

# Lootable resources and third-party intervention into civil wars

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## Abstract

Third parties intervene in ongoing civil wars frequently and at times with nefarious intentions. In this paper, we consider the possibility that lootable natural resources motivate third parties to intervene in wars on the side of the opposition. Such resources offer a host of benefits to the intervener, including resource extraction and greater likelihood of rebel success. When rebels have access to lootable resources, we hypothesize that third parties will be more likely to intervene on the side of the rebels and simultaneously less likely to intervene on behalf of the government. Rare-events logit and split population (mixture-cure) survival models, in conjunction with close attention to the mechanisms found in individual cases, offer support for the theoretical argument. This paper advances our understanding of the motivations for intervention into civil war by highlighting the largely neglected role of economic factors in motivating opposition-biased interventions. It further adds insights into the role of natural resources in civil wars by shifting emphasis away from domestic combatants towards the motives of outside states.

## Keywords

Civil wars, intervention, natural resources, survival models

## Introduction

Wamba Dia Wamba, former leader of a rebel group in the Democratic Republic of the Congo (DRC), admitted that both Uganda and Rwanda purposefully and extensively looted Congo's precious stones, gold and timber (Ross, 2004b; Willum, 2001). Although both Uganda and Rwanda have officially denied a link between resources and their decisions to intervene, estimates indicate that the two states obtained economic profits from the resources totaling hundreds of millions of dollars (Nest et al., 2006: 52–53, 69), thus raising credible suspicions that resources were at the heart of the decisions to intervene. Allegations of

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resource-motivated, third-party interventions such as these have filled newspaper columns over the past two decades, yet strikingly little scholarly research considers the strength of this relationship more generally. This raises the question of whether, more widely, natural resources in a country engulfed in civil war motivate third-party states to intervene.

Research on intervention into civil wars spans a variety of third-party motivations, ranging from humanitarian to geopolitical factors (Carment and Rowlands, 1998; Findley and Teo, 2006; Gent, 2007; Licklider, 1995; Regan, 2000). With few exceptions, extant research ignores the role of economic factors, especially lootable natural resources. Where lootable resources are considered, the side of the intervention—government vs opposition—is not examined. In this paper, we consider the role of “lootable resources”, which are generally considered high-value resources in a market with low barriers to entry (Le Billon, 2001; Ross, 2004a; Snyder, 2006; Snyder and Bhavnani, 2005).<sup>1</sup> Examples of lootable resources prominently include “alluvial” diamonds—located close to the surface of alluvial river plains—drugs and some precious timbers, as well as other precious stones, including gems, rubies, and sapphires.

Anecdotal evidence from countries as diverse as Afghanistan and Angola indicates that lootable resources motivate states to intervene in ongoing civil wars. Much is also at stake when third parties do intervene. War endings appear to take much longer, especially if ending in negotiated agreement (Balch-Lindsay and Enterline, 2000; Elbadawi and Sambanis, 2000). When third parties intervene on opposite sides of the conflict, furthermore, they tend to exacerbate negotiation problems, causing the wars to last longer (Regan, 2002). In addition, when wars end in military victories, they may occur much earlier than settlements (Balch-Lindsay et al., 2008).

We contend that lootable resources, because of their value and relative ease of access, provide several incentives for third parties to intervene in a civil war. A third party may desire access to raw lootable resources because it desires to enter or protect the market from which it profits, irrespective of war dynamics or outcome. The revenue obtained for the resources could also be used to fuel the war towards the intervener’s desired outcome where lootable resources could make rebel victory more likely. More generally, intervention should be more likely to occur if natural resources are available in the civil war zone because the third party has a better chance of obtaining access to the resources. Access to the resources may indicate, furthermore, that the party controlling the resources could have a relative advantage, making an intervener more likely to intervene to support the winning side.

Potential interveners may carefully consider on which side of the war to intervene based on a number of factors including resources.<sup>2</sup> Control of the resources might determine what proportion of the resources an intervener can expect to access and, related, how likely the intervener and the side it supports are to win the war. As lootable resources provide a source of additive support for opposition groups (Ross, 2004b), potential interveners should be more likely to support opposition groups if such groups have access to lootable resources.

To test the overall expectation, we estimate a series of models, including rare-events logit, ordinary logit and split-population (or mixture-cure) survival analysis of intervention into post-Second World War civil wars based on Regan (2002). We begin by estimating whether resources motivate third parties to intervene regardless of side. A competing risks framework then allows us to distinguish between intervention on the side of the government and intervention in support of the opposition, a consequential distinction. The results offer support for the argument about intervention generally as well as about the side of intervention and indicate that lootable resources indeed motivate third-party intervention. We pay close attention to the dynamics of a number of cases, furthermore, which provide insights into the

mechanisms explaining intervention. The case examples are not designed to be tests as such, but rather an attempt to contextualize the statistical correlations by identifying the mechanisms connecting lootable resources to intervention decisions.

The paper proceeds by situating the research within the context of existing literature on third-party intervention with an emphasis on the motivations for intervention, and then articulates some theoretical mechanisms underlying the lootable resource–intervention relationship. After providing an explanation of the research design, the paper considers the statistical results and case illustrations, which offer support for the theoretical argument and also provide additional insights. Finally, it concludes with a summary of the findings and a discussion of policy implications of the research.

## **Intervention and the role of natural resources**

The third-party intervention literature has boomed in recent years (e.g. Aydin, 2012; Balch-Lindsay and Enterline, 2000; Carment et al., 1997; Regan, 2000, 2002). By intervention, we follow Regan's (2000: 10) definition of "convention breaking military ... activities in the internal affairs of a foreign country targeted at the authority structures of the government with the aim of affecting the balance of power between government and opposition forces".<sup>3</sup> Attention to lootable resources and civil war outbreak and duration has also been prominent (e.g. Collier, 2000; Collier and Hoeffler, 1998, 2002, 2004; Fearon, 2004, 2005; Fearon and Laitin, 2003). Possible linkages between lootable resources and civil war intervention have scarcely been explored thus far, however. Yet there are compelling reasons to suspect that lootable resources frequently motivate intervention.

### *The decision to intervene in ongoing civil wars*

Conventional wisdom suggests that third parties intervene in ongoing civil wars for humanitarian reasons and to resolve the underlying issues driving the war (Carment and Rowlands, 1998; Finnemore, 2003; Licklider, 1995; Regan, 2000). To pretend that these factors do not matter would prove foolhardy, but substantial recent evidence indicates that third-party political and strategic objectives are also powerful determinants of intervention decisions. Interventions occur to combat and drain the resources of rivalries, for example, especially if a rival has already intervened into the civil war (Akcinaroglu and Radziszewski, 2005; Balch-Lindsay and Enterline, 2000; Findley and Teo, 2006; Gent, 2007). The US–Soviet rivalry during the Cold War probably explains many of these interstate-rivalry interventions (Feste, 1992; Mullenbach and Matthews, 2008; Regan, 2000; Scott, 1996; Yoon, 1997).

Other political and strategic factors may be no less important. Democracies intervene abroad to protect their own interests (Peceny, 1999), major powers and those with a colonial past also tend to intervene more often (Lemke and Regan, 2004), and there is some evidence that interventions occur because of alliances (Findley and Teo, 2006; Lemke and Regan, 2004; Smith, 1996). More generally, third parties carefully weigh a host of costs and benefits, including the conflict's intensity, duration, success prospects, potential spillover and electoral consequences that accrue from international, national and subnational sources in deciding to intervene (Enterline et al., 2009; Kathman, 2010; Meernik, 1994; Pearson and Baumann, 1977; Pickering, 2001; Regan, 2000, 2002; Saideman, 1997; Yoon, 1997).

In spite of growing evidence about third-party motivations, with few exceptions existing studies are conspicuously light on economic explanations, especially arguments focusing on

resources accessible to rebel groups. Early work offered some evidence about the importance of protecting economic interests (Odell, 1974; Rosen, 1974). Odell in particular offers evidence that US military assistance varied with the strategic value of a country based on some critical raw resources, private investment flows and as a trade partner. Much of the research that has followed (Aydin, 2008, 2012) focuses on standard economic measures such as foreign direct investment and trade agreements, and finds that they can be key motivating factors in driving civil war intervention either through diplomatic or military means. Fordham (2008) similarly examines the effects of economic interests (operationalized as exports) on US interventions and finds an indirect effect through the formation of alliances.

