

Friends or Foes?
Inter-rebel relations and multi-party civil war outcomes

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Abstract

This paper investigates how interdependencies among rebel groups influence civil conflict outcomes. Relative capabilities of combatants are pivotal in determining war outcomes (Gent 2011; Mason 2004). Yet, the literature has generally ignored the simultaneous presence of inter-rebel alliances and rivalries that fundamentally alter rebel capabilities. In this paper, we argue that while inter-rebel alliances enable rebels to reinforce their depleted capabilities, inter-rebel rivalries deplete these capabilities at a faster rate. Therefore, rebel groups that benefit from alliances and avoid engaging in rivalries are more likely to survive and thrive. In contrast, rebels facing rivals are more likely to accept accommodations from the government. Examining rebel interdependencies and conflict termination data, we show that allied groups that are not threatened by rivals are less likely to terminate conflict by a peace agreement or attrition. Moreover, in the absence of alliances, rebel groups in rivalry are more likely to end their conflict by a peace agreement. Finally, allied groups facing rivals, unable to seize the benefits of alliances, are more likely to leave the war through attrition. The paper offers important implications for scholars and practitioners who study multi-party civil wars and inter-rebel interactions.

Introduction

How do rebel interdependencies shape multi-party civil war outcomes? During the Ethiopian civil war, the Tigray Liberation Front (TPLF) in Ethiopia was allied with multiple groups, including the Eritrean People's Liberation Front (EPLF), while also clashing with multiple rival groups such as the Eritrean Liberation Front (ELF). How did these relations between rebels alter the relative capabilities of TPLF? How did the alteration in capabilities shape the civil conflict outcome for these groups?

While rebel groups can bolster individual capabilities with cooperative relations with other groups, the impact of cooperation can be offset by intergroup rivalries. Ignoring how intergroup alliances and rivalries bolster or depreciate rebel capabilities presents an incomplete picture for understanding the relative strengths of warring parties. In this paper, we aim to bring together these positive and negative rebel interdependencies to understand civil war outcomes.

Recent studies have made significant progress in exploring rebel associations. Given that many civil wars are becoming multi-actor settings, the assumption of independence between rebel groups can no longer be sustained. Rebel groups often form cooperative relations with other groups for sharing intelligence, obtaining weapons, or coordinating attacks against the government. Clashing with other groups for the exclusive control of a territory and the sole right to represent an ethnic community is also becoming quite common. Yet, studying inter-rebel rivalries and inter-rebel alliances is still a rare venture among civil war scholars. Specifically, the link between the dimensions of interdependency and war outcomes is yet to be explored. This is the first study that investigates simultaneous inter-rebel associations as a predictor of war outcomes.

In a multi-party civil conflict, rebel groups seek to maximize access to scarce military and political resources to survive and thrive. For that purpose, rebels can form alliances with other groups. In the absence of alliances, rebel groups facing rivals can accept accommodations from the government to consolidate political resources. Rebel groups simultaneously involved in alliances and rivalries, on the other hand, are likely to spend their pooled military resources on rivals. Examining inter-rebel interdependency and conflict termination data between 1980 and 2023, we demonstrate that allied groups that are not threatened by rival groups are less likely to terminate conflict by a peace agreement. Unallied groups facing rivals, on the other hand, are more likely to end their conflict with the state by a peace agreement. Rebel groups simultaneously in alliance and rivalry are more likely to terminate conflict by attrition.

The findings of this study can have important implications for the way we study rebel groups and war outcomes. While individual rebel attributes still matter, scholars need to shift attention away from studying rebel groups independently of each other. Weak rebels that have not only forged alliances but also have avoided confrontations with other rebel groups may be in a better situation than strong unallied groups that often clash with others. Interdependencies matter and more so than ever; when wars are increasingly turning into complex settings with multiple parties, ignoring these interdependencies or studying them in isolation will not present scholars with a realistic depiction of relative capabilities. The findings shed light on the conditions under which positive or negative interdependencies lead to peace.

First, we review the literature on dyadic studies in civil wars. Next, we develop hypotheses on war outcomes and rebel interdependencies. We conclude with a discussion

of results and the study's implications for advancing our understanding of civil war outcomes.

Previous Literature

There is an increasing trend towards dyadic studies in civil war literature. The Uppsala conflict data program has contributed to these studies by providing a dyadic conflict dataset. Nilsson (2010) for example has examined dyadic interactions between multiple warring parties in the context of peace agreements. She argues that weak rebel capabilities can account for why certain rebel groups are more likely to sign peace agreements. As Nilsson correctly surmised, analyzing peace agreements only between a rebel group and the government while ignoring interactions with other groups misses important information that might shed light on civil war dynamics. Another dyadic study by Cunningham et al (2009) uses other rebel characteristics such as control of territory or strength to understand duration or war outcomes. These studies contribute to dyadic studies on civil wars, however they focus solely on individual attributes and do not touch upon rebel interdependencies.

