Michael Coppedge, Zachary Elkins, Mustafa Emirbayer, John Gerring, Paul Hutchcroft, Pauline Jones-Luong, Juan J. Linz, Miriam Lowi, James Mahoney, Sebastian Mazzuca, Gerardo L. Munck, Michael Ross, Andreas Schedler, Nicolas van de Walle, Kurt Weyland, and participants in seminars at Brown University, the University of Chicago, the University of Texas at Austin, and the University of Wisconsin at Madison.

## **ABSTRACT**

This article proposes a political economy of extraction framework that explains political order and state collapse as alternative outcomes in the face of lootable wealth. Different types of institutions of extraction can be built around lootable resources – with divergent effects on political stability. If rulers are able to forge institutions of extraction that give them control over revenues generated by lootable resources, then these resources can contribute to political order by providing the income with which to govern. In contrast, the breakdown or absence of such institutions increases the risk of civil war by making it easier for rebels to organize. The framework is used to explain two puzzling cases that experienced sharply contrasting political trajectories in the face of lootable resources: Sierra Leone and Burma. A focus on institutions of extraction provides a stronger understanding of the wide range of political possibilities – from chaos, to dictatorship, to democracy – in resource-rich countries.

Does lootable wealth breed disorder? This question commands great interest because of the proliferation of civil wars and collapsed states since the end of the Cold War. A common answer in the fast-growing literature on civil wars is that lootable wealth, defined as lucrative, easy-to-transport resources, like gems, tropical timber, and illicit drugs, generates disorder by supplying the motive and means for armed rebellion (Collier and Hoeffler 1998; Collier and Hoeffler 2004; De Soysa 2000; and Keen 1998). Pointing to a strong and positive statistical association between lootable resources and political disorder, scholars argue that lootable wealth fuels “greed-based” insurgencies in the collapsed states of the contemporary developing world.<sup>1</sup> Gripping journalistic accounts of “blood diamonds” in Sierra Leone, Angola, and the Democratic Republic of Congo, “logs of war” in Cambodia and Liberia, and “narco-guerillas” in Colombia, seem to support the argument that a close connection exists between lootable wealth and chaos (Campbell 2002).

Despite these prominent cases, the relationship between lootable wealth and disorder is far more complex. As seen in Table 1, *no* civil war is actually the more frequent outcome among countries that produce alluvial diamonds, tropical timber, and illicit drugs. Of the 42 countries listed in the table, 24 (that is, 57 percent) did not experience civil wars in the 1960-1999 period. Moreover, an historical perspective highlights that many countries seen today as paradigmatic cases of state collapse in the face of lootable wealth were previously ruled by remarkably durable political regimes. For example, in the Democratic Republic of Congo (formerly Zaire) Mobutu Sese Seko held power more than 30 years (1965-1997). In Liberia, William Tubman ruled 27 years (1944-1971). And in Sierra Leone, Siaka Stevens held power 17 years (1968-1985) and then transferred the reins of government peacefully to his chosen successor. Indeed, writing in 1989, two Africanists noted that “when compared with a number of other African countries, Sierra Leone is remarkable for its *stability and relative lack of disorder and fundamental political change*” (Luke and Riley 1989, 134). These cases provide further evidence that lootable wealth is often not linked with chaos, and they raise important questions: How were stable, long-lived regimes possible in the face of the same lootable resources that supposedly cause rebellion and instability today? Why are lootable resources associated with stability in one period and instability in another period?

---

<sup>1</sup> Collier and Hoeffler (1998; 2004) and De Soysa (2000). For assessments of recent quantitative research on the civil war-resource relationship, see Humphreys (2005) and Ross (2004a).

**TABLE 1. Lootable Wealth and Civil War, 1960-1999**

Resources	Cases	Civil War Outcome	
AD	Angola	Yes: 1961-ongoing as of 1999	
	Guinea	No	
	Namibia	No	
	Sierra Leone	Yes: 1991-1999	
	South Africa	No	
O	Afghanistan	Yes: 1978-ongoing as of 1999	
	Laos	Yes: 1960-1973	
	Pakistan	Yes: 1971; 1973-1977	
	Vietnam	Yes: 1960-1975	
TT	Cambodia	Yes: 1970-1991	
	Cameroon	No	
	Congo	Yes: 1997	
	Ecuador	No	
	Fiji	No	
	Gabon	No	
	Guatemala	Yes: 1966-1972; 1978-1984	
	Honduras	No	
	Malaysia	No	
	Nigeria	Yes: 1966-1970; 1980-1984	
	Panama	No	
	Papua New Guinea	No	
	Philippines	Yes: 1972-1996	
	Suriname	No	
	Togo	No	
	Trinidad and Tobago	No	
	Vanuatu	No	
	AD + TT	Brazil	No
		Central African Republic	No
		Democratic Republic of Congo	Yes: 1960-1965; 1991-1999
Ghana		No	
Guyana		No	
India		Yes: 1965; 1984-1994	
Indonesia		Yes: 1975-1982	
Ivory Coast		No	
Liberia		Yes: 1989-1996	
Venezuela		No	
C + TT		Boliva	No
		Peru	Yes: 1982-1996
C + O + TT		Colombia	Yes: 1984-ongoing as of 1999
O + TT	Burma	Yes: 1968-1980; 1983-1995	
	Mexico	No	
	Thailand	No	

Legend: AD = alluvial diamonds; C = coca; O = opium; TT = tropical timber.

Note: The table includes all countries with an estimated annual production at least 8,000 carats of alluvial diamonds in 1990. Alluvial diamonds are distinguished from deep-shaft, Kimberlite diamonds by their low economic barriers to entry, which make alluvial diamonds a lootable resource. The classification of alluvial diamond producers is based on Levinson, Gurney, and Kirkley (1992); Janse (1995); and Janse (1996). The table includes all countries listed as significant producers of opium poppy and coca leaf in 1990-2003 by the United Nations Office on Drugs and Crime (UNODC). See United Nations (2004). The table does not list countries that produce cannabis or amphetamines. According to UNODC, cannabis production is globally dispersed: between 111 and 124 countries produced cannabis in 1998-2002. The production of amphetamine-type stimulants displays a similarly dispersed pattern (United Nations, 2004, 159-74). The table lists the 33 countries that were timber-producing members of the International Tropical Timber Organization (ITTO) in 2005 (<http://www.itto.or.jp>). This is not a complete list of all the countries in the world that produce tropical timber, because not all these countries are members of the ITTO. The classification of cases of civil war is based on Collier and Hoeffler (2004).