A larger takeaway from these studies reinforces and helpfully clarifies a message identified in the international relations literature on economic liberalism and its security dimensions (Frieden, 1994). As Aydin (2012: 11) notes, “Conflicts, therefore, have broad economic consequences and affect external states with economic interests in belligerent nations or the conflict region. It follows from this argument that states can be expected to defend their economic interests abroad against the externalities of violence.” Building on this useful foundation, we consider additional dimensions of how economics may matter. Namely we examine the possibility that potential interveners account for lootable resources, which may serve a different function than pure economic interest defined in terms of trade or private investment. Indeed, lootable resources may play into the opportunistic and greedy intentions of outsiders, or even to their strategic decision-making about how the lootable resources may help rebels competitively prosecute the war, in ways not currently considered.

The relative lack of attention to lootable resources may be due, at least in part, to a shift in identifying and incorporating the side on which third parties intervene—the government vs the opposition (Balch-Lindsay et al., 2008; Findley and Teo, 2006; Gent, 2007). Economic variables, such as trade, do not easily differentiate the separate economic stakes or consequences for government and rebels. Indeed, the theoretical arguments offered in existing studies of economic factors tend to emphasize intervention to support the governments with which interveners are economically interdependent. Arguably, lootable resources provide a quite different set of incentives to potential interveners—incentives that may favor intervention on the side of the opposition *but not the government*. Because rebels frequently vie for control of lootable natural resources, and some data exist about who controls them, we consider the effect of competing interventions on different sides of a conflict.

The dialogue on lootable resources and civil war tends to focus on the onset and duration of war, with only peripheral mention of how resources might affect third-party intervention on a given side of the conflict (Humphreys, 2005; Ross, 2004a, b, 2006). The limited attention given to natural resources and intervention in the quantitative literature focuses more on the regime type of the potential intervener (Koga, 2011), or prevalent but single case examples, such as the Congo (Olson and Fohrs, 2004), without addressing how lootable resources should motivate interventions only on certain sides of a conflict (also see Aydin, 2010). The presence of lootable natural resources may provide strong incentives for third parties to enter a conflict on the side of the opposition, which we now consider in greater depth.

### *Lootable resources as a motive for intervention*

The “lootability” of resources refers generally to resources that have high value but where the market poses low barriers to entry (Le Billon, 2001; Ross, 2004a, b; Snyder and Bhavnani, 2005; Snyder, 2006). In the study of civil war onset and duration, most emphasis

has been placed on diamonds (especially alluvial), along with some other resources, such as drugs and timber. A state's supply of lootable natural resources presents an opportunity for third parties to intervene to profit from the resources. As nonlootable resources would be difficult for third parties to extract or support covertly, it is likely that third parties pay closer attention to lootable resources. Yet how specifically do lootable resources motivate intervention?

A third party may intervene to gain or maintain access to the market for or extraction of a raw resource (Humphreys, 2005). Whether a state (a) had no previous access to the resources, (b) loses access at some point during the war, or (c) fears losing access because of war-related events, a third party may choose to intervene in order to protect its interests in the resources or gain access before others do. Clearly there is a time element at play: the longer a war progresses, the more likely it is that resource access will be obstructed or another party will access them first, thus prompting third parties to be proactive about their interest in the resources.

An intervening power may access natural resources held by one of the parties to the conflict in two ways. The first is by directly gaining access to the resource, which occurs when an intervening force moves in to occupy an area containing natural resources. For example, the South African company Executive Outcomes aided Sierra Leone's government in exchange for control over a local diamond operation (von Berneth, 2000). Second, an intervening force may intervene on behalf of an actor in order to secure future access to resources. For example, the Alliance des Forces Démocratiques pour la Libération du Congo-Zaire gained crucial material support by selling "booty futures", the "future right to exploit resources it hopes to control", to neighboring governments and foreign firms during the first Congolese war (Nest et al., 2006: 23–24).

Because lootable resources carry such high value with low costs to market entry, and opening or continuing their flows is so profitable, third parties may be more apt to intervene in a timely fashion to benefit. A third-party state may use the revenues generated from the resources for a variety of war-related purposes. It may even extract the resource revenues to be used for a variety of private and public activities unrelated to the war. To be sure, domestic combatants are not passive actors merely at the mercy of third parties. At times, domestic combatants may oppose outside involvement. However, as numerous examples including the DRC indicate, third parties frequently pursue their own agendas and have the means to do so. Such alternative agendas are by no means anomalous (Cunningham, 2010), but can nonetheless be beneficial to domestic combatants as support arrives.

A third party might also use revenues to fund the intervention itself and fuel the civil war towards a certain outcome beneficial to the third party. The benefit of the resources could cover the costs of intervention fully, or the resources might only partially offset costs, but in conjunction with other benefits, justify intervention. In the DRC conflict of the late 1990s, it appears that Uganda's intervention reflects the nonwar-related motives, whereas Rwanda may have used the acquired resources primarily for fueling the war (Ross, 2004b). Collectively, these expectations lead to a first hypothesis:

**H1:** Third parties are more likely to intervene in civil wars if lootable resources are present in the country and conflict zones.

Thus far, we have primarily considered how resources might motivate intervention into a war without specifying which side a third party is likely to support. However, the decision

about which side to support may be crucial in the context of lootable resources. Generally, the decision probably depends on a number of factors, such as ethnic affinities, relations between the intervener and civil war state, the involvement of other third parties, but also in our case, *who controls the lootable resources*. Thus, while the presence of a resource should entice third parties to intervene, government or rebel control of the resources is probably a crucial consideration for the side on which intervention will occur.

Third parties hoping for a rebel victory or advantage face a dilemma: international norms of sovereignty place an immediate barrier in the way of states contemplating support to opposition groups. Clearly, opposition-biased interventions have occurred with some frequency, but they require much more justification or secrecy as they violate the international respect for state sovereignty. Opposition-biased interventions, therefore, often occur at least semi-covertly so as to avoid or reduce international scrutiny, as the US intervention into 1980s Afghanistan nicely illustrates.

It follows that, if third parties need to support the opposition side stealthily, then they may wish to minimize the use of their own military resources and instead rely on revenues that accrue to rebels from lootable resources. Indeed, third parties probably recognize that they can support opposition groups more easily if they can fuel the lootable resource market and generate revenues for the war that way. The third party itself could benefit from the revenues, of course, but perhaps more importantly the revenue from the resources can confer additive capability on the opposition side. US involvement in the Afghan war may have followed this pattern as the US helped fuel the opium trade, at least in part, to indirectly fund the Mujahidin.

If rebels have access to lootable resources, furthermore, there is much less of an incentive for third parties to support the government side. If rebels control resources, then outside interveners face a more difficult challenge backing a government against an otherwise stronger opponent. The rebels in such a situation will have greater capabilities and may be more difficult to defeat in the war. This discussion motivates our second hypothesis regarding the side on which intervention should occur:

**H2:** Third parties are more likely to intervene on behalf of the opposition, if opposition groups have access to lootable resources.

In sum, we would expect lootable resources to be associated with third-party intervention, but more specifically with intervention on the side with access to natural resources. We now turn to statistical tests and illustrative case evidence to test these expectations.

## Research design

To understand the relationship between lootable resources and third party intervention, we consider both statistical and illustrative case evidence. We conduct a statistical analysis of Regan's 2002 dataset to capture the resource-intervention relationship based on post-Second World War civil wars, which he defines as "armed internal conflicts that experience at least 200 fatalities" (Regan, 2002: fn. 1). These data include 150 civil wars between 1944 and 1999, 101 of which experienced an intervention.<sup>4</sup> Alongside the statistical evidence, we consider a number of case illustrations that help contextualize the quantitative results and mechanisms underlying the relationship.

The dependent variable used to test hypothesis 1 is the occurrence of intervention into a civil war, coded dichotomously as 1 if a third party intervenes militarily or economically and 0 if it does not, based on Regan (2002). A military intervention is defined as the convention-breaking, third-party provision of troops, naval forces, military equipment or aid, intelligence or advisors, air support or military sanctions on behalf of either a rebel group or government engaged in a civil war (Regan, 2002: 65). An economic intervention is the convention-breaking, third-party provision of grants, loans, nonmilitary equipment or expertise, credits, relief from past obligations, or economic sanctions on behalf of a rebel group or government engaged in a civil war (Regan, 2002: 65).

Our operationalization excludes diplomatic interventions. As Regan points out, the decision calculus for diplomatic interventions is different from that for economic and military ones: “diplomatic efforts do not require the same level of political risk encountered by the more visible and costly military or economic interventions. The relatively low level of cost associated with attempting to settle a conflict diplomatically leads to a different decision calculus and a different set of criteria for determining when to intervene” (Regan, 1998: 757). Insofar as lootable resources affect the likelihood of intervention by lowering the costs of intervening, the model posited here is more suited for economic and military interventions than diplomatic ones.

