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# A study on rebel group dynamics and third party intervention

Kieun Sung  
*University of Iowa*

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A STUDY ON REBEL GROUP DYNAMICS AND THIRD PARTY INTERVENTION

by

Kieun Sung

A thesis submitted in partial fulfillment  
of the requirements for the Doctor of Philosophy degree  
in Political Science in the  
Graduate College of  
The University of Iowa

August 2015

Thesis Supervisor: Associate Professor Kelly M. Kadera  
Associate Professor Brian Lai

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Graduate College  
The University of Iowa  
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CERTIFICATE OF APPROVAL

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Ph. D. THESIS

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This is to certify that the Ph. D. thesis of

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has been approved by the Examining Committee for  
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## ABSTRACT

This study analyzes the relationship between inter rebel group dynamics and rebel biased third party interventions. Concerning the considerable amount of multiparty civil conflicts and internationalized civil conflicts, prior studies largely overlook the cause and effect of inter rebel dynamics in terms of third party interventions. I delve into two related research questions; How do inter rebel dynamics influence a third party's decision to intervene in a multiparty civil conflict? What kinds of rebel group interactions are facilitated by such third party interventions?

Existing rebel group interaction patterns play a key role in determining conflict process and, influence third party's decision to intervene. I predict that a cooperative interaction pattern between rebel groups generates an intervention enriched environment for the rebel groups, due to the increased likelihood of successful intervention and the decreased cost of war. The third party's involvement in ongoing multiple party civil conflict generates a change in bargaining structure between rebels in terms of number of bargainers and distribution of capabilities. I predict a conditional effect of rebel biased interventions on inter rebel dynamics; while forceful intervention boosts cooperation between rebels, weak intervention fuels competition between them.

To test my theoretical conjectures, the interlocking relationship between rebels' interactions and rebel biased interventions has been empirically estimated on a large-N framework. The estimated results strongly confirm my theoretical predictions that rebel cooperation encourages rebel biased interventions and, that increased cooperation and competition is dependent upon third party's commitment.

Overall, my findings highlight a distinctive process of multiparty civil conflicts in terms of third party interventions and rebel group dynamics. My first findings regarding rebel biased interventions, expand the existing intervention literature by focusing on rebel group dynamics in multiparty civil conflicts. The empirical evidence showing boosted competition and cooperation caused by intervention, can be linked to studies that discuss the correlation between interventions and conflict terminations. For the policy community, this project suggests that the success of intervention lies in the third party's measure of intervention.

## **PUBLIC ABSTRACT**

This study analyzes the relationship between inter rebel group dynamics and rebel biased third party interventions. Concerning the considerable amount of multiparty civil conflicts and internationalized civil conflicts, prior studies largely overlook the cause and effect of inter rebel dynamics in terms of third party interventions. I delve into two related research questions; How do inter rebel dynamics influence a third party's decision to intervene in a multiparty civil conflict? What kinds of rebel group interactions are facilitated by such third party interventions?

Existing rebel group interaction patterns play a key role in determining conflict process and, influence third party's decision to intervene. I predict that a cooperative interaction pattern between rebel groups generates an intervention enriched environment for the rebel groups, due to the increased likelihood of successful intervention and the decreased cost of war. The third party's involvement in ongoing multiple party civil conflict generates a change in bargaining structure between rebels in terms of number of bargainers and distribution of capabilities. I predict a conditional effect of rebel biased interventions on inter rebel dynamics; while forceful intervention boosts cooperation between rebels, weak intervention fuels competition between them.

The estimated test results on a large-N framework confirm my theoretical conjectures. Overall, my findings highlight a distinctive process of multiparty civil conflicts in terms of the third party interventions and rebel group dynamics. For the policy community, this project suggests that that the success of intervention lies in the third party's measure of intervention.

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# **CHAPTER 1**

## **INTRODUCTION**

This study attempts to analyze the relationship between inter rebel group dynamics and rebel biased third party interventions on multiparty civil conflicts. A remarkable trend of conflicts, on a global scale, is the decreasing frequency in the onset of interstate conflicts, coupled with the growing prevalence of civil conflicts and the internationalization of intrastate conflicts (Harbom & Wallensteen, 2010). This project delves into the explanations of two related questions; How do inter rebel dynamics influence a third party's decision to intervene? What kinds of rebel group interactions are encouraged by such interventions?

### **Estimate of the Situation**

While the violent interactions between government and opposition is a key characteristics of civil conflicts, multiparty civil conflicts include an additional property, and generate a distinctive conflict process that can be distinguished from single rebel group civil conflicts. Multiparty civil conflicts incorporate more than one insurgent group fighting against a government and thus, are comprised of interactions both between the incumbent government and oppositions, and as well as between opposition groups. Studies have recently begun to pay more attention to this unique aspect of multiparty civil conflicts, and various distinctive conflict dynamics projected by existence of multiple sides are explored (Cunningham, 2006; Nilsson, 2010; Walter, 2003; Pearlman et al,

2012; Metternich et al, 2013). However, prior studies tell only a little about the relationship between third party interventions and the impact of multiple opposition groups in those civil conflicts.

A considerable amount of civil conflicts are classified as multiple party civil conflicts, including the recent conflicts in Syria and Yemen which involve several insurgent groups actively fighting against the incumbent government. Correlates of War (COW) Intra-State War dataset (Ver. 4) covers 334 civil wars from 1818 to 2008, and the Uppsala Conflict Data Program/International Peace Research Institute in Oslo (UCDP/PRIO) Armed Conflict dataset (Ver. 4) covers 196 civil conflicts from 1946 to 2008.<sup>1</sup> Of the 334 civil wars contained in the COW Intra-State War dataset, 65 civil wars are classified as multiparty civil wars (19.5%), and 104 conflicts out of 196 civil conflicts in the UCDP/PRIO dataset are identified as multiparty civil conflicts (53%). From this empirical investigation, it is noticeable that in the dataset multiparty civil conflicts are more frequent than single rebel group civil conflicts.

When investigating the general pattern of third party interventions into ongoing civil conflicts, there is considerable variation, revealing that sometimes third parties intervene and other times they do not. The existing literature (Regan, 2002; Gent, 2007; Findley & Teo, 2006; Salehyan, Gleditsch & Cunningham, 2011) suggests that several factors encourage the third party interventions, but no study focuses on the distinctive nature of

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<sup>1</sup> The two datasets follow different definitions in deciding whether a conflict is a civil war or not. The most prominent difference between definitions of the two datasets relate to thresholds of battle related deaths. COW Intra-State War dataset adopts 1,000 battle related deaths as a threshold, but UCDP/PRIO Armed Conflict dataset defines armed conflict resulting in at least 25 battle related deaths.

multiparty civil conflicts in explaining third party intervention in ongoing civil conflicts. The following table displays general pattern of association between the third party interventions and civil conflicts.

Table 1.1 Patterns of Third Party Interventions into Civil Conflicts (1944-1999)

Type of Conflict	Military Intervention		Total
	No	Yes	
Single Rebel Group	39 (28.3% / 39.8%)	59 (42.7% / 60.2%)	98 (71% / 100%)
Multiple Rebel Groups	14 (10.1% / 35%)	26 (18.9% / 65%)	40 (29% / 100%)
Total	53 (38.4%)	85 (61.6%)	138 (100%)

Note: Data are based on Regan's Intervention data (2002).  
Chi Square = .2762, insignificant in a one-tailed test.

Table 1.1 shows the association between type of civil conflict and the third party military interventions. As shown, 85 civil conflicts out of 138 (61.6%) experienced third party military interventions, and of the 40 multiple rebel group conflicts 26 cases (65%) are observed to have experienced third party military interventions. One of main aims in this research project is to provide an explanation for the variation in third party interventions while taking into account inter rebel group dynamics.

Along with third party interventions, another key factor influencing the conflict processes of multiple party civil conflicts is the interaction between insurgent groups. A large volume of studies focuses on conflict outcome as influenced by interactions between rebel groups. However, relatively few studies delve into the cause of the

interactions between the insurgent groups themselves (Bapat & Bond, 2012; Christia, 2012; Bakke et al, 2012; Fjelde & Nilsson, 2012). Like third party interventions, the interactions between rebel groups in multiparty civil conflicts display considerable variation; they can be seen to sometimes fight against each other, and other times to assist each other.

Table 1.2 Patterns of Rebel Group Interactions (1989-2008)

Rebel Alliance	Violent Incident		Total
	No	Yes	
No	168 (41.8%)	129 (32.1%)	297 (73.9%)
Yes	52 (12.9%)	53 (13.2%)	105 (26.1%)
Total	220 (54.7%)	182 (45.3%)	402 (100%)

Note: Data are based on Akcinaroglu (2012) and UCDP Conflict Encyclopedia.  
Chi Square = 1.5523, insignificant in a one-tailed test.

Table 1.2 presents the patterns of rebel group interactions for 402 yearly observations of 39 multiparty civil conflicts. Firstly, it is seen that both friendly and hostile interactions between rebel groups exist on the table. At least one violent incident between insurgent groups occurred 182 observations out of 402 (45.3%); and rebels formed alliances in 105 out of 402 (26.1%). An interesting note from the above table is that in 53 observations (13.2%), hostile interactions coexisted with alliances between insurgent groups in multiparty civil conflicts. An important goal of this project is to generate a theoretical explanation of this variation in rebel group interactions while considering the rebel biased third party interventions.

## **Significance of the Study**

This research has several implications for both the academic community and policy community. My arguments herein are related to ideas of how internal conflict is externalized, and how external conflict is internalized (Levy, 1989). Prior studies within the International Relation field have shed light on a connection between domestic causes of interstate conflicts and international causes of intrastate conflicts; Conflict process theories advanced in this work illustrate the promotion of outside actor involvement into domestic conflicts and the change in domestic conflict dynamics caused by outer stimuli. This work follows the theoretical line explaining the externalization of internal conflict and internalization of external conflict.

I suggest a new factor that encourages third party interventions into ongoing civil conflicts. While several studies (Salehyan et al, 2011, Koga, 2011) focus on dyadic relationships between third parties and opposition groups in civil disputes, no study concentrates on how inter rebel dynamics on an aggregated level influence the possibility of third party interventions. Given the considerable amount of multiparty civil conflicts, third party interventions into such conflicts need to be explored while considering the unique nature of this type of conflict process.

This work can provide a more systematic mechanism explaining the relationship between the third party intervention and conflict outcome. The existing literature offers contesting arguments regarding the effect of intervention on the duration and termination of civil war, and the cumulative evidence is not strongly conclusive. A main reason for these contradictory theoretical predictions is that almost all research on civil conflicts tends to overlook the advance of conflict process, relying instead on the relative power



hypothesis. This work attempts to fill the space in research regarding third party interventions and conflict terminations by illuminating the impact such interventions have on inter rebel dynamics.

Empirical evidence in this work helps to reinforce policy decision making processes for intervention, as this topic remains a prominent policy measures in terms of securing national interest. The policy community has long been concerned with determining under what condition the goal of intervention is more obtainable, and which factors may determine policy outcome. I will highlight the conditional effect of third party interventions on inter rebel dynamics, and the empirical evidence of my examination reveals the specific type of interventions shaping conditions under which these policy goals are more attainable.

### **Key Concepts**

In this research project, I attempt to provide theoretical predictions involving the variation in rebel biased third party interventions and the variation in rebel group interactions. My theory is based around two key concepts: third party interventions and rebel group interactions. For the first key concept, I follow Regan's definition of third party intervention. Regan (2002) suggests two important characteristics of the third party interventions into ongoing civil conflicts, which are "convention breaking activities" and the aim of "changing or preserving authority structures."

In employing the concept of intervention, I will concentrate on aspects of changing power relationships between combatants, both of which may differ depending on the

measure of intervention used. While military and economic measures of intervention generate a structural change in the distribution of capabilities between belligerents, a diplomatic measure can be understood to facilitate the transfer of information held by combatants (Regan and Aydin, 2006). Focusing on structural changes in relative power can provide more relevant explanations about the cause and effect of interventions in terms of inter rebel dynamics. Moreover, this aspect of intervention can help to explain the transfer of information. A third party can provide a rebel group with added capabilities that will reflect in the third party's political aim and resolve; any diminish the ambiguity surrounding power relations between combatants. Thus, for this project a third party intervention refers to any sort of third party's activities that change the existing balance of capabilities.

Scope of intervention is limited to rebel biased interventions in this work. Prior studies have found that conflict process varies based on the type of intervention (Balch-Lindsay et al, 2008; Regan, 2002; Sullivan & Karreth, 2014). The motivations and goals of neutral interventions are totally different from biased interventions, and interventions on behalf of a government are meant to generate different conflict dynamics from those interventions on behalf of an opposition side. A theoretical framework based on a concept that incorporates every type of intervention is unlikely to build a proper causal mechanism behind intervention and inter rebel dynamics. In this sense, I have limited the scope of my interest to third party interventions on behalf of opposition side.

Another key concept in this research is the rebel group interaction that constites inter rebel dynamics. As seen in Table 1.2, rebel groups in multiparty civil conflicts frequently interact with each other. Regarding the rebels' interactions, two types of interaction will

be discussed in this project. The first is ‘cooperative interaction.’ A fundamental purpose of rebels’ activity is to replace the incumbent government or induce change in government policy. In consideration of this goal, cooperative interaction between rebel groups can be understood in terms of rebels’ collaboration against the government. Akcinaroglu (2012) defines any sort of positive affiliations (from mergence grounded on perfect agreement with respect to conflict strategy and post war institution, to temporary tactical collaborations) as ‘interdependency’ between insurgent groups. In this work, I adopt Akcinaroglu’s definition of interdependency; thus, cooperative interactions between rebel groups refers to any type of collective rebel efforts against the an incumbent government.

The second type of rebel group interaction to be discussed here is ‘competitive interaction.’ Competition between insurgent groups can take place in various forms, but I will focus on competition, the most antagonistic. When attempting to defeat other opposition groups, rebel groups sometimes compete for public support by means of constructing a better wartime institution (Metelist, 2009; Arjona, 2014). However, that kind of competition does not allow animated interactions between insurgent groups. In my theory, armed violence between rebel groups is centered, as the most immediate and fierce form of competition. UCDP/PRIO suggests a definition of Non-State Conflict as “the use of armed forces between two organized armed groups, neither of which is the government of a state, which results in at least 25 battle-related deaths in a year.” I follow this UCDP/PRIO definition when the term ‘competitive interaction’ is used in this work; ‘competitive interaction between rebel groups’ indicates armed violence between formally organized insurgent groups, resulting in at least 25 battle related deaths.

