Journal of Conflict Resolution
56(4) 604-628

DOI: 10.1177/0022002712439496
http://jcr.sagepub.com
SAGE

Rebels against Rebels: Explaining Violence between Rebel Groups

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Abstract

Rebel groups that confront the government frequently become engaged in fierce and violent struggles with other groups. Why does a rebel group who is already fighting with the government become engaged in yet another struggle, thereby sacrificing scarce resources in the fight against other rebel groups? This article addresses this puzzle by providing the first global study on the determinants of interrebel violence. The authors argue that this violence should be understood as a means to secure material resources and political leverage that can help the group prevail in the conflict with the government. The quantitative analysis builds on new data on armed conflict between nonstate actors, 1989–2007. The results show that interrebel conflict is more likely when the rebel group fights in an area with drug cultivation, when the group is in control of territory beyond government reach, when the group is either militarily strong or weak in relation to other rebels, and where state authority is weak.

Keywords

civil war, interrebel violence, non-state conflict, rebel group

Why do some civil conflicts see fierce and sustained fighting between groups on the nonstate side, whereas other conflicts do not? Armed conflicts between rebel organizations have been prevalent in, for example, the Myanmar, Afghan, Liberian, and Sudanese conflicts. These incidents are not idiosyncrasies.

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Cunningham, Gleditsch, and Salehyan (2009, 572) note that "different organizations [. . .] often spend as much time fighting one another as the government." Yet, the burgeoning literature on civil conflict provides few clues to explain the variation in interrebel fighting across civil conflicts. In fact, the dominant approach in the civil war literature has been to focus on the state- and country-level attributes, giving little attention to the nonstate side. In most studies of civil war, the rebel side has been conceptualized as a unitary actor, leaving no room for interrebel dynamics. This assumption fits poorly with the empirical reality of most contemporary civil conflicts where the nonstate side consists of multiple groups. As Kalyvas (2003, 475) points out, civil conflicts are "complex and ambiguous" phenomena that rarely fit the descriptions of military confrontations between a government and a rebel group. Much of the violence, he observes, is perpetrated by nonstate actors against each other and follows divisions other than the conflict's "master cleavage." By treating the rebel side as a unitary actor, most existing literature on civil conflict has failed to consider this complexity. As a consequence, the violence that occurs between nonstate groups is understudied.

This article sets out to explain why we see armed conflicts between rebel groups in some civil conflicts but not in others.[1] We argue that the conflict between rebel groups should be understood in the context of the civil conflict: as a means to secure material resources and political leverage that will help in the conflict against the government. Where rival groups challenge the distribution of spoils along these two dimensions (i.e., in terms of material and political resources) we expect to see interrebel fighting. More specifically, we argue that the group is particularly vulnerable to rival groups when its resource mobilization effort is focused on the extraction of valuable natural resources and when it operates in zones of territorial control beyond government reach. Moreover, the quest for political leverage, which can bring groups into conflict with other groups, will be strongest for groups that are either weak or strong relative to other groups in the conflict and when the state adversary is weak.

We examine these propositions in a large-*N* analysis using new and unique data from the Uppsala Conflict Data Program (UCDP) on armed conflict between nonstate organizations from 1989 to 2007. Within a global sample that includes all rebel groups involved in a multiparty conflict with a government, we examine under what conditions a rebel group will engage in armed conflict with other rebel groups. Consistent with our theoretical expectations, our results show that interrebel conflict is more likely when the rebel group fights in an area with drug cultivation; when the group is in control of territory beyond government reach; when the group is either militarily strong or weak in relation to other rebels; and where state authority is weak. We also find evidence that groups that mobilize along ethnic lines are more likely to fight with other groups and that groups that have received support from a foreign state have a higher likelihood of engaging in interrebel conflict.

Research Gap and Related Literature

The standard approach in cross-national studies of armed conflict has been to focus on national characteristics and attributes of government, to identify factors that make conflict more likely. Hence, whereas theories about civil conflict emphasize the dyadic interaction between the state and a rebel organization, empirical tests of these theories have tended to disregard the rebel side all together. According to D. Cunningham, Gleditsch, and Salehyan (2009), the failure to take into account the characteristics of the nonstate antagonist limits our understanding why we see civil war in some countries, but not others. In addition, we contend that the lack of attention to the nonstate side has reinforced the tendency to regard rebels as a group with homogenous preferences. The majority of civil war research, in particular the quantitative strand, has hitherto not recognized the complex reality of contemporary conflicts, where we often see multiple, sometimes competing, rebel groups.

Among the existing studies that have moved beyond the assumption of a unitary nonstate opposition side are those that examine the influence of rebel group fractionalization and spoiler dynamics on the likelihood of durable peace (cf. Stedman 1997; Kydd and Walter 2002). Relatedly, a few quantitative studies have explored how the presence of multiple rebel organizations facing the same government affects the duration (Cunningham 2006) and outcome of conflicts (Nilsson 2008; D. Cunningham, Gleditsch, and Salehyan 2009; K. Cunningham 2011). Finally, there are some recent studies that address the related question of rebel group fragmentation (Christia, forthcoming) and ethnic defection where segments of the group break away to join the state (Staniland 2012).

The studies that are most relevant to our research question are, however, those that explicitly address the violent interaction between rebel groups. In a study of intraethnic violence in Sri Lanka, Lilja and Hultman (2011) examine why rebel groups in ethnic conflicts target their coethnic rivals. They argue that the rebels engage in such violence so as to establish dominance over their ethnic constituency. Similarly, Christia (2008), who studies intraethnic violence among Muslims in the Bosnia civil war, proposes that high economic payoffs, in combination with strong local elites that provide access to such benefits, can push people into fighting against their coethnics. However, it is difficult to assess the scope conditions and generalizability of the arguments made in these two in-depth studies of particular conflicts.

K. Cunningham, Bakke, and Seymour (2012) study the determinants of violence between rebel groups within a random sample consisting of twenty-one separatist conflicts.[2] They argue that the incentives to use violence to eliminate rivals are greater when there are many groups. Their results suggest that a higher number of nonstate actors within the self-determination movement are associated with an increased risk of violence between the groups. This is particularly the case if the actors already use violence. K. Cunningham, Bakke, and Seymour's study represents an important step forward in the effort to understand the context of interrebel

fighting in civil war. We build on their insights and contribute theoretically by moving beyond the focus on the number of groups, and empirically by expanding the empirical domain beyond only self-determination movements.