The data also differentiate between intervention on the side of the government and intervention on the side of the opposition; we use that information, coded 1 for intervention on a side and 0 otherwise (for each of the sides), to test hypothesis 2. We include both types of interventions, both military and economic, because we have no theoretical reasons to expect economic interventions in some cases but military interventions in others. Explaining the type of intervention is beyond the scope of this paper.

The unit of analysis is the potential intervener, which we operationalize as any member of the international system other than the state involved in civil war (Lemke and Regan, 2004). For the logit results (described below) we limit the set of other states to be politically relevant as outlined by Maoz and Russett (1993) and provided in EUGene (Bennett and Stam, 2000). The split-population approach (also described below) allows us to consider all states in the international system statistically and thus we do not use the rules for politically relevant dyads.

Rather than use cross-sectional information only, our approach captures each phase of the war wherein potential interveners are coded as having new opportunities to intervene following instances of intervention by other states, which captures the actual process and evolution of the war more accurately. Using the potential intervener as the unit of analysis is the most suitable way to examine the intervener’s decision-making process directly (Findley and Teo, 2006: 830), rather than only examining generally whether the probability of intervention is increased given the presence of certain contextual factors (e.g. Aydin, 2010; Regan, 2000: 52). This is also the case because interveners are concerned with a host of factors in their own states as well as the international system more generally, and therefore using the potential intervener rather than the civil war itself as the unit of analysis allows one to capture this information. Although resources are a property of the war, the results need to be compared against all of the other larger factors relevant to the potential interveners that cannot be picked up when the civil war is the unit of analysis.

The set of *all* potential interveners creates an unreasonably large number of observations, of which many states are not likely to intervene. Thus, we need a means to separate out states that are likely to be interveners from those that are not. As mentioned above, we first use

case selection rules. Namely, we use only politically relevant dyads in the first set of results. We then evaluate the robustness of the results using all possible potential interveners. Then, to go one step further, we use an estimation technique that accounts for the selection of likely interveners in the first stage of a model, followed by the occurrence of actual interventions, which is the key outcome of interest.

More specifically, because of the large number of observations and relatively small number of interventions, we begin by using a rare-events logit model (King and Zeng, 2001). The rare-events logit is appropriate for our purposes because our outcomes are dichotomous and occur relatively infrequently. However, we nonetheless estimated ordinary logit models as well, which we report as robustness checks.<sup>5</sup> Finally, we utilize a split-population model (Schmidt and Witte, 1989; Sposto, 2002) to estimate the likely set of interveners and then limit the analysis to that group, rather than remaining reliant on rules about political relevance.

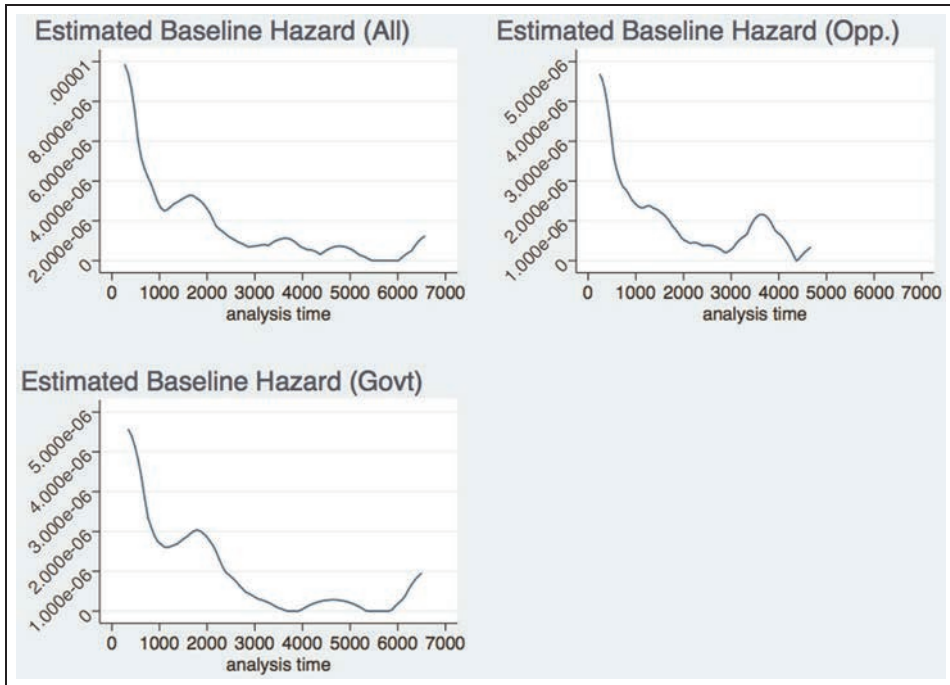
Because the logit models are more conventional, we do not discuss them at length here other than to note that we limit the set of potential interveners to be politically relevant interveners as discussed above. We alter the unit in the split-population models to include all states as potential interveners. The model estimates the relationship between resources and intervention in two stages, first estimating the likelihood that a state will intervene at some point during the war. In other words, the model estimates statistically whether a given state is the type that would intervene in a war or has particular incentives to get involved. Then, for the set of potential interveners likely to get involved, the model provides corrected estimates of the duration until the intervention occurs. Thus, the model allows us to use all of the information in the data weighted towards those most likely to intervene without artificially inflating the number of observations. Put differently, this technique does not make the standard assumption that all states will eventually intervene. (For political science applications, see Box-Steffensmeier et al., 2005; Findley and Teo, 2006; Hettinger and Zorn, 2005; Svobik, 2008.)

Potential interveners begin to be at risk of failure (i.e. intervention) upon the onset of civil war and continue at risk until they either intervene or the conflict ends. If the conflict ends before some interventions have occurred, then those observations are right-censored. We use a model that allows for multiple interventions by different states in the same civil war. Each potential intervener thus has new opportunities to intervene following an intervention by a different state, but multiple interventions by the same state are not considered. As interventions occur at irregular intervals, we use a continuous-time setup. For the split population models, Figure 1 depicts the baseline hazards for intervention generally, intervention on the side of the government and intervention on the side of the opposition. The shape of each of the baseline hazards indicates that a log-normal distribution is most suitable (Box-Steffensmeier and Jones, 2004).

We begin by estimating the logit and split population models for intervention into the war on any side (hypothesis 1). Then, we consider a competing risks model, which allows us to estimate the effect of intervention on one side of the conflict where nonintervention and intervention on the other side of the conflict are jointly the reference categories (hypothesis 2).<sup>6</sup>

We consider two main independent variables capturing lootable natural resources. First, to evaluate hypothesis 1, we use a measure of lootable resources from Lujala (2010: 18–19), which captures easily extractable diamonds as well as gems, such as rubies, sapphires and opals, that are *located in the conflict zone* during the conflict. Further, we then consider an alternative, which captures all precious stones but also includes drugs located in conflict





**Figure 1.** Estimated baseline hazards of intervention with all cases, opposition interventions and government interventions.

zones. These resources are captured by a dummy variable that takes on a value of 1 if the resource in question is located in a conflict zone, and 0 otherwise. The Lujala (2010) data is by far the most comprehensive and thus appropriate for testing hypothesis 1. However, unfortunately it does not contain information about which side controls the lootable resources.<sup>7</sup>

To account for the control of resources and test hypothesis 2, we use the Fearon (2004) measure of contraband that captures “evidence of major reliance by the rebels on income from production or trafficking in contraband” (Fearon, 2004: 284). This evidence is based on the review of secondary material for 128 civil wars (Fearon, 2004: 284). His contraband measure consists specifically of lootable natural resources, such as precious gems, cocaine and opium (Fearon, 2004: 284).<sup>8</sup> The measure is dichotomous, and takes on a value of 1 if rebels have access to contraband and 0 otherwise. This measure allows us to consider whether rebel control of resources encourages intervention on behalf of the rebels and discourages intervention on behalf of the government.