A comparative perspective provides more evidence of long-lived political regimes in economies dominated by lootable resources. The leading exporter of hashish to Europe is Morocco, where the Alaouite dynasty has held power for centuries. In Burma (Myanmar), a major *expansion* of the narcotics industry in the 1990s occurred during a period that also saw the ending of civil war, demobilization of insurgents, and the successful restoration of a military regime's grip on power. Why are lootable resources associated with civil war in some countries and stability in others? Why, as in Burma, are *more* lootable resources associated with *less* disorder?

Taken together, the cross-national and historical evidence exposes an important limitation of research on state collapse and civil war: the lack of a theory that explains why lootable wealth is linked with chaos in some instances and order in others.<sup>2</sup> Although countries with lootable resources may, in fact, be more prone to civil war than countries lacking such resources, we still need a theory that accounts both for civil war and also for the more common outcome of *no* civil war in the face of lootable wealth. This article contributes to building such a theory by providing a political economy framework that focuses on institutions of extraction. Defining lootable wealth as high-value goods with low economic barriers to entry, I argue that different types of institutions of extraction can be constructed around such goods -- with contrasting consequences for political stability. If rulers are able to forge institutions of extraction that give them control over revenue generated by lootable resources, these resources can actually contribute to the maintenance of order by providing the income with which to govern. In contrast, the breakdown or absence of such institutions can produce instability in two ways: first, by causing a fiscal crisis that renders the state vulnerable to collapse and, second, by making it easier for rebels to organize. In short, I propose a political economy framework that highlights how institutions of extraction determine *who controls the loot* – rulers or rebels – and thus affect the relationship between lootable resources and political order. With this framework I aim to advance a more powerful theory of collapsed states and civil war, one that accounts both for disorder *and* order in the face of lootable wealth.

The next section develops the political economy of extraction framework. First, I define four distinct institutional outcomes: private extraction, public extraction, joint extraction, and no extraction. Second, I build a model of the interaction between two agents – rulers and private economic actors – as they compete for control over lootable resources. This competition between rulers and private actors is driven by their divergent preferences over the four institutional outcomes. A subsequent section provides an empirical analysis of Sierra Leone and Burma. These two cases are important because they demonstrate the contrasting political outcomes that can occur in countries with lootable wealth. In Sierra Leone lootable resources were linked initially with a stable patrimonial regime (1968-1990) and subsequently with chaos (1991-2002), whereas in Burma lootable resources were linked initially with chaos (pre-1990) and subsequently with a stable military regime (post-1990). These divergent political trajectories in the face of lootable resources pose a strong explanatory challenge that I tackle with my framework. A concluding section summarizes the argument about how focusing on institutions of extraction helps explain the varied political consequences of lootable resources. The conclusion also proposes an agenda for future research on lootable wealth and political order.

---

<sup>2</sup> Karl (1997) and Shafer (1994) offer sophisticated theories of how natural resources affect state capacity, though neither work focuses on explaining civil war.

## **INSTITUTIONS OF EXTRACTION AND POLITICAL ORDER: A POLITICAL ECONOMY FRAMEWORK**

Understanding the relationship between lootable wealth and political order requires a focus on who controls the income generated by economic resources.<sup>3</sup> I thus build a model around two agents – rulers and private economic actors – and show how their interaction as they compete to control lootable resources is driven by their preferences over four alternative institutional outcomes. I do not claim to offer a full explanation for political order: institutions of extraction, while important, are not the only link in the causal chains that connect lootable resources to political order or, alternatively, to civil war. For example, even when institutions of extraction increase the risk of civil war by making it easier for would-be insurgents to operate, insurgent groups still have to organize and seize these opportunities. Still, a focus on institutions of extraction provides a stronger understanding of the contrasting political consequences of lootable resources. Moreover, the model applies to cases where lootable resources are a leading source of potential revenue for rulers and private economic actors. It is not meant to explain political order in situations where the range of revenue opportunities is more diverse, for example, in industrial and high-technology economies.

### **Institutions of Extraction and the Preferences of Actors**

At the most general level I distinguish four modes of extraction. *Private* extraction refers to situations where private economic actors enjoy exclusive, unregulated, and untaxed control over the income generated by resources, thus denying rulers a share of the wealth. Examples of private extraction include warlord mining economies in contemporary collapsed states, such as Sierra Leone and the Democratic Republic of Congo, as well as frontier economies during the 19th century gold rushes in the North American West. By contrast, *public* extraction refers to cases where rulers have a monopoly over the extraction process and fully control the income generated by resources. State-owned petroleum companies in some contemporary oil-producing countries are good examples of public extraction.<sup>4</sup> Between the extremes of private and public extraction, a variety of *joint* extraction institutions are possible. Joint extraction refers to cooperation between private and public actors who share income generated by exploiting resources. This income sharing can take a variety of forms, ranging from public taxation of privately-extracted resources to government-run protection rackets.

In addition to private, public, and joint extraction, a fourth possibility exists: *no* extraction. For example, rulers who are unable to achieve control over resources by themselves through public extraction face strong incentives to try to prevent private extraction, because the accumulation of wealth and power by private actors may pose a threat. Depending on the rulers' capacity to deny private actors independent access to resources, a situation of no extraction can result. Indeed, making a credible threat of no extraction is a powerful way to get private actors to participate in joint extraction and share their wealth.

Assuming that rulers want to keep power and that both rulers and private actors are revenue seekers, we can deduce the following preference ordering over the four institutional outcomes I have defined. As seen in Figure 1, rulers prefer public extraction because a government monopoly maximizes their revenue and also makes it harder for private rivals to get the income with which to build autonomous bases of power. Moreover, revenue-seeking rulers

---

<sup>3</sup> This is a core insight of the literature on state-building in Western Europe. See, for example, Levi (1988); and Tilly (1990).

<sup>4</sup> State-owned petroleum companies are not necessarily fully owned by the government. On the varied strategies that rulers use to develop petroleum resources, see Jones Luong and Weinthal (2001).

have economic incentives to prefer public over joint extraction, because the former internalizes resource extraction within hierarchical, government-controlled institutions and thus reduces transaction and agency costs, such as the expense of monitoring and enforcing compliance with bargains (Levi 1988, 30-32). Joint extraction is the rulers' second choice, because it at least gives them a share of the income generated by resources. Finally, rulers prefer no extraction over private extraction. Private extraction is the worst outcome because it makes it easier for private resource holders to accumulate wealth and power that can be used to challenge the rulers' authority. Thus, if neither public nor joint extraction is feasible, rulers will choose a spoiler strategy aimed at ensuring that *no* extraction occurs.

**Figure 1.**  
**Preferences of Rulers and Private Actors**  
**Over Institutions of Extraction**

Mode of Extraction	Rank Order of Preferences	
	Rulers	Private Actors
Public	1	4
Private	4	1
Joint	2	2
None	3	3

Private actors prefer private extraction because it maximizes their income. Joint extraction is their second choice. And they prefer no extraction over public extraction, because the latter strengthens rulers, making it easier for them to regulate and potentially repress societal actors.