Theory of Rebel Strategy and Interrebel Violence

In civil wars, there are often a number of rebel groups that simultaneously pursue similar policy aims in their interaction with the government. In the shadow of its armed contest with the government, each group is forced to take into consideration the presence of other rebel groups. In this article, we focus on one undertheorized and empirically underexplored aspect of this interaction: the conditions when rebel groups engage in armed conflict with other rebel groups.

We start from the assumption that rebel groups have two overall goals: first, to maximize the political concessions that they can obtain (where defeating the government, at least for some groups, would yield the most optimal outcome) and second, to maximize the material spoils that can be distributed among those that participate in the rebellion. These two goals are related: governmental concessions regarding decision-making power or territorial autonomy generally entail selective rewards to those who partake in the struggle, and the distribution of spoils is often critical to sustain a rebellion (given incentives to free ride in producing such public goods; cf. Lichbach 1995). How groups prioritize between these goals might vary over time and across groups, depending on the tactical horizon of the group. Short-term concerns for resource mobilization, rather than long-term policy goals, sometimes take precedence in the decision making of rebels.

In light of the rebel group's goals, its involvement in armed contests with other rebel groups represents a puzzle. Since the rebel group operates under resource constraints, it must decide whether to use its resources on the armed contest with the government or on other nonstate actors. Fighting other groups engages resources that could otherwise be devoted to the armed contest with the government. Violent divisions and armed conflict between groups weaken the nonstate opposition, and the government hence seems to be the main beneficiary of fighting between groups on the rebel side. Given that the rebel–government conflict is so vital, how can rebel groups afford to fight among each other? Should not utility maximizing rebel groups shun away from military clashes with other rebel groups?

We suggest that interrebel violence should be understood as expressions of an underlying rivalry among the nonstate actors over economic resources, as well as political leverage vis-à-vis the government. Generally, a rebel group has greater prospects of obtaining its policy aims and secure the necessary funding of its fighting force when it has a secure base for resource mobilization, and when it can claim to be politically relevant vis-à-vis the government and the civilian population.

Distributional conflicts between rebel groups, that is, conflicts over who gets what and how much, can be traced along two dimensions. First, a rival group can threaten the wartime resource mobilization capacity of the rebel group and thereby

challenge the viability of the rebellion. Interrebel conflicts, accordingly, are spurred by competition over scarce resources. In these cases, the economic returns from interrebel fighting might outweigh any initial costs. The payoffs can be short term, for example obtaining weapons or finance, or long term, for example securing access to natural resources or civilian support networks that boost their war-fighting capacity. Since resource constraints are often a major impediment against the viability of an efficient rebel movement, the ability to raise revenue is tightly linked to the growth of a rebel group and its ability to extract concessions from the government. Second, distributional conflicts can, as K. Cunningham, Bakke, and Seymour (2012) note, emerge as actors compete for "political relevance." More specifically, the rise of rival organizations can challenge the group's claim of being the only legitimate organization that provides for the needs of the civilian population; the group's rents from governmental cooptation policies; and its bargaining leverage if it is no longer the sole negotiation partner of the government. Where rival groups challenge the distribution of spoils along these dimensions, we expect to see interrebel fighting.[3]

Our theoretical focus thus presumes that fighting between rebel groups should be understood in the context of the civil war in which the group partakes and that interrebel fighting often will make sense when considering group gains in relation to the government conflict. These are simplifying assumptions, and we do recognize that interrebel violence, as other forms of violence that occur within the context of civil war might often reflect "local conflicts and personal disputes" (Kalyvas 2006, 14) rather than the conflict's master cleavage. At the level of the individual—as well as at the group level—conflict with other nonstate actors can be driven by multiple concerns, such as revenge or greed. Yet, when looking across cases and over time, a more general logic may underlie the violence, centering on group rivalry over material resources and political influence.

The preceding theoretical framework does not consider how social ties between rebel organizations influence the likelihood of conflict between groups. Group interaction is primarily interpreted in relation to the contest with the government. In practice, however, interrebel relations will be modified by the presence of ideological ties, ethnic affinities, or former collaborative behavior. Literature on the role of ethnicity in armed conflict would suggest that such ties facilitate collective action, both through shared preferences and by reducing coordination costs.[4] Social ties between rebel groups should according to this line of reasoning enhance the likelihood of cooperation and reduce the risk of interrebel conflict, everything else equal. The counterargument is, however, not trivial. When there are multiple groups claiming to represent the same constituency, interaction is likely to take on a zero-sum character. If the support base among purported constituents is narrow, groups might fight each other off to become the sole representative of that constituency (D. Cunningham, Gleditsch, and Salehyan 2009). Hence, these arguments point in opposite directions, and it is difficult to deduce theoretically the impact of social ties on the patterns of interrebel fighting, or how these interact with other factors. Ultimately, the question

of how social ties influence patterns of cooperation versus conflict among rebel groups is an empirical one. Unfortunately, it is not one we can answer with the data currently available.[5]

Previously we argued that interrebel fighting erupts when rival groups pose a salient threat to the resource mobilization capacity or the political leverage of the group. In the following sections, we elaborate on four conditions that accentuate these dimensions in the relationship between rebel groups. In short, we suggest that the group's resource mobilization effort is particularly vulnerable to rival groups when it relies on the extraction of valuable natural resources and when the group operates in zones of territorial control beyond government reach. Moreover, the quest for political leverage, which can bring groups into conflict with other groups, will be strongest for groups that are either weak or strong relative to other groups in the conflict and when the state adversary is weak. We discuss each of these conditions in turn, and outline how these are linked to interrebel violence.

Natural Resources

The above argument suggests that there will be more interrebel fighting in civil wars where the rebel organizations can fund their struggle through the sale of valuable natural resources, compared to civil wars where rebel groups' resource mobilization strategies are built around sources of income less susceptible to expropriation. Resource constraints are often a major impediment against the formation and duration of an efficient insurgency movement (cf. Weinstein 2007). The extraction of natural resources provides a way of overcoming this resource constraint (Le Billon 2003). With access to easily extractable and valuable natural resources, such as diamonds, oil, drugs, and other contraband, groups can supply themselves with weapons and other equipment, and facilitate recruitment efforts through the use of additional material incentives (Gates 2002; Weinstein 2007).