We use a set of control variables that capture existing arguments about geopolitical factors that might motivate third-party intervention (Findley and Teo, 2006; Gent, 2007).<sup>9</sup> The specific control variables include contiguity (Stinnett et al., 2002), colonial history (Hensel, 1999), major power status (Correlates of War, COW), Cold War (if conflict started prior to 1989), similar region (COW), capability ratio (Singer, 1988), joint democracy (Marshall and Jagers, 2004), ethnic or ideological wars (Regan, 2002), fatalities (Lacina and Gleditsch, 2005), refugees (Moore and Shellman, 2004), rivals and alliances with the civil war country

**Table 1.** Rare events logit with politically relevant interveners included. Observations: M1,  $N = 9742$ ; M2,  $N = 9742$ ; M3,  $N = 12,537$ ; M4,  $N = 12,537$ 

Covariate	Rare events logit					
	$\hat{\beta}$	SE	$p$	$\hat{\beta}$	SE	$p$
	M1: Intervention (diamonds/gems)			M2: Intervention (with drugs)		
Diamonds/gems	0.608	0.216	0.005			
Diamonds/gems/drugs				0.539	0.214	0.012
Major power	0.522	0.278	0.060	0.535	0.275	0.052
Colonial history	1.326	0.294	0.000	1.334	0.294	0.000
Cold War	0.262	0.223	0.241	0.256	0.223	0.251
Same region	-0.186	0.238	0.436	-0.179	0.236	0.448
Contiguous state	1.880	0.240	0.000	1.888	0.240	0.000
Capability ratio (log)	0.846	0.108	0.000	0.836	0.108	0.000
Rivalry	1.143	0.286	0.000	1.141	0.286	0.000
Alliance	0.729	0.240	0.002	0.693	0.237	0.004
Ally with other intervener	0.547	0.217	0.012	0.558	0.217	0.010
Rival with other intervener	0.310	0.260	0.232	0.334	0.258	0.196
Ethnic conflict	0.560	0.418	0.181	0.593	0.415	0.153
Ideology conflict	0.289	0.434	0.506	0.337	0.428	0.432
Joint democracy	-0.414	0.417	0.321	-0.401	0.418	0.337
Constant	-6.237	0.500	0.000	-6.256	0.498	0.000
	M3: Opposition intervention			M4: Government intervention		
Loot rebel financing	0.670	0.311	0.031	0.130	0.296	0.661
Major power	0.120	0.413	0.771	1.280	0.357	0.000
Colonial history	0.849	0.468	0.070	1.440	0.327	0.000
Cold War	0.406	0.311	0.192	0.097	0.278	0.726
Same region	0.020	0.307	0.948	-0.138	0.339	0.685
Contiguous state	2.292	0.357	0.000	1.674	0.301	0.000
Capability ratio (log)	0.739	0.154	0.000	0.717	0.107	0.000
Rivalry	1.743	0.364	0.000	-0.116	0.467	0.803
Ally	0.137	0.310	0.659	1.163	0.283	0.000
Ally on government side	-1.440	1.047	0.169	1.107	0.277	0.000
Ally on opposition side	0.049	0.463	0.916	-0.172	0.427	0.686
Rival on government side	1.139	0.357	0.001	-0.363	0.501	0.469
Rival on opposition side	0.361	0.504	0.474	0.722	0.411	0.079
Ethnic conflict	0.590	0.554	0.287	0.285	0.553	0.607
Ideology conflict	0.205	0.579	0.724	0.532	0.546	0.330
Joint democracy	-0.041	0.623	0.947	-0.292	0.491	0.553
Constant	-7.218	0.629	0.000	-6.789	0.669	0.000

(Klein et al., 2006; Gibler and Sarkees, 2004), and rivals and alliances with other interveners (Gibler and Sarkees, 2004). We now consider whether the lootable resource measures are statistically significant predictors of decisions to intervene even after controlling for prominent geopolitical explanations.

## Empirical results

The results of the rare-events logit models of intervention on any side, on the opposition side and on the government side offer support for the hypotheses identified above. Table 1

**Table 2.** Percentage changes in predicted probabilities of intervention for each different model. The 95% confidence intervals for predicted probabilities are listed in parentheses

Variable	Percentage change in predicted probabilities shifting resource variable from 0 to 1	Significant effect: <i>p</i> -value listed
<i>M1: Any intervention (diamonds/gems)</i>	82.6% increase (20.2%, 185.6%)	0.005
<i>M2: Any intervention (with drugs)</i>	70.03% increase (14.3%, 168.8%)	0.012
<i>M3: Opposition intervention</i>	88.7% increase (5.7%, 169.1%)	0.031
<i>M4: Government intervention</i>	14.7% increase (-38.9%, 124.5%)	0.661

displays the raw results and Table 2 shows changes in predicted probabilities when comparing wars without lootable resources to wars with lootable resources. We report on four rare-events logit models. First, we consider whether diamonds and gemstones in the conflict zone motivate third-party intervention on any side (model 1). Second, we examine whether drugs are also important, in addition to diamonds and gemstones (model 2). Third, we differentiate by the side on which the third party intervenes. Model 3 shows the results for intervention on the side of the opposition and model 4 shows intervention on the side of the government.

The results of these analyses show that lootable resources do increase the likelihood of intervention into the war. Diamonds and gems are strongly associated with intervention (model 1;  $p = 0.005$ ) and the addition of information about drugs shows a continued strong relationship (model 2;  $p = 0.012$ ). In both cases the substantive effects are not trivial. Lootable resources increase the likelihood of intervention by 83 and 70% for the respective models.

Turning to the results that consider intervention on either the opposition or government side, we find that lootable resources are associated with a higher likelihood of intervention on the side of the opposition (model 3;  $p = 0.031$ ), but not the government (model 4;  $p = 0.661$ ). This is in line with hypothesis 2 and the logic that lootable resources may only be salient for intervention on one side of the war. The result for opposition-biased intervention is substantively strong as well, with an 89% increase in the likelihood of intervention on the side of the opposition when rebels have access or control of lootable resources.<sup>10</sup>

Turning to the results of the split-population models, we first consider whether lootable resources motivate third-party intervention on any side, as above, which tests hypothesis 1. Table 3 displays these findings for both the likelihood and duration portions of the split-population model. The likelihood portion serves the primary role of sorting the potential interveners into those likely to intervene from those that are unlikely to do so. As the likelihood portion is used primarily as a sorting mechanism, we do not discuss the results of that stage at length here. Note, however, that while the coefficients for *Diamonds/gems*, *Diamonds/gems/drugs* and *Lootable rebel financing* variables are not significant in the likelihood portion of the model, these coefficients are significant when estimated as a separate logit model.<sup>11</sup> Instead, the duration results are of greater interest as they address the expectation of what increases the hazard of intervention; stated differently, they indicate what decreases the time until intervention.

The results in Table 3, which reports the split-population survival model, show that the presence of lootable resources in the conflict zone hastens the time until intervention. The coefficient is positive and statistically significant ( $\hat{\beta} = 1.526$ ;  $p = 0.01$ ). The first model (M5)

**Table 3.** Split population model of intervention into civil wars using Lujala's (2010) measures of *Diamonds/gems* (M5) and *Diamonds/gems/drugs* (M6) where intervention on either side of the conflict is the outcome of interest. Observations: M5,  $N = 38,599$ ; M6,  $N = 38,599$

Covariate	Probability (logit)					
	$\hat{\gamma}$ M5: Intervention (diamonds/gems)	SE	$p$	$\hat{\gamma}$ M6: Intervention (with drugs)	SE	$p$
<i>Diamonds/gems</i>	0.402	0.368	0.137			
<i>Diamonds/gems/drugs</i>				0.053	0.369	0.443
<i>Major power</i>	2.826	0.428	<0.001	2.866	0.438	<0.001
<i>Colonial history</i>	4.049	0.82	<0.001	4.06	0.858	<0.001
<i>Cold War</i>	1.538	0.328	<0.001	1.526	0.329	<0.001
<i>Same region</i>	2.331	0.358	<0.001	2.359	0.363	<0.001
<i>Contiguous state</i>	3.524	0.403	<0.001	3.564	0.408	<0.001
<i>Capability ratio (log)</i>	1.259	0.173	<0.001	1.253	0.174	<0.001
<i>Rivalry</i>	2.197	0.665	<0.001	2.173	0.651	<0.001
<i>Alliance</i>	-0.534	0.458	0.122	-0.687	0.458	0.067
<i>Ethnic conflict</i>	0.893	0.585	0.064	1.049	0.584	0.037
<i>Ideology conflict</i>	0.63	0.603	0.148	0.936	0.597	0.059
<i>Joint democracy</i>	-1.608	0.683	0.01	-1.545	0.679	0.012
Constant	-7.506	0.69	<0.001	-7.544	0.689	<0.001

	Hazard (log-normal)					
	$\hat{\beta}$	SE	$p$	$\hat{\beta}$	SE	$p$
<i>Diamonds/gems</i>	1.526	0.657	0.01			
<i>Diamonds/gems/drugs</i>				1.389	0.655	0.017
<i>Rivalry</i>	0.73	0.695	0.147	0.817	0.701	0.122
<i>Alliance</i>	2.373	0.718	<0.001	2.381	0.722	<0.001
<i>Ally with other intervener</i>	3.943	1.085	<0.001	3.921	1.075	<0.001
<i>Rival with other intervener</i>	3.368	1.2	0.003	3.405	1.207	0.003
<i>Fatalities (log)</i>	0.113	0.15	0.226	0.16	0.149	0.142
<i>Forced migrants (log)</i>	0.307	0.098	0.001	0.312	0.098	<0.001
Constant	-11.937	0.952	<0.001	-12.179	0.961	<0.001

includes only diamonds and gemstones and is clearly related strongly to intervention. As with models 1 and 2, we add a measure of drugs in conflict zones to the measure of diamonds and gemstones and re-estimate the model (M6). Doing so indicates that drugs, diamonds and gems all appear to serve a similar purpose in increasing the risk or decreasing the duration until intervention. While the effect attenuates slightly, the coefficient is again positive ( $\hat{\beta} = 1.389$ ) and statistically significant ( $p = 0.017$ ).

