Not Too Distant: Grievance, Opportunity, and the Onset of Civil War*

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Abstract

Grievance and opportunity theories have dominated research on the causes of civil war for half a century, with much of the existing literature focused on determining which is a better predictor of conflict onset. We argue that this focus limits existing research's ability to explain variation in civil conflict onset. Rather than treating grievance and opportunity as independent, competing explanations, we integrate them into a unified theory, arguing that they are best understood as complements that jointly predict conflict. We apply insights from the interstate war literature, arguing that the probability of civil war increases as the disparity between relative power and the status quo distribution of benefits (conceptualized as inverse grievances) increases. Under these conditions, relatively powerful actors have incentives to use force to obtain greater benefits. Data regarding 541 ethnic group-state dyads in 127 countries provide strong statistical and substantive support for our theoretical argument.

1   Introduction

Grievance and opportunity theories have dominated research on the causes of civil war for nearly half a century. Scholars favoring the grievance approach argue that conflict is the result of dissatisfaction and popular frustration that results when rising expectations outstrip material realities (Davies 1962; Gurr 1970). Proponents of opportunity explanations, in contrast, attribute conflict onset to the weakening of state institutions, which makes armed resistance feasible by opening up the space for rebellion (Snyder and Tilly 1972; Tilly 1978; Fearon and Laitin 2003; Collier and Hoeffler 2004). Scholars have long sought to determine which of these two theories provides a more compelling explanation for civil war. For example, Weidmann (2009, 527) asks "is civil war a result of the systematic economic deprivation of groups in a society (the motivational explanation), or the fact that fighting has low opportunity costs in poor societies (the opportunity explanation)?"

However, many researchers today recognize that both grievance and opportunity are important predictors of civil conflict onset (Cederman and Vogt 2017; Gurr 2000; Thomson 2016, 2018; Lindemann and Wimmer 2018). Despite this, the vast majority of analyses simply control for opportunity (grievance) while focusing on grievance (opportunity) or run "econometric 'horse races' between the main theoretical competitors" (Cederman and Vogt 2017, 2005). This is a central weakness of existing literature. As Taydas, Enia, and James (2011, 2629) argue, "Conceiving of opportunity and grievance as two mutually exclusive and competing explanations... limit[s] our understanding of civil conflicts." Cederman and Vogt (2017, 1995) remark that "one of the most important tasks for future civil war research will be to further break down the artificial barriers that stand in the way of more subtle and complex 'blends'" between grievance and opportunity.

Recognizing this, a few scholars have begun to integrate different theories of civil war onset in their work. For example, Koubi and Böhmelt (2014) examine the relationship between political grievances, economic factors, and civil conflict, while Kuhn and Weidmann (2015) look at inter- and intra-group inequalities. Finally, Bara (2014) examines how a va-

riety of factors that proxy incentive- and opportunity-based arguments affect civil conflict onset. Although these articles advance the literature and clearly indicate that there is a demand for scholarship that seeks to integrate the leading theories on civil conflict onset, they nonetheless suffer from important theoretical and empirical limitations that continue to impede progress in our understanding of civil conflict. To overcome these shortcomings, we build on but ultimately expand upon these recent studies to develop a theory that integrates both grievance and opportunity into a single conceptual framework that specifies how they interact to produce civil conflict.

This paper breaks with the existing framework by making an intuitive, yet consequential, adjustment to existing conceptualizations of grievance and opportunity. To that end, we apply insights from research on interstate war (Werner 1999; Filson and Werner 2002; Powell 1996; Powell 1999; Reed et al. 2008) to propose a theory of civil conflict onset that integrates grievance and opportunity into a single conceptual framework. Specifically, we map the concepts of distribution of power and status quo distribution of benefits (Powell 1999; Reed et al. 2008) onto opportunity and grievance.[1] Just as the relationship between power and benefits explains the onset of interstate war, we argue that the link between opportunity and grievance predicts conflict onset domestically. We contend that the key predictor of civil conflict is the difference between grievance and opportunity. Conflict is unlikely when opportunity and benefits are relatively equal since actors expect to gain little through the use of force. However, as the disparity between them increases, one actor has incentives to redistribute benefits through force. That is, when a group is relatively powerful but receives relatively few benefits from the status quo, conflict onset becomes more likely relative to when their power and benefits are roughly equal. A series of statistical analyses using data regarding 541 ethnic group-state dyads in 127 countries (1991-2017) provides strong support for our argument.

The benefits of theorizing conflict onset in this way rather than focusing on grievances

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[1]Groups with low benefits, we argue, are likely to have high grievances.

or opportunity individually are immediately apparent. The conditional relationship that we develop is intuitive; particularly aggrieved actors will not initiate conflict if they lack the opportunity to do so (i.e. do not expect to do better out of conflict), and powerful actors will not initiate conflict if they are not particularly dissatisfied with the existing distribution of benefits in society. Thus, the effect of opportunity depends upon its relationship with grievance, while the effect of grievance similarly depends upon opportunity. This paper's central innovation lies in theoretically developing this intuitive relationship and empirically testing it with group-level measures that capture the proposed conditionality.[2]

This paper makes several contributions to the literature on civil conflict. First, we advance scholarship by developing a theory that integrates opportunity and grievance in a compelling way. By applying interstate war insights to the grievance/opportunity discussion, we specify the exact relationship between opportunity and grievance that is most likely to lead to war. At the same time, our conditional argument also fundamentally changes the predictions made by each framework alone by showing that aggrieved groups will only rebel when they have the opportunity to do so (i.e. expected to do better in conflict) and that groups even when they have the opportunity to fight will only initiate conflict when they are relatively aggrieved. Importantly, as we demonstrate below, our integrated model that modifies the leading approaches has greater predictive power than existing approaches. Second, demonstrating that the effects of grievance and opportunity are conditional upon each other helps to reconcile many of the inconsistent findings in the literature. Scholars may have failed to find a robust effect for both grievance and opportunity because existing models that do not account for the conditional relationship are mis-specified. Finally, the argument developed below innovates over existing research by explicitly theorizing about government initiation. While previous research almost exclusively focuses on

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[2]As we discuss below, the empirical implications of our argument are not limited to the measures that we employ in this paper. In the Online Supplementary Appendix, we use a variety of variables to test the argument advanced in this paper. The results are consistent with those in the main text, indicating our theory has broad explanatory power across different measures for opportunity and grievance.

the potential rebel or ethnic group's perspective, we recognize that governments are frequently initiators of violence, and specify conditions under which governments are likely to initiate civil war as well.

2   Grievance and Opportunity Models

Grievance-based models of rebellion gained popularity in the 1960s and 1970s with seminal works by Davies (1962) and Gurr (1970), who explained conflict as the result of dissatisfaction and popular frustration that results when individuals' expectations diverge from their material realities. Individuals whose material, social, or cultural aspirations are not met feel a sense of persecution, which leads them to join rebellions. Thus individual grievances serve as powerful tools for recruitment and mobilization, facilitating collective action and rebellion. Further, significant attention since the early 1990s has been paid to *ethnic* discrimination as a source of mobilization (Gurr 1993; Horowitz 1985; Ellingsen 2000).

However, grievance-based explanations have been challenged by scholars arguing that they cannot explain variation in the conflict-proneness of aggrieved groups (Scott 1977; Skocpol 1979; Tilly 1978). The ubiquity of grievances, and the fact that many highly aggrieved groups fail to mobilize, makes grievance theory a poor predictor of conflict onset (Scott 1977; Skocpol 1979; Fearon and Laitin 2003).[3] Given these limitations, scholars turned instead to opportunity-based theories, attributing conflict onset to the weakening of state institutions. A weak state makes armed resistance feasible by opening up the space for rebellion (Snyder and Tilly 1972; Skocpol 1979). Along these lines, two highly influential studies by Fearon and Laitin (2003) and Collier and Hoeffler (2004) found opportunity to be a stronger predictor of conflict onset than grievances. By framing their work as

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[3]Lichbach (1995) challenges the link from grievances to mobilization, suggesting that participation in rebellion can be costly. The extent of this collective action problem, however, has been questioned by Kalyvas (2006).

pitting grievance against opportunity, or greed, these studies perpetuated the treatment of grievance and opportunity as competing rather than complementary explanations.

More recently, scholars have pushed back against the apparent supremacy of opportunity, asserting that "despite these alleged nonfindings, the debate over grievances is far from dead" (Cederman, Weidmann, and Gleditsch 2011, 478). In particular, this emerging body of research highlights group-level (i.e. horizontal) rather than individual-level grievances, and uses new sub-national data that better matches theoretical arguments about group-level motivations and mobilization (Cederman and Vogt 2017; Hillesund et al. 2018). This research finds that grievances are an important predictor of conflict onset (Cederman, Buhaug, and Rod 2009; Cederman, Weidmann, and Gleditsch 2011; Cederman, Gleditsch, and Buhaug 2013; Cunningham and Weidmann 2010; Metternich, Minhas, and Ward 2017; Weidmann 2009).

Both grievance and opportunity are theoretically compelling arguments, but each suffers from critical weaknesses that limit its ability to explain conflict onset. Theoretically, both theories have difficulty distinguishing instances in which conflict actually occurs from among the pool of 'at-risk' cases. Just as grievances are too widespread to adequately explain variation in social mobilization and conflict across groups, state weakness and opportunities for rebellion are similarly more prevalent than violent conflict. Thus, the same criticism applies; there are many states with weak institutions or structural characteristics that provide fertile ground for insurgency, yet we only observe violent conflict in a minority of them.