Recently, there is an increasing interest in the civil war literature in understanding rebel to rebel relationships. These studies emphasize that rebel groups should not be solely treated as individual groups; the relationships between groups also matter. These scholars either refer to positive (Akcinaroglu, 2012; Christia, 2012) or negative interdependencies (Christia, 2008, Cunningham K., 2011, Cunningham, Bakke and Seymour, 2011, Fjelde and Nilsson, 2011) among rebel groups but never both. An emerging line of work analyzes the effects that rebel fragmentation has on violence (Cunningham, Bakke and Seymour, 2011) and state concessions (Driscoll 2012, Cunningham. K, 2011; Findley and Rudloff

2012). It is important to note, however, that fragmentation is not equivalent to rivalry, thus we do not really know the impact of negative associations on war outcomes.

K. Cunningham's (2011) and Ogutcu's (2015) studies come closest to studying war outcomes in a large N framework using negative interdependencies. Cunningham studies concessions given to separatist movements on a yearly basis. Concessions can be considered as approximating peace agreements, yet the author incorporates a randomly selected set of separatist movements, one that includes not only violent but also non-violent ones. Ogutcu (2015) examines how state and rebel rivalries shape negotiations as well as negotiated settlements.

Study of inter-rebel alliances and the way it shapes conflict outcomes is also novel conceptual territory. Christia (2008), in her case studies, argues that rebels ally out of power considerations. Ziegler's (2016) study, meanwhile, analyzes the conflicts of interest between allies and the way it affects war recurrence. A paper by Akcinaroglu (2012) studies war outcomes in the context of positive interdependencies and findings show how cooperation among groups make peace agreements less and rebel victory more likely. Studying inter-group divisions while ignoring alliances or studying alliances while ignoring rebel divisions do not present a complete picture of capabilities which is crucial in understanding war outcomes. This paper contributes to civil war literature by addressing the void that appears when rebel interdependencies are ignored or treated in isolation from one another. By accounting for both positive and negative interdependencies among rebel groups, we hope to fine-tune the findings in literature on rebel capacity and war outcomes.

Theoretical Foundation

Relative capabilities of combatants are a major determinant of conflict outcomes (Cunningham et al. 2006, Gent 2011, Mason and Fett 1996, Mason 2004). Yet, dyadic analyses of relative capabilities miss the complexities of multi-party civil conflict outcomes where rebel groups commonly engage in interdependent relations. Rebel groups often ally themselves with others. Rivals also arise due to ideological and resource-based disagreements, and rebels seek to eliminate rivals in a quest for survival and resource acquisition. Governments are also fighting multiple groups simultaneously and are seeking to maximize resources. Therefore, governments respond to these inter-rebel relationships strategically, shaping civil conflict outcomes. We need to move beyond individual attributes of rebel capabilities to more nuanced concepts of power that incorporate rebel interdependencies.

Governments fighting with multiple groups often find themselves at a disadvantage as they will have to divide their resources across multiple battle grounds to deal effectively with each group. Rivalry between two rebel groups on the other hand can be considered as a depreciation of rebel forces. We argue that under these costly circumstances, both the government and the rebel group will be “ripe for resolution” (Zartman 1995).

The situation can get worse for the government when groups form alliances, alliances can be considered as a synergistic effect from a joint effort, for example when the same two rebel groups form an alliance, their relative capabilities will be enhanced by an absolute increase in their individual capabilities. The level of cooperation thus can range from cordial relations or shared information at lower levels to joint army command or coordinated attacks at higher levels of cooperation. Given the extent of their combined

military capabilities and the bargaining advantage it grants, we argue that allied groups will be less likely to terminate conflict with indecisive outcomes (i.e. peace agreement and attrition).

If a group has both allies and rivals, on the other hand, Groups 1 in rivalry with Group 2 and allying with Group 3 loses the advantage it had from forming alliances. The relative capabilities drops. We argue that any advantage forging alliances gives a rebel group will be offset by its rivalries, increasing the likelihood that they terminate the conflict by attrition.

Inter-rebel Rivalries

Various rebel groups seeking to represent the same minority population may emerge because they differ in structure, leadership, ideology, and goal. Rebel groups are dependent on the support and cooperation of the minority group they seek to represent for recruitment, safe haven, financial resources, and intelligence (Petersen 2006; Salehyan 2010; Weinstein 2007). When there is more than one rebel group rooted in the same community seeking to unlock access to a limited pool of resources, these rival groups will try to outperform one another and consolidate power and representation of the community under their organization. Moreover, many rival rebels engage in skirmishes, further diminishing their resources. When the aggressiveness between rebels becomes a frequent encounter, fighting groups may find their resources depleted in the quest to defeat each other. For example, the defeat of Col. Karuna Amman's rival forces in the eastern territory in Sri Lanka did not come at the hands of the government but LTTE's Vanni faction in 2004 (Human Rights Watch World Report, 2005). Our data shows that almost half of all rebel groups in rivalry engaged in conflict with their rival. Therefore, not only the inter-rebel fighting but also the

expectation of an attack from a rival group will persuade a rebel group that accepting concessions from the government is an effective way to ensure survival.