## **Why Rulers Can't Have Their First Choice: The Unfeasibility of Public Extraction of Lootable Resources**

Although rulers prefer public extraction, it is not feasible in the face of lovable resources. First, the *low economic barriers to entry* characteristic of lovable resources make it hard for rulers to gain monopoly control over them.<sup>5</sup> For example, to mine alluvial diamonds, a pick, shovel, sieve, and sweat are usually the only requirements. This means that a mass of small, wildcat miners can easily get into the business. And because of their low bulk, lovable resources are easy to smuggle. As Paul Richards (1996, 41, 100-101) notes, "In an emergency a [diamond] can even be swallowed." Moreover, many lovable resources are geographically widespread. For example, alluvial diamonds are located in riverbeds scattered across large expanses of territory. These attributes of lovable resources pose formidable impediments to government control over extraction, especially in "soft" states with weak regulatory, surveillance, and border enforcement capabilities.

A further impediment to public extraction concerns the *illegality* of some lovable resources. Rulers who earn revenue from illicit drugs risk international sanctions. Illegality thus poses a barrier to entry for the public sector: it is not feasible to have a Ministry of Cocaine or a Ministry of Opium.

Taken together, these properties of lovable resources limit the strategies available to rulers, leaving joint extraction as the only viable way to get access to income generated by lovable wealth. Rulers should thus be looking to build institutions of joint extraction with private actors who have access to lovable resources. Yet societal resource holders are driven to resist overtures from rulers, preferring private extraction, which lets them keep their profits, over joint extraction, which requires them to share with rulers. To understand how joint extraction is possible -- and thus how political order can be achieved in the face of lovable resources-- we need to explore the methods available to rulers for getting private actors to share their wealth.

### **Building Institutions of Joint Extraction**

Rulers can deploy a mix of negative and positive inducements, or "sticks" and "carrots," to get private actors to cooperate in joint extraction by sharing their wealth.

Sticks. Coercion is an important tool rulers use to build institutions of joint extraction. Depending on their military and bureaucratic capabilities, rulers may be able to form a protection racket in which private actors pay for protection from harassment by the government itself. Protection rackets are especially likely to emerge around illicit products, because the "service" of non-enforcement of the law will have a high value to private actors. Mercantile diaspora groups, such as Lebanese in West Africa and overseas Chinese in Asia, are among the most vulnerable to the threat of coercion because they are often not citizens and thus have tenuous property rights and legal standing. These groups are likely to participate in joint extraction, sharing their income with rulers in exchange for protection.

The threat of blocking extraction of lovable resources -- that is, no extraction-- is another method rulers can use to build institutions of joint extraction. Although the government may lack the ability to monopolize lovable resources itself through public extraction, it may still be able to prevent others from exploiting the resources. For example, rulers can shut down production of illicit drugs through aerial spraying or other forms of eradication. And in the case of resources not susceptible to eradication, such as alluvial diamonds, rulers may still be able to close trading routes. Rulers with these capabilities can make a credible threat of no extraction.

---

<sup>5</sup> On economic barriers to entry and state-building, see Shafer (1994).

This is a powerful way to get private resource holders to cooperate by sharing income with the rulers: faced with a choice between no income and some income, they will opt for the latter.

One might object that the threat of no extraction is not credible because it is not in the rulers' self-interest: enforcing no extraction by eradicating illegal crops or shutting down smuggling routes is more costly than doing nothing. Yet the cost of doing nothing should not be underestimated: unchecked private extraction makes it easier for rivals to build autonomous bases of power and challenge the rulers. Moreover, blocking the extraction of lootable resources can yield lucrative international rewards for rulers. For example, the United States government bestows military and financial aid on countries that help fight its War on Drugs. And in the absence of joint extraction, international aid is especially valuable to rulers, because it may be one of the only ways to get the revenue needed to counter threats from rivals engaged in private extraction. Thus it may indeed be in the self-interest of rulers to pursue a spoiler strategy, threatening no extraction if private actors do not share their wealth.

The ability to make a credible threat of no extraction, and hence to induce private actors to cooperate in joint extraction, depends on the distinct properties of different types of lootable resource. For example, the threat of no extraction should be especially credible in the case of illegal drugs, because international rewards are readily available for their eradication and interdiction. Similarly, it should be easier to make a credible threat of no extraction in the case of opium or coca, which are usually grown in open fields and are thus relatively detectable, than in the case of amphetamines, which are produced in small, concealed laboratories. Variation in the legality and "detectability" of different resources affects the capacity of rulers to use threats of no extraction as a way to get private actors to share their wealth.

Carrots. In addition to the "sticks" of coercion and the threat of no extraction, rulers may also control selective benefits, or "carrots," that they can use to build institutions of joint extraction. For example, providing protection from competitors can induce private actors to share their income. The ability to supply protection, which may include forcing the rivals of allies out of business, depends on the rulers' coercive capacities. Yet even if the rulers' coercive capacities are modest and they can supply only limited protection, protection may still command a high value if it is scarce, as is likely to be the case when there is no rule of law and when societal actors lack their own private armies.

Legalization is another selective benefit rulers can use to achieve joint extraction. In exchange for a share of their income, rulers can use the law to make it easier for private actors to launder profits from illegal resources. Rulers can also offer amnesty and "legal cleansing" to entrepreneurs involved with illicit resources. Entering the "legal fold" is attractive to such entrepreneurs because it can (1) allow them to exchange a harsh, fugitive existence for an opulent, legitimate lifestyle; (2) lower business costs by making it possible to downsize and even dispense with private armies required to fend off government forces; and (3) open new investment opportunities in the legal economy. Thus the law is a powerful tool that revenue-hungry rulers can use to generate income, especially in the case of illicit resources.

The ability to use the law to build institutions of joint extraction around illegal resources depends on how vulnerable the rulers are to scrutiny from international actors. Joint extraction of illegal drugs, for instance, is far easier if rulers are relatively insulated from US pressures to participate in its "war" on drugs (for example, in Burma and North Korea, as opposed to Colombia). Rulers contemplating joint extraction of illegal resources will weigh the risks of international isolation against the anticipated benefits of joint extraction. In some instances (contemporary Colombia, for example), international pressure renders joint extraction of illegal resources infeasible by imposing high costs on government participation. This externally-

induced prohibition against joint extraction causes violence and disorder because it forces the government into a lethal confrontation with drug cartels.

In sum, these various sticks and carrots provide rulers the means to build institutions of joint extraction and thus get a share of the income generated by lootable resources. Joint extraction is most likely when rulers (1) can make a credible threat of enforcing no extraction if private actors refuse to share their income; (2) if rulers can offer selective benefits such as legalization and protection from rivals; and (3) in the face of vulnerable diaspora groups with transnational business networks that give them access to overseas markets. If rulers succeed at building institutions of joint extraction, lootable wealth produces not disorder, but stability. This is the very opposite of what most existing research predicts.