These results are insightful and point to a connection between resources and intervention. We next turn to models that allow a better differentiation between who controls resources and on which side intervention is likely to occur in each such case. Table 4 displays the results using the measure of whether rebels control resources (Fearon, 2004), and it provides evidence in strong support of hypothesis 2.

Applying the split-population model more directly, the expectation in hypothesis 2 would be that, when rebels control resources, the hazard of intervention on the side of the

**Table 4.** Split population model of intervention into civil wars using Fearon (2004) measure where intervention on the opposition side (M7) and the government side (M8) is the outcome of interest. Observations: M7,  $N = 49,359$ ; M8,  $N = 49,359$

Covariate	Probability (logit)					
	$\hat{\gamma}$			$\hat{\gamma}$		
	SE	$p$	SE	$p$	SE	$p$
	M7: Opposition intervention			M8: Government intervention		
Loot. Rebel financing	0.684	0.692	0.162	0.922	0.59	0.059
Major power	1.859	0.629	0.002	3.091	0.495	<0.001
Colonial history	4.953	1.31	<0.001	2.796	0.926	0.002
Cold War	3.09	0.735	<0.001	0.937	0.377	0.007
Same region	2.345	0.535	<0.001	1.851	0.398	<0.001
Contiguous state	4.821	0.654	<0.001	2.642	0.447	<0.001
Capability ratio (log)	1.449	0.265	<0.001	1.243	0.186	<0.001
Rivalry	3.673	0.947	<0.001	0.732	1.097	0.253
Alliance	-2.002	0.83	0.008	-0.358	0.485	0.231
Ethnic conflict	2.021	1.073	0.03	0.98	0.677	0.074
Ideology conflict	0.805	1.106	0.234	1.196	0.673	0.038
Joint democracy	-3.037	1.271	0.009	-1.461	0.759	0.027
Constant	-10.3	1.452	<0.001	-7.159	0.797	<0.001
	Hazard (log-normal)					
	$\hat{\beta}$			$\hat{\beta}$		
	SE	$p$	SE	$p$	SE	$p$
Loot. Rebel financing	1.869	1.128	0.049	-2.383	1.053	0.012
Rivalry	1.718	0.812	0.017	-1.892	1.251	0.065
Alliance	2.406	1.03	0.01	3.573	0.906	<0.001
Ally on government side	-3.416	2.042	0.047	4.929	1.294	<0.001
Ally on opposition side	1.142	1.787	0.262	1.028	1.302	0.215
Rival on government side	6.762	1.863	<0.001	-0.975	1.26	0.22
Rival on opposition side	0.219	1.718	0.45	4.646	1.756	0.004
Fatalities (log)	0.107	0.174	0.27	0.203	0.165	0.11
Forced migrants (log)	0.164	0.123	0.092	0.349	0.115	0.001
Constant	-13.356	1.125	<0.001	-12.781	1.214	<0.001

opposition should increase, thus decreasing the time until intervention. Further, the hazard of intervention on the side of the government should decrease, thus taking longer for intervention to occur. The results across these two models show that the presence of natural resources hastens third-party intervention on the side of the opposition ( $\hat{\beta} = 1.869$ ;  $p = 0.049$ ). On the flip side, when rebels control resources, this delays intervention on the side of the government ( $\hat{\beta} = -2.383$ ;  $p = 0.012$ ).

Taken together, the results of the various statistical models offer strong support for the hypotheses that lootable resources motivate intervention into civil wars. While the results are insightful in establishing a general relationship, they cannot sort out competing mechanisms, such as whether third parties intervene to access resource markets or whether they use the resources strictly for fueling the war towards a desired end. To contextualize the results better, we investigated interventions into civil wars that appear to be connected to resources to trace how specifically the resources motivated the intervention, including discussing cases in which no resource-intervention relationship can be found.

## Contextualizing the statistical results

In the theoretical section, we identified several ways that lootable resources could motivate intervention. They include third-party desires to access raw natural resources or the markets to those resources for purposes of profit.<sup>12</sup> Alternatively, interveners may choose to get involved when rebels control resources because the resources confer additive strength on rebels, thus lessening the costs that third parties must bear. A closer look at individual cases indicates that a combination of these factors motivates intervention in a variety of cases. In line with the statistical results, clearly not all wars with lootable resources motivate or are tied to intervention. We note that this illustrative case material is not meant to provide tests in a strict sense; instead we use them to investigate the plausibility of the causal mechanisms underlying the statistical analysis (Gerring, 2004) and to possibly uncover new ideas about what might explain the observed correlations.

In a number of cases, third parties intervened because they desired access to the resources themselves or to the revenues generated through the resource markets. The DRC is the best example of this connection with a number of third parties intervening into the DRC to access natural resources. The Uppsala Conflict Data Program (UCDP) Conflict Encyclopedia cites five periods of internal conflict within the DRC, between 1960 and the present, and during these occasions several countries, including the Republic of the Congo, Uganda, Rwanda, Angola, Zimbabwe, Namibia, Chad, the USA, Belgium, Sudan and France, sent troops or otherwise supported combatants (Uppsala Conflict Data Program, 2008).

Diamonds, gold, coltan, copper, cobalt, timber, uranium, oil, precious gems and narcotics are among the DRC's immense natural resource wealth. At various times during the protracted conflict, there is evidence that Belgium, Angola, Zimbabwe, Uganda and Rwanda were resource-motivated (Clark, 2001; Global Witness, 2009; Uppsala Conflict Data Program, 2008). Belgium even encouraged the secession of Katanga in 1960 owing to lootable resource interests in the area (Marcum, 1961). (French and Zimbabwean involvement, in particular, occurred when the government of what is now the DRC offered France secure access to mines and Zimbabwe secure access to timber in exchange for military aid.)

As noted at the paper's outset, diamonds, timber and gold also motivated Rwandan and Ugandan intervention in the conflicts of 1996–1997 and 1998–2003 (Clark, 2001; Fearon, 2004; Montague and Berrigan, 2001; Nest et al., 2006; Ross, 2004a). These two states trained and armed rebels in exchange for the ability to exploit natural mineral deposits. Uganda, Rwanda and the Congo all exported diamonds even though none of these countries had local diamond resources (Global Witness, 2009; Nest et al., 2006: 11).<sup>13</sup>

DRC is not the only example of this theoretical connection. Third parties intervened in both Senegal and Sierra Leone to obtain revenues from timbers and diamonds. Senegal's lootable resources include not only tropical timbers, but also timber products such as palm oil, wine and cannabis (Humphreys and Mohamed, 2005: 252). The separatist war in the Casamance region of Senegal lasted for nearly 20 years (1984–2003), and during this period six countries intervened: Guinea-Bissau, the Gambia, Iraq, Libya, the USA and France (Uppsala Conflict Data Program, 2008). Evidence indicates that the Gambia was motivated by illegal trade with Senegal and benefitted through this trade. It is interesting to note that Gambia actually switched sides in the Senegalese conflict to correlate with the government's loss of control over the timber market. Thus, the timber that once supported the government's military endeavors now enabled Senegalese rebels to continue thriving with direct Gambian support (Humphreys and Mohamed, 2005: 286).