Presence of inter-rebel rivalries indicates that both the government and the rebel group face threats on multiple fronts. Zartman (1995), in his discussion of “mutually hurting stalemates”, argues that the costs warring parties incur should be high enough for them to resort to conciliatory action. In the absence of alliances to replenish limited resources, rebel groups would benefit from accepting a negotiation offer. This way, they can allocate their military and political resources more efficiently. A peace agreement ensures the survival of the rebel group as an organization in an alternative form in several ways. When the government engages with a rebel group as a negotiation partner, it grants legitimacy, recognition, relevance, and voice to it. A peace agreement allows the rebel group to access political power without continuing to deplete resources on the battlefield. Many members of the minority population the group seeks to represent may shift their support to the group. This not only allows the group to outperform its rival by consolidating the voice of the population under their organization, it also increases the group’s chances of survival as a political party (Matternich 2012). The alternative may be a deathly blow or slow attrition in the battlefield.

Although rebels have much to gain from an agreement by obtaining some access to power in expense of their rival, presence of rival rebels is an important bargaining advantage for the government as well. When the government finds itself fighting with multiple rebel groups, it can allocate limited resources to its fight against each group. It is very difficult to repress the group into eradication once they have effectively organized (Mason 2004). Accommodating a rebel group means one less combatant in the battlefield,

strengthening the regime. Their presence also grants them the advantage of choosing the party to negotiate with as well as the extent of the concessions. In other words, presence of alternative negotiation partners can be utilized as a bargaining chip to limit the scope of concessions. It is a win-win scenario for both parties.

In Philippines, for example, the government managed to buy off Moro National Liberation Front, MNLF with a peace agreement in 1996 by granting an autonomous status to four Muslim dominated provinces. At the time, the MNLF had serious rivalry with another group, MILF such that by 1993, the two feuding groups were escalating threats. Dropping demands for independence at the time was perceived as a major concession for the MNLF leader who traditionally sought secession in the southern Philippines. Therefore, we argue:

H1: Unallied rebel groups in rivalry are more likely to terminate civil conflict by a peace agreement.

Inter-rebel Alliances

Alliances' synergistic effect stems from a joint effort of cooperation and coordination. Level of cooperation can range from cordial relations or shared information at lower levels to coordinated attacks at higher levels of cooperation. Allied groups with no rivals will be able to utilize the benefits of cooperative relations without having to allocate scarce resources to deal with rivals. These benefits are not limited to, but certainly include, access to a larger pool of military resources. These groups will also have access to local support and shelter that their allies benefit from. Together, they can pose a significant threat for the government.

Facing only one enemy, allied rebels can boost their capabilities and will be in a position to make larger demands from the government. These demands are often not

palatable for the government not only due their size but also due to the sheer number of groups in the alliance that may demand accommodation (Walter, 2006). From the perspective of the rebels, on the other hand, as commitment within alliances and the number of parties in the alliance increase, the issue of multilateral bargaining becomes highly complex. Groups will have divergent preferences making it difficult to reach an agreement with the government. Each group may have different demands and a different bargaining range (Morrow 1994, Fearon 1998, Cunningham 2006). Going back to the introductory example, the committed alliance between TPLF and EPLF in Ethiopia for example was based on an understanding that the latter had every right to secede (Young, 1998).

Lastly, bargaining failures are likely to be higher when only positive associations exist. Alliance information is often unknown parameter making it difficult to understand how the group benefits from such relations (Akcinaroglu, 2012, Christia, 2008). It would also be difficult for the government to coopt select number of rebel groups out of the alliance. The government is likely to have little information regarding alliance commitments, and is likely to question an allied group's reconciliation attempt as well as its commitment to any agreement. In short, informational problems tend to be acute when relationships between groups are positive. We argue:

H2: Allied rebel groups avoiding rivalry are less likely to terminate civil conflict by a peace agreement.

By granting access to a larger pool of resources, alliances provide rebels the means to avoid defeat. They can replenish depleted resources and continue conflict. Cooperation and coordination among allied rebels also allows them to survive attacks from the government. Allied rebels also have access to a wider support network which may include

shelter, a larger pool of recruits, and intelligence from locals. Therefore, allied groups are able to bounce back quickly from government attacks without a long recuperation period. Moreover, just the expectation that reinforcement will soon arrive from allies may be enough to revert groups' decision to retract.

Not only strong but also weak groups that embed themselves in an alliance are able to prolong survival in the battlefield. For example, in Philippines, Abu Sayyaf (ASG), despite being a weak group, was able to rely on its alliance with Moro Liberation Front (MILF) during early 2000s for resources, shelter, and recruits (Abuza 2005). We contend that:

H3: Allied rebel groups that avoid rivalry are less likely to terminate civil conflict by attrition.