### **The Breakdown of Joint Extraction**

The breakdown of institutions of joint extraction deprives rulers of the revenue generated by lootable resources. This in turn contributes to instability by causing a fiscal crisis and making it easier for challengers to organize. I highlight four key factors that cause the decay of joint extraction: shifts in the balance of power between private actors and rulers, a decrease in the value of lootable resources, “bequeathability” problems, and grievances.

Shifts in the Balance of Power. Shifts in the balance of power between rulers and private actors can destabilize joint extraction. Over time, private actors involved in joint extraction under the rulers’ protection may accumulate enough wealth to acquire their own military forces, a situation that decreases the value of protection supplied by the rulers and makes it easier to resist their demands for revenue. Private actors who can supply their own protection (both from rulers and competitors) may thus try to shift from joint to private extraction. In calculating whether to attempt such a move, private actors weigh the cost of fielding their own armies against the cost of sharing income with the rulers. They also consider the rulers’ capacity to defeat their efforts to escape from joint extraction.

A weakening of the rulers’ coercive capacities can also cause the decay of joint extraction, because loss of coercive capacity undermines the rulers’ reputation as an actor to be feared and as a credible source of protection. Loss of coercive capacity can result from defeat in war and the failure to invest revenue earned from joint extraction in maintaining the armed forces.<sup>6</sup>

Decreasing Value of Lootable Resources. A decrease in the value of lootable resources can undermine joint extraction and thus reduce the revenue available to rulers. Ironically, the very accumulation of wealth made possible by joint extraction with rulers can eventually cause private actors to seek to withdraw from such arrangements. As their fortunes grow, private actors face diminishing marginal returns from resource extraction. Hence the costs of “exiting” from joint extraction should decrease over time, especially if they have invested their fortunes overseas, beyond the reach of the rulers. Changes in the price and supply of a resource can destabilize institutions of joint extraction in a similar manner. For example, in the case of non-renewable resources, like precious gems, the anticipated value of future returns – and hence the costs to private actors of exiting from joint extraction -- diminishes as the supply nears exhaustion.

“Bequeathability” Problems. Institutions of joint extraction are often informal bargains rooted in personal ties among rulers, their cronies, and private elites. Because of their personalistic nature, institutions of joint extraction may be hard to transfer from one set of rulers

---

<sup>6</sup> On how patterns of government investment affect political order in countries with lootable wealth, see Snyder and Bhavani (2005).

to another. Hence these institutions are vulnerable to collapse during episodes of leadership succession. Although such “bequeathability” problems may be especially acute during violent changes of leadership, they may even arise during peaceful successions. In peaceful transitions, the old rulers may aim to guarantee themselves a large “pension” by taking their networks of joint extraction with them when they leave power. This move, which essentially converts the old framework of joint extraction into private extraction, can pose formidable obstacles for new rulers looking to control lootable resources.

Grievances. A final factor that can cause the breakdown of joint extraction involves grievances these institutions generate among both included and excluded groups. With regard to included groups, grievances can emerge over how the income is divided. Also, problems of free-riding and shirking may arise, and the informal, personalistic nature of joint extraction will likely exacerbate these problems. With regard to excluded groups, the important role in joint extraction often played by mercantile diaspora groups, for example overseas Chinese and Lebanese, can generate a “nativist” backlash among local elites.

In sum, institutions of extraction determine how lootable resources affect political order. If rulers are able to build institutions of joint extraction, lootable resources can produce political order by providing the revenue with which to govern. Conversely, the breakdown of joint extraction increases the risk of civil war by causing a fiscal crisis of the state and making it easier for insurgents to organize. Thus the political economy of extraction framework gets beyond an important limitation of existing research because it accounts both for disorder *and* order in the face of lootable wealth.

### **THE CONTRASTING CONSEQUENCES OF LOOTABLE WEALTH: SIERRA LEONE AND BURMA**

This section applies the political economy of extraction framework, showing how a focus on institutions of extraction helps us better understand why lootable resources are linked with chaos in some instances and order in others. I select two countries that experienced sharply contrasting political trajectories in the face of lootable wealth: Sierra Leone and Burma. In Sierra Leone, alluvial diamonds initially contributed to the maintenance of a *stable patrimonial regime* during the 1960s and 1970s, because rulers built institutions of joint extraction that gave them control of the income generated by diamonds.<sup>7</sup> The subsequent breakdown of these institutions at the end of the 1980s caused a fiscal crisis that helps explain the country’s collapse into civil war and *chaos* during the 1990s. Conversely, in Burma, opium initially fueled *chaos* by providing income for rebel armies. After 1990, however, lootable resources had a different effect: they contributed to the consolidation of a *stable military regime* that ended the civil war and forcibly imposed political order. The successful construction of institutions of joint extraction by the Burmese military transformed opium from a source of conflict into a source of order. In sum, the cases of Sierra Leone and Burma are important because they show the wide range of variation in political outcomes that can occur in countries with lootable resources: from a patrimonial regime, to a military regime, to chaos. These cases thus demonstrate how my framework can be deployed in empirical analysis to explain the contrasting political consequences of lootable wealth.

---

<sup>7</sup> Patrimonial regimes are a form of political order based on patron-client networks. Although such regimes may be less stable than regimes not based on patronage, some of the world’s longest-lived regimes have been ruled by patrimonial dictators (Snyder 1992).

## **From Order to Chaos: Diamonds and the Breakdown of a Patrimonial Regime in Sierra Leone**

Sierra Leone is arguably the paradigmatic case of a collapsed state during the 1990s. It held the dismal title of “the worst place on earth” (Traub 2000). Yet until recently the country was not plagued by civil war and disorder. Siaka Stevens (1968-85) ruled nearly two decades and was able to transfer power peacefully to his chosen successor.<sup>8</sup> Moreover, the very same lootable resource that later fueled Sierra Leone’s civil war – alluvial diamonds – provided the revenue with which Stevens governed. What explains the contrasting effects of diamonds across the two periods? Why were diamonds associated initially with political order and subsequently with chaos?

I argue that Stevens was able to forge institutions of joint extraction with a minority diaspora community of Lebanese diamond merchants. These institutions gave Stevens access to the income generated by alluvial diamond mining, which, in turn, provided the resources he needed to maintain his patron-client networks and govern. Combined with bequeathability problems, a subsequent shift in the balance of power between the ruler and the Lebanese merchants caused the decay of joint extraction under Stevens’ successor, Joseph Saidu Momoh (1985-1992). This institutional decay deprived the government of revenue, caused a deep fiscal crisis that rendered the state vulnerable to collapse, and made an important source of income – diamonds – more readily available to rebels.