These critical weaknesses in the literature can be overcome by acknowledging that both grievance and opportunity contribute to the risk of civil conflict, as many scholars now recognize (Cederman, Wimmer, and Min 2010; Cederman and Vogt 2017; Gurr 2000; Thomson 2016, 2018; Lindemann and Wimmer 2018). Indeed, a few recent studies have advanced the literature by examining the different theories of civil conflict onset. For example, Bara (2014, 696) points out that extant literature suggests there is a "complex inter-

action of incentives and opportunities" that produces conflict, but little empirical evidence of this relationship exists. To remedy this, she employs crisp-set qualitative comparative analysis (QCA) to demonstrate that opportunity factors (i.e. oil wealth) and grievance (i.e. political exclusion) together are predictive of conflict. This represents an important empirical contribution, but it is not paired with an integrated theory of how these factors interact to produce conflict. In other words, the author identifies several well-established mechanisms in the literature without discussing how they relate to one another or are conditional on each other. More so, since crisp-set QCA requires exclusively using dichotomous variables, conditionalities in the relationship between grievances and opportunity beyond what is captured with dichotomous measures of country/group attributes are overlooked.

Koubi and Böhmelt (2014) also explore the joint effect of economic factors and political grievance on conflict onset.[4] They argue that the relationship between national wealth, which they measure using country-level GDP per capita, and political exclusion, measured with the size of a country's politically excluded population, is conditional on each other. Since economic inequality can create and foster resentment, countries with relatively high GDP per capita and a relatively high proportion of the population should be most at risk for conflict. Although again this work represents an important advance on existing scholarship, it is not without limitations. At the most basic level, the authors put forward a group-based argument on the interactive effect between economic factors and political grievances and conflict onset; however, since they use state-level measures of economic development (i.e. GDP per capita), they are unable to actually determine if economically disadvantaged groups are more likely to rebel when they are also politically excluded. In other words, there is a mismatch between the theoretical argument and empirical tests in the paper.

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[4]Koubi and Böhmelt (2014) emphasize the greed framework in their paper, however they also draw on the logic of economic grievances, thus highlighting the importance of grievances for understanding civil conflict onset. For example, they argue that a "potentially unequal distribution of wealth can generate feelings of resentment and frustration, thus enhancing groups grievances prone to the generation of violence" (Koubi and Böhmelt 2014, 21).

Finally, Kuhn and Weidmann (2015) also theorize about the joint impact of opportunity and grievance arguments. They argue that groups with higher mobilization capacities, which they measure using intra-group economic inequality, will be most likely to rebel when they suffer from inter-group economic/political inequality because such groups have both the capabilities (opportunity) and willingness (grievances) to fight the government. While this is certainly an important contribution, the authors' overlook the role of the government along with other factors typically associated with opportunity models, such as state power and strength of government institutions due to their exclusive focus on the mobilization capacity of groups.[5] Thus, their work still does not produce an integrated model of opportunity and grievance that is in line with leading arguments and measures in the literature.

Therefore, despite the efforts made by some scholars to assess the joint effects of grievance and opportunity on civil conflict onset, a single theoretical and empirical model remains elusive. To overcome these problems, we argue that the impact of one cannot be fully understood without reference to the other, and that they should be incorporated into a single theoretical and empirical model of civil conflict onset. To that end, we draw on the inter-state war literature to develop our theoretical argument on civil war onset that includes both grievance and opportunity.

3   Insights from Interstate War

We draw on insights from scholarship regarding interstate war to develop a theory of civil war onset that integrates the joint effect of grievance and opportunity. More specifically, we map research using bargaining models to understand the logic that states employ when deciding whether to initiate war onto the case of ethnic civil conflict onset. Extant research

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[5]Of course, we agree that mobilization factors constitute an important cause of civil war onset. As we discuss below, our focus on population as a measure of relative groups strength also helps to account for the mobilization capacity of groups as scholars argue that groups with larger populations have greater access to potential recruits (Raleigh and Hegre 2009).

recognizes the utility of these models to understand civil conflict but they have not been applied to the debate regarding grievance and opportunity. (Cederman and Vogt 2017; Wucherpfennig et al. 2012),

Traditional explanations for the onset of interstate war largely focused on the distribution of power between states (Siverson and Tennefoss 1984; Kim 1991; Geller 1993). However, an important finding within this literature is that states concurrently assess their power relative to other actors *and* the distribution of status quo benefits when determining whether to engage in conflict. (Powell 1996; Powell 1999; Werner 1999; Filson and Werner 2002; Reed et al. 2008). War is unlikely when there is relative parity between a state's power and benefits, as the expected division of gains after conflict reflects the pre-war status quo. As such, the costs of war are greater than the state's anticipated increase in benefits. However, as an actor's relative power increases in relation to its benefits, the expected gains from conflict become larger than the anticipated costs of fighting. The probability of war consequently increases as this disparity grows. This finding has intuitive appeal, as it indicates that states are motivated to start a conflict when they have sufficient power to alter the status quo benefits in their favor.

This suggests that the distribution of power and the distribution of benefits jointly determine the likelihood of war. Power matters only in relation to the distribution of benefits and vice versa. Actors "have incentives to reshape the distribution of benefits when the benefits they receive are not consistent with the amount of power they possess. When the distribution of power and the distribution of benefits converge, however, states lack the motive for war" (Reed et al. 2008, 1206). Extending this model to the context of civil war provides several powerful insights for our theory on the interdependent impact of grievance (inverse of benefits) and opportunity (power), which we discuss in the sections

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below. [6].

3.1 Mapping Opportunity onto Power: A Direct Relationship

The relationship between power and opportunity is straightforward. Opportunity-based explanations for civil conflict focus on the distribution of power between rebels and the state, and how this balance affects their ability to fight. Government weakness generates an opportunity for rebellion by increasing the likelihood of success. Proponents of opportunity theories argue, for example, that "financially, organizationally, and politically weak central governments render insurgency more feasible and attractive due to weak local policing or inept and corrupt counterinsurgency practices" (Fearon and Laitin 2003, 75-76). Factors that cause state weakness, and others which offset potential rebel weaknesses, make conflict more likely by altering the balance of power between the state and a potential rebel group, thereby providing the necessary incentives to wage war (Fearon and Laitin 2003; Collier and Hoeffler 2004). The relative distribution of power is consequently the opportunity framework's central mechanism. It informs each actor's expectations regarding conflict outcomes such that a relatively strong rebel group confronting a weak state is more likely to rebel than a relatively weak rebel group against a strong state because they have a higher expectation of victory.

The logic of this argument mirrors the role of power in the interstate war model. When actors are weighing the decision to go to war, they consider their power relative to their

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[6]It is important to acknowledge before moving on, however, that some may question the applicability of interstate war bargaining models to civil wars because the latter are sometimes conceptualized as existential contests involving uncompromising demands and extreme outcomes. We find this critique less than convincing, however. First, at the most basic level, other scholars have relied on bargaining models to produce important insights in the civil war literature (Cunningham 2006; Thomas 2012; Thomas, Reed, and Wolford 2016; Walter 2009; Walter 1997). Further, research shows that rebel groups often seek incremental policy changes, not regime overthrow (Thomas 2012; Thomas, Reed, and Wolford 2016). Thomas (2012) finds, for instance, that only 8% of rebel groups in African wars make maximalist demands. Further, in the post-1990 period under examination, absolute outcomes (i.e. victory/defeat) have become increasingly rare. Data from Cunningham et al. (2009) show that only 18% of civil conflicts between 1991 and 2011 ended in military victory, while 33% ended in negotiated settlement and the remaining 49% ended via low activity. Thus, modern civil conflicts are not commonly existential contests, and insights from interstate war models are applicable

adversary's and how this distribution is likely to affect the outcome of the war should they decide to challenge the status quo. More powerful actors can expect better outcomes, so are more likely to wage war, ceteris paribus. Thus, a direct link can be drawn from their conception of power to the civil war literature's conception of opportunity; just as power relates to a state's ability to challenge the status quo in the interstate war model, opportunity represents a group's ability to mobilize and stage a successful rebellion in the intrastate context. [7]

3.2 Mapping Grievance onto Benefits: An Inverse Relationship

Grievances in the civil war literature and benefits in the interstate war model are also conceptually linked. Before exploring this relationship, however, it is necessary to clarify how grievance is conceptualized. Specifically, we treat grievances as 1) group-based, and 2) based on economic inequality.

First, in line with recent scholarship, we conceptualize grievances as group-level rather than individual-level phenomena. Research links group-based economic, social, and political inequalities to group-level grievances as the cause of civil conflict, arguing that a process of inter-group comparison generates collective grievances and thus facilitates mobilization (Cederman, Weidmann, and Gleditsch 2011; Cederman, Gleditsch, and Buhaug 2013; Horowitz 1985; Stewart 2008). This group-level approach more closely approximates theoretical expectations regarding the effects of inequality and discrimination than previous individual-level approaches; mobilization occurs at the group rather than the individual level, so the experience of shared grievances is key to mobilization processes.

Second, we recognize that grievances can arise over a diverse range of issues, but focus

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[7]We model this empirically using a demographic proxy in our main analysis, which is an approach similar to Cederman, Buhaug, and Rod (2009) and Cederman, Weidmann, and Gleditsch (2011). This is an appropriate measure since relatively large groups have a higher capacity to mobilize sufficient numbers of people to stage a rebellion (Raleigh and Hegre 2009). However, we demonstrate that our results are robust to operationalizing opportunity with the size of an ethnic group's settlement area in the Online Supplementary Appendix.

specifically on the role of economic grievances.[8] Economic and political inequalities are the most commonly theorized sources of grievance, and those which existing literature suggests are most likely to affect the probability of conflict (e.g. Cederman, Gleditsch, and Buhaug (2013). We therefore focus on grievances that derive from dissatisfaction with the existing distribution of income, rather than from social or cultural discrimination.