Inter-rebel Rivalry and Alliance

Rebel groups engaged in both positive and negative interdependencies with other groups will have a significantly different trajectory in conflict than those only in alliance or only in rivalry. Benefits the alliance provides for these rebels will be offset by the costs of rivalry. Any access they have to a larger pool of resources through their alliance network, they are likely to waste on seeking to outperform their rival militarily and politically. Being part of the alliance network, on the other hand, renders these groups unappealing candidates for accommodation. As previously discussed, allied groups are. If an allied rebel group is in rivalry with an unallied group, the latter is likely to be a more suitable negotiation partner for the government.

On the other hand, owing to the protection and the resources the alliance provides, the government will not be able achieve victory over groups simultaneously involved in positive and negative interdependencies. Yet, denied access to the political process and

wasting the larger pool of resources on rivalries, capabilities of such groups will slowly be chipped away by both the government and their rivals to the point where support from their allies will not maintain the organization's current capacity for conflict. For example, PUK (Patriotic Union of Kurdistan) was allied with the Shia group Supreme Council of Islamic Revolution in Iraq (SCIRI). While PUK was in an intense rivalry with KDP that included inter-group fighting, SCIRI was in rivalry with Dawa. Both PUK and SCIRI terminated their conflict by attrition in mid-90s (Howard, 2004; UCDP 2016). We argue:

H4: Allied rebel groups in rivalry are more likely to terminate civil conflict by attrition.

Alliance size

While alliances help rebel groups increase chances of survival, not every alliance poses the same level of threat to government forces. It is difficult for rebel groups to acquire the resources to defeat a well-funded organized state army. In our dataset, only 9 percent of rebel groups terminated conflict by victory. Allies' cumulative capabilities and how it compares to government capabilities will be the major determinant for rebel victory (Akcinaroglu 2012). Some alliances may be comprised of groups with little access to resources to begin with whereas other alliances are comprised of a larger pool. The latter may pose a real challenge to the government in the battlefield. We argue:

H5: As the cumulative capabilities of a rebel group's alliance increases, it becomes more likely for the group to terminate civil conflict by rebel victory.

Research Design

To test our arguments, we use Uppsala Conflict Data Program (UCDP) Dyadic dataset v. 25.1 and include all state-rebel dyads that are active between 1980 and 2023 (Davis et al., 2025; Harbom et al. 2008). UCDP defines internal armed conflicts as incidents of violence

involving states and rebel groups that generate at least twenty-five casualties in a given calendar year, over some contested incompatibility classified as control over government and/or territory (Harbom et al. 2008).

We analyze four competing outcomes, rebel victory, government victory, peace agreement, and attrition. We refer to UCDP Conflict Termination data set v. 2024 (Kreutz, 2010) and Non-State Actors Dyadic dataset (D.Cunningham, Gleditsch, and (2009) to code civil war outcomes. Following UCDP, we define a peace agreement as an agreement between warring parties addressing some or all disputed incompatibilities. We code attrition if the rebel group is inactive—unable to satisfy the minimum threshold of battle deaths, for two successive years (D.Cunningham, Gleditsch, and Salehyan 2009; Sambanis 2004).

There are 75 civil conflict states in our dataset and 41 of them had to confront more than one rebel group at one point in the conflict. Conflict outcomes are not aggregated at the level of the entire conflict, but examined at the level of individual dyads. 54 dyads end conflict by peace agreements, 35 end by victory (23 in favor of government, 12 in favor of rebels) while 43 get terminated by attrition.

Independent variables and Data

Presence of inter-rebel rivalry: The variable is coded 1 if the rebel group in the conflict-dyad-year was in a rivalry with another rebel group. Referring to Ogutcu (2015), we have defined an armed group as the rebel group's rival based on several characteristics. These are:

- (1) This group has engaged in armed resistance against the government.

(2) It has claimed to engage in this resistance to vocalize the rights of an under-represented ethnic, religious, or regional minority.

(3) The rebel group that is in the dyad-year claims to engage in armed struggle against the same government to vocalize the rights of the same minority population.

(4) This group is organized and operating in the same geographical region as the rebel group in the dyad.

(5) Two groups did not engage in cooperative behavior during the given year, defined as coordinated attacks against the state or a public declaration of their alliance (Akcinaroglu 2012).

139 of 266 rebel groups were in rivalry at some point during conflict.

Presence of inter-rebel alliance: Referring to Akcinaroglu (2012), alliances are coded as a dummy variable for each rebel group-year. Two groups are allied if they have a cooperative relationship in their quest to defeat the government. Allied groups may help train each other's recruits, engage in tactical support, share information, receive material, or military support from each other, or carry out coordinated military operations against the government. 149 of 266 rebel groups were in an alliance at some point during conflict.

*Alliance*Rivalry interaction variable:* The variable interacts the two dummy variables. 88 of 266 rebel groups were simultaneously engaged in alliance and rivalry.

Allies' cumulative capabilities: This is coded for each rebel group. Independent rebel groups can only utilize their own military resources while connected groups may also have access to the military resources of their allies. Referring to Akcinaroglu, (2012), if A is allied with B and C at t, then this variable codes $B + C$ and is expressed in thousands of soldiers, divided by a thousand.