So-called lootable natural resources are thus often a critical aspect of a rebel organization's material strength. Yet, a group that builds its revenue base around access to natural resources also makes itself more vulnerable to challenges from other actors. Compared to resource mobilization through social and ideological ties, or by the help of foreign patronage, the extraction of diamonds, drugs or other contraband have relatively low-entry barriers for rival groups. The ability to extract natural resources is primarily conditioned on having military control of the resources. Social ties and ethnic affiliations, in contrast, are difficult to manipulate, and political credentials often take a long time to build up. Moreover, neither of these endowments can easily be appropriated by rival groups through the use of military means. Where a rebel group's wartime wealth generation rests on the access to natural resources, the group is hence more exposed to violent threats from rival groups.

There is also anecdotal evidence that fighting between rebel groups reflect distributional conflicts over natural resources (Ross 2004). Collier (2000, 103), for example, notes that armed conflict between groups is a consequence of rebel groups'

efforts to create a monopoly of predation in areas where the economic returns to such action is high. To illustrate, clashes between rival rebel organizations in the Shan region in Myanmar have been linked to the groups' efforts to control the lucrative heroin trade. In the first half of 1990, between 200 and 700 rebels lost their lives in interrebel fighting between the Mong Tai Army and the United Wa State Army over control over opium fields and drug trade routes (UCDP 2009).

To summarize: where present, natural resource wealth often constitutes a sizable part of the resource mobilization capacity of a rebel group. Yet, the opportunity for violent appropriation makes resource-endowed rebel organizations vulnerable to threats from rival groups. We therefore expect conflicts over resource wealth to give rise to armed conflict between rebel groups.

Hypothesis 1: Rebel groups that fight in areas with oil, diamonds, or drug production are more likely to engage in interrebel violence.

Territorial Control

The quest to secure the necessary material resources to sustain a rebellion furthermore suggests that armed conflict with other rebel groups is more likely for rebel groups that have established a territorial zone of control, out of government reach. In order to establish control over territory, rebel groups must often accept sustained military battles against government forces. The willingness to suffer these high costs stems from the rebel group's ability to reap valuable long-term benefits from territorial control. Control spawns collaboration, as rebel groups can strike cooperative bargains with the civilian population that provide the rebel group with recruits, food, housing, and information, in exchange for protection (Kalyvas 2006; Weinstein 2007; Holtermann 2009).

What are the implications of territorial control for the actors' use of violence? Discussing fighting between government and rebel forces, D. Cunningham, Gleditsch, and Salehyan (2009) note that territorial control translates into longer civil war through "the power to resist," as a rebellion can be sustained out of reach of the government's repressive capacity. Presumably then, fighting between these actors occur outside of this zone. Kalyvas (2006) similarly predicts lower degrees of violence against civilians in areas where a warring actor's control is uncontested. Selective violence is used to punish defection, but since territorial control spawns civilian collaboration, warring actors have less incentive to use violence. For violence between rebel groups, however, we anticipate a different dynamic. We expect more interrebel violence in areas where rebel organizations have territorial control outside of government reach, for example, in peripheries, hinterlands, or inaccessible territories.

Zones of territorial control, that is areas not contested by government military, are often the backbone of a rebel group's resource mobilization capacity. Out of reach of government forces, rebels can strike cooperative agreements with civilians that

buttress the group's material strength to fight sustained battles against the government outside of these zones (Humphreys and Weinstein 2006; Kalyvas 2006). The operation of rival rebel organizations within this area can undermine the preconditions for long-term civilian collaboration. Where several groups claim to represent and provide for the civilian population, and where one actor's security provisions vis-à-vis the civilians is challenged by rival rebel groups, it might trigger outbidding dynamics among the rebel groups and violent attempts to eliminate the rival.

Most rebel organizations have a lot of discretion in determining where to establish their bases, based on strategic concerns such as assessments of government's military reach and financing opportunities (Buhaug 2010). Rebel groups are therefore likely to be drawn to the same areas of operation, whether these zones are initially chosen for the low degree of state penetration or the zones are carved out through fighting with the government. As the number of rebel groups in an area increases, and the groups compete for support and resources from the same population, the smaller is the share of support and resources for each group. Rebel groups that control territory have more to lose from the presence of nonstate contenders, and are therefore particularly likely to fight rival rebel groups.

The fierce battles that have dominated the relations between the Nagaland rebel groups in North East India are a case in point. During several years, the National Socialist Council of Nagalim-Isak-Muviah (NSCN-IM) faction has been the dominant actor in the economically important Dimapur area. Here, it operates parallel structures of taxation on the flow of goods that are critical to the group's resource mobilization. Challenges to their control of this important area from the NSCN-Khaplang and NSCN-Unity faction have been met with violent resistance (IDSA 2008).

In contrast, we should expect less armed conflict between groups when the rebel organizations have not been able to establish a zone of control where they are uncontested by the government. First, the allocation of resources to eliminate rival rebel groups becomes more costly when the rebel group simultaneously face government forces. It is when rebel groups are uncontested by the government that the axis of the conflict might shift to other rebel organizations. Second, in the absence of territorial control, rebel groups have lower rewards from civilian collaboration, and the activities of rival groups pose a less direct threat to the resource mobilization capacity of the group. Based on the preceding reasoning, we derive the following expectation:

Hypothesis 2: Rebel groups with zones of territorial control are more likely to engage in interrebel violence.

Rebel Group Strength

The two factors discussed above predict interrebel violence in response to threats from nonstate rivals against the resource mobilization capacity of the rebel group. In addition, rebel groups within the same country compete for political recognition

and influence. Short of outright victory, groups seek to maximize the concessions that they can get from the government. Governments seek to minimize their concessions. One predominant strategy of doing so is to follow a divide-and-rule logic and limit the number of groups they accommodate (cf. Johnston 2007). Rebel groups are therefore vulnerable to political marginalization and the prospect of being left on the sideline when the state seeks negotiated compromise with segments of the armed opposition. Hence, groups have incentives to do away with rival groups that threaten their leverage in the bargaining with the government. The incentives underlying this conflict depend on the relative strength of the rebel group vis-à-vis the other rebel groups. In short, we argue that groups that are weak or strong relative to the other groups in the conflict have incentives to engage in violence to weaken other groups, prop up their own strength, and attempt to alter the situation to their own advantage.