Grievances, conceptualized in this manner, share an inverse, linear relationship with benefits. Groups with a disproportionately low share of the state's economic wealth are considered highly aggrieved, while a group whose share of the state's economy matches or exceeds that of other groups is considered relatively satisfied.[9]

We therefore use the phrase "inverse grievances" below when discussing benefits. The logic of this inverse mapping from grievance to benefits is immediately apparent. In both grievance-based explanations and the interstate war model, the relevant actors have divergent preferences over the allocation of a disputed good, whether it be income, political power, or territory. Further, valuations for the disputed good are inherently relative in both contexts; inter-group comparisons of economic well-being and inter-state disputes over territory, policy, etc. are only meaningful because the actors involved judge their own satisfaction in relation to what their opponent or other groups have. Finally, in both cases, disagreement over the status quo generates the fundamental motivation for war; grievance explanations argue that the probability of war increases as economic disadvantage grows because the resulting grievances motivate participation in rebellion, while the interstate war model suggests that, holding power constant, decreasing a state's proportion of a disputed good leads to dissatisfaction and generates incentives for the state to challenge the status quo by force.

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[8]In the Online Supplementary Appendix, we use political grievances instead of economic ones. The results are consistent with those in the main text.

[9]Some scholars argue that both advantaged and disadvantaged groups are more likely to rebel (e.g., Cederman, Weidmann, and Gleditsch (2011)). Our model accounts for both possibilities, predicting that advantaged groups may rebel as long as the expected utility from war is greater than the current distribution of benefits. Further, as we discuss below, advantaged groups may have a heightened risk of conflict due to government initiation.

4 Theoretical Predictions

Because of the strong conceptual similarities between the concepts of grievance and opportunity in the civil war literature and power and benefits in the interstate war model, it is possible to apply insights from the latter to reexamine the effects of grievance and opportunity on the probability of civil conflict. Specifically, the interstate model suggests that the probability of war should vary with the *disparity* between inverse grievances (benefits) and opportunity (power). War is least likely when the distribution of benefits perfectly reflects the distribution of power, as even actors enjoying few benefits (i.e. highly aggrieved actors), will not expect to gain through the use of force. Importantly, this logic holds whether the actor is very strong or relatively weak.

When there is a relative imbalance between power and benefits, however, the probability of war increases. In this scenario, by definition, one actor has low benefits relative to power (dissatisfied) while the other has high benefits relative to power (satisfied). When this happens, the dissatisfied actor has incentives to redistribute benefits through force, and will feel confident that they can increase their proportion of benefits due to their relative power advantage. Therefore, consistent with the interstate war model, we expect the probability of civil war to increase as the disparity between power and benefits increases. Below we discuss the two specific scenarios that should increase conflict risk.

4.1 Scenario One: Rebel Power > Benefits

Consider a situation in which a non-state actor, R, is economically disadvantaged, suffering from high inequality. GDP per capita among members of R is much lower than that among groups that control the central government (i.e. low benefits). This economic deprivation creates grievances among members of R, which generate motives for collective violence. A purely grievance-based argument, taking the motive for violence as sufficient for mobilization, would predict that the economic disadvantage suffered by R increases

the likelihood that R engages in conflict with the state.

Incorporating the relative distribution of power (i.e. opportunity) into this scenario, however, qualifies the expectations of the pure grievance account. Returning to group R, assume that, in addition to enjoying few economic benefits, the group is also relatively weak. Because of its relative weakness, R will not anticipate a favorable outcome from war. That is, the group will not expect to achieve a favorable redistribution of economic benefits through the use of force. As a result, R will be unlikely to initiate conflict, even though grievances create incentives for mobilization, because it lacks opportunity.

Therefore, rather than grievances generating a high probability of conflict, parity between relative power and benefits produces a low probability of war. This scenario is illustrated well by the Khmer and Hmong ethnic groups in Vietnam. Both groups scored quite low (0.0368 and 0.008, respectively) on the economic benefits scale and were both excluded from political power in Vietnam. Both groups' relative power, however, was also quite low (0.038 and 0.012, respectively), each group making up a small minority of the state's population. Thus, the disparity between benefits and power for each group was low, producing a low probability of conflict. The importance of this theoretical expectation should not be understated; incorporating power into the grievance model produces predictions that qualify the expectations of standard grievance-based explanations.

Now consider a scenario in which R's relative power increases so that, in addition to being highly aggrieved, R also enjoys a favorable power differential in relation to the state. Under these conditions, R has both the motivation and the opportunity to wage war; grievances motivate individuals for collective violence and the group's power generates the expectation that the use of force will result in a favorable revision of the status

quo.[10] Given the expectation of a favorable outcome, the probability of war will increase, and will therefore mirror the predictions of standard grievance explanations. The 2012 Tuareg rebellion in Mali can be viewed through this lens. Declining economic conditions and a stalled democratization process disproportionately affected the country's Tuareg minority, providing fertile ground for the development of group-level grievances. These grievances only erupted into conflict with the state, however, after large numbers of Tuareg fighters returned from Libya following Muammar Gaddaffi's ouster (Pezard and Shurkin 2013). Thus, the increase in power relative to benefits ultimately led to rebellion.

These examples demonstrate that two cases for which grievance-based arguments predict similar conflict propensities can actually lead to dramatically different conflict expectations once the role of power is accounted for. Without conditioning on opportunity, therefore, grievance is insufficient to accurately predict the onset of civil conflict. Instead, the conditional explanation developed here demonstrates that R will choose to rebel only when it expects to gain from fighting. Similar to the interstate war model, where "neither bargainer can credibly threaten to impose a settlement if they both prefer the status quo to the expected outcome" (Powell 1999, 257), a potential rebel group cannot credibly threaten the use of force to reverse a discriminatory policy if it does not expect to achieve its aims through conflict. Grievance alone, therefore, cannot predict which groups will actually mobilize for collective violence because it cannot predict success or failure in war.

Opportunity-based models of civil conflict suffer from a similar limitation. Consider first a scenario that favors opportunity – one in which group B, who is relatively strong compared to the state, considers whether or not to rebel. Opportunity-based theories would argue that B's relative strength in relation to a weak central government generates

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[10]In some cases, the group may be able to negotiate a redistribution of benefits without resort to force. However, even strong groups may face political obstacles to nonviolent renegotiation. Lack of political voice, for instance, may leave strong groups outside of the policy-making process, rendering them unable to peacefully achieve their aims. To this end, we control for groups' political power in our empirical analysis. Furthermore, the state may underestimate the group's relative strength and as a result refuse to make concessions to the group. Private information about relative strength and the ability to mobilize, therefore, may still result in conflict.

a relatively high probability of conflict because it increases B's expectation of achieving a favorable outcome through the use of force.

Adding grievances to this model, assume that B is disproportionately well-off, enjoying a large proportion of the economic benefits of the state. Under these conditions, B does not have the motivation to rebel. Opportunity in the absence of grievance therefore generates a low likelihood of conflict. Rather than opportunity increasing the probability of conflict, parity between relative power and benefits produces a very low probability of war. The Mayas of Guatemala, for example, had a relatively high opportunity for conflict (measured as group population size) throughout the 1990s and 2000s. The group's economic wealth, however, closely matched their power level, therefore producing parity between their power and benefits. This suggests a low probability of conflict, in contrast to standard opportunity arguments, which would predict a high probability of rebellion for this group.

If the same powerful group's share of economic benefits is reduced so that B now receives disproportionately few economic benefits, B's incentives to alter the status quo through force increase. The disparity between the newly aggrieved group's relative power and relative benefits leaves B optimistic about the outcome of conflict. This optimism increases the group's ability to mobilize, and as B now expects to gain through fighting, this scenario generates a relatively high probability of conflict. The Mbandja ethnic group in DRC during the late 1990s reflects this scenario well. The Mbandja was a relatively large group, and thus could mobilize large numbers for conflict. At the same time, the group received few economic benefits and, due to the regime change in DRC in 1997, had recently lost political power (moving from a junior partner in government to a powerless group). This created a large disparity between power and benefits, and fertile conditions for rebellion. In 1998, the Congolese Liberation Movement (MLC), which represented, recruited from, and received support from the Mbandja, launched a violent conflict against the state.

Ultimately, opportunity alone cannot distinguish between two sets of circumstances

that produce drastically different predictions after taking grievance into account. Strong actors are unlikely to initiate conflict when they enjoy a relatively high proportion of benefits, as they lack incentives to rebel. Only when the group is also aggrieved will it engage in conflict. This insight is highly intuitive, but opportunity theories generally do not make opportunity's impact conditional on the distribution of benefits.

4.2 Scenario Two: Rebel Benefits > Power

The above discussion focuses on the risk of conflict when a potential rebel group's power exceeds its benefits. But what happens when a potential rebel's benefits exceed its power? In other words, what is the risk of conflict when an ethnic group is wealthy but weak?

Existing grievance and opportunity models would both predict a low risk of conflict under these conditions. Grievances are likely to be low among the ethnic group's population, due to their relative wealth, and the group therefore lacks the motivation to mobilize for violence. Opportunity is also lacking: a weak group lacks the capacity to successfully challenge the state due to its relative weakness, so will be unlikely to initiate conflict.