## **A Theoretical Framework and Arguments**

The focus of this work is to show how the two above-mentioned variations in rebel biased interventions and rebel group interactions are connected with each other. As the work begins (Chapter 3), I discuss how rebel biased intervention encouraged by cooperative rebel interaction is more concentrated. I argue that cooperative rebel interactions in multiparty civil conflicts create an intervention enriched environment by influencing the third party's prediction of the conflict outcome in favor of the rebels' outright victory and efficient military operations. Regan (2002) established a theoretical framework describing the third party's decision to intervene into ongoing civil war in which he suggests that when the intervention option produces a larger expected utility ( $EU_i$ ) than that of non-intervention ( $EU_{ni}$ ), the third party will decide to be involved in the ongoing civil conflict. From this decision making model, the potential third parties should be more actively involved into ongoing civil wars when the goal of intervention is attainable, and the cost of intervention is affordable. In other words, when rebels are cooperative with each other the likelihood of success is higher and the cost of intervention is lower.

Cooperative interactions between insurgent groups shape the condition under which the goal of rebel biased intervention is more feasible. Empirical evidence regarding the outcome of civil conflicts holds that cooperative interactions between rebel groups noticeably increase the chance of the rebels' outright victory (Akcinaroglu, 2012). The goal of rebel biased interventions is to defeat the incumbent government or to induce policy change in the government, both of which are likely to be attained by the rebels' victory. An increased probability of successful intervention by rebel cooperation

amplifies the expected utility of intervention for the third party, and this expectation of improved intervention outcome drives the third party to be actively involved in the ongoing civil war in favor of the opposition group. Moreover, cooperative interactions between rebel groups provide an additional advantage for the potential intervener on an operational level. An essential property of rebels' cooperative interactions involves tactical level collaboration instead of strategic level coordination (Akcinaroglu, 2012). Pre-existing collective efforts on a tactical level generates military effectiveness for a third party's prosecuting intervention.

Cooperative interactions between rebel groups lower the cost of interventions by creating a unified battle front. Cunningham (2010) suggests that war time casualties make up a large part of intervention cost because intervention usually involves military action abroad. The intervener's war time casualties are largely determined by an existing pattern of armed competition between initial warring parties. Pervasive violent interactions between insurgent groups inflict more costs on the interveners due to the existence of multiple fronts. When rebel groups violently compete with each other, an intervener supporting a certain rebel group should fight against other rebel groups, as well as the government. These multiple battle fronts likely inflict a higher cost of intervention. In contrast, cooperative interactions tend to unify the battle front against a common enemy, the government, and likely diminish the cost of intervention.

In the following chapter (Chapter 4), I concentrate on the remaining question: what kinds of rebel group dynamics are more facilitated by the rebel biased third party interventions? I argue that the effects of rebel biased interventions on rebel group dynamics are conditioned by the degree of the interveners' commitment. While a strong

commitment from a third party encourages cooperative inter rebel dynamics, a weak commitment fuels competitions between rebel groups. I will highlight a conditional effect of rebel biased third party interventions on an aggregated level, meaning that my argument is centered on inter rebel dynamics advanced by multiple insurgent groups. A basic idea of bargaining model offers a useful analytical framework in which to explain both cooperation and competition between rebels in multiparty civil conflicts. Rebel group dynamics can be outlined by an analysis of bargaining processes between rebel groups, while interventions generate a structural change in the processes.

A weak third party commitment supporting the opposition intensifies competition between insurgent groups because of both the increased ambiguity concerning the distribution of capabilities and increased uncertainty about the third party's resolve. When a weak form of rebel biased third party intervention takes place, initial belligerents do not clearly know how much the support of the third party will benefit a rebel group, and how much added intervention cost this third party can bear. Uncertainty imposed by this weak form of intervention generates incentive for the individual actors to get more information. Engaging in fighting is a primary measure of collecting information about relative capabilities and the new actor's resolve.

Rebel biased intervention with a strong commitment from a third party boosts cooperation between rebel groups. Strong intervention itself demonstrates the third party's resolve, and the altered distribution of capabilities caused by the intervention is relatively clear. Certainty about the distribution of capabilities tends to encourage rebels to arrive at a mutual agreement regarding the division of benefits, without resorting to fighting. Moreover, a strong third party intervening in ongoing multiparty civil conflict is

able to act as mediator and enforcer for group cooperation. Even with conditions of certainty rebel groups prefer competition to cooperation due to a mutual fear of defection from cooperative agreements (Fearon, 1995). However, a strong third party enforces the rules settled by the insurgent groups, and encourages the rebels' cooperation.

My theoretical framework demonstrates how the rebel biased interventions and rebel group dynamics are connected with each other. In order to present my theoretical conjecture about the effect of rebel group dynamics on interventions, I adopt Regan's decision making model for intervention (2002). Cooperative interactions between insurgent groups encourage the rebel biased interventions because of increased chance of successful intervention and decreased cost of such action. My prediction about the conditional effect of rebel biased intervention on inter rebel dynamics is drawn from bargaining theory; a weak commitment from a third party tends to hinder the advance of peaceful negotiation between rebels because of the increased uncertainty regarding the distribution of capabilities and resolve. However, a strong commitment from a third party clarifies power relationship between the insurgent groups and helps to solve the commitment problem. Finally, a strong commitment of third party provides a shortcut to help these groups arrive at a mutual agreement.

### **Organization of the Thesis**

In this chapter, I have shown the estimated current situation concerning multiparty civil conflicts, interventions, and rebel group interactions. Additionally, the two key concepts are clearly defined, and the major line of causal mechanisms is briefly introduced. The following chapters are organized as follows:

In Chapter 2, the existing literature related to this project will be introduced, and I will highlight a gap in the existing research on civil conflicts. Prior studies examine why third parties intervene, and discuss the effect of intervention on conflict duration and termination. However, no study explores the inter rebel dynamics as a factor facilitating third party interventions. Several studies examine the cause and effect of rebel group interactions, but they tell little about animated inter rebel dynamics influenced by outside forces.

In Chapter 3, I will pose an answer for the question of how inter rebel dynamics influence a third party's decision to intervene. A theoretical conjecture about how cooperative rebel interactions facilitate rebel biased intervention will be more specifically addressed. The effect of rebel group cooperative interactions on rebel biased intervention will be estimated on a large-N framework. For testing my hypothesis, I have collected information on third party interventions and rebel group interactions from several data sources. The dependent variable in this examination is rebel biased third intervention as measured by binary base, and the chances of several types of rebel biased interventions are separately tested against a rebel interaction dataset. The key independent variable is rebel group interaction as measured by a binary and numerical base. Because of potential autocorrelation, unit heterogeneity, and endogeneity originating from the dataset in the form of cross sectional time series, several estimating techniques are employed.

In Chapter 4, I focus more on the last research question; what kinds of rebel group interactions are encouraged by interventions? Causal mechanisms behind the conditional effect of rebel biased intervention on inter rebel dynamics will be built on the premise of bargaining theory. In order to examine the effect of interventions on inter rebel dynamics,



I have collected information from several data sources and tested the hypotheses on a large-N framework. For displaying the dynamic change of rebel group interactions, I employ a differenced dependent variable on the first order, which captures the yearly change in cooperation and competition between rebel groups, on an aggregated level. The key independent variable is the type of rebel biased intervention featuring the degree of third party's commitment. Like Chapter 3, several estimation techniques are used because of potential problems arising from the nature of the differenced variable and cross sectional time series form of dataset.

In Chapter 5, key findings answering for the two research questions will be summarized. Additionally, I will show my contribution to the established literature and the implications of this research project for the academic and policy communities.

## **CHAPTER 2**

### **Causes and Effects of Third Party Interventions and Rebels' Interactions**

There are two sets of literature related to the topics in this project. The first examines the cause and effect of third party interventions, and the second set seeks the cause and effect of rebel interactions. Several properties of civil conflicts, and some characteristics of third parties themselves, turn out to encourage interventions in ongoing civil conflicts, and it has been determined that intervention considerably influences conflict process in terms of duration and termination. Recent studies have begun to pay more attention to the cause and effect of rebel interactions in multiparty civil conflicts. Research on rebel interaction found that power relationship, identity, economic interest and government strategy determine cooperation and competition among insurgent groups. Like the third party interventions, the inter rebel dynamics of multiparty civil conflicts turn out to generate a noticeable change in the conflict process.

#### **Causes of Third Party Interventions**

Prior studies delving into the causes of third party interventions are developed on a phenomena-centric approach and an actor-centric approach (Findley et al, 2006). The phenomena-centric approach tends to highlight several properties of conflict as a cause of interventions, including intensity, duration and contagion. In contrast, the actor-centric approach places a strong emphasis on the involved actors' characteristics, and the relationships between the actors. The theoretical framework of this project outlines how

actors shape the phenomena and, conversely, how the phenomena regulates actors' behavior.

Conflict intensity and duration tell a lot about a conflict, and this information affects the a third party's decision to intervene (Aydin, 2010; Regan, 2002). Prior empirical findings hold that high fatalities, longer duration, and other failed intervention histories tend to discourage a third party's attempt to intervene because this information reveals an intractability in terms of handling the conflict, and highlights the initial belligerents' resolve. The infectious nature of violence can motivate the states to intervene into ongoing civil wars (Braithwaite, 2010; Buhaug & Gleditsch, 2008; Gleditsch, 2007; Kathman, 2010; Salehyan & Gleditsch, 2006; Salehyan, 2008). Nearby states are the best candidates of devastating infection, thus the neighboring states come to intervene in order to prevent the contagion of domestic violence. Geographical proximity, large amounts of refugees and a weak institutional capacity appear to be encouraging factors of third party intervention based on preventive motivation.

An individual actor's capability is considered a critical element in accounting for the interventions. A third party's capability and its domestic institutions influence the decision to intervene. Major powers are more likely to intervene than non-major powers because their economic and security interests are on the global level (Fordham, 2008; Gent, 2007; Siverson & Starr, 1990). However, their decision making process follows different mechanisms depending on their domestic institutions (Koga, 2011). Rebel capability also determines the chance of a third party intervention. Salehyan, Gleditsch & Cunningham (2011) shed more light on the dyadic relationships between the third party and the rebel group in terms of relative power. They describe the strategic interactions

between the outside supporter and rebel group. They argue that outside actors have less incentive to support a weak rebel group due to the large costs associated with achieving the desired outcome, and the fact that strong rebel groups are less likely to accept outside offers at the expense of autonomy. Empirical tests confirm the inverted U shape association between the chance of receiving outside supports and capability of rebel group.

### **Effects of Third Party Interventions**

The literature on the effect of intervention is largely focused on duration and type of termination. However, the effect of intervention on inter rebel dynamics is relatively underdeveloped. Duration and termination are closely related to each other, because duration studies have been developed to answer the question of which factors prevent and facilitate a certain type of termination. Duration research suggests that a poor economic situation coupled with lootable natural resources and the existence of multiple rebel groups tend to prolong the duration of civil war (Christia, 2012; Collier, Hoeffler, & Söderbom, 2004; D. E. Cunningham, 2006; Doyle & Sambanis, 2006; Fearon, 2004). However, power parity between warring parties leads to a quick termination of armed conflicts (Clayton, 2013; D. E. Cunningham, Gleditsch, & Salehyan, 2009; Hultquist, 2013; Karl & Sobek, 2004).

Regarding the effect of interventions on the outcome of civil conflicts, several studies confirm an association between the intervention and the outright victory of one of the sides (Collier et al, 2004; Olsson & Fors, 2004). They argue that added capabilities by outside support contribute to the termination of armed competitions in the supported

side's favors. However, several studies report prolonged stalemate by the third party interventions (Balch-Lindsay & Enterline, 2000; D. E. Cunningham, 2010). This inconsistent empirical evidence can be addressed by the type of support (Regan & Aydin, 2006), the different nature between neutral and biased interventions (Elbadawi & Sambanis, 2000), and the direction of support (Balch-Lindsay et al, 2008; Gent, 2007; Regan, 2002; Sullivan & Karreth, 2014).

Beyond duration and termination, a handful of studies seek to answer the question of how the interventions inspire a change in the belligerents' initial behavior such as battlefield tactics. The basic idea of these studies is that the outer shock applied by a third party intervention generates a shift in warring parties' initial behavior. Wood et al (2012) and DeMeritt (2014) suggest theoretical predictions with regard to the effect of third party interventions on civilian victimization by initial warring parties. Wood et al (2012) found increased civilian victimization by unsupported armed group when the third party intervention takes place. They highlight the imbalance of capabilities between the initial belligerents as a cause of increased civilian victimization. When a biased intervention takes place, they argue, the unsupported side has a greater incentive to restore the balance through attacking civilians instead of armed adversaries. DeMeritt (2014) concentrates more on restrained civilian victimization by the government after third party interventions. She argues that third party interventions tend to reinforce the government's capacity to monitor wartime atrocities and, thus, combatants on the battlefield likely refrain from committing human rights abuses due to an expectation of punishment by the third party.

## **Causes of Rebels' Interactions**

As scholarship regarding multiparty civil conflicts has increased in recent years, many studies have concentrated on inter rebel dynamics comprised of interactions between insurgent groups. In Chapter 1, I classified two types of rebel group interactions: cooperative interaction and competitive interaction. In general, however, the existing literature on rebel group interactions does not provide a comprehensive explanation that is able to combine both cooperation and competition between rebel groups.

Relative capability, economic interests and institutional capacity influence chance of armed incidents between the rebels and the chance of violent group splits (Fjelde et al, 2012; Warren et al, 2014; Christia, 2008; Seymour, 2014). The general prediction generated by prior studies is that competitive interactions between rebel groups are more likely under the conditions of strong government repression, relaxed internal hierarchy, lootable resources and medium sized groups. Regarding the cooperation mechanism between rebel groups, Christia (2012) points to an individual group's motivation to become a member of a dominant rebel coalition and to a joint decision pursuing the minimum size of a winning coalition. Furtado (2007) suggests symmetric goals and asymmetric resource endowment as a prerequisite of rebel alliances. Bapat and Bond (2012) develop a formal model illustrating alliance formation between militant groups in multiparty civil conflicts. They argue that symmetric power relationship provides a better opportunity for rebels to ally with each other.