Control Variables

We used commonly adopted control variables in the literature on conflict outcomes and durations of civil wars. They include:

Number of Groups: Records the number of rebel groups active (Akcinaroglu, 2012). This is the number of overlapping rebel groups in the civil war country for every year and ranges between 1 and 11.

GDP per capita: This is one of the most robust variables associated with duration in civil wars. Higher GDP levels indicate a larger state capacity (Fearon and Laitin, 2003) which might hasten termination of wars. This variable is at 2011 constant prices and is taken from Penn World Table v. 11 for the years between 1980 and 2023. Missing values are interpolated by using energy per consumption.

Government Strength: Strength of government forces is likely to affect civil war outcomes (Mason and Fett, 1996). Governments with a large military capacity may easily win a decisive victory over the rebels. Alternatively, rebel groups facing a strong foe may be worn out and terminate the conflict by attrition. This variable reports the total number of government military personnel; the data until 2001 is taken from Correlates of War Dataset on Material Capabilities. The data between 2001 and 2023 is reported from World Bank Indicators (WBI) and divided by 1000 to make the units compatible between the two datasets. The correlation between the two datasets is 0.91 and thus any potential bias from merging them is expected to be random.

Rebel Strength: This is coded for each rebel group. Individual rebel strength is taken from Cunningham et al. (2009) and updated for recent years and missing values. Weaker groups are more likely to sign peace agreements (Nilson, 2010).

Conflict Intensity: This variable is taken from UCDP Dyadic dataset and it records the level of intensity in the dyad per calendar year. It is coded as 1 for minor armed conflicts (25-999 battle deaths) and 2 for war (1000 or more). Intense conflicts inflict heavy losses on both sides and may push both combatants to a mutually hurting stalemate.

Cold War dummy variable: The dissolution of Cold War era ideological alliances is likely to increase the likelihood of conflict termination (Hartzell and Hoddie 2007). The variable takes on the value of 1 for years between 1980 and 1989.

Empirical Findings

We used competing risks regression for the analysis as recommended by Fine and Gray (1999). Occurrence of a peace agreement, government victory, rebel victory and attrition in this project present competing events for the termination of conflict, that is, every rebel group-government dyad is at a risk of experiencing multiple ways of ending conflict. If the event of interest is the incidence of termination by a peace agreement, then the term competing risks refers to the chance that instead of a peace agreement, we will observe rebel victory, government victory or attrition. The competing events in this model prevent the occurrence of the event of interest from happening. When competing events exist, hazards are computed for the event of interest as well as for competing events, h_{1t} , h_{2t} , h_{3t} , h_{4t} where the cumulative incidence function (CIF), the probability that the event of interest occurs before t , will depend on the hazard of the main event as well as the hazards of competing events. Thus interpreting covariate effects on CIF is likely to be very hard when covariates affect these cause-specific hazards differently. Fine and Gray specify the hazards of the sub-distribution, the sub-hazards which are directly associated with CIFs of respective event types (Fine and Gray, 1999, Gutierrez, 2010). Estimated sub-hazards can

then be interpreted similar to the hazard ratios in a standard Cox model, where values greater than 1 are associated with higher cumulative incidence rate of the event.

[Table 1 here]

Hypothesis 1 proposed that rebels that face rivals, in the absence of alliances, are more likely to terminate conflict by a peace agreement. Findings from Model 1 on Table 1 support this hypothesis. Groups in rivalry, in the absence of alliances, are almost two times more likely to end conflict by a peace agreement and the finding is robust at the 0.05 significance level. Moreover, in line with H2, rebels in alliances are 41 percent less likely to end conflict by a peace agreement in the absence of rivalry. The finding is robust at the 0.1 significance level. Rivalry and alliance interaction variable, on the other hand, has a negative yet insignificant effect on the conflict being terminated by a peace agreement.

[Figure 2 here]

In Figure 2, we have graphed the cumulative incidence rate of termination by a peace agreement for rebels exclusively in rivalry and exclusively in alliance. The graphed CIFs are in line with the expectations in H1 and H2. The first graph on Figure 1 demonstrates that at $t=10,000$ days, with incidence rate of 0.1, an unallied rebel group with rivals is two times more likely to end conflict by a peace agreement than one with no rivals. The second graph on Figure 1 shows that at $t=10,000$ days, an allied rebel group with no rivals has about 0.45 cumulative incidence rate of terminating conflict by peace agreement whereas the rate is about 0.8 for an unallied rebel group with no rivals.

Model 2 estimates the probability that rebel groups end conflict by attrition. In accordance with H3, allied rebel groups with no rivals are 49 % less likely to end conflict

by attrition. Moreover, in line with H4, an allied rebel group facing rival(s) is 2.6 times more likely to terminate conflict by attrition. Both findings are robust at the 0.05 significance level. Unallied rebel groups with rivals are less likely to terminate conflict by attrition. Yet, the result is not significant.