However, these expectations are limited to the rebel group's perspective. They focus on the ethnic group's willingness and ability to mobilize and initiate violent conflict against the state. The interstate conflict model upon which our theoretical argument builds, on the other hand, is fundamentally dyadic. Applied to civil conflict, this means that either actor - rebel or state - can initiate conflict. This insight may at first seem counter-intuitive. Existing civil war research focuses implicitly, and almost exclusively, on rebels as initiators, as evidenced by canonical titles such as *Why Men Rebel* (Gurr 1970) and *The Rebel's Dilemma* (Lichbach 1995).

Yet, we argue that this view is short-sighted. While rebels are often portrayed as initiators, in practice, governments frequently take the first violent action. In Syria, for example, peaceful protests devolved into armed conflict when the government responded to nonviolence with force. More generally, of 84 dyadic African civil conflicts that began

between 1990 and 2008, the very first battle was initiated by rebels 54% of the time (45 cases), but by the state 23% of the time (19 cases) (Tao et al. 2016).[11] This shows that, if we conceptualize initiator in the most direct terms - as the party who launched the first battle - governments are frequently civil war initiators. Furthermore, if initiation is conceptualized more broadly to include repressive state policies that involve violence but do not rise to the level of civil conflict, the prevalence of government initiation is likely much higher.

Therefore, existing theories focused on rebel initiation are incomplete. Drawing upon insights from the interstate war model allows us to move beyond rebel-focused analyses to consider civil conflict initiation from the state's perspective. While an ethnic opponent of the state whose benefits exceed its relative power has no incentive to initiate violence, civil conflict may still happen. The other actor within the dyad - the group(s) controlling governmental power - will have incentives to redistribute benefits, possibly through violence. The state's incentive to forcefully redistribute wealth, furthermore, increases as the ethnic opponent's benefits increasingly exceed their relative power. When an ethnic opponent enjoys significant wealth with relatively little power, the state anticipates a favorable redistribution of benefits through the use of force, so has incentives to act.

Arguably, the government has other policy options available to it to redistribute benefits, including increasing taxation, nationalizing resource wealth, or other similar policies. We therefore might expect the power/benefits disparity to have a weaker effect on government initiated conflict than on rebel initiated conflict. However, the state's ability to effectively enact non-violent redistributive policies may be limited. Weak bureaucracy or poor infrastructure, for example, may limit the state's ability to collect taxes, particularly in hostile or distant areas. We therefore expect that governments will use force, if only as a last resort when other policy options are not feasible.

This scenario played out, for example, between the Democratic Republic of Congo

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[11]An initiator could not be identified for the remaining 23% of cases. These statistics are based on a subset of the UCDP Georeferenced Events Dataset (GED) (Sundberg and Melander 2013) for which additional variables identifying who initiated each battle were coded.

(DRC) government and the Banyamulenge, an ethnic Tutsi group living in eastern DRC, in the mid-1990s. "Due to, among other things, their relative wealth, there is a long history of animosity between the Banyamulenge and other ethnic groups in the region, something that [the DRC government under] Mobutu encouraged as a part of his divide-and-rule strategy.... Tension continued to grow and in the 1990s turned violent as both the Zairian army and the local population began attacking the ethnic Tutsis. In response, the Banyamulenge set up armed militias to defend themselves" (UCDP Conflict Encyclopedia 2018). This case clearly illustrates the logic of government initiation: the Banyamulenge, as a minority ethnic group with disproportionate wealth, were targeted by government forces. When an ethnic group's benefits far exceed its relative power, the government has both the motive and opportunity to use violence to revise the status quo, thereby increasing the risk of civil conflict.

4.3   Testable Implications

The above logic illustrates this study's central hypothesis. Parity between power (opportunity) and benefits (inverse grievance) is unlikely to lead to war, no matter the absolute level of power or benefits. As a potential rebel group's power increases relative to its benefits, however, the group has both the motivation and the opportunity to fight, causing an increase in the probability of conflict. Similarly, as an ethnic group's benefits increasingly exceed its relative power, the risk of civil conflict also increases, as the *government* now has the motive and opportunity for violence. Thus, a growing discrepancy between power and benefits provides both opportunity and motivation for collective violence, as aggrieved actors who are relatively powerful will feel confident that they can improve their situation by resorting to force.

Hypothesis 1 *As the difference between the distribution of power (opportunity) and the distribution of benefits (inverse grievances) increases, the likelihood of civil conflict onset increases.*

5 Research Design and Measurement

Analyzing conflict onset requires identifying the universe of groups that could potentially rebel. This is not straightforward, however, as potentially rebellious nonstate groups are not easily identifiable ex ante. We therefore restrict our analysis to the onset of ethnic conflict. This provides us with an identifiable universe of groups – relevant ethnic groups – with the potential for conflict with the state.[12] We use the Ethnic Power Relations (EPR) dataset (Min, Cederman, and Wimmer 2008) to identify ethnic groups. EPR identifies all politically relevant ethnic groups globally since 1946, defining groups as politically relevant if "at least one significant political actor claims to represent the interests of that group in the national political arena, or if members of an ethnic category are systematically and intentionally discriminated against in the domain of public politics" (Codebook, 2). Significant political actors include political organizations active at the national level, and discrimination is measured in terms of access to political power. We use the EPR data rather than the Minorities at Risk (MAR) dataset (Minorities at Risk Project 2009) because EPR includes both groups that enjoy state power and those that are excluded or discriminated against.

The EPR dataset includes information on each group's access to executive power at the national level. Executive power includes representation in the presidency, the cabinet, senior administration posts, and power within the army. Access ranges from 1) absolute power as a monopoly or dominant group, to 2) senior or junior membership in government, to 3) exclusion from state-level executive power (Min, Cederman, and Wimmer 2008). All groups that fall into category one or two are considered ethnic groups in power (EGIPs) for that particular country-year.

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[12]While we use ethnic groups to test our argument, our theory applies generally to civil conflict regardless of whether it has an ethnic component.

5.1 Response Variable

The dependent variable for this analysis is the onset of civil conflict at the ethnic group level taken from UCDP/PRIO's Armed Conflict Dataset (Gleditsch et al. 2002; Pettersson and Eck 2018).[13] Groups are coded as conflict participants if the group has ties to a rebel organization that is actively involved in conflict with the state. This occurs when the rebels express their political aims at least in part in the name of the ethnic group or if a significant portion of the group participates in the conflict (Cederman, Weidmann, and Gleditsch 2011). Conflict onset between an ethnic group and a state is coded 1 in the first year the conflict between the relevant rebel organization and the state reaches 25 battle deaths.[14] There are 110 conflict onsets in the data used in our statistical analyses.[15]

5.2 Grievance

We measure grievance with group-level information on economic inequality. Our results are consistent when we use a measure of political grievance as well.[16] We construct a measure of the economic wealth of each ethnic group in our dataset, relative to the EGIPs in their country, using data from the G-Econ dataset (Nordhaus 2006; Nordhaus and Xi 2009) which we obtain from GeoEPR (Vogt et al. 2015).[17] G-Econ provides cross-national data on wealth variation within states, providing information on local economic activity for geographical grid cells based upon regional gross product data, regional industry income estimates, and rural agricultural income estimates.[18] The dataset provides this information at five-year increments between 1990 and 2005.

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[13]We obtain this data from the GeoEPR Dataset (Vogt et al. 2015). GeoEPR merges ACD into their data using ACD2EPR (Wucherpfennig et al. 2012).

[14]Ongoing conflict year observations are dropped from the analysis.

[15]This is the total number after excluding observations with missing values in our data.

[16]We provide the results of this analysis in the Online Supplementary Appendix.

[17]Some may argue that income inequality is endogenous to ethnic group size, our opportunity measure. However, there are many important determinants of income inequality besides population (i.e. education, natural resources, domestic institutions, foreign direct investment, etc.). We also present results using an alternative measure for opportunity (area) in the Online Supplementary Appendix that minimizes this issue.

[18]See Nordhaus (2006) for information on the methodology used to create G-Econ.

The GeoEPR dataset (Vogt et al. 2015) spatially overlays the G-Econ grid cells with the settlement area(s) of all ethnic groups with a regional base.[19] This provides group-level estimates of economic productivity at five-year increments. We interpolate values for years that occur between these points and carry the last observation forward if missing values end a group's series of observations.[20] To transform these values into a measure of each ethnic group's level of grievance (Q) relative to the state, we use the following formula:

$$Q = \begin{cases} \text{GDP}_{EG}/\text{GDP}_{EGIP}, & \text{if included} \\ \text{GDP}_{EG}/(\text{GDP}_{EGIP} + \text{GDP}_{EG}), & \text{if excluded} \end{cases} \tag{1}$$

GDP_{EG} is the ethnic group's share of the national GDP and GDP_{EGIP} is the share controlled by ethnic groups that are included in some capacity in executive power at the national level. This latter term includes all groups that are categorized by the EPR dataset as enjoying monopoly or dominant political power, as well as groups classified as junior or senior partners in national political power. As such, it provides a proxy for the state's economic wealth. The measure of grievance, Q, is calculated differently for groups included in state power than for groups excluded from state power because included groups' economic wealth is already incorporated into the GDP calculation for ethnic groups in power (GDP_{EGIP}).

This ratio generates a measure of the potentially rebellious ethnic group's per capita economic wealth relative to that of the ethnic groups in power, or the state's economic wealth. By including the potentially rebellious group's economic wealth in the denominator of the ratio, we normalize Q to vary between zero and one with economic parity between the group in question and the state occurring at 0.5. When the ethnic group in question is relatively less well off than those groups that make up the state (i.e. when the

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[19]Dispersed groups are excluded from the analysis because it is impossible to spatially estimate their wealth.