Some studies try to provide a more comprehensive framework for understanding both cooperation and competition between rebel groups. For example, Bakke et al (2012) suggest a theoretical framework that explains a general pattern of rebel's infighting, with

the number of groups, the capability distribution and the degree of institutionalization. Their prediction is that a larger number of groups, a dispersed distribution of power and the weak institutions of rebels tend to encourage widespread group fragmentation, whereas a small number of groups, concentrated power and a highly institutionalized interior minimize the chance of infighting. Nygard and Weintraub (2014) design a formal model describing bargaining between rebel groups. The main implication of their model is that when the distribution of benefits is equal to the distribution of power between groups, the outside option, which is armed conflict, is less likely to be chosen by the individual group. However, when the two distributions are inconsistent, each individual group likely chooses the competition, rather than cooperation option.

### **Effects of the Rebels' Interactions**

Like the third party interventions, inter rebel dynamics have great potential to help us understand the conflict process of multiparty civil conflicts. Almost every dimension of multiple party civil conflicts, including onset, intensity, duration, termination and reoccurrence, is affected considerably by rebel group interactions. In general, prior studies hold that competitive interactions tend to bring about several negative consequences for both the government and rebel groups. These studies also indicate that cooperative interactions likely generate positive outcomes for the opposition.

Regarding the internal and external conflicts of rebel groups, a competitive atmosphere between rebels is associated with a higher risk of civil war onset, more bloodshed, a protracted duration, the government's partial concession, and repeated wars (Cunningham, 2013; Metternich et al, 2013; Cunningham, 2006; Kirschner, 2010;

Nilsson, 2010). In explaining the repercussions of competitive interactions between rebel groups, almost all studies rely on the uncertainty generated by information problems. As the number of combatants increases, the amount of uncertainty also increases.

Competition between rebel groups hinders peacefully-negotiated settlements, and motivates individual actors to distrust each other.

Cooperative interactions between rebel groups tend to reap more reward when fighting against the government. Cooperative interactions tend to increase the efficiency of their fighting activities through tactical-level collaborations. Sharing information, resource exchange and coordinated military operations improve the fighting capacity of individual groups. Horowitz et al (2014) find a heightened lethality of terror when the terrorist groups ally with each other, and Akcinaroglu's empirical evidence (2012) confirms that a rebels' interdependency increases the survival rates for individual groups and the chance of outright victory by a rebel group.

In this chapter, I have introduced what we know and do not know about interventions and inter rebel dynamics. We do know several factors encouraging and discouraging a third party's involvements into ongoing civil war and the cooperative and competitive interactions among rebel groups. The existing literature on civil conflicts confirms the considerable effect of interventions and rebel group dynamics on conflict processes. A major unanswered question in the field, however, is what is the relationship between third party interventions and inter rebel dynamics? Given the considerable number of civil conflicts involving both multiple rebel groups and outside interventions, this lack of knowledge needs to be filled. In Chapter 3, I will highlight the effect of cooperative interactions among rebel groups on the third party interventions on behalf of opposition



side. In Chapter 4, the conditional effect of interventions on inter rebel dynamics will be examined.

## CHAPTER 3

### **Encouraged Rebel Biased Interventions by Rebels' Cooperative Interactions**

In this chapter, I offer a theoretical account about the association between rebels' interactions and the chance of third party interventions in multiparty civil conflict on behalf of the opposition side. I argue that cooperative interactions between insurgent groups encourage rebel biased third party interventions. Based on Regan's decision making model (2002), I concentrate on how rebel interactions influence the probability of a successful intervention and the costs of intervention. These are the main components in predicting third party's expected utility. Cooperative interactions between insurgent groups heighten the likelihood of successful interventions and also lower the cost of interventions.

This work provides an alternative explanation for interventions in multiparty civil conflicts. The existing literature on interventions highlights third party's policy preference, and dyadic relationship between insurgent group and outside actors for explaining the likelihood of interventions (Gent, 2007; Salehyan et al, 2011; Findley et al, 2006). However, the causal mechanism behind the relationship between rebel dynamics and interventions is less developed. I propose a new explanation about the chance of rebel biased third party interventions in ongoing multiparty civil conflicts.

Focusing on rebels' interactions provides a new opportunity to produce a better explanation about conflict processes involving multiple actors. Many studies rely on the effect of inter rebel dynamics to explain various aspects of conflict processes involving multiple actors. These studies confirm a substantial influence of these actors on the

conflict process. (Cunningham, 2006, 2013; Findley et al, 2012, Nilsson, 2010; Akcinaroglu, 2012; Cunningham, 2011; Horowitz et al, 2014). Inter rebel dynamics constituted by various types of rebel interactions tend to condition the intensity and the duration of conflicts which are supposed to be negatively associated with the chance of interventions. Beyond a simple correlation between intensity/duration and interventions, my explanations covers a encompassing range of conflict processes, including interventions.

Cooperative interactions between insurgent groups in multiparty civil conflicts tend to generate an intervention-enriched environment by increasing the probability of a successful intervention and decreasing the cost of war. An anticipated rebel victory and established tactical level collaborations increase the probability of a successful intervention on behalf of the opposition side. Clarified and unified battle fronts by collective military efforts between rebel groups lowers the third party's cost of intervention. In this sense, I predict that cooperative rebel group interactions tend to encourage third party interventions on behalf of the opposition side. In order to estimate my theoretical conjectures, I investigate 45 multiparty civil conflicts covering the time period 1945 to 2008, and I find a positive influence of cooperative interactions between opposition groups in the chance of rebel biased third party interventions.

### **Decision Making Model for Third Party Intervention**

Regan's decision making model (2002) provides a useful tool for analyzing when interventions occur. Basically, his model is grounded in the rational choice framework relying on the notion that cost and benefit of options are evaluated with expectation about

how likely the goal is attainable, when an actor makes a decision (Bueno de Mesquita, 1985). The outcome of the decision depends on the actor's evaluation across the options that she can choose. The actor picks the option that generates the largest benefit. Regan's main argument in his model is that the larger the benefit of intervention option, compared to the non-intervention option, the bigger the chance that the third party to be involved in ongoing civil conflict.

His model is a solid starting point to investigate the rebel biased interventions in multiparty civil conflicts. Instead of considering only the policy preference of the third party, this model provides an opportunity to take the cost/benefit and probability of success into account. My main argument spins around the cost and probability of success, conditioned by rebel interactions in multiparty civil conflicts. The following equations display more formally how the third party's expected utility calculated by cost and benefit is determined.

$$EU_{ni} = p(U_s) + (1-p)(U_c) - \sum C_{ni}$$

$$EU_i = q(U_{sw}) + (1-q)(U_f) - \sum C_i$$

First equation represents the third party's expected utility ( $EU_{ni}$ ) when it does not intervene, and second equation shows its expected utility ( $EU_i$ ) when it does intervene. Each equation contains the probability of success ( $p$  and  $q$ , respectively), utility ( $U$ ) and costs ( $C$ ). The probability of success ( $p$  and  $q$ ) can be associated with power relationship and the effectiveness of intervention strategies. There are four utilities ( $U_s$ ,  $U_c$ ,  $U_{sw}$ ,  $U_f$ ) in

two equations, which reflect political and economic benefits of intervener in case of settlement without intervention ( $U_s$ ), continuing to fight ( $U_c$ ), success with intervention ( $U_{sw}$ ), and failure of intervention ( $U_f$ ). Each expected utility function incorporates the costs of war, which associates material and audience costs in case of not intervention ( $C_{ni}$ ) and intervention ( $C_i$ ).

Put simply, Regan's argument is that when  $EU_i > EU_{ni}$ , third parties are more likely to intervene in the ongoing civil conflicts. The third parties' utilities are conditioned by their decision and are likely diversified depending on preexisting factors, such as their international status, geographical proximities and ethnic or religious kinship. However, the probability of successful intervention and cost of intervention are likely impacted by dynamic change in the interactions between the initial belligerents in multiparty civil conflicts. This chapter describes how rebel group interactions increase the likelihood of successful intervention ( $q$ ) and lowers the costs of intervention ( $C_i$ ).

### **Heightened Probability of Successful Intervention by Rebels' Cooperation**

In Regan's decision making model (2002), probability of successful intervention ( $q$ ) is suggested as a determinant of the intervener's expected utility of intervention. This section highlights the increased likelihood of successful intervention by cooperative rebel interactions. Higher chance of rebel victory will be suggested in explaining the rebel biased third party interventions encouraged by rebels' cooperative interactions. I argue that cooperative interactions between rebel groups generates an intervention enriched environment by heightening the likelihood of successful intervention.

### ***Rebels' Victory by Cooperative Interactions***

Cooperation between insurgent groups increases the chance of the opposition side's outright victory (Akcinaroglu, 2012). Prior studies have found several determinants of war victory and successful military campaign, such as relative capability, regime type, and military tactics (Bueno de Mesquita, 1981; Reiter & Stam, 2002; Biddle, 2005). Empirical evidence shows that stronger and more democratic forces adopt better tactics, and are thus more likely to win the war. However, sometimes those empirical findings, generated by interstate conflict dataset, are challenged to explain the outcome of civil conflicts (Butler & Gates, 2009). Regarding civil war, recent studies have highlighted that symmetric military tactics between the government and opposition, and rebels' positive affiliations can predict a rebel-favored outcome (Balcells & Kalyvas, 2014; Akcinaroglu, 2012). Empirical regularities tell us that when the rebels adopt conventional military tactics, corresponding to the government, and when the rebels have enduring and tight cooperative relationships with each other, the government is more likely to be defeated. In other words, conventional military tactics and a coordinated military effort among rebel groups tend to magnify the probability of the opposition's outright victory.

Though cooperation between insurgent groups increases the probability of the rebels' outright victory (Akcinaroglu, 2012), it does not rule out the need for military and material supports from outside. This is because of the rebels' relative capability to the government. When investigating 578 government-rebel dyads covering 1945-2011 (Cunningham et al, 2013), 500 dyads (87%) showed that the rebel groups' relative capabilities to the government were 'weaker' or 'much weaker.' During the last half century, only 75 rebel groups (13%) out of 578 have had comparable or stronger

capabilities when compared to the government. This investigation tells us that almost all rebel groups are weaker than the government, and, thus, it is a reasonable expectation that they are in need of military and material resources. The lack of required resources in prosecuting a war makes the rebels prefer outside support even when they cooperate with each other.

Additionally, empirical estimations in prior studies (Balcells and Kalyvas, 2014; Akcninaroglu, 2012) rely on the assumption that rebel cooperation and its military tactic have an independent effect on the outcome of war, distinct from relative capabilities. When conducting statistical tests, a variable capturing the rebels' relative capability to the government is included in the models, in addition to variables measuring rebel cooperation and the rebels' military tactics. The notion of an independent effect of rebel cooperation on war outcome buttresses my speculation. Though cooperative interactions between rebel groups increase the chance of their victory, opposition biased intervention is preferable to rebels in order to alter the balance of capabilities in their favors.

### ***Rebels' Victory and Success of Rebel Biased Intervention***

The third party's goal of rebel biased intervention is attained by defeating the incumbent government, which is identical to a rebels' victory. The anticipated rebel victory due to cooperation between insurgent groups amplifies the expected utility of intervention for the third party, and it drives the third party to be actively involved in the ongoing civil war in order to help the opposition group.

It is noteworthy that Regan's decision making model (2002) defines a success of intervention as being compelled to stop fighting between groups in a dispute by intervention. He argues that no third party intends to exacerbate and prolong the ongoing civil conflict, and that a third party bolstering one side compels the opposing side to quit fighting. However, my argument is developed on that the goal of the third party supporting the opposition side in order to defeat the incumbent government or to induce a change in the government's policy. It is not simply to stop the fighting between groups. Different motivation between biased and neutral intervention likely generates a different conflict process (Collier et al, 2004; Balch-Lindsay, 2008), and biased intervention also creates distinctive conflict dynamics depending on the supported side (Sullivan & Karreth, 2014). The goal of third party supporting rebel group is increasingly obtainable, when the probability of a rebels' victory is heightened by cooperation between insurgent groups.

Along with the anticipated higher probability of successful intervention, cooperative interactions between insurgent groups provide an additional advantage for the third party on an operational level. Akcianroglu (2012) points out that when investigating the relations between insurgent groups, the nature of cooperation between the groups turns out to be fickle and low level. One of the relational properties that she points out is quite open changes in a relationship. This is because it is very easy to observe cooperation and the ensuing competition between the two groups within a short period of time. Another property is related to low level cooperation revealed by short lived and tactical level cooperation between the groups, instead of enduring and strategic level collaboration. Tactical level cooperation indicates operational level coordination between the insurgent



groups, such as temporary joint military operations, training exercises, sharing information, and resource exchange. These kinds of operational level cooperation between insurgent groups can provide a strong foothold for the third party to execute joint military operations with insurgent groups. Pre-existing tactical level collaborations between rebel groups likely improve the efficiency of joint military operations between the third party and rebels. The better anticipation over military campaign tends to increase the probability of successful intervention.

### **Lowered Cost of Interventions by Rebels' Cooperation**

In Regan's intervention model (2002), the cost of intervention ( $\sum C_i$ ) is also suggested as one of the important determinants of the third party's expected utility. It is noteworthy that in his decision making model the cost term is deducted from the utility terms, which means that a lower cost of intervention raises the value of expected utility of intervention. A cooperative atmosphere between rebel groups tends to diminish the cost of intervention by unifying battle front against the common enemy. I argue that cooperative interactions between rebel groups generate an intervention enriched environment by lowering the cost of intervention.

The most active form of intervention is to dispatch a large number of ground troops to the ongoing civil conflict. In this case, the costs of intervention are largely determined by losses of human resources and military equipment. Cunningham (2010) suggests that war time casualties make up the almost part of intervention costs because an intervener usually takes military actions abroad. When military operations take place outside of its borders, a third party does not need to be concerned about devastated territory,

destruction of infrastructure and its own civilian victims, but only the concern arising from battle related deaths of dispatched soldiers.

The intervener's war time casualties are largely determined by an existing pattern of armed competition between initial warring parties. When highly intense violent interactions between combatants is observed, third parties predict larger battle related deaths. As previously mentioned, the conflict dynamic of multiparty civil conflicts is a combination of two sorts of interactions: interactions between the government and the oppositions and interactions between the rebel groups. Conflict intensity is likely conditioned by the two sorts of interactions. Thus, when violent and competitive interactions between rebel groups are prevalent in the conflict, the cost of intervention is likely predicted to be high.