Joint Extraction and Political Order: Economic Foundations of a Patrimonial Regime. When Stevens took power in the late 1960s, he quickly moved to control Sierra Leone’s diamonds. Although Stevens’ political party – the All Peoples’ Congress (APC)– had won national elections in 1967, it was initially prevented from taking office by a military coup in favor of the former ruling party, the Sierra Leone People’s Party (SLPP). A countercoup in 1968 finally led to Stevens’ installation as Prime Minister. The most pressing task facing the new ruler was to end the unregulated access to alluvial diamonds enjoyed by traditional chiefs, who formed the core of the old ruling party (Clapham 1982). Stevens thus aimed to build an alternative coalition among other groups in the diamond industry, especially the economically powerful Lebanese dealers, most of whom were involved in illicit diamond trading.

The Lebanese dealers had gained control of a large share of Sierra Leone’s diamonds by financing gangs of poor African miners (Van der Laan, 1965; and Zack-Williams 1995). The important position of the Lebanese in the diamond trade combined with their overseas connections in the Middle East and Europe, which gave them access to credit, made the Lebanese dealers attractive business partners for Stevens. Their status as foreigners further strengthened the Lebanese’s appeal as allies: because they were not citizens, they were excluded from seeking office and thus posed little direct political threat to Stevens. Thus Stevens aimed to make the Lebanese diamond traders the cornerstone of his strategy for securing revenue (Reno 1995, 72-3; and Van der Laan 1975).

The Lebanese dealers were in a weak position to resist Stevens’ efforts to make them share their wealth. First, they were pariah “outsiders” who were far more vulnerable to threats of legal sanctions than native, African dealers. Indeed, after Sierra Leone’s independence from Britain in 1961, the Lebanese were denied citizenship, and, under Stevens’ predecessors, they increasingly suffered government discrimination. Thus the threat of government harassment was a potent tool for earning the allegiance of the Lebanese.

---

<sup>8</sup> All was not tranquil in Sierra Leone during Stevens’ tenure; he survived an attempted coup in 1971 and later faced student demonstrations. Still, Stevens kept power, and the country did not experience anything close to the near anarchy of the 1990s.

In addition to the threat of government harassment, Stevens also used selective benefits to cement his alliance with the Lebanese. First, the Ministry of Mines actively favored them in the issuance of mining and dealing licenses. Lebanese dealers received the bulk of new licenses: during the first five years of Stevens' rule, the share of diamond dealing licenses held by individuals of Lebanese heritage increased from 15 to 78 percent (Reno 1995, 90). Moreover, Stevens used government troops to weaken economic competitors to the Lebanese. His paramilitary force, the Internal Security Unit (ISU), suppressed illicit alluvial diamond mining outside Lebanese-controlled channels. This favoritism soon led to the consolidation of the diamond industry under Lebanese control. Stevens' cooperation with the Lebanese subsequently went beyond diamonds. During the late 1970s and early 1980s, the Lebanese dealers helped finance rice and oil imports. Lebanese dealers also procured loans from foreign banks to cover shortfalls in government revenues (Reno 1995, 135-37).

In sum, Stevens' success at building institutions of joint extraction provided the revenue that made it possible to maintain a stable patrimonial regime for nearly two decades.

The Breakdown of Joint Extraction: Fiscal Roots of State Collapse. The institutions of joint extraction built by Stevens began to decay during the latter phase of his rule. First, the Lebanese merchants become less dependent on Stevens. The wealth the Lebanese acquired under Stevens ironically allowed them to hire personal armies that made the dictator's protection increasingly dispensable. This build-up of private armies was paralleled by a weakening of the regime's coercive capabilities. In a pattern typical of patrimonial dictators, Stevens undermined the regular army in an effort to prevent a military coup (Snyder 1992). He limited military recruitment to a mere 2000 troops (in a country of 4.2 million) and relied increasingly on paramilitary forces loyal to his person. Thus the balance of coercive power began to shift in favor of the Lebanese diamond traders, leading some Sierra Leoneans to wonder whether Stevens had become the client of a "White [i.e., Lebanese] President" (Reno 1995, 151).

The transfer of power in 1985 from the aging Stevens to Major General Joseph Momoh led to the final breakdown of joint extraction. Momoh faced mounting problems. The country was in the grip of an economic crisis and under heavy pressure from international creditors. Momoh thus desperately needed to gain control of the country's diamonds. However the network of rogue state officials and Lebanese traders inherited from the Stevens' era posed a formidable barrier to Momoh's efforts. Moreover, Momoh lacked the coercive resources of his predecessor, given that Stevens had reduced the size of the army to just 2000 troops. Indeed, it was precisely Momoh's weak power base that made him attractive to Stevens as a successor, because the old dictator intended to stay in Sierra Leone and enjoy his wealth there. Stevens thus wanted to insure that his successor would be too weak to threaten his business networks with the Lebanese (Reno 1998, 115-18).

Momoh proved incapable of challenging the personal control Stevens and his Lebanese associates held over the country's resources – they continued to dominate commerce in Sierra Leone. Momoh's inability to loosen the grip of the old dictator and his cronies over the country's mineral wealth can be seen in the fact that official diamond exports were only \$22,000 in 1988, whereas Momoh's rivals, the Lebanese syndicates, were exporting approximately \$250 million in diamonds annually. And in 1989, only twelve carats, or 0.0003 percent of the amounts common in the mid-1970s, were exported through official channels. This led to a sharp drop in government revenues (Reno 1995, 160; and Reno 1998, 120).

The trend of falling government revenue had begun under Stevens: by the mid-1980s, an estimated 70 percent of exports left the country through non-formal, non-taxable channels (Reno 1995, 151-2). Yet this "informalization" of export revenues under Stevens did not immediately jeopardize political stability, because much of the income still went into the hands of the ruler,

his supporters, and his paramilitary forces. In Momoh's case, however, the informalization of export revenues caused a destabilizing fiscal crisis because he had failed to inherit, penetrate, or supplant the informal commercial networks formed under Stevens. Lack of revenue made it impossible for Momoh to pay the army. When a rebel force, the Revolutionary United Front (RUF), invaded from Liberia in 1991, Sierra Leone's underfunded, disorganized military disintegrated. Thus the RUF swiftly seized control of Sierra Leone's diamond fields and used the income from diamonds to finance a decade of violence and chaos.