Existing research suggests that the ability to extract concessions from the government increases with the military strength of the rebel group (D. Cunningham, Gleditsch, and Salehyan 2009; Nilsson 2010). Yet, once seated at the negotiation table, even small groups can be expected to get some degree of influence and a share of the spoils. This creates incentives for strong groups to fight off competing groups. In addition to being forced to share the pie with many others, Nilsson (2010) shows that strong groups are particularly disadvantaged by the presence of multiple parties when it comes to their ability to get concessions from the government. The government has incentives to reduce the number of fronts they are fighting and thus seek to "win away pieces" when bargaining with the rebels (Zartman 1995). Therefore, the weaker groups gain substantially in leverage, relative to their modest troop size, when there is many rebel groups in the conflict. Disadvantaged by the presence of the weaker rivals, strong rebel groups might seek to eliminate these groups to regain an upper hand in the bargain over the future allocation of political power. This dynamic is, for example, displayed in the fierce battles between Burundi rebel groups Party for the Liberation of the Hutu People-Forces for National Liberation (Palipehutu-FNL) and National Council for the Defence of Democracy (CNDD) in Murwi 1997. The fighting was allegedly spurred by the militarily strong Palipehutu-FNL's dissatisfaction that the increasingly militarily marginalized CNDD had decided to initiate talks with the government (IRIN 1997).

The groups that are weak, relative to the other groups in the civil conflict, should also be more likely to be involved in interrebel fighting. First, and related to the above argument, weak groups make easier targets for strong groups that seek to improve their own bargaining position. Weak groups might hence be forced into battles with other groups that they did not wish for in the first place. Yet, weak groups also have incentives to bid for political recognition and influence through fighting off other rebel groups in the conflict, since their potential gains relative to their weak position is higher than for stronger groups.

In sum, we expect a parabolic relationship to hold between relative military strength and the risk that a group engages in interrebel fighting. Strong groups are likely to see the targeting of rival groups as a feasible strategy, with high payoffs

in terms of optimizing the bargaining situation with the government. Weak groups are also likely to fight with other groups, both because they have much to gain from trying to take on rival rebel groups, and because other groups will find them to be easier targets.

Hypothesis 3: A rebel group that is militarily strong, or weak, compared to the other rebel groups in the conflict, is more likely to experience interrebel violence.

Government Weakness

Another factor that will influence the rebel groups' perception of being competitors over future political access and political authority is the structural characteristics of the state. We argue that rebel groups that face a weak state will be more concerned about their own relative position vis-à-vis the other groups and thus have stronger incentives to fight them off, compared to groups that face a strong state. Where the state is no longer able to exercise its authority in an efficient manner, the axis of conflict is likely to shift away from the state toward other rebel groups since the group anticipates that its future political influence will depend on the power relations among them.

The primacy of the state in studies of civil conflict builds on the notion that the state is the primary bargaining partner of the armed opposition groups and is seen as the actor with the *de jure* power to make concessions regarding the territorial or political organization of the state. Yet, the *de facto* powers of many governments that are engaged in armed combat with segments of their own society are often severely weakened. This is true for most civil war countries. As noted by Fearon and Laitin (2003), countries where war breaks out are marked by their organizationally weak and badly financed police and military capabilities.[6] Sustained campaigns of armed force by nonstate actors testify to this weakness. Ongoing conflict could also further erode the state's military and administrative capacity by, for example, restricting the government's ability to control and tax territory in its periphery, and inhibiting wealth creation (Collier 1999; Thies 2010).

States with weak coercive power create opportunities for nonstate actors to engage in armed struggle against each other (Skaperdas 2002; Bates, Greif, and Singh 2002; Mehlum, Moene, and Torvik 2002). Yet, a state that is weak in its coercive power might still enjoy a relatively higher degree of legitimate political authority in the eyes of nonviolent political factions in society, the civilian population, and the international community (Levi 2006; Fjelde and de Soysa 2009). We argue that as long as the state is able to retain politically cohesive state institutions, rebel groups will focus its efforts on the fight against the government. However, when these political institutions disintegrate, the primacy of the state as the rebels' main bargaining partner is put in question. The more fragmented political authority, the more rebel groups will be concerned about their relative position vis-à-vis other rebel organizations that also aspire for political influence in the vacuum left by the government. Where the state is weak, the distributional outcome of the conflict becomes more dependent on the different rebel organizations' relationship to each

other, rather than on their relationship to the government. Rebel groups will focus on improving their position relative to other groups and will have incentives to try to eliminate rivals.

The situation in Afghan in the early 1990s is a case in point. After the Soviet withdrawal, the defection of most parts of the Afghan military to Mujahedin forces, and several coup attempts, the Afghan government was virtually powerless, enjoying little or no credibility. Between 1992 and 1996, many of the fiercest battles took place between rival militia groups and warlords in control of their respective pockets of Afghan territory (UCDP 2009). In short, where the state is weak and its authority is fragmented, the threat of political irrelevance or even annihilation from other groups is particularly likely to lead to interrebel conflict.

Hypothesis 4: Rebel groups that are fighting in weak states are more likely to engage in interrebel violence.

Research Design

Unit of Analysis and Dependent Variable

We proceed to examine the above hypotheses in a large-N framework. The unit of analysis is group-year. To construct our data set, we rely on a list of rebel groups that are involved in intrastate-armed conflict with a recognized government between 1989 and 2007 from the UCDP's dyadic data set v.1-2009 (Harbom, Melander, and Wallensteen 2008).[7] On the basis of this list, we start by identifying all conflicts that involve two or more rebel groups. This represents an appropriate sample of cases since our research question requires cases where all involved groups have at least one potential rebel group to fight with.[8] With this set of cases, we include only groups that we know have other possible rebel contenders—and are thereby able to examine variation in interrebel conflict.

Next, we construct the time-series data set by adding annual observations for each rebel group. A group enters the data set the first year that it is active in an armed conflict with the government, that is, the first year that this rebel–government dyad reaches twenty-five battle deaths following UCDP coding rules. We observe the group until the end of our observation period in 2007, unless the group is eliminated or the conflict ends before this. More specifically, if a conflict is terminated with either the rebel side or the government side being victorious, we do not add annual observations beyond this date; if the conflict is classified as a coup, we only include the active year; and if a conflict is terminated simply by low conflict activity, that is, if violence between the government and a rebel group is claiming less than twenty-five annual battle deaths, we stop observing the rebel group after five consecutive years of low activity.[9] In other words, it is the rebel group's conflict behavior in the armed conflict with the government that determines when a rebel group enters or exits our data set. The intermediate years in which the rebel group does not reach twenty-five battle deaths with the government are, however, still included in our

analysis, as long as the period of inactivity is no longer than five years, since the rebel group exists and could potentially engage in interrebel fighting.