Simply put, a higher number of enemies generates more casualties for the outside actors supporting a rebel group. A competitive atmosphere among rebel groups inflicts more costs on the intervener due to the existence of multiple fronts. Given armed competition among rebel groups, an intervener supporting a certain rebel group should simultaneously fight against the other rebel groups and the government. Additionally, a competitive rebel group condition hinders the progress of a negotiated settlement among involved parties (Cunningham, 2006). This protracted duration of war also imposes more costs for the intervener. Where there is a unified front, the intervener and rebel groups can concentrate their military efforts against their common enemy, the government.

In this section, I have shown how the cooperation between rebel groups increases the likelihood of successful intervention and decreases the costs of intervention. Causal mechanism behind the effect of a rebels' interactions on interventions is clarified. Several

studies highlight the relationship between an individual group's capability and the chance of interventions (Amegashie & Kutsoati, 2007; Carment & Rowlands, 1998; Salehyan et al, 2011). These studies generate inconsistent predictions about this relationship. Some studies predict that strong rebels are likely to receive outside support due to low costs of intervention. Others, however, expect that medium-sized groups are more susceptible to outside supports, due to denied outside offers by the strong groups. It is noteworthy that in prior studies, rebel capability and the intervention mechanism is developed with less consideration of rebel group dynamics created under multiple rebel group condition. The predictions grounded on a single rebel's capability may be relevant in explaining the chance of interventions in civil conflicts involving a single rebel group. However, in multiple party civil conflicts, I believe, rebel group dynamics are more relevant in predicting the chance of an intervention.

A cooperative atmosphere among rebel groups raises the probability of a rebels' victory, and it reinforces the interoperability between troops joining military operations. A unified battle front by the cooperative atmosphere among rebel groups lowers the cost of interventions by reducing the chance of a high number of battle related deaths. In sum, I argue that because the heightened likelihood of successful intervention and lower costs of war, cooperative interactions create an intervention enriched environment. Thus, I propose the following hypothesis:

***H1: In multiple party civil conflicts, cooperation among rebel groups increases the chance of third party interventions on behalf of opposition side.***

## **Case Selection**

The case or unit in testing the hypothesis should be able to capture inter rebel dynamics and the third party interventions. In this sense, the unit of analysis is a conflict-year incorporating multiple rebel groups. Main interest of this section is to theorize and test the association between rebel group interactions and the rebel biased third party interventions. More specifically, this chapter seeks to investigate how the conflict dynamics projected by rebel group interactions influence the chance of rebel biased interventions.

Several prior studies argue the strength of the dyadic approach in analyzing civil conflicts (Cunningham, Gleditsch & Salehyan, 2009; Cederman, Buhaug & Rod, 2009; DeRouen & Bercovitch, 2008). However, the dyadic approach cannot capture the conflict dynamics shaped by rebel group interactions. Cooperation and competition between insurgent groups structures an important part of conflict dynamics of multiple party civil conflicts. My theoretical conjecture is about encouraged rebel biased intervention by cooperative interactions between rebel groups. Thus, relevant estimation for the hypothesis should be grounded on a dataset containing units that are able to capture rebel group interactions.

Several civil conflict datasets have been developed that identify domestic violent incidents as civil conflicts. The multiparty civil conflict dataset of this work, is grounded on a conflict dataset developed by UCDP/PRIO. UCDP/PRIO Armed Conflict Dataset has a number of pros and cons for examining the effect of inter rebel group dynamics on third party interventions. This dataset is in dyad-year form, of which at least two warring parties, one of which should be incumbent government, had between them at least 25

battle-related deaths. The first strength of UCDP/PRIO dataset is that it covers civil conflicts occurred up until 2013. While the temporal coverage of this dataset is relatively weak comparing to COW Intra State Dataset, the higher death toll threshold in the COW dataset means that we are likely to miss a significant number of relevant armed conflicts between governments and insurgent groups. The second strength of UCDP Armed Conflict Dataset is that it provides better information regarding armed insurgent groups that are involved in civil conflicts. The COW Intra State Dataset also provides information about the incumbent government and the rebel group for each civil war, but its identification for insurgent groups is relatively rough. For instance, while the UCDP dataset suggests 4 to 6 insurgent groups fighting in the Ethiopian Civil War between 1982 and 1991, the COW dataset identifies only two opposition groups fighting against the Ethiopian government.

While UCDP Armed Conflict Dataset has several strengths compared to other datasets, dyadic nature of the dataset is not relevant for examining my hypothesis because my interest is concentrated on inter rebel dynamics. UCDP dataset provides information relying on dyadic relationship between the incumbent government and individual insurgent group. Each dyadic form of conflict in the UCDP dataset is given an identification number as a civil conflict. On the identification process, each armed conflict is classified depending on several conflict types, such as territorial conflict, government conflict and both. In a territorial conflict, rebel groups claim independence or autonomous political rights against the central government for a part of the territory, but in the case of classified by government conflict, the main purpose of insurgent group's fighting is to replace the central government.

The main problem of conflict identification rule in the UCDP/PRIO dataset is that inter rebel dynamics comprised of cooperative and competitive interactions cannot be captured by information relying on the dyadic relationship between the government and individual rebel group. The dyadic classification rule gives rise to a separation of several territorial conflicts from others, even when the interested geographical location is very close between separately classified conflicts, and even when the duration of those conflicts overlap. Moreover, several governmental conflicts are independently identified from territorial conflicts, even though an insurgent group seeking territorial independence and another group pursuing replacing central government, share a geographical area for their headquarters.

Figure 3.1. Area of India's Civil Conflicts during 1980s

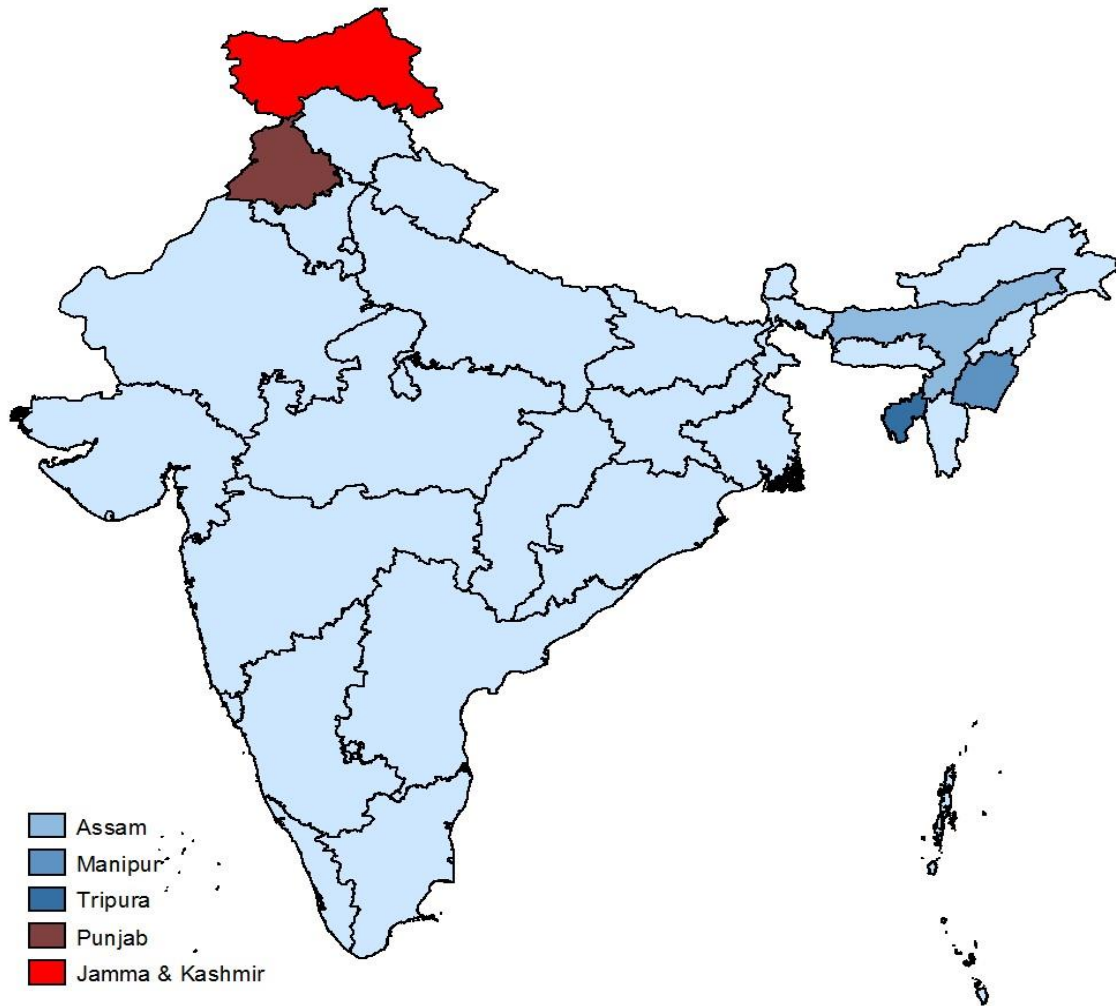


Figure 3.1 displays India's civil conflicts during the 1980s as an example of the identification process of the dataset. According to the UCDP/PRIOD dataset, the Indian central government experienced five separately coded civil conflicts during the 1980s against six rebel groups in Tripura, Manipur, Assam, Kashmir and Punjab provinces. The first three conflicts occurred in the north-eastern area and the final two in northwest. The three northeastern conflicts area are independently classified by government-rebel dyad

identification numbers, though they simultaneously occurred in the contiguous area of Tripura, Manipur, and Assam in the 1980s.

As seen in the above figure, the three provinces of Tripura, Manipur and Assam, share provincial borders with one another. More importantly, Akcinaroglu (2012) reports that there were cooperative interactions between two of the three rebel groups in the north eastern area, from 1984 to 1988. Two of the conflicts occurred in Kashmir and Punjab – geographically distant from the first three. However, these conflicts temporally overlapped with the three northeastern conflict. According to the UCDP/PRIO dataset, there were three active insurgent groups during the 1980s in the north-western area of India, and more importantly, in 1989, a violent incident between two of the three groups in the north western area, was reported by the UCDP/PRIO Non-State Actor Armed Conflict dataset. It is noteworthy that the rebels in Tripura, Manipur, and Assam interacted with each other, but they never interacted with other groups in the north-west; the groups in Kashmir and Punjab interacted with each other, but they never interacted with the groups in northeast India.

As another example, during the 1980s the Ethiopian government faced approximately 7 insurgent groups in five independently classified civil conflicts, according to UCDP/PRIO dataset. Some of the rebel groups attempted to replace the incumbent government, and others sought independence from the central government in several areas, including Eritrea, Ogaden and Oromiya.

If following the conflict identification rule of UCDP/PRIO, I have no opportunity to capture the rebel cooperation throughout the three separately classified Indian civil conflicts in Tripur, Manipur, and Assam, although they were seen to cooperate with each



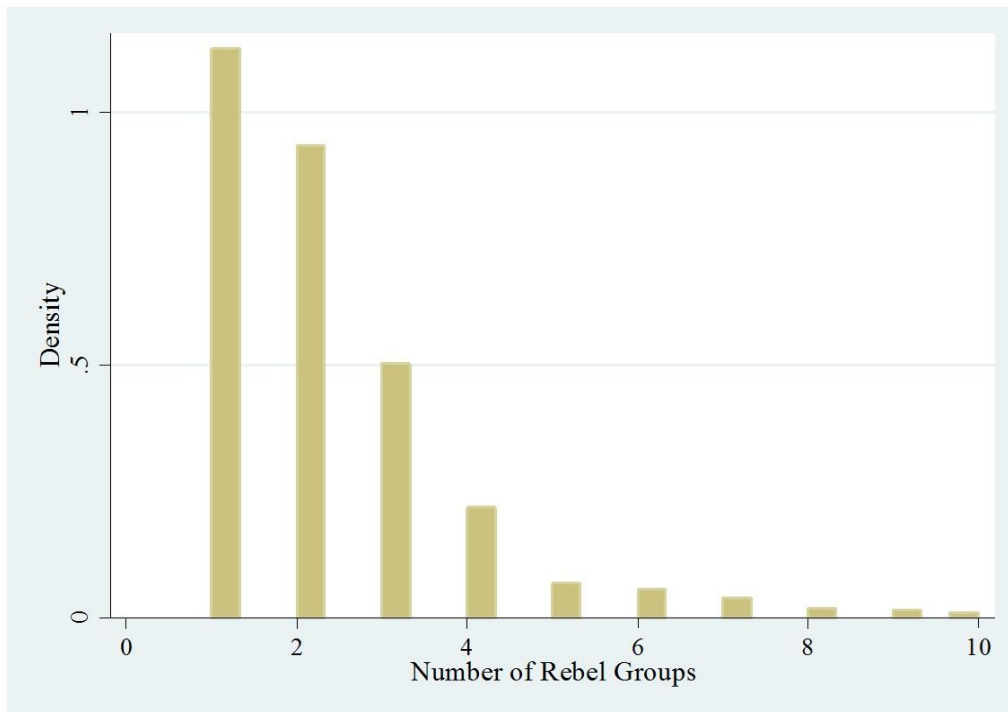
other. Also, when I classify the five conflicts separately in the Ethiopian cases, I cannot capture any interactions between groups seeking to replace the government and other groups pursuing independence for a part of territory.

To better examine the effects of inter rebel dynamics on interventions, several conflicts are integrated into one conflict with consideration of spatial and temporal context, under which the opportunity of interactions between insurgent groups is provided. Independently identified conflicts in the UCDP/PRIO dataset are integrated into one conflict: 1) when durations of conflicts separately coded in UCDP/PRIO overlap; and 2) when the territories desired by rebel groups are contiguous with each other. Because insurgent groups organized in contiguous areas during similar time periods are likely to interact with each other, I integrate those conflicts into one multiparty civil conflict.