### **From Chaos to Order: Drugs and the Reequilibration of a Military Regime in Burma**

Until 1990, Burma seemed to confirm the view that lootable resources breed disorder. Some 25 ethnic armies operated in Burma's remote frontiers, and many were financed through opium cultivation and trafficking (Boucaud and Boucaud 1992, 29; and Lintner 1999, 234-37). After 1990, opium production increased dramatically, and this illegal crop became the country's leading export. Yet the opium boom of the 1990s did not strengthen the hand of the rebels. Rather, the boom was associated with a *demobilization* of the largest insurgent groups and with the successful imposition of political order by the military regime. Why did *more* lootable resources produce *less* disorder? I argue that the opium boom contributed to the emergence of political order in the 1990s because (1) opium provided a lucrative "exit option" for rebels, making it easier for the military to demobilize them, and (2) the military built institutions of joint extraction with the erstwhile rebels that gave it a large share of opium revenues.

Demobilization into Narcotics: Opium as an Exit Option for Insurgents. The transformation of opium from a source of disorder into a source of order began with a political crisis in Burma's urban areas in the late 1980s. After the military brutally suppressed anti-government riots by university students, thousands of students fled to the border areas, which were controlled by insurgent armies. Thus the military government faced the strong threat of an alliance between students and armed insurgents (Lintner 1998, 168). This situation made it imperative for the government to resolve the longstanding insurgencies in the hinterlands. The opium economy provided an important tool for achieving this goal. In exchange for signing "standfast" agreements and refraining from attacking the Burmese army, insurgent groups were tacitly given control over the drug trade in their zones. The most powerful insurgent army -- the Communist Party of Burma (CPB) -- was essentially demobilized into opium, as CPB commanders were given free rein to develop the drug industry (Lintner 1998, 166). As a result of the cease-fire, production of opium boomed, more than doubling between 1986 and 1996, and heroin refineries proliferated across the CPB's former territory. Thus the CPB became the "most heavily-armed drug trafficking organization in Southeast Asia" (Lintner 1999, 368). By 1997, the Burmese military had forged similar standfast agreements with most of the country's insurgent groups. Narcotics became Burma's largest export, pumping more than half-a-billion dollars annually into the economy, an amount exceeding the government's official tax revenues (Dapice 1998, 154; Gelbard 1998, 186-7; Lintner 1998, 170-72).

In sum, narcotics helped make political order possible in Burma during the 1990s by providing a lucrative incentive for insurgent groups to demobilize and cease their rebellions. Ironically, had this lootable resource *not* been available as an exit option for insurgents, it is likely that Burma's protracted civil war would have lasted even longer.

Joint Extraction and Political Order: A Narco-Military Regime. In addition to helping the Burmese army demobilize insurgents, narcotics also became an important revenue source for the military government. During the 1990s, the government built institutions of joint extraction with former insurgents, thereby gaining a large share of the income generated by narcotics. This

revenue enabled the regime to weather the international embargo imposed after its suppression of pro-democracy activists and students in the late 1980s.

The military government provided a range of inducements for rebels-turned-drug-traffickers to share their wealth. First, the government made it easier to launder ill-gotten profits by offering a “tax amnesty” in 1990, which gave businessmen the chance to declare and pay a flat, 25 percent tax on assets they could not document had been obtained legally. The program generated an estimated 100 million dollars for the government (Lintner 1999, 387). Moreover, the introduction in 1993 of Foreign Exchange Certificates denominated in US dollars helped drug traffickers repatriate their off-shore foreign exchange deposits. Thus drug profits that had previously been deposited outside Burma were increasingly put into domestic banks run by the military (Gelbard 1998, 191). The Union of Myanmar Economic Holdings, Ltd. (UMEH), owned by active and retired military personnel and registered in 1990 under the Ministry of Defense’s Directorate of Procurement, reportedly served as a major conduit for laundering drug money.

The military government also used its legal authority to offer selective benefits to drug traffickers. For example, Lo Hsing-Han, who was known as the “King of the Golden Triangle” in the 1970s and later helped broker the cease-fire agreement between the military and the CPB, lived in luxury in Rangoon, where he played golf with senior Burmese generals and ran his business empire. Khun Sa, who had been indicted on charges of drug trafficking by a US grand jury in 1989 and whom the US Ambassador to Burma called “the worst enemy the world has,” turned himself in and demobilized his Mōng Tai Army (MTA) in a grandiose ceremony in 1996 (McCoy 1999; and Lintner 1999, 378-9). Khun Sa’s “capture” allowed the Burmese military to bask in the praise of the US Drug Enforcement Administration. Yet Khun Sa was reportedly living happily under government protection in Rangoon with four new teenage wives. Moreover, Khun Sa’s capture proved an economic boon to him. Not only did being captured free him from the expense of maintaining a large private army, it also opened new investment opportunities in the legal economy. Thus, soon after his arrest, Khun Sa made major investments in real estate and the hotel industry. Other narcotics kingpins reportedly saw Khun Sa’s deal with the government as a model and sought to make “Khun Sa-style agreements” (Lintner 1999, 412-13).

As a result of the government’s alliance with drug traffickers, profits from narcotics were increasingly invested in legitimate businesses in Burma, rather than being laundered abroad in Thailand or Hong Kong, as had previously been the case. This stemming of “capital flight” resulted in a boom in construction, restaurants, and luxury cars in Mandalay and Rangoon, and during the 1990s the directory of the Myanmar Chamber of Commerce and Industry read like a “who’s who in the drug trade.” Thus a US government report concluded that the former leaders of insurgencies had benefited immensely from their good relationship with the regime: “Their businesses –legitimate and illegitimate—have prospered, [and] there has been no progress in reducing opium cultivation or in stopping the heroin-trafficking activities of ethnic armies now considered part of the ‘legal fold’” (Lintner 1998, 178). US Secretary of State, Madeline Albright, succinctly described an important aspect of joint extraction in Burma when she remarked, “Drug traffickers who once spent their days leading mule caravans down jungle tracks are now leading figures in [Burma’s] new political order” (Lintner 1999, 413).

By building institutions of joint extraction, the Burmese military transformed narcotics from a “honey pot” for hinterland rebels into the central pillar of the national economy. Thus lootable wealth helped an internationally ostracized and investment-starved military dictatorship keep its grip on power and impose political order.

## SUMMARY AND CHALLENGES FOR FUTURE RESEARCH

Does lootable wealth breed disorder? Not always and never directly. The effects of lootable resources on political order depend on institutions of extraction. If rulers are able to build institutions of joint extraction, lootable resources can provide the revenue with which to govern and thus produce not disorder, but stability. Yet if joint extraction breaks down, or, alternatively, if rulers fail to achieve it in the first place, then lootable resources increase the risk of civil war by making it easier for insurgents to organize and get the income with which to rebel.