Our dependent variable—*Interrebel Conflict*—is a dummy variable taking the value of 1 if the rebel group is engaged in an armed conflict with another rebel group, which results in at least twenty-five battle-related deaths that year, and 0 otherwise. The data on armed conflicts between nonstate actors are from the UCDP. A nonstate conflict is defined by the UCDP as "the use of armed force between two organized armed groups, neither of which is the government of a state, which results in at least 25 battle-related deaths in a year" (Sundberg 2009). According to the definition, a formally organized group is a nongovernmental group that has announced a name for its group and is using armed force against another similarly formally organized group.[10]

The UCDP nonstate data set includes a broad range of conflicts between different types of nonstate actors, including not only rebel groups but also between for example political parties, clans, or ethnic groups.[11] Thus, while the broader category of nonstate conflicts in the UCDP data set include, for example, communal violence between informally organized groups that have no incompatibility with the state, we focus on nonstate conflicts that occur within the context of a civil conflict. Our criterion for inclusion is that the combatants either are or have previously been part of a rebel group engaged in armed struggle with a recognized government.[12] Even though the interrebel violence that we study is taking place within the context of a civil conflict, importantly, the violence that occurs in the rebel–government dyad and the violence in the rebel–rebel dyad are mutually exclusive categories in the UCDP data.

Since we focus on nonstate conflicts where both combatants either are or have been part of a rebel group that is involved in armed conflict with the government, we include armed conflicts that occur between a rebel group and a faction of a rebel group, even if the latter has not yet reached the twenty-five battle-death threshold in the government fighting. We also include nonstate conflicts between rebel organizations that are active in different conflicts within the same country. We exclude from our dependent variable all fighting that occurs between a rebel group and government-sponsored militias, such as the Janjaweed in Sudan. Moreover, we only study rebel groups fighting each other within the borders of the state and thus exclude all nonstate violence that takes place within a different country from where the rebel group has its contested political incompatibility.

Some of our theoretical propositions could be rephrased and examined in a dyadic setup where the unit of analysis is a pair of rebel organizations. A dyadic research design would, however, require us to know all the relevant pair of dyads, and since we do not know the universe of cases of rebel groups that are active below the twenty-five battle death threshold, a dyadic setup would restrict our sample only to rebel groups that are active above this threshold in the conflict with the government. We would thus have to exclude from our dependent variable all nonstate conflicts that involve rebel group factions that have not yet themselves been

active above the level of twenty-five battle-related deaths. This would be unfortunate, as this type of violence is an important part of the phenomenon we seek to explain. Moreover, there are currently not much data available that focus on the relationships between rebel groups; suggesting that we would not gain much in that regard by moving to a dyadic research design. A last concern is that, placing further restrictions on our sample and dependent variable—beyond the restricting conditions we have already set—would be very demanding on the limited data that are yet available on this phenomenon, and reduce the number of conflicts in our sample. Thus, while a dyadic design may be beneficial for some reasons, we leave it for future research to explore interrebel violence in a dyadic setting as new data becomes available.

Independent Variables

To examine our hypothesis on natural resources, we use data from Buhaug, Gates, and Lujala (2009). We separate between three types of resources: oil, gemstones, and drugs.[13] *Oil* is a dummy variable that takes the value of 1 if oil and gas is present in the conflict zone. The variable *Gemstones* takes the value of 1 for all years there was significant gemstone production—alluvial diamonds, ruby, sapphires, opal, or jade—in the conflict area. The variable *Drugs* is coded 1 if there, at the outbreak of the conflict, was any drug cultivation of opium poppy, coca bush, or cannabis in the conflict zone. The variable *Territorial Control* is from D. Cunningham, Gleditsch, and Salehyan (2009) who code a dummy variable indicating whether the rebel group controls territory, typically in peripheral areas or inaccessible territories outside the coercive reach of government forces.[14] They elaborate on this variable as zones "that can provide rebels considerable security from the reach of the government" (D. Cunningham, Gleditsch, and Salehyan 2009, 575). In order to assess our hypothesis on rebel strength, we first create a measure that captures the rebel group's strength in terms of number of troops, relative to the combined troop strength of all rebel groups in the conflict. Based on this measure, which runs from 0 to 1, we create two dummy variables: *Strong Rebel*, which takes the value of 1 for all rebel groups where the fraction of troops is between 0.66 and 1, and *Weak Rebel*, which is coded 1 for all rebel groups where the fraction of troops is between 0 and 0.33.[15] Thus, the reference category is the rebel groups that are relatively equal in military strength compared to other groups in the conflict. For these variables, we rely on data on troop strength from D. Cunningham, Gleditsch, and Salehyan (2009) and where this source does not contain any information we have used data from UCDP.[16] Finally, to examine our hypothesis on disintegrating political authority, we use the Polity data set to identify inconsistent political systems, that is, regimes that are neither autocratic nor fully democratic (Marshall and Jaggers 2008). Fearon and Laitin (2003, 81) argue that the mix of different political institutions indicate "political contestation among competing forces and, in consequence state incapacity."[17] The variable

Weak State is coded 1 if the political regime scores between −5 and +5 on the polity scale, and 0 otherwise.

Control Variables

We include a number of control variables related to actor characteristics and conflict dynamics that we suspect could influence both our independent and dependent variables, and lead us to observe spurious relationships. First, we control for the nature of the incompatibility, that is, whether the rebel organization fights for territorial concessions or to overthrow the government. These data come from the UCDP, and the dummy variable *Incompatibility* denotes whether the conflict is fought over government power, with territorial conflict as the reference category. Second, we control for the intensity of the conflict with the government. The dummy variable *Rebel Group at War* is coded 1 for those years that the rebel group's fighting with the government claims at least 1,000 battle-related deaths. Since several of the independent variables could be related to the time that the rebel organization has been active, we include a control for *Rebel Group Duration.* This variable simply counts the number of years the rebel group has been in conflict with the government. Moreover, the involvement of external actors could potentially influence both the incentives and the capacities for interrebel fighting. For example, foreign governments might choose to contract rebel groups to outmaneuver rival rebel groups that are deemed threatening to the foreign government's political aims, and also provide money and weapons to the rebel allies to pursue this agenda. We therefore include a control for *Foreign Support,* which measures whether the group receives support from a foreign government. These data are from D. Cunningham, Gleditsch, and Salehyan (2009). Finally, the degree of ethnic mobilization can both influence the rebel group's degree of territorial control, the strength of the group and the group's motives for engaging in interrebel violence. *Ethnic Mobilization* is a dummy variable, taking the value of 1 if the group is mobilized along ethnic lines and 0 otherwise. These data come from Forsberg (2009). Where this source provides no information, we complement these data with data from Eck (2009).