Sierra Leone is another well-known conflict in which resources were integral to the war dynamics. Of all of the countries that intervened, including Liberia, Burkina Faso, Nigeria, the UK, the USA, Guinea, and the UN, diamonds certainly motivated Liberia's intervention (von Berneuth, 2000). In fact, Liberia's president Charles Taylor helped Foday Sankoh (from Sierra Leone) to organize the rebel group Revolutionary United Front (RUF), which invaded Sierra Leone to start this civil war (*Economist*, 2003).<sup>14</sup> According to Alex Yearsley, from Global Witness, Liberia trained and armed RUF forces and then "pushed [them] through into Sierra Leone solely to get the diamonds for Liberia. It is a case of: 'We'll support you to take over the country, and in return you get us the diamonds'" (Durham, 2001).

In return for diamonds, Liberia illegally traded arms and other supplies with Sierra Leone's rebel group, RUF. In addition to Liberia's resource-motivated intervention, there is evidence that the South African company Executive Outcomes aided Sierra Leone's government in exchange for control over a local diamond operation (von Berneuth, 2000). The diamonds thus motivated countries, businesses and even terrorist groups to intervene to protect their economic interests.

The Angolan civil war (1975–1991) provides some evidence in favor of the argument that alluvial diamonds helped fund the rebels, which made intervention more attractive. South Africa, the USA, the DRC and the Republic of the Congo supported the rebels (UNITA), and Cuba, Namibia, the Soviet Union, Nigeria and Mozambique all directly or indirectly supported the government (Akiba, 1998: 104; Fearon, 2004; Regan, 2000). It is unclear to what extent most parties were interested in the diamonds, but evidence suggests that both DRC and the Republic of the Congo intervened in Angola partially for economic reasons, consisting of the lootable resource revenues along with access to Angola's oil (McQueen, 2001: 96).<sup>15</sup>

Several cases indicate that resources motivated intervention because they provided ways for third parties to fund the combatants involved and thus increased the chances for victory. In Afghanistan from 1978 to 1989, Pakistan, the USA, the Soviet Union and Saudi Arabia all intervened (Regan, 2002), and some evidence suggests that they acted in response to the opium (Rubin, 2000), which was a source of revenue for the Mujahadeen. In particular, the USA supported the opium trade as it provided a way to continue involvement without over-committing the US military (Bagley, 2004; Burrough, 2009; Uppsala Conflict Data Program, 2008).

As the statistical results indicate, not all wars having lootable resources attracted intervention. In Burma, where a rich endowment of gems, opium, coca and timber exists, it appears that only timber had a weak connection to intervention. Private Chinese citizens purchased "lucky" Ye-Htin-Shu trees from the rebels, such as the Kachin Defense Army, to support the cause, and the war resulted in increased drug production by rebel groups, but there does not appear to be any evidence linking resources to state interventions (Ross, 2004a; Sam, 2007). In Indonesia, the results are similarly inconclusive, with Malaysian businesses getting involved and profiting from the timber industry, although no third-party state intervention appears to have occurred for resources.

In the cases of Cambodia, India, Liberia, Nicaragua and Turkey, there is little evidence linking resources and intervention. We could not find any evidence linking interventions into Cambodia (by Vietnam, the USSR and China) to its timber and gem resources. The same conclusion appears to apply in the case of India's civil wars, in which its supply of alluvial diamonds and timber (Snyder, 2006) probably did not attract intervention, although oil and natural gas may have (Uppsala Conflict Data Program, 2008). Control over water sources

may have also encouraged Pakistan to aid insurgent movements in the Indian provinces of Jammu and Kashmir (Sahni, 2006). In Liberia too, whose supply of diamonds is not extensive, there does not appear to be evidence that resources motivate intervention directly. Liberia's support for the RUF in Sierra Leone, partially to obtain diamonds, may have caused a reactionary intervention by Sierra Leone into Liberia, however. Nicaragua's coca and timber resources do not appear to have motivated or been a consideration for Soviet or American interventions in the 1980s. Finally, we could not identify any evidence of resource-motivated intervention into Turkey's civil wars with Kurdish and leftist groups.

Evidence from Colombia and Peru is somewhat ambiguous and adds an unanticipated twist into the results. In both cases, it appears that third parties did not intervene to profit from the resources or to fuel the wars (Ross, 2003, 2004b), although resources may have motivated Venezuelan support (Forero, 2009; Halvorssen, 2008; Romero, 2009). It is possible, however, that intervention occurred on the government side to curtail the production and flow of the drugs. The US interventions on the side of the government may have been motivated, at least in part, by the need to offset the capability that the rebels gained through drug production and trafficking (Bagley, 2001; Shifter, 1999). Thus, drugs may have been an important motive for US intervention, but in ways different from those outlined above.

## **Conclusion**

Do lootable natural resources motivate third-party intervention into civil wars? We began by arguing that economic factors of strategic interest to third parties could be an important determinant of third-party intervention, especially intervention on the side of opposition groups. Potential interveners find lootable resources attractive for a number of reasons, including access to the resources and associated revenues for private and public reasons. Moreover, potential interveners may see the resources as key to the dynamics and outcome of the war wherein rebel groups that have access to lootable resources may have an added measure of strength with which to counter the government and therefore may be a better bet for potential interveners than rebels without such access.

Because of the role that lootable resources can play and their attractiveness to a variety of states, we posited that third parties should intervene more readily in conflicts. We further argued that they should be more likely to intervene on the opposition side and less likely to intervene on the government side when rebel groups control lootable resources. We then subjected these propositions to statistical tests using rare-events logit, ordinary logit and a split-population (mixture-cure) survival model, followed by some exploration of a number of individual cases.

The results of the analysis show that lootable resources indeed provide a powerful incentive for third-party intervention, even after controlling for other political and strategic factors, thus underscoring the importance of economic motives for intervention. The results across all of the models are statistically significant and, furthermore, are substantively non-trivial. Evidence from a number of cases offers insights into the different mechanisms underlying the resource-intervention relationship.

The implications of these results are noteworthy. If rebels have access to some sort of lootable resource, the evidence suggests that these wars are more likely to expand. Thus, analysts or policy-makers seeking to explain or predict the expansion of civil wars should recognize that lootable resources provide incentives that are sufficiently attractive to third parties considering whether or not to intervene.



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## Notes

1. An examination of all natural resources is beyond the scope of this paper, as the mechanisms through which lootable resources affect civil war are likely to be different from nonlootable resources. Lujala et al. (2005: fn. 1) point out that, unlike nonlootable resources such as oil and gas, “lootable natural resources can be harvested by simple methods by individuals or small groups, do not require investment in expensive equipment, and can easily be smuggled. In a conflict, such resources can provide income for rebels, as well as soldiers and locals”. Nevertheless, an analysis of lootable and nonlootable resources together would be useful for consideration in future work.
2. A number of studies demonstrate differences in intervention patterns and outcomes based on the side on which interveners get involved (e.g. DeMeritt, 2014; Findley and Teo, 2006).
3. In this study we consider only interventions by states, excluding interventions by nonstate actors such as international organizations.
4. We use the Regan dataset because it has greater temporal coverage than the UCDP Managing Intrastate Conflict Africa Dataset, which covers the years 1993–2007 (Melander and von Uexkell, 2011). We choose not to use the COW dataset because the lower fatality threshold of the Regan data (1000 fatalities per year for COW vs 200 per year for the Regan data) captures both conflicts that may produce fewer casualties but are nevertheless protracted and difficult to resolve, as well as the high-casualty conflicts included in the COW dataset.
5. These results are available in the Online Appendix accompanying this paper.
6. A competing risk model assumes that an actor is at risk of experiencing multiple mutually exclusive events, but in which the occurrence of one event prevents another event from happening. For instance, a cancer patient is at risk of dying from multiple causes, and dying from one cause prevents death from another cause. Furthermore, these models independently censor the occurrence of events aside from the event under consideration. In the analysis here, the independent risks assumption means that nonintervention and intervention on behalf of the opposition are treated as joint reference categories if the event under consideration is government intervention (see Findley and Teo, 2006: fn. 7).
7. While data on territorial control of lootable resources does not currently exist, a multiyear effort is now beginning that should result in better information. Those data will not be available for some time, however.
8. These two measures correlate at 0.4734, indicating that they are capturing some of the same ideas. Notably, Lujala’s measure appears to have somewhat better coverage than Fearon’s. To match these two datasets with Regan’s, in some cases we collapsed the number of interventions in a country and assumed that, if there were any interventions in a given country and year, then they belonged to a Regan conflict. Given that we still restrict the data to a given country and year, this eliminates any problem in the vast number of cases.
9. Please see the Online Appendix for operationalization details for these variables.
10. Estimating the rare-events logit results using all potential interveners, the ordinary logit results with politically relevant states as interveners, or the ordinary logit results with all potential

interveners obtains results that are substantively similar to those reported in Table 1. These results can be viewed in the Online Appendix.