[Figure 3 here]

On Figure 3, we have graphed cumulative incidence rate of termination by attrition for exclusively allied rebels as well as for rebels in alliance and rivalry simultaneously. At $t=10000$ days, with incidence rate of 0.055, the likelihood of an allied rebel group with no rivals to end conflict by attrition is half of that of an unallied group. At $t=10000$ days and an incidence rate of 0.145, a group simultaneously in alliance and rivalry is more than 2.5 times more likely to end conflict by attrition than a group that has no interdependencies.

[Figure 4 here]

Model 3 estimates the probability that rebel groups end conflict by victory. Alliance and rivalry have insignificant effects on the likelihood of ending conflict by rebel victory. In accordance with H5, alliance size has a positive effect on the likelihood of a rebel group terminating conflict by victory. The finding is robust at the 0.01 level. An increase of a thousand soldiers in alliance size increases the likelihood of rebel group victory by 2.4 percent. The CIF on Figure 4 supports this finding. At $t=10,000$ days, 11000 soldiers (mean) corresponds to ~ 0.012 incidence rate of termination by rebel victory whereas 32000 soldiers (+1 standard deviation) corresponds to ~ 0.019 .

Model 4 offers findings regarding the likelihood of government victory. The model incorporates time varying covariates for GDP per capita that violate the assumption of proportionality. Results do not change when the time varying covariate is added to the

model. Both inter-rebel alliance and rivalry decrease the likelihood of conflict termination by government victory. Yet, only the effect of rivalry is robust at the 0.1 significance level. Moreover, presence of rebel groups simultaneously in rivalry and alliance decreases the likelihood of conflict termination by government victory and the finding is robust at the 0.01 level. These results show that presence of multiple groups decreases the likelihood of conflict ending by government victory.

Control Variables

Intense wars lead to rebel victory and decreases the likelihood of peace agreement and attrition. It might be that more intense wars are associated with stronger rebels and face to face confrontations with the enemy might make decisive victories easier to achieve. On the other hand, as the number of casualties increases, peaceful resolution becomes more elusive. As the number of rebel groups increases, government capabilities depreciate, decreasing the likelihood of termination by government victory. Government strength decreases the likelihood of termination by peace agreement. As expected, rebel strength decreases the likelihood of termination by rebel attrition. As GDP per capita increases, state capacity increases, making conflict more likely to end by government victory and rebel attrition. Since peace agreements are government compromises, they are negatively associated with government strength and GDP per capita. Cold War is only negatively associated with the likelihood of peace agreements, due to breaking of Cold War alliances. It is therefore dropped from models capturing victory.

Conclusions

This paper contributes to the recent trend towards dyadic study of civil wars by shedding light on rebel interdependencies and war outcomes. Previous work mostly focused on the relations between the government and one rebel group at the complete exclusion of studying relations between different rebel groups. Given that most civil wars are becoming multi-group settings, rebel relations with each other, whether positive or negative will have important consequences for civil war dynamics. Not taking into account rebel rivalry may lead scholars to overestimate rebel attributes, while doing the same for rebel alliances may lead to the underestimation of rebel capabilities. This work is the first study that brings the two types of interdependencies together in the context of civil war outcomes.

Findings in this paper show that only those unallied rebels that are engaged in rivalry will be the recipients of selective accommodation. As much as it is beneficial for the government to selectively end conflict with some groups while devoting the rest of its resources to dealing with the remaining ones, the tactic of dividing rebels is not always likely to work. If groups can manage to form mutually beneficial alliances with other groups, they can bolster their capabilities by pooling resources, by sharing tactics and information. Going back to the introductory example, ELF in Ethiopia not only had to fight with EPLF but also its ally, TPLF in 1980-81. Peace agreements, results show, are specifically to be elusive when groups only have only positive interdependencies. In that case, groups are likely to make larger demands from the government which can be an obstacle towards peace. The synergistic effect of alliances is maximized when rivalry is absent and allied groups have considerable strength. Moreover, when both relationships are present, any benefit groups may reap from alliances will be offset by rivalry, leading to attrition.

Future research should aim for better measures that capture the extent to which alliances contribute to relative capabilities and inter-group rivalry depletes resources. While allies' and rivals' capabilities might be correlated with these gains and losses, this is by no means a sufficient indicator. Allies' capabilities may not reflect for example the extent of cooperation or commitment problems within alliances. Akcinaroglu (2012) for example, says commitment problems are less when alliances are publicly declared and they include high levels of cooperation. According to Furtado (1997) credibility is more likely when allies share common goals while Moncrief (2012) argues allies stick together based on need which is amplified when the government is strong. Future studies can shed more light on the variation within alliances. Moreover, severity of threats rivals pose is likely to influence all conflict outcomes. Better measures on what it means to have associations can also help us understand when these relationships are more likely to lead to certain conflict outcomes.