[20]While Cederman, Weidmann, and Gleditsch (2011) only use 1990 GDP values, we use all available years to ensure we have the most updated information and to better capture within-unit variation over time.

group is aggrieved or has low benefits), Q will be less than 0.5, and when the group in question enjoys an economically advantaged (high benefits) position over the group(s) in power, Q will be greater than 0.5. In the data, Q varies from a minimum of 0.000006 to a maximum value of 1, with a mean of 0.17.[21]

5.3 Opportunity

Operationalizing opportunity requires a measure of the relative power of each ethnic group in relation to the state. Direct measures of relative power for ethnic groups are difficult to construct in both a theoretical and a practical sense. Therefore, we follow Cederman, Buhaug, and Rod (2009) and Cederman, Weidmann, and Gleditsch (2011) and use demographic proxies for relative power. Specifically, we use data on group population size from the EPR dataset (Min, Cederman, and Wimmer 2008) to create a proxy for power and thus opportunity. Relative population size provides a good proxy for relative power because large groups are more likely to be able to mobilize a critical mass of people to stage a rebellion than groups with a small population. Indeed, Raleigh and Hegre (2009) argue that ethnic groups with large populations are more easily able to recruit a sufficient amount of people to start a conflict. As Cederman, Buhaug, and Rod (2009, 501) state, "larger groups will be able to stage successful collective action thanks to their superior numbers." However, our results are consistent when an ethnic group's settlement area is used instead to proxy for opportunity. We include this analysis in the Online Supplementary Appendix.

We use a relative measure of opportunity, P, that measures an ethnic group's demographic power relative to that of the state using the following formula:

$$P = \begin{cases} \text{Population}_{EG}/\text{Population}_{EGIP}, & \text{if included} \\ \text{Population}_{EG}/(\text{Population}_{EGIP} + \text{EGIP}_{EG}), & \text{if excluded} \end{cases} \quad (2)$$

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[21]We provide descriptive statistics of the data in the Online Supplementary Appendix.

Population$_{EG}$ is the potentially rebellious ethnic group's share of the population and Population$_{EGIP}$ the same for ethnic groups that are included in executive power at the country level (i.e. the sum of the population estimates for all groups categorized as monopoly, dominant, senior partners, and junior partners for every country year). Population$_{EG}$ thus represents the ethnic group in question's power while Population$_{EGIP}$ represents the state's power. This ratio measures an ethnic group's opportunity for rebellion as the group's size relative to the dyadic population size (group plus EGIP) on a zero to one scale. Small (i.e. weak) ethnic groups have a dyadic population share close to zero, while large (i.e. strong) groups' share of the dyadic population will be close to one. When an ethnic group's population share is at parity with the state, P equals 0.5. As an ethnic group's share of the dyadic population size increases, its opportunity for rebellion also increases. P ranges from a minimum value of 0.0001 to a maximum of 1, with a mean of 0.17 in our sample.

5.4   Illustrating the Measure

We visualize these measures for benefits (Q) and opportunity (P) in Figure 1 using data regarding ethnic groups in Israel and Sudan. Each ethnic group's mean measure of benefits (Q) is displayed on the x-axis and their mean opportunity (P) value on the y-axis. Filled points indicate groups that experienced conflict (1991-2017) while hollow points designate groups that did not. The resulting figure provides evidence for our theoretical argument. Groups such as the Assyrians in Iraw and the Bari in Sudan, which fall very close to the 45 degree line that visualizes parity between P and Q, do not experience conflict despite having very low benefits (i.e. high grievances). Similarly, the Northern Groups in Sudan are relatively close to parity and did not experience conflict. We argue this is because they do not expect war to provide them greater benefits than what the status quo provides. However, Sunni Arabs in Iraq and the Dinka in Sudan are both distant from the 45 degree line, indicating a disparity between opportunity and benefits, and both are involved in conflict with the state during the time frame covered by our data, as our theory predicts. These

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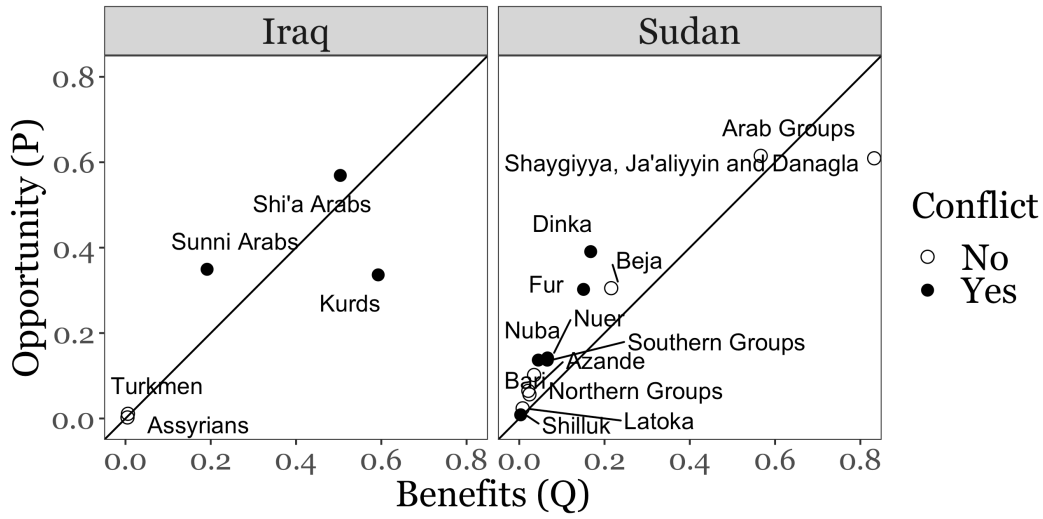groups have an incentive to alter the distribution of benefits through force.

Figure 1: The figure displays the mean value of benefits on the x-axis and the mean value of opportunity on the y-axis for ethnic groups in both Iraq and Sudan. Points are colored by whether the group experienced conflict.

5.5   Control Variables

Control variables included in the analysis are based on findings from existing research regarding the onset of ethnic conflict. We control for each ethnic group's political power using a dichotomous variable that indicates whether the group is an ethnic group in power. This is because groups that do not share in the nation's governance are more likely to rebel. We rely on the EPR dataset for this coding (Min, Cederman, and Wimmer 2008). We also include a dichotomous variable indicating whether there are more excluded groups in the country than the median number, as countries with high numbers of groups are more likely to experience political and social competition over scarce resources. This can lead to the onset of civil conflict. We also take this variable from the EPR dataset. Further, we include the ethnic group's settlement area in square kilometers, as their opportunity to rebel is partly a function of their specific geographic context (Fearon and Laitin 2003). This is an important control variable, as the constitutive term in the interaction that captures

opportunity is measured using a group's population, which possibly omits the effect of their geographic environment.

Finally, we also include controls regarding the state in which the ethnic group resides. We condition on the size of the country's economy by including the annual percent change in GDP. Poor economic conditions are a predictor of conflict since that can generate frustation with the status quo and decrease the opportunity cost of rebellion. We also add the log of the country's population in order to account for differently sized countries, as those with relatively higher populations are more likely to experience conflict. Both of these variables are obtained from the World Bank Development Indicators (World Bank 2017) and are lagged one year to account for possible concerns regarding endogeneity. We also control for the mean elevation of the country's territory to account for variation in conflict onset caused by a group's natural surroundings. Finally, to account for temporal dependence, we follow Cederman, Weidmann, and Gleditsch (2011) and include the year. We also include a count of consecutive years the ethnic group has been at peace along with its square and cube (Carter and Signorino 2010).

5.6 Model

The dataset we analyze is time-series-cross-sectional with 12,759 ethnic-group-state-year observations. These observations are drawn from 541 group-state dyads in 127 countries.[22] The outcome variable is dichotomous and indicates the onset of conflict. We therefore estimate a logistic model. Since observations are repeatedly collected across years for the same country, groups of observations within the dataset are correlated. We therefore cluster the standard errors on countries, similar to Cederman, Weidmann, and Gleditsch (2011). Finally, we interact P (power) and Q (benefits) to test our hypothesis regarding the conditional relationship between opportunity and grievances.

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[22]We include summary statistics in the Online Supplementary Appendix.

6 Results

We present the results of our empirical analysis in Table 1. Our main hypothesis predicts that the effects of opportunity (P) and benefits (Q) on conflict onset are dependent on each other. We consequently interact these two variables in Model 1. The interaction term and benefits (Q) are statistically significant at $p < 0.05$, while opportunity (P) is significant at $p < 0.10$. Opportunity and benefits are both positive while the interaction term is negative.[23] We refrain from interpreting these coefficients directly since their marginal effect on the outcome depends on the value of the other term in the interaction (Brambor, Clark, and Golder 2006). Instead, we calculate predicted probabilities of conflict onset while systematically varying both opportunity (P) and benefits (Q) to estimate the substantive effect of their interaction.[24]

We begin by calculating predictions for every possible combination of opportunity (P) and benefits (Q) in the interaction term. We do this across their full ranges (zero to one). Predictions are generated with 1,000 sets of simulated coefficients from Model 1 in Table 1 and the observed data for all other variables. This produces estimates of the average effect of opportunity (P) and benefits (Q) in the population of ethnic groups (Hanmer and Ozan Kalkan 2013). We present these predictions using a contour plot. Visualizing the interaction in this way enables easy interpretation of its effect on the outcome and ensures the entirety of the relationship is displayed. Our theory expects that the probability of conflict occurring will be lowest when opportunity and benefits are at parity, or, graphically, along the 45 degree line from (0,0) to (1,1). As opportunity and benefits diverge, or as we move away from the 45 degree line, the risk of conflict should increase. Therefore, the highest risk of conflict should occur in the upper left and bottom right corners of the contour plot.