For instance, the three separately identified Indian civil conflicts in Tripura, Manipur, and Assam are classified as one civil conflict involving multiple rebel groups, but the two Indian civil conflicts in Kashmir and Punjab are not integrated into the conflict in the north-eastern area because the territories under dispute are not contiguous with each other. The great distance (about 2,300 km/1,430 mile) between Tripura and Kashmir never provide an opportunity to cooperate and compete with other rebels in each area. In the Ethiopian cases during the 1980s, the five conflicts comprised of four territorial conflicts and one government conflict are integrated into one civil conflict; the interested territories are contiguous with each other and the headquarters of groups seeking to replace the government are located in the area desired by another rebel group claiming independence from the central government.

With the above classification rule relying on spatial and temporal context providing a chance of interaction between insurgent groups, I have identified 55 civil conflicts in 42 countries from 1946 to 2008. From the 55 civil conflicts involving multiple rebel groups, I was able to observe 829 conflict years. Over the time span, 525 of the 829 observations (about 63%) experienced some kind of third party intervention supporting the opposition side and 322 observations (about 39%) were reported to incorporate cooperative interaction between rebel groups. A more specific description for rebel group cooperation and third party intervention will be discussed in more detail later.

Figure 3.2 Distribution of Rebel Group Numbers for 48 Multiparty Civil Conflicts (1946-2008)



Note: Data are based on UCDP/PRIO Armed Conflict Dataset (Ver. 4-2013).

The figure above demonstrates a distribution of a number of rebel groups over 829 yearly observations for 55 multiple party civil conflicts. The average number of rebel group for these 55 multiple party civil conflicts is 2.27 with minimum of 1 and maximum of 10. In the above figure, 314 observations (about 38%) contain a single insurgent group because several conflicts incorporating a single rebel group in the initial stage of conflict experienced a group split and the subsequent emergence of new groups. Also, in some conflict cases, several groups were merged into one opposition group. Regarding the number of rebel groups, two rebel group cases are most frequently observed in the dataset, and while increasing the number of rebel groups, the frequency is decreased. The Ethiopian case in 1977 and Indian cases of the north-eastern area in 1997 and 2008 are extreme cases and 10 insurgent groups are identified in the yearly observations for these conflicts.

## **Research Design**

In this section, I examine the association between cooperative rebel group interactions and the possibility of third party interventions, in a large-N framework. The unit of analysis is a conflict year for 55 multiparty civil conflicts in the period of 1946-2008. Because the main interest of this section is to assess the effect of inter rebel group cooperation on third party interventions, I have captured yearly cooperative rebel interactions and third party interventions supporting the opposition side. On a time series cross sectional dataset several estimation techniques are employed for testing the hypothesis.

### ***Dependent Variable***

The main interest of this examination is to test whether the rebel biased intervention is encouraged by rebels' cooperative interaction or not; thus, the dependent variable should contain information as to whether there is rebel biased intervention or not in a given year. I collected the information for each yearly observation, whether there is outside support on behalf of the opposition side or not, from the NSA dataset (Cunningham et al, 2013). 'Rebel Support' variable stands for whether there is any kind of rebel biased intervention or not. When any sort of intervention supporting the rebel side takes place, it is coded as '1,' and others '0.'

The NSA dataset contains considerable information about outside support on behalf of each rebel group - such as type of support, outside state and non-state actor identified as assisting the group and so on. In this dataset, type of support is classified by 'No,' 'Endorsement,' 'Non-military,' 'Military,' and 'Troops.' 'No' implies that the rebel group did not receive any kind of outsider support. 'Endorsement' denotes political support from outside actors, which means that the third party officially proclaims its support for the rebel group without any material support. 'Non-military' indicates the third party offers material and financial support other than supporting military resource- such as economic assistance, providing refugee camps on its territory, and supplying non-military resources. 'Military' type support is most prevalent one for third party interventions. In this type of support, the third party provides military intelligence support, air/naval support, military advisors, weapons and ammunitions, training and tactical help, and non-lethal military equipment, but it does not supply ground forces. 'Troop' support is the most extensive form of third party interventions. In this type of

intervention, the third party dispatches its ground forces, and this type of support is usually coupled with the supply of lethal and non-lethal military resources.

My discussion regarding third party interventions is largely oriented to the most active form of intervention: the dispatching of troops coupled with the supply of military and non-military resources. When considering the type of interventions, the intervention in the form of 'Troop' is most influenced by rebels' interactions. If the cost of intervention is largely determined by war time casualties, the intervention forms of 'Endorsement' and 'Non-military' are less influenced by rebels' interactions likely determining war time casualties. However, we cannot preclude the role of rebels' interactions with regard to non-military type interventions. With the cost of intervention, the probability of successful intervention is also considered as a determinant of expected utility in the theory section.

To examine the effect of rebel cooperation on each type of third party interventions, I employ several dependent variables. The 'Troop Support' variable is coded as '1' when the ground forces of the third party join the conflict for the observation, and is otherwise coded '0.' The 'Military Type Support' variable is coded as '1' when any type of military support, other than troop support, takes place in a given year, and otherwise is '0.' When 'Non-military' or 'Endorsement' are detected in the NSA dataset, the yearly observation is coded as '1' in the 'Non-Military Type Support' variable, and otherwise as '0.'

Over 829 observations, 525 (63%) experienced third party interventions on behalf of an opposition side, and the most frequent type of intervention is military intervention (412 observations), which indicates that most third party interventions are supplying military equipment to insurgent groups rather than dispatching troops for helping rebel

groups and providing non-military resources. In 65 observations, the opposition groups experienced ‘Troop’ support meaning that third parties sent ground forces to help insurgents, and in 77 observations, rebel groups were supported by a third party in the form of ‘Non-military’ assistance.

### ***Independent Variable***

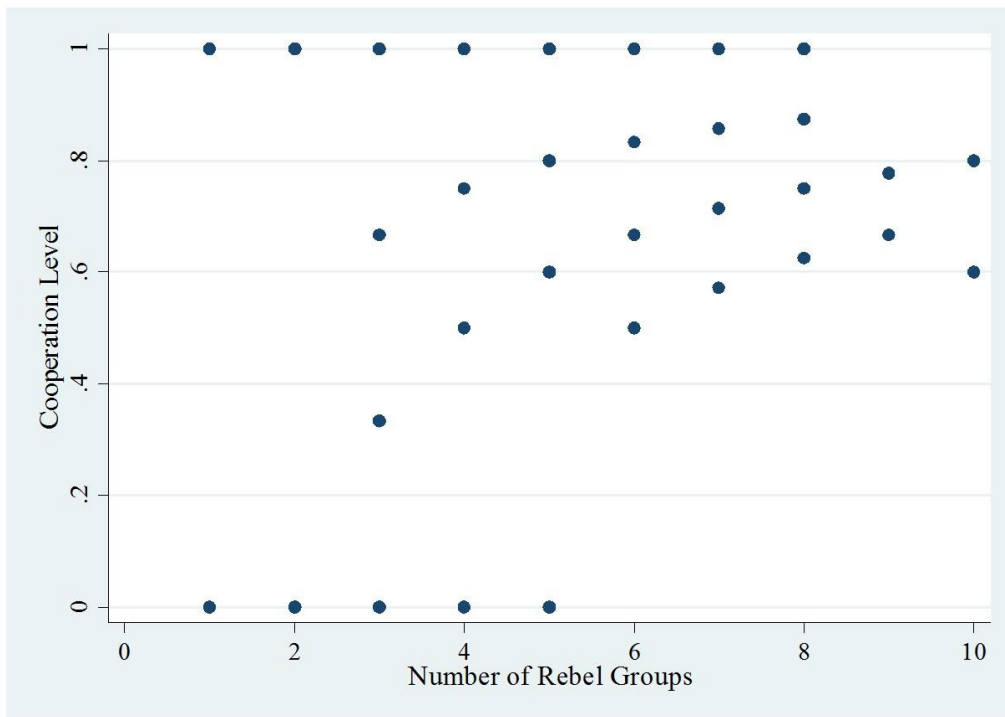
Rebel group cooperation is the key independent variable, in this chapter, and is predicted to encourage third party interventions. To test this theory, I have employed several forms of independent variables that capture cooperative interactions between insurgent groups. With regard to cooperative interaction, several recent studies (Akcinaroglu, 2012; Bapat et al, 2012; Christia, 2012) report rebel group alliance formation. For measuring cooperation between groups, my dataset was developed by relying on Akcinaroglu’s Rebel Alliance Dataset (2012).

To examine the association between rebel group interactions and civil war outcomes, Akcinaroglu collects information as to whether a rebel group joins in cooperative interactions in each conflict year for the civil conflicts identified in the UCDP Dataset covering 1946 to 2008. When an insurgent group joins any kind of cooperative interactions (such as assisting in training, tactical support, information and material exchange, carrying out joint operations or a group merger) the group is coded as having an alliance with another group on a binary basis. One weakness of her alliance dataset is this monadic form of data frame; this dataset does not provide any information for dyadic identification of alliance formation, but it does suggest whether a group has an alliance or not in each year.

Given this limitation of available data, I have established two key independent variables in multiple party civil conflict dataset. The first independent variable is designed on a binary basis, meaning that when cooperation between rebel groups is observed in a conflict-year, it is coded as '1' and others as '0.' Relying on this coding rule, 322 conflict years out of 829 (39%) are observed as having rebel cooperation. The second independent variable is the ratio of groups joining rebel alliances to all groups in each conflict year. In every conflict year, I have counted the number of insurgent groups and also the number of groups joining in cooperative activities in accordance with Akcinaroglu's dataset. After this, I have calculated the ratio of joiners to all groups.

This approach may give rise to some problems when attempting to capture rebel cooperation. For instance, when there are 5 insurgent groups and 4 of them are identified joining in cooperative activities, the cooperative level between rebel groups would be .8 (= 4/5). However, this measure does not capture how many rebel coalitions are formed. In other words, 4 joiners that have joined a rebel alliance may form one coalition that includes all rebel groups, or the 4 may form two separate coalitions with two of them in each. Surely, one coalition joining 4 out of 5 groups is more cooperative than forming divided two coalitions with 2 joiners in each. However, given the limitations of the available dataset, I have employed the ratio of alliance joiners to all insurgent group to capture the cooperation level between insurgent groups in each conflict-year. The average cooperation level of 829 conflict-years is .35, which indicates that when there are 5 rebel groups, 2 of them are expected to participate in cooperation.

Figure 3.3 Rebel Cooperation Level and Number of Rebel Groups



The above figure displays an association between rebel cooperation level and number of rebel groups. While the two variables, in this figure, appear to be positively correlated, the correlation is moderate ( $\text{corr} = .51$ ). I speculate that although it is not very strong, the number of rebel groups increases, so does the opportunity of cooperation.

So far, I have discussed the dependent variable and several key independent variables. The dependent variable contains information as to whether there is rebel biased intervention or not in the yearly observation, with the consideration of the intervention type. The independent variable incorporates information whether there is cooperation between rebels or not, and how many rebel groups join the cooperative interactions on the given year. The following table is a part of dataset displaying how many rebel groups join cooperative interactions in given year and explains how the dataset is constructed.



Table 3.1 Example of Multiparty Civil Conflict Dataset

Con. ID	State	Year	Rebel Biased Intervention	Troop Support	Mil. Type Support	Non-Mil. Type Support	Number of groups	Number of Joiners	Rebel Cooperation	Cooperation Level
...										
1	Philippines	1985	1	0	1	0	3	0	0	0
1	Philippines	1986	1	0	1	0	3	0	0	0
1	Philippines	1987	1	0	1	0	4	2	1	.5
1	Philippines	1988	1	0	1	0	4	2	1	.5
...										
14	DR Congo	1998	1	1	1	0	2	0	0	0
14	DR Congo	1999	1	1	1	0	3	2	1	.667
14	DR Congo	2000	1	1	1	0	6	2	1	.333
14	DR Congo	2001	1	1	1	0	2	2	1	1
...										
27	Uganda	1985	0	0	0	0	1	0	0	0
27	Uganda	1986	0	0	0	0	3	2	1	.667
27	Uganda	1987	0	0	0	0	3	2	1	.667
27	Uganda	1988	1	1	1	0	3	3	1	1

### *Control Variables*

Because prior studies have suggested alternative explanations for encouraging third party interventions in civil conflicts, I employ several control variables for testing my theoretical explanation. Control variables employed in this examination constitute a baseline model.

Firstly, international level factors are included in my baseline model: ‘Cold War,’ ‘International Rivalry,’ and ‘Transnational Constituency.’ My dataset covers both the Cold War era and post-Cold War era, thus, different properties of international systems should be considered. Moreover, international rivalry can provide an alternative explanation regarding opposition biased third party intervention. For instance, Iran supported two groups fighting the Iraqi government, Barzani’s KDP (Kurdistan Democratic Party) and Talabani’s PUK (Patriotic Union of Kurdistan). Iranian assistance for the two armed groups was motivated by the rivalry between Iran and Iraq. Relying on Thompson’s concept of international rivalry (1999), the rivalry variable is measured on a binary basis. Additionally, transnational constituencies are included in the model. Gleditsch (2007) reports transnational ethnic ties as an important factor predicting third party intervention, and the empirical evidence shows that transnational ethnic ties tend to increase the chance of outside actor’s participation in civil conflicts. In addition to the ethnic relationship, religious and ideological ties across borders may have a great impact on the possibility of third party intervention. In this sense, ethnic, religious and ideological constituencies across the border are measured on a binary basis. All information regarding ‘International Rivalry’ and ‘Transnational Constituency’ is collected from Salehyan, Gleditsch and Cunningham’s (2011) Appendix A.

State level factors also influence the chance of third party interventions, and ‘Number of Borders’ and ‘Lootable Resource’ variables are included in the model. Regan (2002) employs the number of borders in his empirical testing with the expectation that as the number of borders increases, so does the chance of intervention. This prediction is largely based on the infectious nature of civil conflicts and the subsequent motivation for neighboring countries to prevent the spread of a conflict. Recent studies have shown the positive effect of natural resources on third party interventions (Koga, 2011; Olson & Fors, 2004; Findley & Marineau, 2014). Put simply, the resource argument for intervention states that lootable resources are likely to motivate a third party to take action in order to obtain the resources. I have collected this natural resource information for conflict areas from Buhaug, Gates and Lujala (2009). Their dataset provides information as to whether the area of interest for each civil conflict contains several types of lootable resources, such as gemstone, oil, and drug fields.