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Table 1**Competing Risks Regression**

	Peace Agreement	Attrition	Rebel Victory	Government Victory
	Model 1	Model 2	Model 3	Model 4
Alliance	0.581 (0.182)*	0.509 (0.170)**	0.750 (0.560)	0.452 (0.289)
Rebel rivalry	1.993 (0.580)**	0.879 (0.301)	2.091 (1.411)	0.141 (0.149)*
Alliance*rivalry	0.721 (0.309)	2.622 (1.155)**	0.203 (0.213)	0.000 (0.000)***
Alliance size			1.024 (0.008)***	
No. armed groups	1.070 (0.107)	1.042 (0.076)	1.050 (0.174)	0.705 (0.127)*
Govt power	0.997 (0.001)**	1.000 (0.000)	0.988 (0.007)	1.001 (0.001)
Rebel power	0.977 (0.015)	0.951 (0.022)**	1.009 (0.010)	1.010 (0.018)
GDP per capita	0.941 (0.026)**	1.031 (0.016)**	0.821 (0.149)	0.986 (0.023)
Intensity	0.283 (0.129)***	0.169 (0.105)***	3.414 (1.983)**	0.401 (0.246)
Cold War dummy	0.113 (0.054)***	0.961 (0.232)		
GDP per cap*t				1.000 (0.000)***
	64.00 1,682	36.26 1,682	77.69 1,682	4,417.94 1,682