The results of this process are displayed visually in Figure 2. Several patterns that sup-

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[23]The coefficients for these variables may appear large relative to the other coefficients, but their scale is different (they range from 0 to 1).

[24]We use first differences to assess the statistical significance of these effects. These results are included in the Online Supplementary Appendix. As expected, relative to a baseline where P = Q, increasing the disparity between them results in a significantly higher probability of conflict.

Table 1: Regression Results: Main Model

	(1) Conflict Onset	(2) Conflict Onset
Opportunity (P)	2.285* (1.94)	
Benefits (Q)	2.475*** (3.14)	
Opportunity $\times$ Benefits	-4.357** (-2.20)	
Excluded	1.196*** (3.74)	0.691** (2.18)
Mean Elevation$_{Country}$	-0.000196 (-0.89)	-0.0000941 (-0.40)
log(Relevant Groups$_{Country}$)	0.454* (1.87)	0.265 (0.93)
Population$_{Country, t-1}$	9.69e-10 (0.99)	9.61e-10 (1.00)
GDP$_{Country, t-1}$	-1.99e-13 (-1.34)	-2.08e-13 (-1.33)
Peace Years	-0.292*** (-5.39)	-0.290*** (-5.56)
Peace Years^2	0.00745*** (2.80)	0.00779*** (3.01)
Peace Years^3	-0.0000637** (-2.00)	-0.0000697** (-2.23)
Year	-0.0154 (-0.87)	-0.0181 (-1.04)
Constant	27.08 (0.77)	33.38 (0.96)
AUROC	0.841	0.825
Observations	12759	14249

t statistics in parentheses

* p<0.10, ** p<0.05, *** p<.01

port our argument are immediately apparent. First, as expected, the probability of conflict is relatively low in the area immediately surrounding the 45 degree line that extends from the origin (0,0) to the top right of the figure (1, 1). This is the area in which the disparity between benefits and opportunity is small. Our hypothesis predicted that the probability of conflict in such scenarios is low, as observed in Figure 2. We argue this is because actors in this region do not expect their use of force to considerably alter their status quo benefits. The risk of conflict ranges from 0.01 at the origin, to about 0.02 when power and benefits both equal 0.5, to just under 0.01 when power and benefits both equal 1.

Also as expected, the risk of conflict onset increases as we move toward the top left corner of Figure 2, or as an ethnic group's relative power increases in relation to its share of benefits. The risk of conflict is highest when opportunity is high and benefits are low, with a predicted probability of onset of nearly 0.1 when opportunity equals 1 and benefits equal 0. This pattern supports our argument that in these contexts, ethnic groups use force to alter the distribution of status quo benefits to more closely match their power. For example, the Hutu in Burundi constituted a large majority of the population in the early 1990s (p=0.86), but were economically disadvantaged (q=0.5). Grievances over the unequal distribution of benefits in society led to conflict in 1991. The conflict was initiated by Palipehutu, a rebel group representing the ethnic Hutu population, when the group began launching cross-border attacks from strongholds across the border in Tanzania.
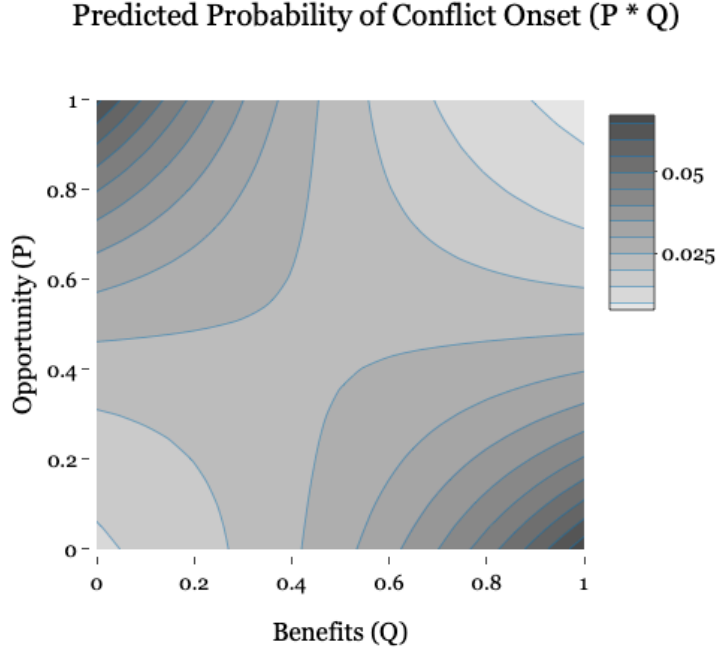
Predicted Probability of Conflict Onset (P * Q)

Figure 2: Predicted probability of conflict onset for each combination of P and Q.

Finally, as expected, moving toward the bottom right corner of Figure 2 also increases the likelihood of conflict onset. The predicted probability of onset is 0.05 when benefits equals 1 and opportunity equals 0. In this region of the graph, where ethnic groups enjoy high benefits but low power, we expect governments to initiate conflict in order to redistribute benefits. For example, the Lari/Bakongo conflict in Congo in 1998 reflects this scenario well. The Lari ethnic group enjoyed significantly higher benefits (0.79) than power (0.55), representing one of the larger disparities between power and benefits in our data. After Denis Sassou-Nguessou took control of the government in late 1997, the regime began targeting the Lari ethnic group and the Ninja militia that represented them, forcing the group to flee Brazzaville.

It is also notable that the predicted probability of conflict at (1,0) is only half as high as that at (0, 1). This is consistent with our expectation that governments are less likely to

need to resort to force in order to redistribute benefits within society, as they have nonviolent policy options available to them that they will prefer to use when possible.

We follow Koubi and Böhmelt (2014) and assess the impact of including the interaction term in the model by comparing the area under the receiver operator curve (AUROC) of the theoretical model and a model that excludes the interaction. The null model performs well, as the AUROC equals 0.825. However, as expected, including the interaction increases the AUROC to 0.841. This magnitude of this increase is similar to what Koubi and Böhmelt (2014) observe. This suggests suggests that interacting benefits and opportunity improves the fit of the model in a meaningful way.

We return to the results in Table 1 to interpret the control variables. They are largely consistent with the extant literature. Ethnic groups that are excluded from political power are significantly more likely to be involved in the onset of civil conflict. Similarly, the log of the number of politically relevant ethnic groups in the country is positively associated with conflict and is significant at the 0.10 level. Population is positively associated with conflict onset while country GDP has the opposite relationship, but neither is significant. Finally, higher elevations are negatively associated with conflict onset and is also not significant.

7   Conclusion

This paper presents a novel theory of civil conflict onset that accounts for the conditional relationship between grievance and opportunity. It argues that the probability of civil conflict is lowest when benefits (inverse grievance) and opportunity are at parity, and increases as the disparity between these two factors increases. Data regarding 541 ethnic group-state dyads in 127 countries provides strong statistical and substantive support for our argument. When opportunity and benefits are near parity, the probability of conflict approaches zero. However, the probability of conflict increases as benefits and power diverge.

This paper makes several contributions to our understanding of civil conflict. First, by showing exactly how grievance and opportunity jointly determine conflict onset, our model improves upon existing explanations that do not specify the conditionalities in the relationship between grievance and opportunity. We believe that this is particularly important considering the tendency for most scholars in the civil war literature to favor one explanation over the other rather than seeking intuitive ways to integrate grievance and opportunity into a comprehensive explanation for civil conflict. We further show that integrating grievance and opportunity into a single framework alters the predictions of each argument. We find that groups even when they are highly aggrieved will only rebel when they expect that using force will improve their economic lot, while even if the opportunity to fight exists, groups will only fight if they are sufficiently dissatisfied with the status quo distribution of benefits. Thus, our paper advances the civil war literature by modifying the predictions made by the leading theories of civil war onset.

Furthermore, the general model that we put forward in this paper applies well beyond our focus on population and economic factors, as proxies for opportunity and grievances arguments. In the other words, our model has a broad explanatory power that is relevant for other measures of grievances and opportunity and even for other theories of political contention. In fact, in the the Supplementary Appendix, we test our model using other proxies, such as area for opportunity and political exclusion for grievances, and the results are consistent with those in the main text. Further, our logic applies to the related greed based argument in the literature; it is likely that groups will only act on greed if they are dissatisfied with the status quo and/or if they feel that fighting will will bring them greater benefits than what they currently have. Beyond this, our work also has important implications for other forms of contentious politics, such as protest movements. For example, Chenoweth and Ulfelder (2017) find that factors linked with both opportunity and grievances are associated with the onset of nonviolent insurgencies but they do not test the conditional impact of grievance and opportunity. Our model could provide a useful

way to advance this literature as well.

This paper also advances existing literature by theorizing the conditions under which states will initiate civil conflict. The vast majority of existing research focuses on the rebel perspective, assuming civil conflict is initiated by non-state groups. Yet evidence suggests that governments are often instigators of civil conflict violence. We develop a logic of state initiation previously unexplored in the literature. This dyadic theory, furthermore, may provide insights into when states target groups that enjoy high benefits through a variety of redistributive and repressive policies not examined here. The paper thus has implications for other research areas beyond civil conflict, including but not limited to state repressive and economic policies.