11. Please see the Online Appendix for this article to view these results.
12. An investigation of how third parties use resource revenues is an interesting question, but is beyond the scope of this paper. Herein, we only argue that third parties seek such profits for a variety of ends.
13. In the private sector, furthermore, one US company, American Mineral Fields, struck a mining deal with the DRC in May of 1997, which ensured the company exclusive rights to copper and cobalt (Montague and Berrigan, 2001).
14. Thus, technically this is a case of intervention prior to the beginning of a war, but nonetheless reflects third-party incentives to obtain resources.
15. Angola's government also used diamond concessions to hire a professional military company from South Africa, Executive Outcomes, to support them (Campbell, 2002). The rebels also used their diamond money to purchase arms from Europe, specifically from Bulgaria (Harden, 2000).

## References

- Akcinaroglu S and Radziszewski E (2005) Expectations, rivalry and civil war duration. *International Interactions* 31(4): 349–374.
- Akiba O (1998) *Nigerian Foreign Policy Towards Africa: Continuity and Change*. New York: Peter Lang.
- Aydin A (2008) Choosing sides: Economic interdependence and interstate disputes. *Journal of Politics* 70(4): 1098–1108.
- Aydin A (2010) Where do states go? Strategy in civil war intervention. *Conflict Management and Peace Science* 27(1): 47–66.
- Aydin A (2012) *Foreign Powers and Intervention in Armed Conflicts*. Stanford, CA: Stanford University Press.
- Bagley BM (2001) Drug trafficking, political violence, and US policy in Colombia in the 1990s. University of Miami, 5 January. Available at: <http://www.as.miami.edu/international-studies/faculty/BruceBagley> (accessed 20 June 2011).
- Bagley Lieutenant Colonel HE Jr (2004) Afghanistan: Opium cultivation and its impact on reconstruction. USAWC Strategy Research Project. US Army War College.
- Balch-Lindsay D and Enterline A (2000) Killing time: The world politics of civil war duration, 1820–1992. *International Studies Quarterly* 44(4): 615–642.
- Balch-Lindsay D, Enterline A and Joyce K (2008) Third-party intervention and the civil war process. *Journal of Peace Research* 45(3): 345–363.
- Bennett DS and Stam A (2000) EUGene: A conceptual manual. *International Interactions* 26(2): 179–204.
- Box-Steffensmeier JM and Jones BS (2004) *Event-History Modeling: A Guide for Social Scientists*. Cambridge: Cambridge University Press.
- Box-Steffensmeier JM, Radcliffe P and Bartels BL (2005) The incidence and timing of PAC contributions to incumbent U.S. House members, 1993–94. *Legislative Studies Quarterly* 30(4): 549–579.
- Burrough MA (2009) A historical case of US strategy towards Afghanistan. UCAWC Strategy Research Project. US Army War College.
- Campbell G (2002) *Blood Diamonds: Tracing the Deadly Path of the World's Most Precious Stones*. Boulder, CO: Westview Press, p. 251.
- Carment D and Rowlands D (1998) Three's company: Evaluating third party intervention in intrastate conflict. *Journal of Conflict Resolution* 42(5): 572–599.

- Carment D, James P and Rowlands D (1997) Ethnic conflict and third party intervention: Riskiness, rationality, and commitment. In: Schneider G and Weitsman P (eds) *Enforcing Cooperation*. London: Macmillan, pp. 104–131.
- Clark JF (2001) Explaining Ugandan intervention in Congo: Evidence and interpretations. *Journal of Modern African Studies* 39(2): 261–287.
- Collier P (2000) *Economic Causes of Civil Conflict and their Implications for Policy*. Washington, DC: World Bank.
- Collier P and Hoeffler A (1998) On economic causes of civil war. *Oxford Economic Papers* 50(4): 563–573.
- Collier P and Hoeffler A (2002) On the incidence of civil war in Africa. *Journal of Conflict Resolution* 46(1): 13–28.
- Collier P and Hoeffler A (2004) Greed and grievance in civil war. *Oxford Economic Papers* 56(4): 563–595.
- Cunningham D (2010) Blocking resolution: How external states can prolong civil wars. *Journal of Peace Research* 47(2): 115–127.
- DeMeritt J (2014) Delegating death: Military intervention and government killing. *Journal of Conflict Resolution* (in press).
- Durham D (2009) Diamond trade fuels bloody wars. CNN.com, 18 January. Available at: <http://edition.cnn.com/2001/WORLD/africa/01/18/diamonds.overview/> (Accessed 19 May 2014).
- Elbadawi I and Sambanis N (2000) External interventions and the duration of civil wars. World Bank Policy Research Working Paper 2433.
- Enterline AJ, Garrison SR and Aubone A (2009) To live & let die? Democratic third parties & the cost–benefit feedback from intervention into intrastate conflicts. Unpublished Manuscript, University of North Texas.
- Fearon JD (2004) Why do some civil wars last so much longer than others? *Journal of Peace Research* 41(3): 275–302.
- Fearon JD (2005) Primary commodity exports and civil war. *Journal of Conflict Resolution* 49(4): 483–507.
- Fearon JD and Laitin DD (2003) Ethnicity, insurgency, and civil war. *American Political Science Review* 97(1): 75–90.
- Feste K (1992) *Expanding the Frontiers: Superpower Intervention in the Cold War*. New York: Praeger.
- Findley MG and Teo TK (2006) Rethinking third-party interventions into civil wars: An actor centric approach. *The Journal of Politics* 68(4): 828–837.
- Finnemore M (2003) *The Purpose of Intervention*. New York: Cornell University Press.
- Fordham B (2008) Power or plenty? Economic interests, security concerns, and American intervention. *International Studies Quarterly* 52(4): 737–758.
- Forero J (2009) Venezuela's drug-trafficking role is growing fast, U.S. report Says. *The Washington Post*, 19 July. Available at: <http://www.washingtonpost.com/wp-dyn/content/article/2009/07/18/AR2009071801785.html> (accessed 17 December 2009).
- Frieden J (1994) International investment and colonial control: A new interpretation. *International Organization* 48(4): 559–593.
- Gent SE (2007) Strange bedfellows: The strategic dynamics of major power military interventions. *The Journal of Politics* 69(4): 1089–1102.
- Gerring J (2004) What is a case study and what is it good for? *American Political Science Review* 98(2): 341–354.
- Gibler D and Sarkees MR (2004) Measuring alliances: The Correlates of War Formal Interstate Alliance Dataset, 1816–2000. *Journal of Peace Research* 41(2): 211–222.
- Global Witness (2009) Natural resource exploitation and human rights in the Democratic Republic of Congo 1993 to 2003. December.
- Halvorssen T (2008) Venezuela's charades; Chavez and other leaders sugar-coat FARC. *The Washington Times*, 7 February.