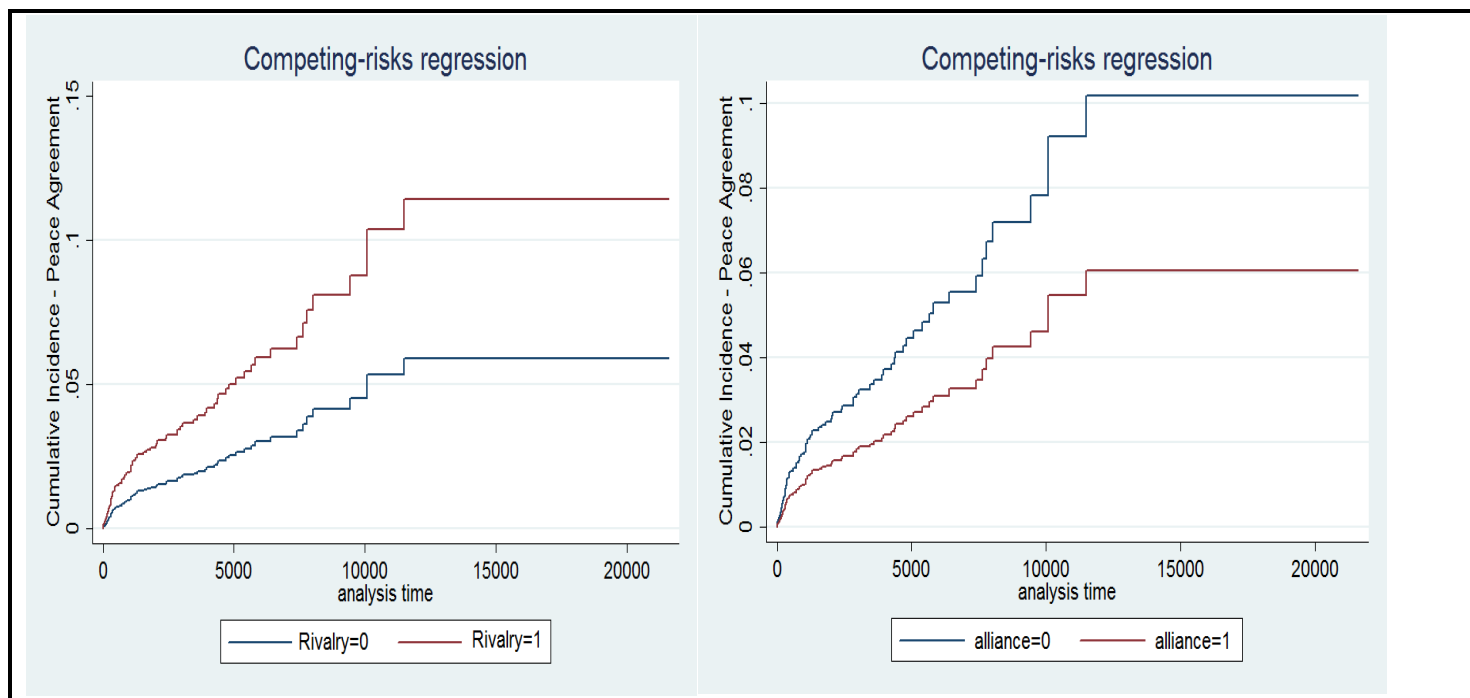


Figure 2: CIFs for Peace Agreement

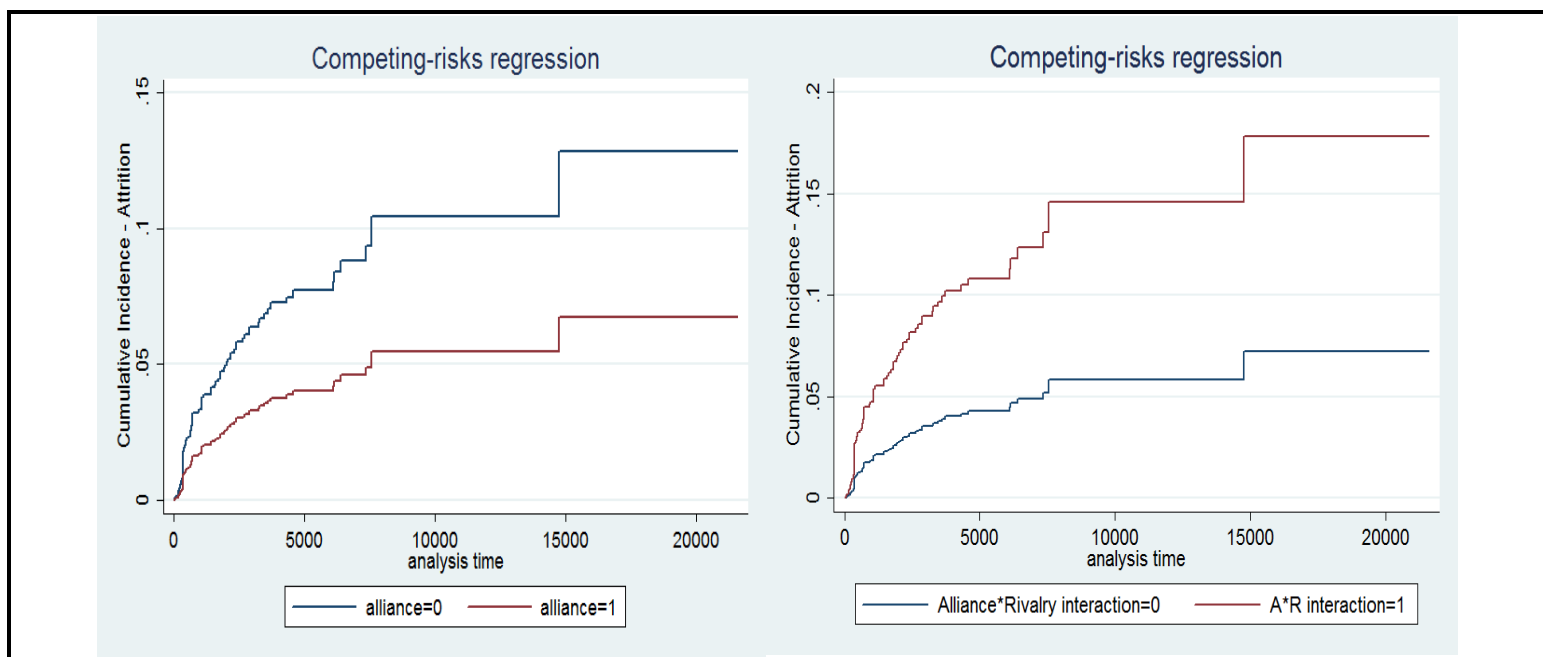


Figure 3: CIFs for attrition

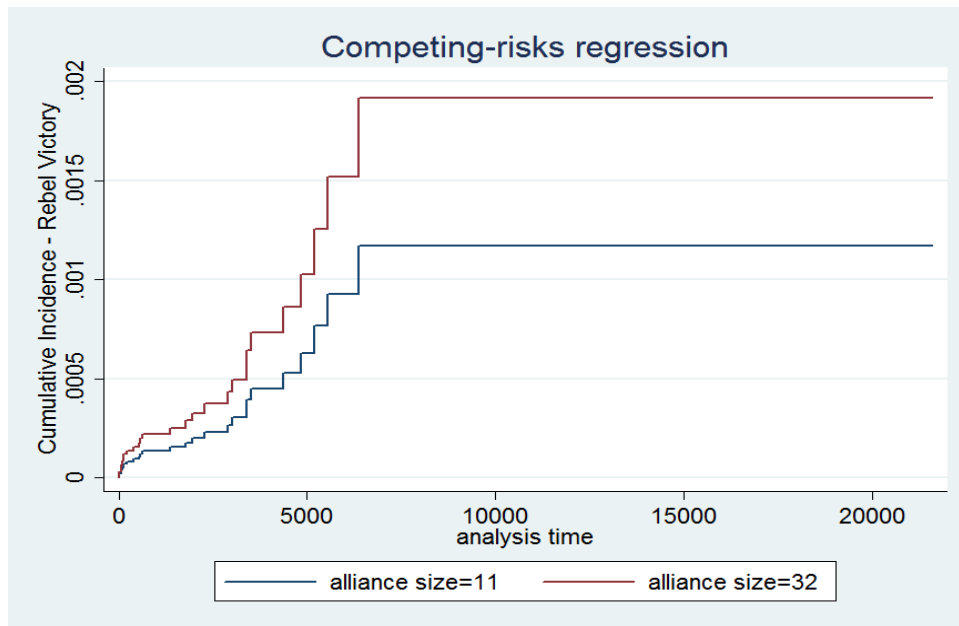


Figure 4: CIFs for Rebel Victory