Finally, our argument has implications for policy-makers. Because we show that opportunity and grievance at the group level jointly affect the probability of conflict, we can better understand when and where civil conflict is likely to erupt, and importantly, which groups it will impact. Rather than focusing exclusively on income inequality or weak states, practitioners must seek to concurrently resolve both motivation and opportunity factors if they want to reduce the threat of violence among high-risk actors.

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A Online Supplementary Appendix

This supplementary appendix includes the following additional tests and information. Section A.1 presents results for analyses using alternative measures of both Opportunity and Benefits, but that are otherwise the same as the analysis in the main paper. In these additional models, we exhaust the unique combinations of P = {Group Population, Group Settlement Area} and Q = {Political Exclusion, Group GDP}. Our findings are consistent across all of the resulting models, giving us further confidence in the results we present in the main paper. We provide regression results and first differences for each of these models in their respective sections. Section A.2 presents first differences that assess the statistical significance of the effects in our main analysis (Figure 2). Finally, Section A.3 presents descriptive statistics for all variables included in the analyses.

A.1 Operationalizing Grievance and Opportunity Differently

The primary analysis uses relative population size to empirically assess our hypothesis regarding the interactive effect of benefits and opportunity on conflict onset. In this section, we employ an alternative measures of both opportunity and benefits to ensure the robustness of our empirical results. Specifically, we replace our population-based measure of opportunity with a measure of relative settlement area. This measure is a useful proxy for opportunity as larger settlement patterns are likely to be correlated with more access to potential recruits, higher numbers of civilian supporters, greater access to resources, and greater ability to evade government forces, all of which should increase the feasibility of successful rebellion. This measure is calculated in the same manner as P and Q in the main paper. The formula for P_{area} is below. $Area_{EG}$ is an ethnic group's total settlement area as a share of the country's total area and $Area_{EGIP}$ is the same for all ethnic groups in power (EGIP). Data is from GeoEPR (Vogt et al. 2015).

$$
\text{P}_{\text{Area}} = \begin{cases} \text{Area}_{\text{EG}}/\text{Area}_{\text{EGIP}}, & \text{if included} \\[2ex] \text{Area}_{\text{EG}}/(\text{Area}_{\text{EGIP}} + \text{Area}_{\text{EG}}), & \text{if excluded} \end{cases} \qquad (\text{A.1})
$$

We replace the income-based measure of benefits with a measure of political grievance from the EPR dataset, which measures access to executive power as discussed above (Min, Cederman, and Wimmer 2008). Groups are coded as politically aggrieved (i.e. low benefit) if they are excluded from power (i.e. the group has separatist autonomy, regional autonomy, or is powerless or discriminated). The variable used in the empirical analysis equals one if the group is excluded and zero otherwise. In other words, the variable equals one when the group has low (political) benefits and equals zero when the group has high (political) benefits.

The results, presented in Tables A.1-A.3, are consistent with the primary analysis. For example, as Figure A.1 demonstrates, moving from parity between opportunity (Area) and benefits (Group GDP) to a large disparity generates a significant increase in the probability of conflict. This indicates that conflict is more likely as the distance between inverse grievances and opportunity, operationalized as area, increases. The same is true when benefits = political exclusion with opportunity measured with group settlement area *and* group population. Groups with relatively high opportunity are more likely to rebel when they are also excluded from power (low benefits). We demonstrate these relationships are significant by providing first differences. In short, the findings using alternative measures for both opportunity *and* benefits further support our main results and provide additional evidence for our argument on the conditional nature of opportunity and benefits.

A.1.1 Group Settlement Area & Group GDP

Table A.1: Logistic Regression Results (P = Group Settlement Area, Q = Group GDP)

	y = Conflict Onset
Opportunity (Settlement Area)	2.366***
	(3.00)
Benefits (GDP)	1.923***
	(2.60)
Opportunity $\times$ Benefits	-3.466**
	(-1.97)
Excluded	1.156***
	(3.70)
Mean Elevation$_{Country}$	-0.000155
	(-0.70)
log(Relevant Groups$_{Country}$)	0.455*
	(1.93)
Population$_{Country, t-1}$	1.01e-09
	(1.01)
GDP$_{Country, t-1}$	-1.95e-13
	(-1.34)
Constant	26.05
	(0.77)
AUROC	0.844
Observations	12782

Time controls suppressed for space

t statistics in parentheses

* p<0.10, ** p<0.05, *** p<.01

First Differences : (Profiles) - (P_{area} = Q_{gdp} = 0.05)

Difference in Probability

0.006

0.004

0.002

0.000
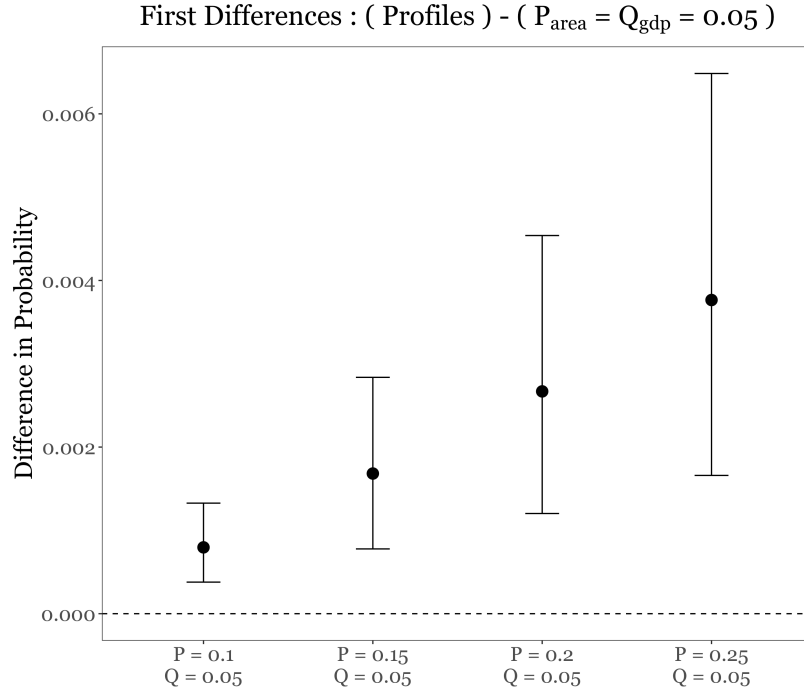
P = 0.1
Q = 0.05

P = 0.15
Q = 0.05

P = 0.2
Q = 0.05

P = 0.25
Q = 0.05

Figure A.1: Change in pr(Conflict), Increasing P from Parity with Q at 0.05. Dots represent the mean difference while the error bars display a 90% confidence interval.
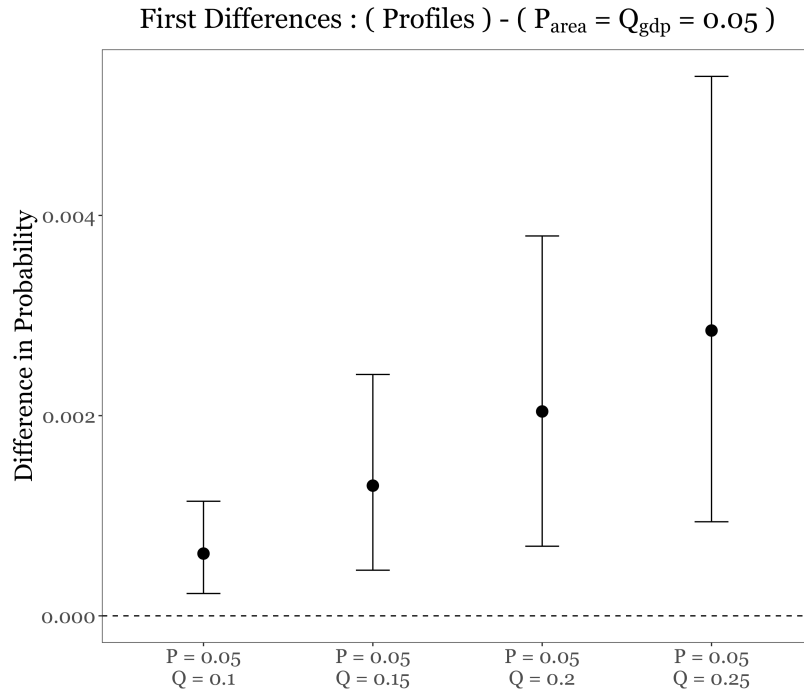

First Differences : (Profiles) - (P_{area} = Q_{gdp} = 0.05)

Difference in Probability

0.004

0.002

0.000

P = 0.05
Q = 0.1

P = 0.05
Q = 0.15

P = 0.05
Q = 0.2

P = 0.05
Q = 0.25

Figure A.2: Change in pr(Conflict), Increasing Q from Parity with P at 0.05. Dots represent the mean difference while the error bars display a 90% confidence interval.