Finally, prior studies suggest that the properties of a conflict have a great influence on the possibility of third party interventions. In addition to rebel interactions, several conflict properties influence the expected utility of potential interveners. As a result, ‘Conflict Intensity,’ ‘Duration,’ ‘Government’s Relative Capability’ variables have been included. High intensity and protracted duration of war are expected to increase the cost of intervention (Regan, 2002). When the relative capability of the government is significantly stronger than that of the opposition side, the chance of rebel biased intervention is decreased because of the high predicted cost and low probability of success for the intervention. When the government faces a stronger rebel group in a given year, it is coded as ‘1,’ and when it faces a rebel group with capabilities in parity, it is

coded as ‘2,’ and when the government is stronger than rebel group, it is coded as ‘3.’ All the information about the properties of each conflict is collected from the UCDP NSA dataset (ver. 2.5). The following table shows descriptive statistics for variables of this statistical model.

**Table 3.2 Descriptive Statistics of Interested Variables**

Variable	Observation	Mean	S/D	Min	Max
Rebel Support	829	.6332	.4821	0	1
Rebel Cooperation	829	.3884	.4876	0	1
Cooperation Level	829	.3480	.4492	0	1
Cold War	829	.4367	.4923	0	1
International Rivalry	829	.6840	.4652	0	1
Transnational Constituency	829	.4451	.4972	0	1
Number of Borders	829	4.4318	2.0522	0	9
Lootable Resource	829	.8238	.3811	0	1
Intensity	829	1.3365	.4728	1	2
Duration	829	15.1857	12.0247	1	50
Government Capability	829	2.8624	.3748	1	3

### **Test Results**

For testing the suggested hypothesis, a cross sectional and time series dataset is established using various data sources. When considering the panel, the data covers 55 multiple party civil conflicts in 42 countries, and in terms of temporal scope it is not unbalanced, meaning that the time period for each conflict is not always consistent. Because of the cross sectional and time series form of the data, a distorted estimation is highly suspected when the hypothesis is tested against data through a standard least square approach, assuming constant variance and no serial correlation. The dataset in this testing has a greater variance between units, thus fitting one intercept of a least square approach is likely to distort the estimators. Regarding the potential unit

heteroskedasticity, several methodological approaches have been suggested. If the focus was meant to examine group specific effects of intervention, a cluster specific approach would be more feasible. In this work, the main purpose of testing against data is to provide empirical evidence demonstrating a general effect of rebel cooperation across conflicts. Thus, I have chosen the marginal approach. The Generalized Estimating Equation (GEE) model provides an estimated parameter displaying the average effect across all units while accounting for intra-cluster correlation. In terms of serial correlation, the 'Conflict Duration' variable is included, but in order to conduct a more conservative test I have added cubic polynomial approximation in every model (Carter & Signorino, 2010). In the next chapter, a reversed causal relationship will be discussed: the effect of rebel biased intervention on rebel interactions. Potential endogeneity between the rebel biased intervention and rebel cooperation is highly suspected, thus I employ a one-year lagged independent variable in the model.

Table 3.3 GEE Test Results for Rebel Biased Intervention

Independent Variable	Dependent Variable: Rebel Support		
	Model 1	Model 2	Model 3
Rebel Cooperation, $t-1$		.907*** (.344)	
Cooperation Level, $t-1$			.881** (.353)
Cold War, $t$	.167 (.476)	.187 (.507)	.186 (.503)
International Rivalry, $t$	1.622** (.647)	1.859** (.777)	1.846** (.761)
Transnational Constituency, $t$	.960** (.481)	1.147** (.493)	1.127** (.496)
Borders, $t$	-.161 (.130)	-.195 (.141)	-.190 (.140)
Lootable Resource, $t$	.583 (.418)	.647 (.489)	.599 (.469)
Intensity, $t$	-.028 (.344)	-.255 (.353)	-.241 (.355)
Government Capability, $t$	-.008 (.449)	-.332 (.528)	-.323 (.523)
Conflict Duration (t)	-.077*** (.023)	-.100*** (.027)	-.099*** (.026)
$t^2$	.004* (.002)	.004** (.002)	.004** (.002)
$t^3$	-.000 (.000)	-.000 (.000)	-.000 (.000)
Constant	-.334 (1.262)	.748 (1.490)	.757 (1.488)
Observations	829	771	771
Number of Conflicts	54	50	50
Wald $\chi^2$	(10) = 31.74 (p = .0004)	(11) = 53.81 (p = .0000)	(11) = 54.28 (p = .0000)

Note: Semi-Robust Standard Errors in parentheses, \*\*\*  $p < .01$ , \*\*  $p < .05$ , \*  $p < .1$

Table 3.3 displays test results for rebel biased intervention in consideration of rebel cooperation. First of all, these test results confirm my theoretical conjecture that cooperation between rebel groups encourages rebel biased interventions in ongoing multiparty civil conflicts. In Model 2 and Model 3, the key independent variable

representing rebels' cooperative interactions turns out to have a statistically significant and positive effect on rebel biased third party interventions.

In Model 2, a one-year lagged 'Rebel Cooperation' variable is employed. As shown, rebel cooperation has a positive and significant influence on the rebel biased intervention. The 'Rebel Cooperation' variable is measured on a binary basis, meaning that when there is at least one cooperative interaction in a given year, it is coded as '1.' The test result of Model 2 can be substantively interpreted to show that last year's cooperation between rebels tends to increase the possibility of a third party intervention supporting the rebel side in this year.

In Model 3, a one-year lagged 'Cooperation Level' variable is included. Like 'Rebel Cooperation,' this variable displays a positive and significant effect on the chance of rebel biased third party interventions on a conventional level. This variable is measured by the ratio of rebel groups joining cooperative interactions to the number of all rebel groups in the given year. The test result indicates that a higher level of cooperation between insurgent groups encourages rebel biased third party interventions. The substantive effect of each variable concerning rebel cooperation will be discussed more in next section.

In Model 1, 10 control variables are employed as a baseline model. Generally, it can be concluded that the baseline model provides a strong ground for estimating the effect of cooperative rebel interactions on rebel biased interventions. As shown, the control variables display the expected directions of the effect in prior studies. 'International Rivalry,' and 'Transnational Constituency' significantly encourage the rebel biased interventions on a conventional level across models. Though the direction of effect is

negative as expected, 'Government Capability' variable does not reach its significance. 'Lootable Resource,' 'Intensity,' and 'Cold War' variables show the expected direction of impact on the interventions. However, those control variables do not reach statistical significance. The 'Cold War' variable have shown its strong effect in prior study (Regan, 2002), but when the 'International Rivalry' variable is included in models, its effect is dampened. The 'Borders' variable demonstrates a negative direction of its impact in contradiction to the prediction in prior studies. When reviewing test results of a prior study (Regan, 2002), the 'Borders' variable turns out to have no effect on the third party interventions. Regarding time dependency, 't' and 't<sup>2</sup>' variable show their positive and significant effect on the chance of rebel biased third party intervention. This means the relationship between time and the intervention draws a U shape. In other words, the probability of rebel biased interventions is heightened at the initial stage or final stage of war.



Table 3.4 GEE Test Results for Rebel Biased Intervention Depending on Type

Independent Variable	D.V.: Military Support		D.V.: Non-Military Support		D.V.: Troop Support	
	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Rebel Cooperation, $t-1$	.819** (.369)		.846* (.500)		-.924* (.547)	
Cooperation Level, $t-1$		.659* (.359)		.879** (.441)		-.853 (.634)
Cold War, $t$	-.147 (.490)	-.142 (.480)	-.717 (.907)	-.743 (.921)	3.525** (1.509)	3.546** (1.546)
International Rivalry, $t$	.643 (.685)	.640 (.661)	3.064 (2.009)	3.040 (1.979)	1.391* (.777)	1.419* (.783)
Transnational Constituency, $t$	1.681*** (.507)	1.644*** (.500)	-1.183 (1.065)	-1.184 (1.057)	-1.223* (.657)	-1.228* (.658)
Borders, $t$	.009 (.134)	.010 (.132)	-.604 (.392)	-.588 (.384)	-.162 (.281)	-.166 (.285)
Lootable Resource, $t$	-.288 (.461)	-.326 (.444)	1.515 (1.508)	1.464 (1.493)	2.475*** (.922)	2.522*** (.912)
Intensity, $t$	-.433 (.370)	-.401 (.365)	-1.133** (.509)	-1.131** (.514)	1.659*** (.495)	1.615*** (.492)
Government Capability, $t$	.425 (.484)	.420 (.474)	.593 (1.051)	.586 (1.032)	-2.755*** (.679)	-2.783*** (.690)
Conflict Duration (t)	-.073*** (.028)	-.071*** (.026)	-.132*** (.041)	-.132*** (.041)	.052 (.073)	.062 (.078)
$t^2$	.004*** (.002)	.004*** (.002)	.003 (.003)	.003 (.003)	.002 (.008)	.001 (.008)
$t^3$	-.000** (.000)	-.000** (.000)	.000 (.000)	-.000 (.000)	-.000 (.000)	-.000 (.000)
Constant	-1.533 (1.561)	-1.484 (1.533)	-2.364 (3.412)	-2.325 (3.340)	-2.211 (1.533)	-2.181 (1.529)
Observations	771	771	771	771	771	771
Number of Conflicts	50	50	50	50	50	50
Wald $\chi^2$	(11) = 36.62 (p = .0001)	(11) = 37.59 (p = .0001)	(11) = 106.22 (p = .0000)	(11) = 99.04 (p = .0000)	(11) = 114.93 (p = .0000)	(11) = 124.35 (p = .0000)

Note: Semi-Robust Standard Errors in parentheses, \*\*\* p < .01, \*\* p < .05, \* p < .1

Regarding a specific type of rebel biased intervention, the test results support my theoretical expectations. Except in the case of ‘Troop Support,’ rebel biased support of the third party is likely to occur when rebel groups in multiparty civil conflicts are more cooperative.

In Model 4 and 5, rebel biased interventions in type of military are estimated with the consideration of rebels’ cooperative interactions. This type of intervention incorporates third party’s efforts providing military equipment, weaponry and ammunition, military intelligence, advisors, training support and air support. About 78% of rebel biased interventions in the dataset are conducted in this form of intervention. As it is seen in Model 4, ‘Rebel Cooperation’ demonstrates a positive and significant effect on rebel biased interventions of this type. While its significance is marginal ( $P > |z| = .066$ ), ‘Cooperation Level’ also displays a positive effect on the intervention of military type. In Models 2 and 3, while employing every type of rebel biased intervention as a dependent variable, ‘International Rivalry,’ ‘Transnational Constituency,’ and time variables demonstrate a significant effect on rebel biased interventions. However, when military type intervention is employed in the model, the ‘International Rivalry’ variable loses its significance.

In Models 6 and 7, the ‘Non Military Support’ variable is included as a dependent variable. This type of intervention contains the third parties’ non-military activities, such as financing, granting non-lethal resources, providing sanctuary, and endorsement. This type of rebel biased intervention makes up about 15% (77 out of 545 yearly observations) and in 13 observations, both military and non-military type rebel biased interventions occurred simultaneously. Though its significance is marginal ( $P > |z| = .091$ ), ‘Rebel

Cooperation’ demonstrates a positive effect on the rebel biased intervention of non-military type, and ‘Cooperation Level’ variable shows a significant and positive effect as well. In terms of control variables, ‘International Rivalry’ and ‘Transnational Constituency’ do not reach their statistical significance, but ‘Intensity’ turns out to have a significant and negative effect on this type of rebel biased interventions.

‘Troop Support’ in Models 8 and 9 is the most intensive type of rebel biased interventions because it entails dispatching of ground forces to help opposition side. My theoretical conjecture is highly oriented to this form of intervention, but this type of intervention is not significantly influenced by rebel cooperative interactions. Moreover, the direction of effect is negative in both models. The negative direction of effect in ‘Rebel Cooperation’ variable can be explained by that when the rebels’ victory is highly expected by rebel cooperation, the rebel groups are likely to refuse the outside offers (Salehyan et al, 2011).

With this contesting empirical evidence, I have reviewed each case of rebel biased interventions for form of troop support. In 65 yearly observations, or 7.8% of all observations, the third party sends troops in on the ground. Most observations incorporating third party troop support on behalf of rebel groups are comprised of Vietnam’s support for rebels in Laos and Cambodia, South African support for rebels in Angola, Libyan support for rebels in Chad, and Rwanda/Uganda’s support for rebels in DR Congo. Most of these interventions on behalf of the opposition side occurred during the Cold War era and the third parties’ decision to intervene was influenced by international rivalry. Thus, this contesting empirical evidence against my prediction may

be generated by the Cold War and International Rivalry contexts and the effect of rebel cooperation is subsequently dampened.

Though Models 8 and 9 do not demonstrate any significant empirical evidence corresponding to my theoretical conjecture, only these two models confirm the statistically significant effect of ‘Government Capability’ and ‘Lootable Resource’ on rebel biased interventions. Saving for these two models, these two variables do not turn out to have significant effects on the interventions. However, these two models show that the chance of rebel biased intervention in the form of troop support is decreased when the government capability is strong, and natural resources significantly increase the chance of rebel biased intervention in the forms of troops. When the type of intervention is more intensive, the government capacity and resource factors becomes more salient.

## **Discussion**

The empirical evidence grounded on a large-N framework largely supports my theoretical prediction that rebels’ cooperation in multiparty civil conflicts increases the chance of rebel biased third party interventions. In the previous section, the ‘Rebel Cooperation’ and ‘Cooperation Level’ variables are estimated to have a strongly significant effect in encouraging third party’s interventions on behalf of rebel groups, in Models 2 and 3. The following table demonstrates the predicted probability of rebel biased third party interventions as determined by several factors.

Table 3.5 Predicted Probability of Rebel Biased Intervention of Model 2

	Predicted Pr.(Rebel Biased Intervention)	Change in Predicted Probability	95% C.I.
Rebel Cooperation, $t-1 = 0$	.190	93.2% ↑	[.010, .370]
Rebel Cooperation, $t-1 = 1$	.367		[.061, .673]
International Rivalry, $t = 0$	.190	217.5% ↑	[.010, .370]
International Rivalry, $t = 1$	.600		[.382, .818]
Transnational Constituency, $t = 0$	.190	123.7% ↑	[.010, .370]
Transnational Constituency, $t = 1$	.425		[.128, .721]

Note: To simulate the difference of the expected probability of rebel biased intervention, the baseline was set by absence of rebel cooperation, international rivalry, transnational constituency, existence of lootable resource, and post-Cold War. And other variables were set by their mean values.