A focus on institutions of extraction gets beyond an important limitation of much existing research on civil war and collapsed states: the failure to explain why lootable wealth is associated with disorder in some instances and order in others. First, the *breakdown* of joint extraction helps account for the strong and positive correlation between lootable wealth and civil war observed in recent studies. Second, the *construction* of joint extraction helps explain the more common outcome of *no* civil war in countries with lootable wealth: if institutions of joint extraction are built, then lootable resources can “breed” order. Thus the political economy of extraction framework provides a foundation for a more powerful theory of state collapse and civil war, one that accounts both for disorder *and* order in the face of lootable resources.

To show how the framework explains the contrasting political consequences of lootable wealth, I provide an empirical analysis of Sierra Leone and Burma. In Sierra Leone, income from alluvial diamonds contributed to the maintenance of a stable patrimonial regime for almost two decades. Similarly, revenue from opium helped a military regime in Burma demobilize insurgent groups and keep power. By contrast, the decay of institutions of joint extraction in Sierra Leone caused a fiscal crisis that weakened the regime and helped rebels take control of the country’s diamond fields. And the absence of institutions of joint extraction in Burma before 1990 left insurgent groups in undisputed control of opium revenue and thus contributed to Burma’s protracted civil war. Although an empirical test of my theoretical framework clearly requires an analysis of more than just two countries, the case studies of Sierra Leone and Burma do demonstrate how a focus on institutions of extraction can help explain why lootable resources are linked with chaos in some instances and order in others.

This study poses several challenges for future research. One task involves further theorizing and empirical testing. This entails two steps: first, fine-tuning the theoretical framework by using it to formulate more precise hypotheses and, second, collecting better data on lootable resources and also on institutions of extraction. A fruitful way to generate testable hypotheses is to get beyond the broad distinction between lootable and non-lootable wealth by focusing on different types of lootable resources.<sup>9</sup> For example, joint extraction and, hence, political order may be more likely in the face of detectable and, counter-intuitively, illegal resources, because such resources should make it easier for rulers to deliver a credible threat of no extraction. Non-mobile resources should have a similar effect. Moreover, joint extraction should be easier to sustain in the face of resources with a renewable and elastic supply, for example, illicit crops as opposed to precious gems, because the anticipated value of future returns may be greater in the case of renewable resources. In sum, a focus on *varieties* of lootable resources could help fine-tune the framework by generating testable hypotheses.

Carrying out further tests of the theory also requires better data. Some of the most widely read quantitative studies rely on invalid measures of lootable resources, using “primary

---

<sup>9</sup> See Le Billon (2001) and Ross (2003) for typologies of lootable resources.

commodity exports” as a proxy for lootable wealth (Collier and Hoeffler 2004).<sup>10</sup> In addition to lumping lootable resources, like alluvial diamonds and opium, with non-lootable resources, like petroleum and copper, this measure blurs important distinctions among lootable resources themselves, such as legality, detectability, and elasticity of supply. As noted, a focus on such distinctions can help generate testable hypotheses. More nuanced and valid quantitative measures of lootable resources will thus make it easier to test the theoretical framework proposed in this article.

Better data are also needed on institutions of extraction, especially on the terms of joint extraction agreements, how rulers enforce these agreements, and how they break down. These data will help address the question of whether institutions of extraction may, in fact, be endogenous variables that are themselves determined by other factors that cause civil war. For example, in Sierra Leone, Momoh’s failure to maintain the joint extraction bequeathed by his predecessor, Stevens, was partly a function of the growing coercive power of private resource-holders (for example, the Lebanese diamond traders), a factor that may itself have been a direct cause of the country’s collapse into civil war. Because recent research has overlooked the role played by institutions of extraction in producing order and disorder, few data have been systematically collected on these institutions. Yet such data are indispensable if we wish to understand political order in contemporary developing countries.

In addition to further theorizing and empirical testing, another task for future research concerns how a political economy of extraction perspective can be integrated with and strengthen existing models of the initiation of civil war (Snyder and Bhavnani 2005). Because institutions of extraction help determine how much income is available to rulers, a focus on such institutions could improve models of the onset of civil war that emphasize variation in government spending on counterinsurgency. Moreover, a focus on institutions of extraction could strengthen “rebel-centered” models of the initiation of civil war that highlight the motives, strategies, and capabilities of insurgents (Gates 2002). Such models beg the crucial prior question of how and why the *ancien régime* was rendered vulnerable to insurgency in the first place. A focus on the decay of institutions of joint extraction helps fill this gap. Yet the breakdown of joint extraction, while important, is not a sufficient explanation for the onset of conflict: Insurgent groups still have to organize and seize the opportunities for rebellion afforded by this breakdown. A dual focus on institutions of extraction and on the strengths and strategies of rebels could thus provide a more powerful theory of the onset of civil war.

A related issue involves how a focus on the political economy of extraction could improve our understanding of the *termination* of civil war. Recent research has focused on the *martial* and *juridical* aspects of peacebuilding, for example, how to achieve a professional military and police force as well as a competent judiciary. By contrast, this study highlights the *fiscal* side of peacebuilding, and it shows that lootable resources can be transformed from a source of conflict into a source of order.<sup>11</sup> The case of Burma, where an opium boom helped the military regime demobilize insurgencies, raises the intriguing possibility that lootable resources can actually play an important role in conflict resolution. This insight challenges the widely-held view that lootable wealth, in addition to causing civil war, also poses an important barrier to ending it, because lucrative opportunities that arise during wartime for profiting from lootable resources are often not available during peacetime (Collier 2000; Keen 1998; and Keen 2000). To support this argument that peace is “bad for business” in places with lootable wealth, these

---

<sup>10</sup> On the invalidity of primary commodity exports as a measure of lootable wealth, see Fearon and Laitin (2003); and Fearon (2005).

<sup>11</sup> See Wood (forthcoming) on the distributional aspects of peace-building.

studies point to cooperative extraction among enemy forces in cases like Angola, Liberia, Cambodia, and Bosnia. Yet in Burma peace actually proved *better* for business than war, because the returns from opium increased dramatically after cease-fire agreements between the military and the insurgents. Indeed, battlefield cooperation among combatants in looting could even strengthen subsequent peacebuilding efforts by providing a foundation of “social capital” (that is, trust and interpersonal ties) on which to build post-conflict institutions of resource sharing and joint extraction.<sup>12</sup> The challenge of converting lootable resources from a source of chaos into a source of order is at the top of the policy agenda for the world’s many resource-rich, yet conflict-ridden, countries.

A final question for future research concerns the relationship between lootable resources and democracy. This study has explained how and why lootable resources can provide economic foundations for political order under different kinds of non-democratic regimes (for example, patrimonial and military dictatorships). Can lootable resources also provide an economic basis for stable *democratic* regimes? What kinds of institutions of extraction make lootable resources more or less compatible with democracy? Cases like Bolivia, Ghana, and Peru, which have democratic regimes *and* abundant lootable wealth, could help us answer these questions. Such cases may also yield insights about how to achieve democracy in the many other resource-rich countries that, like Sierra Leone and Burma, have historically lacked democratic regimes.