4

A.1.2 Group Settlement Area & Political Exclusion

Table A.2: Logistic Regression Results (P = Group Settlement Area, Q = Political Exclusion)

	y = Conflict Onset
Opportunity (Settlement Area)	1.058
	(1.61)
Benefits (Political Exclusion)	0.727*
	(1.65)
Opportunity $\times$ Benefits	0.788
	(0.89)
Mean Elevation$_{\text{Country}}$	-0.000127
	(-0.54)
log(Relevant Groups$_{\text{Country}}$)	0.369
	(1.41)
Population$_{\text{Country, t-1}}$	9.58e-10
	(0.98)
GDP$_{\text{Country, t-1}}$	-1.83e-13
	(-1.27)
Constant	42.87
	(1.28)
AUROC	0.833
Observations	13127

Time controls suppressed for space

t statistics in parentheses

* p<0.10, ** p<0.05, *** p<.01

First Differences : (Profiles) - ($P_{area} = P_{profile}$, $Q_{excl} = 0$)

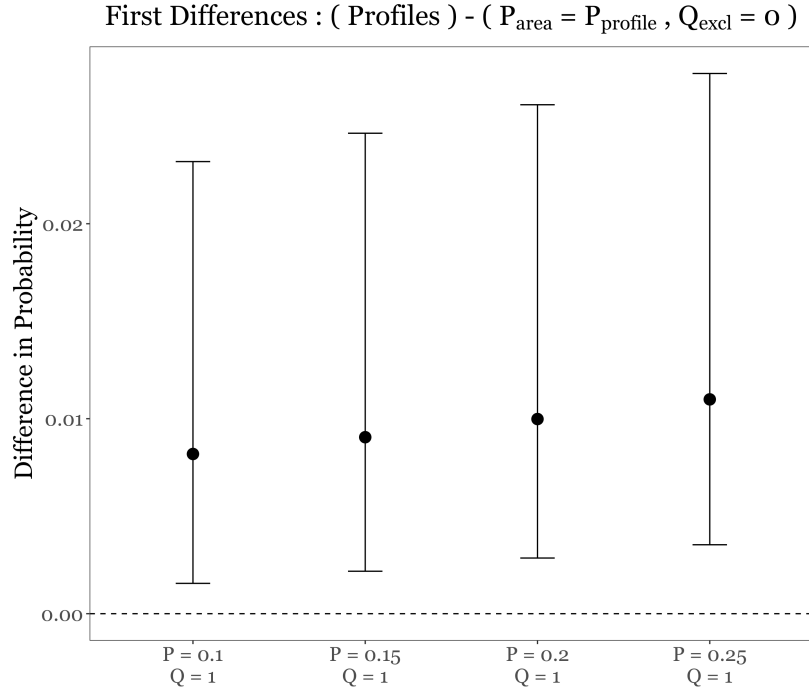Figure A.3: Change in pr(Conflict) between politically included groups (Q = 0) and excluded groups (Q = 1) across a range of values for P. Dots represent the mean difference while the error bars display a 90% confidence interval.

A.1.3 Group Population & Political Exclusion

Table A.3: Logistic Regression Results (P = Group Population, Q = Political Exclusion)

	y = Conflict Onset
Opportunity (Group Population)	0.955
	(1.24)
Benefits (Political Exclusion)	0.899**
	(2.00)
Opportunity $\times$ Benefits	0.730
	(0.79)
Mean Elevation$_{\text{Country}}$	-0.000139
	(-0.63)
log(Relevant Groups$_{\text{Country}}$)	0.414*
	(1.65)
Population$_{\text{Country, t-1}}$	8.45e-10
	(0.87)
GDP$_{\text{Country, t-1}}$	-2.04e-13
	(-1.30)
Constant	15.88
	(0.47)
AUROC	0.837
Observations	12782

Time controls suppressed for space

t statistics in parentheses

* p<0.10, ** p<0.05, *** p<.01

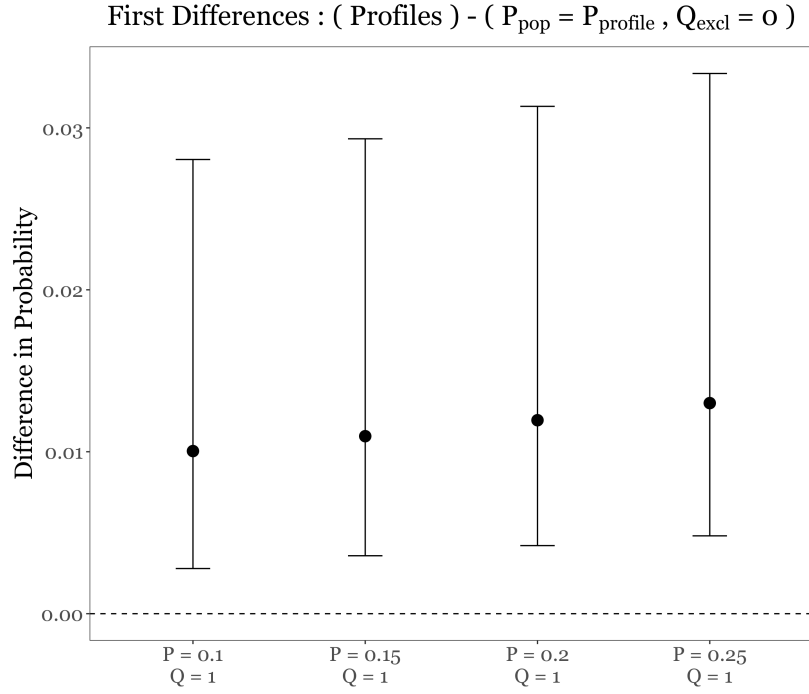First Differences : (Profiles) - ($P_{pop} = P_{profile}$, $Q_{excl} = 0$)

Figure A.4: Change in pr(Conflict) between politically included groups (Q = 0) and excluded groups (Q = 1) across a range of values for P. Dots represent the mean difference while the error bars display a 90% confidence interval.
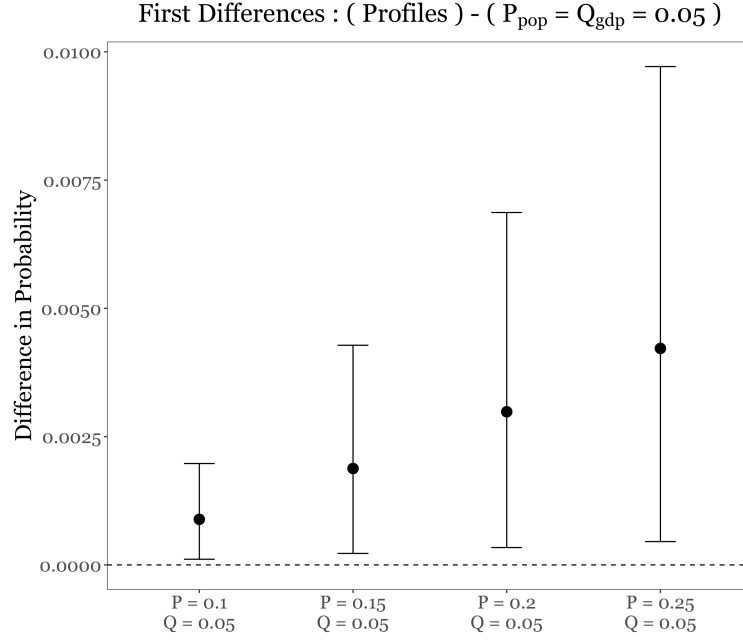
A.2   First Differences: Main Model

First Differences : (Profiles) - ($P_{pop} = Q_{gdp} = 0.05$)

Figure A.5: Change in pr(Conflict), Increasing P from Parity with Q at 0.05. Dots represent the mean difference while the error bars display a 90% confidence interval.

First Differences : (Profiles) - ($P_{pop} = Q_{gdp} = 0.05$)

Figure A.6: Change in pr(Conflict), Increasing Q from Parity with P at 0.05. Dots represent the mean difference while the error bars display a 90% confidence interval.

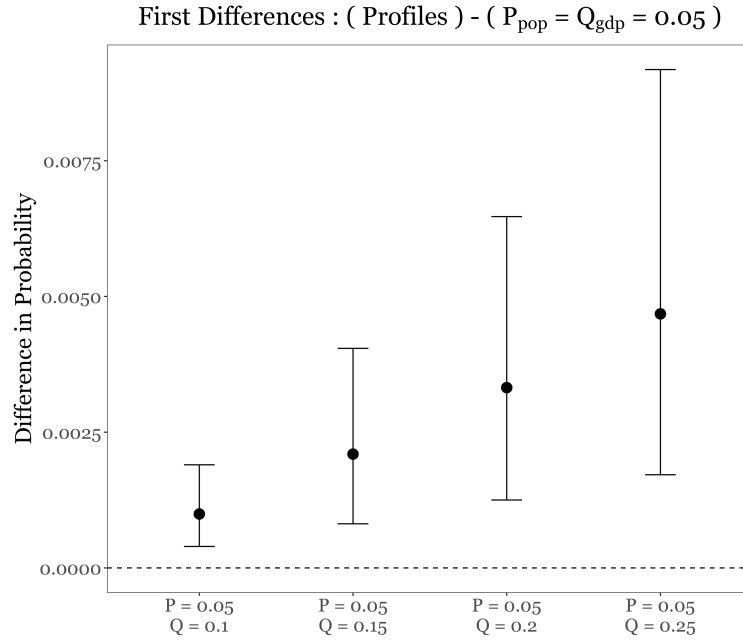## A.3 Descriptive Statistics

Table A.4: Descriptive Statistics (Main Model), N = 13,131

Statistic	Min	Max	Mean
Opportunity (P)	0.00	1.0	0.2
Benefits (Q)	0.00	1.0	0.2
Excluded	0	1	0.6
Peaceyears	1	71	41.8
Year	1,991	2,017	2,004.4
Mean Elevation$_{Ctry}$	18.7	2,971.5	729.1
log(Rel. Groups$_{Ctry}$)	0.7	4.0	2.0
Population$_{Ctry, t-1}$	187,552	1,378,665,000	170,833,640
GDP$_{Ctry, t-1}$	422,273,289	19,809,528,383,638	1,253,011,166,639