Estimation

For our statistical analysis of the determinants of interrebel violence, we employ logistic regression. To account for the fact that our units of observations are not independent over time, we include a control for time since *Previous Interrebel Conflict* and three cubic splines. Because interrebel conflicts are of short duration, and most of them do not involve events over consecutive years, we believe this setup is sufficient to handle autocorrelation in our dependent variable. However, in alternative specifications, we also use a lagged dependent variable. Our data design with group-year as the unit of analysis implies that nonstate armed conflicts that involve two rebel organizations that are active in civil conflict with the government will occur

Table 1. Descriptive Statistics

	Obs	*M*	*SD*	Min	Max
Interrebel conflict	752	.089	.285	0	1
Oil	752	.688	.464	0	1
Gemstones	752	.424	.495	0	1
Drugs	752	.181	.385	0	1
Territorial control	752	.302	.459	0	1
Strong rebel	752	.25	.433	0	1
Weak rebel	752	.456	.498	0	1
Weak state	752	.491	.500	0	1
Incompatibility	752	.673	.469	0	1
Rebel group at war	752	.096	.294	0	1
Rebel group duration	752	9.952	8.717	0	51
Foreign support	752	.309	.462	0	1
Ethnic mobilization	752	.751	.433	0	1
Number groups	752	3.051	1.184	2	7

at two places in our data with one event for each respective group. To account for the fact that these reports of conflicts are not independent of each other, we report robust standard errors by clustering on the conflict with the government. We have also tried clustering on country and rebel group, and the results are robust to such alternative specifications.

Results

We present descriptive statistics for all our main variables in Table 1. In our sample, there are eighty-eight rebel groups active in thirty-seven civil conflicts, and on average there are three rebel groups in each conflict. Out of the eighty-eight rebel groups, there are twenty-five rebel groups that at some point are engaged in interrebel violence. Some rebel groups are involved in repeated occurrences of such violence, resulting in a total of sixty-seven years of interrebel conflict.[18]

The empirical results are reported in Table 2. Model 1 is a comprehensive model with all our main control variables included. In model 2, we retain only those control variables that show significant effects from the previous model. We use this latter model as our point of reference in discussions and robustness tests unless otherwise noted. Table 3 presents the predicted probabilities for our independent variables.

We start by evaluating our hypothesis regarding valuable and extractable resources in the conflict zone.[19] The different types of resources seem to have different impact on interrebel conflict. We find a positive correlation for oil and gas production, but it is only statistically significant at the .10 level in our preferred model (model 2). The correlation between gemstones production and interrebel violence is negative (significant at the .10 level), whereas drug production, on the other

Table 2. Logit Estimations: Determinants of Armed Conflict between Rebel Groups

	(1)	(2)	(3)	(4)
Oil	0.792 (0.498)	0.832† (0.471)	1.013* (0.439)	0.887† (0.502)
Gemstones	−1.017* (0.506)	−1.022† (0.522)	−1.010† (0.516)	−0.997* (0.499)
Drugs	1.968** (0.731)	1.815** (0.625)	1.368* (0.643)	1.821** (0.634)
Territorial control	0.982** (0.381)	0.989** (0.372)	0.910* (0.386)	0.962* (0.395)
Strong rebel	1.609* (0.785)	1.525* (0.663)	1.420* (0.697)	1.530* (0.670)
Weak rebel	2.122** (0.639)	2.036** (0.566)	1.737** (0.607)	2.114** (0.562)
Weak state	1.776** (0.419)	1.609** (0.364)	1.419** (0.395)	1.646** (0.426)
Incompatibility	−0.265 (0.462)			
Rebel group at war	−0.100 (0.546)			
Rebel group duration	0.003 (0.021)			
Foreign support	1.370** (0.446)	1.358** (0.367)	1.310** (0.397)	1.346** (0.349)
Ethnic mobilization	1.119† (0.616)	1.140* (0.579)	0.922* (0.454)	1.254* (0.617)
Previous interrebel conflict	−1.527** (0.403)	−1.547** (0.406)		−1.529** (0.416)
Interrebel $\text{conflict}_{\text{lag}}$			2.151** (0.327)	
Number groups				−0.095 (0.275)
Constant	−6.050** (1.134)	−6.078** (1.097)	−7.241** (1.135)	−5.986** (1.129)
Observations	752	752	683	752
Interrebel conflicts	67	67	60	67

Note: Robust standard errors in parentheses. Three cubic splines are included in the estimations in models 1, 2, and 4.
†Significant at .1. *Significant at .05. **Significant at .01. "Two-tailed tests" are used.

hand, is positive (significant at the .01 level). Both gemstones and drugs are valuable resources that are easily extractable by rebel groups. Why do we get such diverging results for these two variables? One explanation might be found in the construction of the measures. The gemstones variable is a measure of whether there is significant annual production of gems. Some scholars have argued that rebel groups that wish to loot resources might choose to allocate time from fighting to resource extraction and that this might lead to limited fighting or even collaboration between rebel organizations (Addison, Le Billon, and Murshed 2003). If there is a substitution between fighting and resource extraction for rebel groups, this is consistent with the finding that a lower production of gemstones is associated with less interrebel fighting. The drug-cultivation measure, on the other hand, measures the presence of drug cultivation at the *outbreak* of the civil conflict. Hence, this measure is not to the same extent endogenous to the conflict behavior. We also note that previous research on conflict duration and intensity likewise find very diverging results for different resources within the same models (cf. Buhaug, Gates, and Lujala 2009; Lujala 2008).