- Harden B (2000) Diamond wars: A special report; Africa's gems: Warfare's best friend. *The New York Times*, 6 April. Available at: <http://www.nytimes.com/2000/04/06/world/diamond-wars-a-special-report-africa-s-gems-warfare-s-best-friend.html?sec=&spn=&pagewanted=1> (accessed 22 February 2008).
- Hensel P (1999) *Issue Correlates of War Colonial History Data*. Available at <http://garnet.acns.fsu.edu/~phensel/icowdata.html#colonies> (accessed 22 November 2005).
- Hettinger VA and Zorn C (2005) Explaining the incidence and timing of congressional responses to the U.S. Supreme Court. *Legislative Studies Quarterly* 30(1): 5–28.
- Humphreys M (2005) Natural resources, conflict, and conflict resolution: Uncovering the mechanisms. *Journal of Conflict Resolution* 49(4): 508–537.
- Humphreys M and Mohamed HA (2005) Senegal and Mali: A comparative study of rebellions in West Africa. In: Sambanis N and Collier P (eds) *Understanding Civil War: Evidence and Analysis*. Washington, DC: World Bank, chapter 9.
- Kathman J (2010) Civil war contagion and neighboring interventions. *International Studies Quarterly* 54(4): 989–1012.
- King G and Zeng L (2001) Explaining rare-events in international relations. *International Organization* 55(3): 693–715.
- Klein J, Goertz G and Diehl PF (2006) The New Rivalry Dataset: Procedures and patterns. *Journal of Peace Research* 43(3): 331–348.
- Koga J (2011) Where do third-parties intervene? Third parties' domestic institutions and military interventions in civil conflicts. *International Studies Quarterly* 55(4): 1143–1166.
- Lacina B and Gleditsch NP (2005) Monitoring trends in global combat: A new dataset of battle deaths. *European Journal of Population* 21(2–3): 145–166.
- Le Billon P (2001) The political ecology of war: Natural resources and armed conflict. *Political Geography* 20(5): 561–584.
- Lemke D and Regan P (2004) Interventions as influence. In: Diehl PF (ed.) *The Scourge of War: New Extensions on an Old Problem*. Ann Arbor, MI: University of Michigan Press, pp. 145–168.
- Licklider R (1995) The consequences of negotiated settlements in civil wars, 1945–1993. *American Political Science Review* 89(3): 681–690.
- Lujala P (2010) The spoils of nature: Armed civil conflict and real access to natural resources. *Journal of Peace Research* 47(1): 15–28.
- Lujala P, Gleditsch NP and Gilmore E (2005) A diamond curse? Civil war and a lootable resource. *Journal of Conflict Resolution* 49(4): 538–562.
- Maoz Z and Russett B (1993) Normative and structural causes of the democratic peace. *American Political Science Review* 87: 624–638.
- Marcum JA (1961) Unilateral intervention in the Congo and its political consequences. *Proceedings of the American Society of International Law at its Annual Meeting* 55: 27–30.
- Marshall MG and Jaggers K (2004) Polity IV Project: Political regime characteristics and transitions, 1800–2003. In: *Dataset Users' Manual*. Center for International Development and Conflict Management, University of Maryland, College Park, MD.
- McQueen N (2001) Angola. In: Furley O and May R (eds), *African Interventionist States*. Burlington, VT: Ashgate, p. 266.
- Meernik J (1994) Presidential decision-making and the political use of military force. *International Studies Quarterly* 38(1): 121–138.
- Melander E and von Uexkull N (2011) Sustained third party engagement and conflict termination: An introduction of the UCDP Managing Intrastate Conflict (MIC) dataset. Paper presented at the *Annual Meeting of the International Studies Association*, Montreal, 16–19 March 2011.
- Montague D and Berrigan F (2001) Dollars and sense—The business of war in the Democratic Republic of Congo: Who benefits? In: *Arms Trade Resource Center—World Policy Institute*, July/August. Available at: <http://www.worldpolicy.org/projects/arms/news/dollarsandsense.html> (accessed 22 February 2008).

- Moore WH and Shellman SM (2004) Fear of persecution: Forced migration, 1952–95. *Journal of Conflict Resolution* 48(5): 723–745.
- Mullenbach M and Matthews G (2008) Deciding to intervene: An analysis of international and domestic influences on United States interventions in intrastate disputes. *International Interactions* 34(1): 25–52.
- Nest MW, Grignon F and Kisangani EF (2006) *The Democratic Republic of the Congo: Economic Dimensions of War and Peace*. Boulder, CO: Lynne Rienner, p. 165.
- Odell JS (1974) Correlates of U.S. military assistance and military intervention. In: Rosen SJ and Kurth JR (eds) *Testing Theories of Economic Imperialism*. Lexington, MA: Lexington Books, pp. 143–161.
- Olson O and Fors HC (2004) Congo: The prize of predation. *Journal of Peace Research* 41(3): 321–336.
- Pearson FS and Baumann R (1977) Foreign military intervention and changes in United States Business Activity. *Journal of Political and Military Sociology* 5(1): 79–97.
- Peceny M (1999) *Democracy at the Point of Bayonets*. University Park, PA: Pennsylvania State University Press.
- Pickering J (2001) The conflict-prone and the conflict-weary: War outcomes and types of military intervention, 1946–1996. *Journal of Political and Military Sociology* 29(2): 221–39.
- Regan PM (1998) Choosing to intervene: Outside interventions in internal conflicts. *The Journal of Politics* 60(3): 754–779.
- Regan PM (2000) *Civil Wars and Foreign Powers: Outside Intervention and Interstate Conflict*. Ann Arbor, MI: The University of Michigan Press.
- Regan PM (2002) Third-party interventions and the duration of intrastate conflicts. *Journal of Conflict Resolution* 46(1): 55–73.
- Romero S (2009) Evidence shows Venezuelan aid to rebel group. *The New York Times*, 3 August.
- Rosen SJ (1974) The open door imperative and U.S. foreign policy. In: Rosen SJ and Kurth JR (eds) *Testing Theories of Economic Imperialism*. Lexington, MA: Lexington Books, pp. 117–142.
- Ross ML (2003) Oil, drugs, and diamonds: The varying roles of natural resources in civil war. In: Ballentine K and Sherman J (eds) *The Political Economy of Armed Conflict—Beyond Greed and Grievance*. Boulder, CO: Lynne Rienner, pp. 47–70.
- Ross ML (2004a) What do we know about natural resources and civil war? *Journal of Peace Research* 41(3): 337–356.
- Ross ML (2004b) How do natural resources influence civil war? Evidence from thirteen cases. *International Organization* 58(1): 35–67.
- Ross ML (2006) A closer look at oil, diamonds, and civil war. *Annual Review of Political Science* 9: 265–300.
- Rubin BR (2000) The political economy of war and peace in Afghanistan. Center on International Cooperation, New York University, 25 September. Available at: <http://www.sciencedirect.com/science/article/pii/S0305750X00000541> (accessed 28 February 2014).
- Sahni HK (2006) The politics of water in South Asia: The case of the Indus Waters Treaty. *SAIS Review* 26(2): 153–165.
- Saideman SM (1997) Explaining the international relations of secessionist conflicts: Vulnerability vs. ethnic ties. *International Organization* 51(4): 721–753.
- Sam K (2007) Getting to the roots of Burma's latest timber trade. *Global Policy Forum*, 18 June. Available at: <http://www.globalpolicy.org/component/content/article/198/40330.html> (accessed 22 February 2008).
- Schmidt P and Witte A (1989) Predicting criminal recidivism using 'split population' survival time models. *Journal of Econometrics* 40(1): 141–159.
- Scott J (1996) *Deciding to Intervene: The Reagan Doctrine and American Foreign Policy*. Durham, NC: Duke University Press.
- Shifter M (1999) Colombia on the brink: There goes the neighborhood. *Foreign Affairs* 78(4): 14–20.

- Singer JD (1988) Reconstructing the Correlates of War dataset on material capabilities of states, 1816–1985. *International Interactions* 14(2): 115–32.
- Smith A (1996) To intervene or not to intervene: A biased decision. *Journal of Conflict Resolution* 40(1): 16–40.
- Snyder R (2006) Does lootable wealth breed disorder? *Comparative Political Studies* 39(8): 943–968.
- Snyder R and Bhavnani R (2005) Diamonds, blood, and taxes: A revenue-centered framework for explaining political order. *Journal of Conflict Resolution* 49(4): 563–597.
- Sposto R (2002) Cure model analysis in cancer: An application to data from the Children’s Cancer Group. *Statistics in Medicine* 21(2): 293–312.
- Stinnett DM, Tir J, Schafer P, Diehl PF and Gochman C (2002) The Correlates of War Project direct contiguity data, version 3. *Conflict Management and Peace Science* 19(2): 58–66.
- Svolik M (2008) Authoritarian reversals and democratic consolidation. *American Political Science Review* 102(2): 153–168.
- The Economist* (2003) Foday Sankoh, 7 August. Available at: [http://www.economist.com/printedition/displayStory.cfm?Story\\_ID=1974062&source=login\\_payBarrier](http://www.economist.com/printedition/displayStory.cfm?Story_ID=1974062&source=login_payBarrier) (accessed 17 December 2009).
- Uppsala Conflict Data Program (2008) *UCDP Conflict Encyclopedia*. Uppsala University. Available at: [www.ucdp.uu.se/database](http://www.ucdp.uu.se/database) (accessed 22 November 2009).
- Von Berneuth C (2000) Diamond registry and Sierra Leone Civil War. Inventory of Conflict and Environment Cases. The Mandala Projects. American University, School of International Service. Available at: <http://www1.american.edu/TED/ice/diamond-sl.htm> (accessed 17 December 2009).
- Willum G (2001) Rebel leader confirms what Western donors deny: Uganda plunders Congo. *Aktuelt* (Denmark), 22 January (accessed 17 December 2009).
- Yoon MY (1997) Explaining US intervention in third world internal wars, 1945–1989. *Journal of Conflict Resolution* 41(4): 580–602.