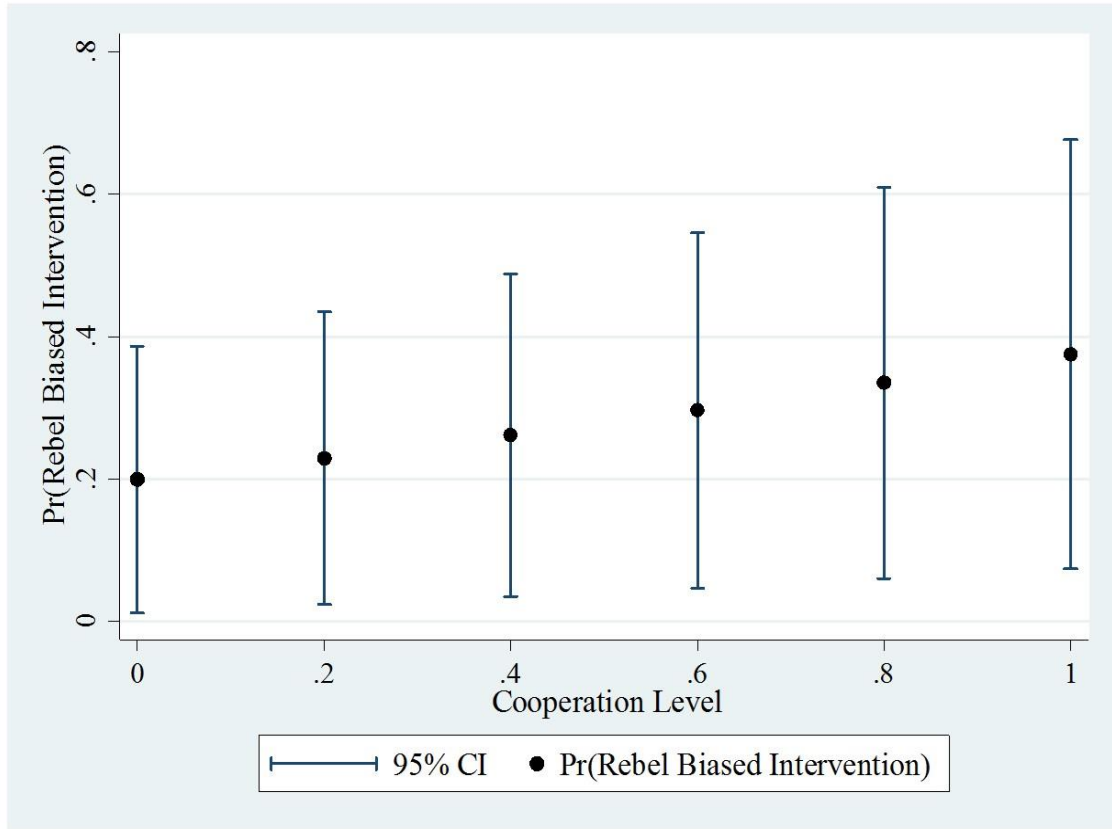
Table 3.5 displays the simulation results based on the estimates of Model 2. As seen on the first row, cooperation between insurgent groups generates noticeable change in the possibility of rebel biased interventions. When there is no cooperative event between rebels, the predicted probability of rebel biased intervention is only .19, but when there is at least one cooperative interaction between rebels, it becomes .367. Substantively, rebel cooperation raises the chance of rebel biased intervention about 93%. Both the absolute and relative change in the chance of rebel biased intervention are strong in consideration of rebel cooperation on multiple party civil conflicts.

When comparing the substantive effect of other factors encouraging the interventions, rebel cooperative interactions have a comparable capacity to predict rebel biased intervention with ‘Transnational Constituency.’ Prior studies (Salehyan, 2009; Gleditsch et al, 2008) emphasize the importance of transnational ties for explaining the

internationalization of civil conflict. The empirical results of this study also confirm the prior studies' anticipations. The existence of a transnational constituency more than doubles the probability of rebel biased intervention. Rebels' cooperative interactions occur only in multiple party civil conflicts, but the existence of transnational ties is not contingent upon the number of insurgent groups in civil wars, but is, instead, a pre-existing condition.

The context of international rivalry turns out to be an important factor in explaining the rebel biased intervention. Prior studies suggest that rivalry conditions various conflictual interactions between states, such as territorial disputes, repeated conflicts, arms races and diversionary uses of force (Diehl & Goertz, 2001; Thompson, 1999; Vasquez, 1996; Mitchell and Prins, 2004). Findley et al (2006) find empirical evidence confirming the effect of international rivalry on third party intervention. My empirical evidence again confirms its significance in explaining rebel biased third party intervention and its substantive effect appears to be the greatest compared to other significant factors. Empirical evidence regarding rebel cooperation demonstrates that the distinctive conflict dynamics of multiparty civil conflicts strongly influence the possibility of third party interventions.

Figure 3.4 Predicted Probability of Rebel Biased Intervention of Model 3



Note: To simulate expected probability of rebel biased intervention, the baseline was set by absence of international rivalry, transnational constituency, existence of lootable resource, and post-Cold War. And other variables were set by their mean values.

Figure 3.4 presents the simulation results grounded on the estimates of Model 3. In Model 3, the ‘Cooperation Level’ variable is included as a key independent variable predicting the chance of rebel biased interventions. The ‘0’ value of cooperation level in the above figure denotes that there is no insurgent group joining in cooperative interactions- in other words there is no cooperation between rebels. A ‘1’ value of cooperation level implies that every opposition group joins the cooperative interactions in a multiparty civil conflicts. As shown, when there is no group joining a cooperative interaction, the simulation result provides a 20% chance of rebel biased interventions, but when every group cooperates, the chance of interventions increases to about 40%. More

importantly, the above figure illustrates the trend that rebel biased intervention increases along with an increases in rebel cooperation. This simulation shows that as more insurgent groups participate in the cooperative interactions, an intervention supporting the opposition forces is more likely.

In this chapter, I have shown the encouraging effect of rebel cooperation on rebel biased intervention. Rebels' cooperative interactions shape an intervention enriched environment by increasing the likelihood of successful intervention and lowering the cost of war. The empirical results strongly support my theoretical prediction. In the first chapter, I have highlighted a distinctive conflict dynamic of multiparty civil conflicts generated by existence of multiple warring groups. My empirical findings display the effect of rebel cooperative interactions on outside actor's decision. Rebels' cooperative interactions are only available in multiparty civil conflicts, and I find the conflict process in these situations to be unique regarding intervention with rebel interactions.



## CHAPTER 4

### **The Effect of Rebel Biased Interventions on Rebel Group Interactions**

In this chapter, I concentrate on the remaining question: what kinds of rebel group dynamics are more facilitated by rebel biased third party interventions? I argue that the effects of rebel biased interventions on rebel group dynamics are conditioned by the degree of the interveners' commitment. The basic concept of a bargaining model can be a useful analytical tool to explain the conditional effect of interventions on cooperation and competition between insurgent groups. While strong commitments to intervention provide a clear picture of the relative capabilities among rebel groups, weak commitments of interveners increase uncertainty about these relative capabilities and the third party's resolve.

This project provides a new dimension to explain inter rebel group dynamics, and also has the potential to expand the explanatory power of interventions. A substantial amount of multiparty civil conflicts experience third party interventions, and my explanation can provide a better understanding about rebel group cooperation and competition as conditioned by an outer force. As I have shown in the previous chapter, rebel group interactions in multiparty civil conflicts play an important role in predicting the conflict process, including third party interventions. Though the existing literature has developed several theories regarding rebel cooperation and competition, no study sought the impact of outer shock on rebel group dynamics. I propose an alternative explanation of rebel cooperation and competition with the consideration of rebel biased intervention as an exogenous shock.

My explanation of rebel group dynamics conditioned by rebel biased interventions can be broadly expanded into explaining other outcomes of interventions, such as intensity, duration, and termination. Prior studies exploring the consequences of third party interventions in ongoing civil conflicts largely rely on the relative power hypothesis. Though it is true that a third party intervention creates a shift in the balance of power, it may be necessary to focus on the initial belligerents' conflict behavior as conditioned by outside actor interventions in order to draw more sophisticated conclusions. Under the contesting theoretical conjectures and mixed empirical evidence regarding the effect of third party interventions, this project provides an opportunity to combine the contending explanations about the effects of interventions on civil war duration and termination.

In this chapter, I will highlight a conditional effect of rebel biased third party interventions on inter rebel conflict process on an aggregated level, meaning that my focus is on inter rebel dynamics as advanced by multiple rebel groups. On a dyadic level approach, the effect facilitating both cooperation and competition, may be logically untenable because cooperation and competition between two rebel groups cannot be simultaneously encouraged by an intervention. However, my focus in this project is to show how rebel biased interventions influence the projection of inter rebel dynamics in terms of cooperation and competition. When thinking system level analysis of International Relations, scholars have long explored how alliance formations is fueled by interstate disputes (Leeds, 2003; Levy, 1981). The multiparty civil conflict is typical example of conflict system incorporating more than two actors, and inter rebel conflict

process influenced by the interventions can also be better characterized on an aggregated level.

For developing my hypotheses regarding interventions and rebel dynamics, I adopt the bargaining theory, featuring inter rebel dynamics as a bargaining process between multiple rebel groups attempting to arrive at a mutual agreement on the division of benefits. The mutual agreement of the distribution of benefits corresponds to the mutual understanding about distribution of capabilities between rebel groups. One of the primary measures to obtain information about relative capabilities and adversary's resolve is to engage in fighting. When rebel groups get clear information about the distribution of capabilities, they are able to reach an agreement. I argue that a weak forms of rebel biased third party intervention generate move to make inter rebel dynamics more conflictual because of an increase in uncertainty. However, strong forms of interventions, incorporating dispatched ground forces and supplying military resource, leads to inter rebel cooperation due to increased certainty and the role of the third party in the bargaining process.

Several prior studies have tried to discover the causes of cooperation and competition between rebel groups. Shared ethnic identity and symmetric power relationship tend to encourage cooperation between opposition groups (Kalyvas & Kocher, 2007; Cunningham, 2011; Christia, 2012; Bapat & Bond, 2012). Divided internal structures of rebel groups and resource interest have been suggested as encouraging inter rebel competition (Warren et al, 2014; Christia, 2008; Cunningham et al, 2012; Fjelde et al, 2012). Regarding the outcome of interventions, the existing research has looked at duration and termination; some research suggests that outside intervention lengthens the

duration of a conflict and increases the likelihood of a stalemate. (Balch-Lindsay et al, 2000; Regan, 2002; Cunningham, 2010), while others argue that intervention diminishes the length of civil war and encourages a more decisive one-side victory (Balch-Lindsay et al, 2008; Olson et al, 2004; Collier et al, 2004; Sullivan & Karreth, 2014). The existing works have not looked at the effect of intervention on the rebel cooperation and competition in multiparty civil conflicts.

### **Bargaining Process among Multiple Rebel Groups**

In this section, I will show how inter rebel dynamics in multiparty civil conflicts are appropriately characterized by bargaining theory. A bargaining model offers a useful analytical framework in which to explain both cooperation and competition among rebels in multiparty civil conflicts. One of the strengths of bargaining theory is that it provides a comprehensive explanation of the whole process of conflicts; from cause, conduct, termination, and to reoccurrence (Reiter, 2003). Moreover, bargaining theory has a great advantage in describing the conduct of war when compared to other theoretical approaches for conflict studies. I will apply the bargaining theory into inter rebel conflict process in order to address inter rebel dynamics influenced by outer shock.

#### ***Bargaining Model***

Basically, bargaining theory views conflict as “a process of arriving at mutual agreement on the provision of a contract” (Kennan & Wilson, 1993, p. 45). The agreement between bargaining participants is grounded on the mutual understanding about distribution of capabilities among them. When the bargaining joiners in dispute

share the understanding about relative capabilities, they can reach an agreement without resorting to arms. Fearon (1995) highlights several conditions encouraging states to go to war instead of negotiating peacefully. When the degree of uncertainty about the distribution of capabilities, and the degree of mutual fear for defection is high, and when the division of issues at stake is impossible, states prefer war to negotiation.

Bargaining theory characterizes war as ensuing episodes of battle, and these sustained armed incidents are considered a part of the bargaining process, instead of a failure of bargaining (Reiter, 2003). The ensuing battles tend to reduce the uncertainty around the distribution of capabilities among belligerents, and about the resolve of adversaries. Through serial military clashes between belligerents, information about relative capabilities is revealed (Werner, 1998), and the uncovered information helps individual actors to predict who would win in the future (Filson & Werner, 2002; Wagner, 2000). Also, uncertainty regarding adversaries' intentions to sustain fighting is diminished by ensuing battles, which help belligerents to re-evaluate their belief about adversaries' resolve (Powell, 1999). The final stage of the bargaining process is the convergence of belligerents' recognition of the distribution of capabilities, and arrival at a mutual agreement on the provision of scarce resources depending on a recognized distribution of power.

### ***Inter Rebel Conflict Process and Bargaining Model***

Dynamic attributes of multiparty civil conflicts, containing cooperation and competition between combatants, can be properly captured by bargaining theory. Several prior studies discuss the civil war processes through of bargaining theory. Fearon (2004)

and Hultquist (2013) emphasize the commitment problem and uncertainty for explaining the longer duration of war, which is brought on by impeded negotiated settlements between the government and opposition group. Also, inter rebel conflict process can be outlined by the frame of bargaining theory. Nygard and Weintraub (2014) suggest bargaining processes between rebel groups as a way of reaching status quo, for which the distribution of benefits matches the distribution of capabilities.

One of important underlying assumptions in bargaining theory is that fighting is costly, and the combatants prefer peaceful negotiation to fighting. This assumption of bargaining theory is very similar to the point of departure in literature on rebel cooperation and competition. Research on inter rebel fighting (Fjelde & Nilsson, 2012; Nygard & Weintraub, 2014) discussed the reason why they fight, despite of that military cooperation among rebel groups is helpful. Akcinaroglu (2012) finds rebel cooperation yields the better outcome in terms of its survival and victory of the rebel. Fighting between rebels may be costly as much as fighting against the government, and rebel competition likely generates negative consequences of fighting against the government. Rebel groups prefer peaceful negotiation to fighting even in the inter rebel conflict process, and they pursue to arrive at an agreement in order to defeat the incumbent government.