The results for our second hypothesis confirm the expectation that rebel groups that have established control over territory are more likely to engage in interrebel fighting. The coefficient for territorial control is positive and significant at the .01 level in our preferred model. The association between territorial control and conflict risk is also significant in substantive terms: holding the value of all other variables constant, the risk that a rebel group will be involved in interrebel violence

Table 3. Change in Probabilities Using Clarify

	0 (percentage)	1 (percentage)	First differences (percentage)	95 percent confidence intervals	
Oil	0.29	0.58	0.29	−0.04	1.32
Gemstones	0.58	0.26	**−0.32**	**−1.32**	**−0.01**
Drugs	0.58	3.29	**2.71**	**0.26**	**10.60**
Territorial control	0.55	1.36	**0.80**	**0.11**	**2.82**
Strong rebel	0.52	1.90	**1.38**	**0.31**	**3.29**
Weak rebel	0.55	3.11	**2.56**	**0.92**	**5.35**
Weak state	0.57	2.36	**1.79**	**0.35**	**5.58**

Note: All continuous variables are held at their median values, while categorical variables are held at their modal value. Significant effects at the .05 level marked in bold. Estimations were made using the Clarify software (Tomz, Wittenberg, and King 2003).

more than doubles if the rebel group controls territory (see Table 3). Previous research has found that when rebel groups are in control over territory, the conflict with the government is more likely to become protracted (D. Cunningham, Gleditsch, and Salehyan 2009). Our results show that rebel groups with territorial control also have a higher likelihood of fighting with other rebel groups.

Next we evaluate Hypothesis 3, which suggests that a rebel group that is strong, or weak, in relation to the other rebel groups in the conflict is more likely to engage in interrebel fighting. The variable *Strong Rebel* is in the expected direction and statistically significant at the .05 level. Rebel organizations that control a large number of troops relative to other groups are more likely to engage in such violence, as compared to rebel groups that are about equal in strength. Also the weak rebel groups have a higher risk of armed conflict, when compared to those groups that neither dominate, nor are inferior to the other rebel groups: the coefficient for *Weak Rebel* is positive and significant at the .01 level. In an alternative specification, we have tried to use a scale variable that captures the rebel group's strength in terms of number of troops, relative to the combined troop strength of all rebel groups in the conflict, and its squared term to model a parabolic relationship. In line with the hypothesis, both variables are significant at the .01 level (not reported here). It is interesting to note that we find both territorial control and relative troop strength to be important determinants for interrebel violence. This in line with D. Cunningham, Gleditsch, and Salehyan (2009) argument that territorial control is often independent of rebel strength.

Finally, we investigate the relationship between state weakness and the risk that the group will fight other groups. In line with our hypothesis, we find that rebel groups in states with incoherent political institutions display a higher likelihood of becoming engaged in interrebel violence. The coefficient for *Weak State* is positive and statistically significant across all models. The results suggest that when the

rebel group is fighting against a weak state, compared to a state that is not weak, the annual predicted risk increases from 0.6 percent to 2.4 percent.[20] This is consistent with the notion that when the political authority of the state disintegrates, rebels perceive the distributional outcome of the conflict to become more dependent on their power relations vis-à-vis other groups, thus increasing their incentives to try to eliminate rival groups.

Turning to the control variables, we find strong support across our models that rebel organizations receiving support from foreign governments are more likely to fight other rebel groups. As noted earlier, foreign patronage might enhance the incentives and capacity for rebel groups to use violence against other groups. Moreover, if foreign governments sponsor rebel groups as a way to exercise influence or wage war by proxy, the incentives for interrebel violence can also be related to strategic concerns beyond the territorial confines of the civil conflict. The results further suggest that groups who mobilize along ethnic lines are more likely to engage in armed conflict with other rebel groups. This result can be interpreted in line with the overall theoretical framework. Rebel groups that mobilize on the basis of ethnicity often have a narrowly defined and territorially bound constituency from where they can seek support (Kaufman 1996). When contrasted with groups that mobilize on ideological or political grounds, the appeal to ethnic loyalties is far less fluid. The consequence of the limited opportunity to operate in other areas, we think, is that ethnically based groups are more vulnerable to local contenders. Particularly, rebel groups could be threatened by coethnic challengers, since such groups are likely to compete for support within the same or overlapping constituencies. This is in line with recent findings by Lilja and Hultman (2011) in Sri Lanka, who argue that rebel groups may target coethnic rivals as a way of increasing their dominance within their ethnic constituency. Future research should probe this issue further.

In addition to the estimations reported in our main models, we have conducted a number of tests to ensure that our results are robust to alternative specifications.[21] A first concern is that our control for a previous conflict history is not sufficient to capture time dependence in our dependent variable. Whereas interrebel conflicts generally are of shorter duration than civil conflicts, and rarely have conflict events that span more than one year, some of the conflicts are recurring in consecutive years. In Table 2, model 3, we report a model where we include a lagged dependent variable instead of the specification with a count of the years since previous conflict and three cubic splines. The results remain almost identical.

Based on the findings from K. Cunningham, Bakke, and Seymour (2012), it might also be important to account for the number of groups. In Table 2, model 4, we include a variable counting the number of rebel groups in the conflict. All our findings are robust to the inclusion of this variable and the number of groups is not itself significant. Hence, armed conflict between rebel organizations is not simply reflecting the increased intensity of interaction that might follow when there is a higher number of groups in the conflict. The divergent results from K. Cunningham, Bakke, and Seymour's study might result from the differences in the

sample, as their study focuses only on self-determination conflicts and includes both violent and nonviolent groups.

Since there is little previous research to guide us with regard to the control variables, we have also tried to include a number of additional controls. The results reported are robust to the separate inclusion of the log of gross domestic product (GDP) per capita, the log of population, ethnic fractionalization, and a number of geographical controls, including forest in conflict zone, and distance from conflict zone to the capital (not reported in tables).[22]

Conclusion

The conduct and organization of civil warfare is, according to Blattman and Miguel (2010, 21) "one of the most promising and understudied areas in the literature on conflict . . . "The aim of this article has been to address a pivotal aspect of this research gap by providing the first global study on the determinants of armed conflict between rebel groups, using new data on this from the UCDP. To understand why we see interrebel fighting in some conflicts and not in others, we identify four conditions that increase a rebel group's incentives to try to eliminate other nonstate rivals. In line with the theory, we find that the risk of being involved in interrebel fighting is higher for rebel groups that operate in areas with drug cultivation, groups that control territory out of reach of government forces, groups that are militarily strong or weak in relation to other groups, and rebel groups that face a weak government.