Studies that address issues such as these will provide a far better understanding of the wide range of political possibilities -- from chaos, to dictatorship, to democracy -- in countries with lootable wealth.

---

<sup>12</sup> In a study of thirteen cases of civil war, Ross (2004b) found evidence of cooperative extraction among combatants in eight cases.

## REFERENCES

- Boucaud, A. & Boucaud, L. 1992. *Burma's Golden Triangle: On the Trail of the Opium Warlords*. Bangkok: Asia Books.
- Campbell, G. 2002. *Blood diamonds*. Boulder: Westview.
- Clapham, C. 1982. The politics of failure: clientelism, political instability and national integration in Liberia and Sierra Leone. In C. Clapham (Ed.), *Private Patronage and Public Power: Political Clientelism in the Modern State* London: Frances Pinter.
- Collier, P. 2000. Doing well out of war: an economic perspective." In M. Berdal & D. M. Malone, eds. *Greed and Grievance: Economic Agendas in Civil War*. Boulder: Lynne Rienner.
- Collier, P. & Hoeffler, A. 1998. On economic causes of civil war. *Oxford Economic Papers* 50.
- Collier, P. & Hoeffler, A. 2004. Greed and grievance in civil war. *Oxford Economic Papers* 56(4): 563-596.
- Dapice, D. 1998. "Development Prospects for Burma: Cycles and Trends," in R. I. Rotberg, ed. *Burma: Prospects for a Democratic Future*. Washington, D.C.: Brookings Institution Press, 1998.
- De Soysa, I. 2000. "The Resource Curse: Are Civil Wars Driven by Rapacity or Paucity?" In M. Berdal & D. M. Malone, eds. *Greed and Grievance: Economic Agendas in Civil War*. Boulder: Lynne Rienner.
- Ellis, S. 1999. *The Mask of Anarchy* New York: New York University Press.
- Fearon, J. D. 2005. Primary commodities exports and civil war. *Journal of Conflict Resolution* (August).
- Fearon, J. D. and D. D. Laitin. 2003. Ethnicity, insurgency, and civil war. *American Political Science Review* 97: 75-90.
- Gates, S. 2002. Recruitment and allegiance: the microfoundations of rebellion, *Journal of Conflict Resolution* 46, no. 1.
- Gelbard, R. S. 1998. Burma: the booming drug trade, in R. I. Rotberg, ed. *Burma: Prospects for a Democratic Future* Washington, D.C.: Brookings Institution Press. Boulder, CO: Lynne Rienner, 2001.
- Humphreys, M. 2005. Natural resources, conflict, and conflict resolution: uncovering the mechanisms. *Journal of Conflict Resolution* (August).
- Janse, A. J. A. 1995. A history of diamond sources in africa: part I. *Gems and Gemology* 31:4.

- Janse, A. J. A. 1996. A history of diamond sources in africa: part II. *Gems and Gemology* 32:1.
- Jones Luong, Pauline and Erika Weinthal. 2001. Prelude to the resource curse: explaining oil and gas development strategies in the soviet successor states and beyond," *Comparative Political Studies* 34: 367-99.
- Karl, T. L. 1997. *The paradox of plenty: oil booms and petro-states*. Berkeley: University of California Press.
- Keen, D. 1998. The economic functions of violence in civil wars. *Adelphi Paper* 320. Oxford: Oxford University Press.
- Keen, D. 2000. Incentives and disincentives for violence. In M. Berdal & D. M. Malone, eds. *Greed and grievance: economic agendas in civil war*. Boulder: Lynne Rienner.
- Le Billon, P. 2001. The political ecology of war: natural resources and armed conflicts. *Political Geography* 20.
- Levi, M. 1988. *Of rule and revenue*. Berkeley: University of California Press.
- Levinson, A. A., Gurney, J. J., & Kirkley, M. B. 1992. Diamond sources and production: past, present, and future," *Gems & Gemology* 28:4.
- Lintner, B. 1998. "Drugs and economic growth: ethnicity and exports," in R. I. Rotberg (Ed.), *Burma: prospects for a democratic future* Washington, D.C.: Brookings Institution Press.
- Lintner, B. 1999. *Burma in revolt: opium and insurgency since 1948* Chiang Mai, Thailand: Silkworm Books.
- Luke, D. F. & Riley, S. P. 1989. The politics of economic decline in sierra leone, *Journal of Modern African Studies* 27, no. 1 1989.
- McCoy, A. W. 1999. Lord of drug lords: one life as lesson for U.S. drug policy, *Crime, Law, and Social Change* 30.
- Reno, W. 1995. *Corruption and state politics in sierra leone* (New York: Cambridge University Press, 1995).
- Reno, W. 1998. *Warlord politics and african states*. Boulder: Lynne Rienner.
- Richards, P. 1996. *Fighting for the rain forest: war, youth, and resources in sierra leone*. Oxford: James Currey.
- Ross, M. L. 2003. Oil, drugs, and diamonds: the varying roles of natural resources in civil war. In K. Ballentine & J. Sherman (Eds.), *The political economy of armed conflict: beyond greed and grievance*. Boulder: Lynne Rienner.

- Ross, M. L. 2004a. What do we know about natural resources and civil war? *Journal of Peace Research*. 41: 337-356.
- Ross, M. L. 2004b. How do natural resources influence civil war? evidence from thirteen cases. *International Organization* 58 (Winter): 35-67.
- Shafer, D. M. 1994. *Winners and losers: how sectors shape the developmental prospects of states*. Ithaca: Cornell University Press.
- Snyder, R. 1992. Explaining transitions from neopatrimonial dictatorships, *Comparative Politics* 24 (July): 379-99.
- Snyder, R. and Bhavnani, R. 2005. Diamonds, blood, and taxes: a revenue-centered framework for explaining political order, *Journal of Conflict Resolution* (August).
- Tilly, C. 1990. *Coercion, capital, and european states, AD 990-1992*. Cambridge: Blackwell.
- Traub, James. 2000. The worst place on earth. *New York Review of Books*, June 29.
- United Nations. 2004. *World drug report*. New York: United Nations, Office on Drugs and Crime.
- Van der Laan, H. L. 1965. *The sierra leone diamonds: an economic study covering the years 1952-1961* London: Oxford University Press.
- Van der Laan, H. L. 1975. *The lebanese traders in sierra leone* The Hague: Mouton.
- Wood, E. J. Forthcoming. Civil wars: what we don't know. *Journal of Conflict Resolution*.
- Zack-Wiliams, A. 1995. *Tributors, supporters and merchant capital: mining and underdevelopment in sierra leone*. Aldershot, England: Avebury.