There are, however, also limitations to our study, which suggest important avenues for future research. To begin with, these data that are currently available does not allow us to discriminate between the initiators and the targets of nonstate violence in civil conflict, nor do we have information on the prefighting relations between the groups, such as shared ideological ties, shared ethnic base, or previous patterns of cooperative behavior. Should such data become available, it would be pertinent to proceed to a dyadic research design and examine which pairs of rebel groups are most likely to fight each other. Moreover, we recognize that there is a gap between the theoretical framework we develop regarding the strategic incentives for interrebel violence and the empirical analysis of the phenomena. Whereas we present empirical evidence that is generally consistent with our theory, we think more work could be done in terms of specifying the mechanisms at work. First, systematic data on the incompatibilities of the nonstate conflicts could bring us closer to understanding the incentives of the rebel groups for fighting other groups. Second, georeferenced data on the location of the interrebel fighting could shed light on how this type of violence relates to the battles fought in the civil conflict, and also say more on the role of natural resources and territorial control. Third, we think there is a need to move beyond the quantitative framework and provide systematic case studies of armed conflicts between rebel groups. In our effort to develop theory and test it quantitatively, we have had to make simplifying assumptions about the motivations

of rebel groups and their ability to act coherently to pursue these motives. These are interesting and potentially important aspects that should be explored further within a qualitative framework.

To conclude, this study provides novel insights for understanding a form of armed contest that is surprisingly understudied in the conflict literature. In addition to focusing on a destructive form of political violence, this article highlights the importance of not treating the rebel side as a unitary actor, and it adds to a growing body of research set out to open up the black box of the nonstate side in civil wars.

Authors' Note

The authors wish to thank Håvard Hegre, Mats Hammarström, Allan Dafoe, Halvard Buhaug, the editor of the journal, and two anonymous reviewers for many helpful comments on previous versions of the article. The authors are listed in alphabetical order, and equal authorship is implied. Replication materials and supplementary information are available alongside the electronic version of this article at http:/jcr.sagepub.com/.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This research was funded by the Swedish Research Council.

Notes

1. We use the terms "interrebel violence" and "armed conflict between rebel groups" interchangeably. The term "civil conflict" is used to refer to armed conflict between the government and one or more rebel groups.
2. K. Cunningham, Bakke, and Seymour (2012) study how fragmentation affects conflict processes, where interrebel violence is one aspect. On interrebel violence, see also Eck (2010).
3. The perception of threat and the initial choice of using violent means to handle it need not be symmetrical between rebel groups. Whereas we assume that strategic decisions underlie the use of violence, we recognize that some groups might at first be forced into this confrontation by the aggressive behavior of other rebels.
4. Several scholars suggest that within the context of armed conflict, ethnic affiliation functions as a coordination device that facilitates in-group monitoring and rebel group cohesion (Gates 2002; Weinstein 2007; Eck 2009). On the role of ethnicity in facilitating cooperation, see also Fearon and Laitin (1996).
5. Some recent quantitative studies have started to explore the conditions under which we see rebel-group coordination and cooperation (see Bapat and Bond 2012; Bond 2010). Also these studies are, however, restricted by the lack of available data on the existence of social ties between rebel groups across cases and over time.

6. Several scholars link civil war to a governments' lack of coercive control (e.g., Gurr 1970; Hegre et al. 2001). Other scholars emphasize other aspects of state capacity, for example bureaucratic administrative capacity and the coherence of political institutions (Hendrix 2010).
7. The time frame is limited by the availability of data on armed conflict between rebel groups.
8. The question of why some armed conflicts involve more than one rebel groups whereas others do not is an interesting question in its own right, but lies beyond the scope of this article.
9. We also tried using an alternative cutoff point of three years of inactivity, but this does not affect our results.
10. These data capture, hence, only fighting across groups and not fighting within groups.
11. For a definition and list of nongovernment actors, see www.ucdp.uu.se. For a presentation of the data, see Sundberg, Eck, and Kreutz (2012).
12. A rebel group is, in line with UCDP definitions, a nongovernmental formally organized group having announced a name for their group and that is using armed force against the state to influence the outcome of an incompatibility over the political or territorial organization of the state in which they operate (see www.ucdp.uu.se).
13. Whereas drugs and gemstones are conventionally considered lootable, that is, valuable and easily extractable resources, the utility of petroleum production for rebel organizations is more debated (cf. Fearon 2005). Yet, several case studies suggest that illegal trade in petroleum products can generate large funds for rebel actors. See, for example, Duquet (2009) on Nigeria and Dunning and Wirpsa (2004) on Colombia.
14. We refer to D. Cunningham, Gleditsch, and Salehyan (2009) for a full description of the data. Their data go up to 2004. We have extended the data three years using the last observed value for those variables that do not change within conflict periods. The main results hold, however, even when limiting our sample up to 2004.
15. We have also used alternative cutoff points for these variables (e.g., 0.4 and 0.6), but this does not affect our results.
16. D. Cunningham, Gleditsch, and Salehyan's (2009) data are time-varying by conflict episode, whereas the UCDP data vary by calendar year.
17. A similar argument is made by, for example, Gates et al. (2006).
18. A correlation matrix together with a list of rebel groups active in interrebel violence are made available in the Online appendix (see Table A and B).
19. The data on conflict zones are based on the UCDP/PRIO list of conflict, and add the geographical location of where battle action takes place (Buhaug, Gates, and Lujala 2009). Data on the location of natural resources have been joined with these data to construct variables on natural resources in the areas that the battles occur. Since the data are on the level of the conflict, not the rebel group, we cannot say, however, whether the individual group is active in resource-rich areas. Moreover, we do not know whether interrebel violence occurs in the same areas that they fight the government.
20. Following Fearon and Laitin (2003), we use GDP per capita as an alternative state strength indicator to proxy for coercive capacity and institutional reach. The measure

is coded 1 for all countries with a GDP per capita below the twenty-fifth percentile, and otherwise 0. The result for this indicator is very similar to our initial findings.

21. As an additional robustness check, we include a control variable that captures whether a rebel group has experienced a splintering of the organization (coded 1 for both preexisting group and the splintering faction). The results are robust to the inclusion of this variable. See Online appendix, Table C.
22. Data for the geographical controls come from Buhaug, Gates, and Lujala (2009) the data on GDP per capita and population are from the National Accounts Main Aggregates Database at the United Nations (2009), whereas the data on ethnic fractionalization are from Fearon and Laitin (2003).

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