Though rebel groups prefer peaceful negotiation to fighting in order to reach an agreement, armed competitions between them occur. Fearon (2004) suggests three reasons why war occurs despite state's preference in his path breaking work. Informational problem, commitment problem and issue indivisibility, as the driving forces of war, can outline the inter rebel fighting. Incomplete information regarding

rebel's relative capability arises from individual groups' incentive to misrepresent their capabilities for getting a better deal, and rebels are not likely to trust each other to keep the promises because of incentive to renege on them. Fighting for indivisible issues at stake is the most difficult type of conflict to solve for rebels. For instance, different perspective over post war institution between a secular group and a religious group cannot be compatible.

Ensuing episodes of fighting between rebel groups can be viewed as a bargaining process. From the battles between rebel groups, the insurgent groups come to better know about relative capabilities and the distribution of capabilities. Violent interactions between them reduce the level of uncertainty in regard to relative capabilities and about resolve of the other rebel groups. The information revealed by these battles helps the rebel groups to update their beliefs surrounding the adversaries, and to expect military success in the future. When the rebels mutually recognize the distribution of capabilities among themselves, they can cease fighting, and reach an agreement about the division of benefits. When reaching the agreement, rebels do not need to fight, and they can step up cooperation in order to defeat the common enemy, the incumbent government. Inter rebel dynamics consist of multiple rebel groups' competition and cooperation, and the projection of these dynamics can be viewed as a process to reach a mutual agreement concerning the distribution of benefits, such as territorial division and share of post-war institutions.

## **Rebel Biased Intervention and Bargaining Process between Rebel Groups**

The focus of this chapter is to show how an outer force influences inter rebel bargaining process. In other words, I focus on the impact of rebel biased third party interventions on inter rebel dynamics. In the previous section, I have described inter rebel dynamics as a bargaining process between rebel groups. Rebel biased third party intervention generates a change in ongoing bargaining process between insurgent groups. I argue that the direction of change in inter rebel dynamics, induced by interventions, is determined by the degree of the third party's commitment. Before discussing the direction of change in the dynamics, it should be clarified how the inter rebel bargaining structure is transformed through the interventions, and what information and how much information is revealed depending on the type of intervention.

### ***Rebel Biased Intervention and Inter Rebel Bargaining Structure***

In terms of bargaining structure, the occurrence of rebel biased third party intervention generates a shift in the number of bargaining joiners and a shift in distribution of power. Rebel biased third party involvement into ongoing civil war indicates an emergence of new warring party against the government. The number of bargainers joining in bargaining process does matter. Prior studies (Cunningham, 2006, 2010; Nilsson, 2010) have shown how the negotiation process between the government and opposition groups is conditioned by the number of rebel groups and, they have shown the positive association between number of bargainers and duration of negotiation process. Like the bargaining process with the government, a structural change imposed by the emergence of a third party affects the bargaining process between rebel groups. When



a third party supporting a rebel group emerges, initial belligerents face a new actor, and its emergence likely influences the inter rebel bargaining process.

A shift in the distribution of power occurs when an intervention takes place. Regan (2002) points out the fundamentals of third party intervention as “convention breaking activities” by which a shift in the balance of power occurs. The continuation of inter rebel dynamics can be outlined as a bargaining process between rebels aimed at reaching a mutual agreement of resource provision, corresponding to relative capabilities. Capability added by third party generates a shift in the distribution of power in the existing conflict system involving multiple actors, and it likely influences the inter rebel bargaining process.

I have suggested a shift in the number of bargainers and a shift in the distribution of power in inter rebel bargaining process, when an intervention takes place. Through this structural change, the bargaining process between rebel groups is likely influenced. When thinking inter rebel dynamics as a process to clarify information on relative capability, a direction of change in inter rebel dynamics depends on what information on a new actor is revealed, and how much the private information is revealed.

### ***Revealed Private Information on Third Party***

Rebel biased third party intervention creates a structural change in inter rebel bargaining process in terms of the number of bargainers and the distribution of capabilities. When an intervention occurs, the rebels take a keen interest in the private information on the third party, such as how much the third party is biased to a supported insurgent group, and how much capabilities are added to the group. The information on

the degree of bias and added capabilities is strongly correlated, and the private information on third party determines the degree of certainty about the altered distribution of capabilities and the resolve of third party.

While prior studies employ the third party bias as a dichotomous variable, I use bias as a continuous variable. Farvretto (2009) shows a positive association between the degree of third party's bias and success of mediation, and argues that because high bias of the third party indicates its willingness to use of force, the disfavored side clearly knows that the mediator is resolute and likely accepts the proposed settlement. The point in her study is that degree of third party bias determines the certainty in regard to its willingness, and the disfavored side's response to the mediator depends on the certainty. When rebel biased intervention occurs, the disfavored rebel groups by third party come to wonder about how much the third party is biased to the rebel group and their responses to the intervention are contingent on the certainty about private information on third party.

The private information on third party bias can be revealed by its intervention measures. In Chapter 3, I have demonstrated how rebel cooperation facilitates rebel biased intervention. To clarify decision-making mechanism of third party, I adopt Regan's rational choice approach (2002). One of the important parts of his model centers on the 'cost of intervention' ( $C_i$ ). The cost of intervention is determined by how much the third party commits to help the opposition group, because the cost of intervention varies along with the type of intervention. The third party can use various measures in order to support the opposition group in civil wars. Intervention measures employed by third party illustrate the third party is able to bear. In other words, the measure of intervention is the same at the degree of the third party's bias.

Regan (2000) lists several types of interventions in civil conflicts; diplomatic, economic, and military intervention. Rebel biased military intervention tends to incur a larger cost compared to others, and this type of intervention showcases the third party's strong intention to defeat the government in civil conflict and high bias on the group. A third party supporting a rebel group with non-military measures does not need to be concerned about war time casualties and the loss of military resources, but this type of intervention indicates a relatively weak will to finalize the civil conflict in its favor and relatively low bias to the group. The main purpose of this chapter is to show how the direction of change in inter rebel dynamics is contingent upon the degree of the third party's commitment.

### **Fueled Competition by Weak Interventions**

A weak commitment from a third party in support of opposition side, intensifies competition between insurgent groups by increasing the uncertainty in terms of the distribution of capabilities and the third party's resolve. In terms of the increased uncertainty, fighting is used as a primary measure to show relative capabilities between rebels and the intentions of the new actor in the bargaining process. I argue that rebel biased interventions in a weak form tend to encourage violent competition between insurgent groups, meaning that inter rebel dynamics are propelled into a more conflictual form.

Weak interventions represent a weak commitment and a low bias of the third party because of the relatively low cost of interventions. For instance, a third party can provide a safe haven for combatants from opposition group without facing military clashes with

the incumbent government's forces (Salehyan, 2007), and economic sanctions coupled with diplomatic efforts (Regan & Aydin, 2006) can also be used by a third party to support an opposition group. However, these weak measures of intervention generates rebels' doubt about third party's resolve and uncertainty in terms of the distribution of capabilities.

The emergence of a new actor joining in the bargaining process likely exacerbates the informational problem (Cunningham, 2006, 2010). Moreover, if the new participant's resolve is ambiguous in terms of political aim and military purpose, uncertainty about the relative capabilities would be magnified. When rebel biased third party intervention in a weak form takes place, the initial belligerents do not clearly know how much the capability of a supported group is increased by the third party's assistance, and how much cost an intervener can bear.

Bargaining theory frames the conflict process as continuous interactions between actors aiming to arrive at a mutual agreement grounded on certainty about the distribution of power. Reliable information regarding relative capabilities between belligerents is a prerequisite for reaching the final goal of bargaining. Uncertainty imposed by a weak form of intervention generates an individual actor's incentive to get more information about the altered distribution of capabilities and the resolve of the third party. Engaging in combat is a primary measure of collecting information about relative capabilities. The ensuing episodes of fighting between rebels reduce uncertainty increased by a weak intervention reflecting low bias of the third party. Battle sustained between rebels indicate a move of inter rebel dynamics to a more conflictual form. This leads to the following hypothesis;

*H2: Rebel biased intervention in a weak form intensifies competitive interactions between insurgent groups.*

**Boosted Cooperation by Strong Interventions**

Several prior studies point out the inherent intractability in handling the negotiation process with a larger number of actors (Cunningham, 2006, 2010; Nilsson, 2010).

However, I argue that rebel biased intervention in a strong form provides a shortcut for multiple rebel groups to arrive at a mutual agreement. Strong intervention indicates the third party's resolve and high bias, and helps to clarify the altered distribution of capabilities caused by the intervention. This form of rebel biased intervention tends to decrease uncertainty about relative capabilities, and the capable third party can play an important role in streamlining the bargaining process; the projection of inter rebel dynamics shapes a more cooperative pattern.

Rebel biased intervention in a strong form indicates a strong commitment by the third party. The most intensive form of intervention into ongoing civil conflict is a dispatch of ground forces coupled with the supply of lethal and non-lethal military equipment. Illustrative examples of this strong form of intervention are the Libyan intervention into the Chadian Civil War in 1984, and Rwanda's intervention into the Second Congolese Civil War in 1998. This sort of intervention clearly displays the third party's political aim and military purpose, and moreover, tends to ensure that the distribution of capabilities is shifted in the supported group's favor. The inter rebel bargaining process is facilitated without any rebel efforts to obtain information, under certainty about the relative capabilities. The informational problem is reason for rebels to prefer fighting to peaceful

negotiation (Fearon, 1995), whereas certainty about the distribution of capabilities tends to encourage rebels to arrive at a mutual agreement about the division of benefits.

In terms of power relationships between the government and opposition groups, altered distribution of power by rebel biased intervention shapes a better environment for rebel alliances. Driscoll (2012) suggests that when the balance of power between the government and opposition groups reaches parity, the rebels are more likely to ally with each other because of the incentive to share the costs of war. A third party's strong commitment to intervention likely generates power parity between the government and the oppositions, and the power parity between them tends to engender a more intense conflict (Balcells & Kalyvas, 2014; Butler et al, 2014). The heightened intensity by the intervention incentivizes the individual rebel groups to share the cost of war, which means inter rebel cooperation.

Along with the informational problem, Fearon (1995) suggests another source to make rebels prefer fighting to negotiation- commitment problem. The commitment problem clearly hinders the progress of bargaining between rebel groups even under conditions of certainty about the relative capabilities because of the mutual fear of defection. Bapat and Bond (2012) explain that the role of strong rule enforcer can solve the commitment problem in their formal model, and they argue that an outside actor can play the role of rule enforcer by encouraging alliances between militant groups that are asymmetric in terms of relative capability. The rule enforcer should be able to punish the rule breakers, and the capable third party can play the role in the inter rebel bargaining process.

Rebel groups can rapidly reach a mutual agreement through a strong form of rebel biased third party interventions by not hindering rebel efforts to gain more information. A strong commitment by a third party tends to generate certainty about the distribution of capabilities between rebels, and the rebel groups doubt the third party's resolve less. An altered distribution of power between the government and opposition groups shapes a better environment in which to ally with each other, and the strong third party plays the role of rule enforcer for solving the commitment problem. A rapid arrival at a mutual agreement between rebels through the strong commitment of a third party indicates the move of inter rebel dynamics towards a more cooperative pattern. This leads to the following hypothesis;

***H3: Rebel biased intervention in a strong form boosts cooperative interactions between insurgent groups.***

In this section, I highlight the conditional effect of rebel biased third party interventions on inter rebel dynamics. Its effect is contingent on the degree of the third party's commitment to intervention in an ongoing multiparty civil conflict. To illustrate my theoretical conjecture, I adopt the bargaining theory in which inter rebel dynamics are featured as part of bargaining process between multiple rebel groups. Through ensuing episodes of combat, an individual bargaining participant can obtain information about the distribution of capabilities, and can update its view about adversaries' resolve. Under condition of certainty, rebels arrive at a mutual agreement over the distribution of benefits corresponding to the distribution of capabilities. I argue that weak forms of rebel biased

third party intervention generate uncertainty about relative capabilities and the third party's resolve. The uncertainty imposed by the interventions demands more information for rebels, and leading to more conflictual inter rebel dynamics. I argue that strong forms of intervention, incorporating the dispatch of ground forces and military supplies, generate certainty in regard to the distribution of capabilities and third party's resolve. Certainty helps the rebels to reach an agreement, and the strong role of the third party solves the commitment problem between the rebels. This leads to cooperative inter rebel dynamics.

When applying the bargaining theory framework to my theoretical conjectures, there are two potential weaknesses. The first one is whether this applied framework is appropriate when describing the bargaining process of multiple actors. Basically, it is true that the bargaining theory has been developed for two-party bargaining, however, recent studies have begun to analyze interactions between more than two players on the themes of alliance pattern, deterrence, and third party mediation (Wagner, 1986; Powell, 1999; Favretto, 2009). Also, several studies on multiparty civil conflicts adopt the basic concepts of the bargaining model when deducing implications from formal modeling (Bapat et al, 2012; Butler et al, 2014).

Secondly, the role of government is absent in my theoretical predictions. It is true that power relationships between government and rebels greatly influence an individual rebel's conflict behavior, and governmental strategy also has a great effect on the conflict process (Butcher, 2015; Cunningham, 2011; Toft & Zhukov, 2012). The role of government shapes the pre-conditions of rebel interactions and third party interventions, and the main focus of this project is to show how the rebel biased third party intervention



generates change in inter rebel dynamics from these pre-existing conditions. Moreover, the conditional effects of intervention on inter rebel dynamics is not likely contingent on the role of government. When an extremely capable government exists, there should be neither civil conflict nor intervention. When an extremely weak government exists, government intervention effects on the bargaining process between rebels should be trivial.

### **Case Selection**

For investigating the effect of rebel biased third party interventions on inter rebel dynamics, I have collected yearly rebel group interaction in terms of cooperation and competition. Because information of rebels' competitive interactions is available from 1989 in the UCDP's Conflict Encyclopedia, I have limited the temporal scope in this estimation. In selecting the multiparty civil conflicts, I follow the same rule used in the previous chapter. When durations of conflicts separately coded in UCDP/PRIO are overlapped, and when the interested territory by rebels are sharing provincial border with each other, the conflicts are integrated into one conflict. From 1989 to 2008, there are 39 multiparty civil conflicts and, the number of yearly observation of the conflicts is 402.

Figure 4.1 Distribution of Rebel Group Numbers for 39 Multiparty Civil Conflicts (1989-2008)

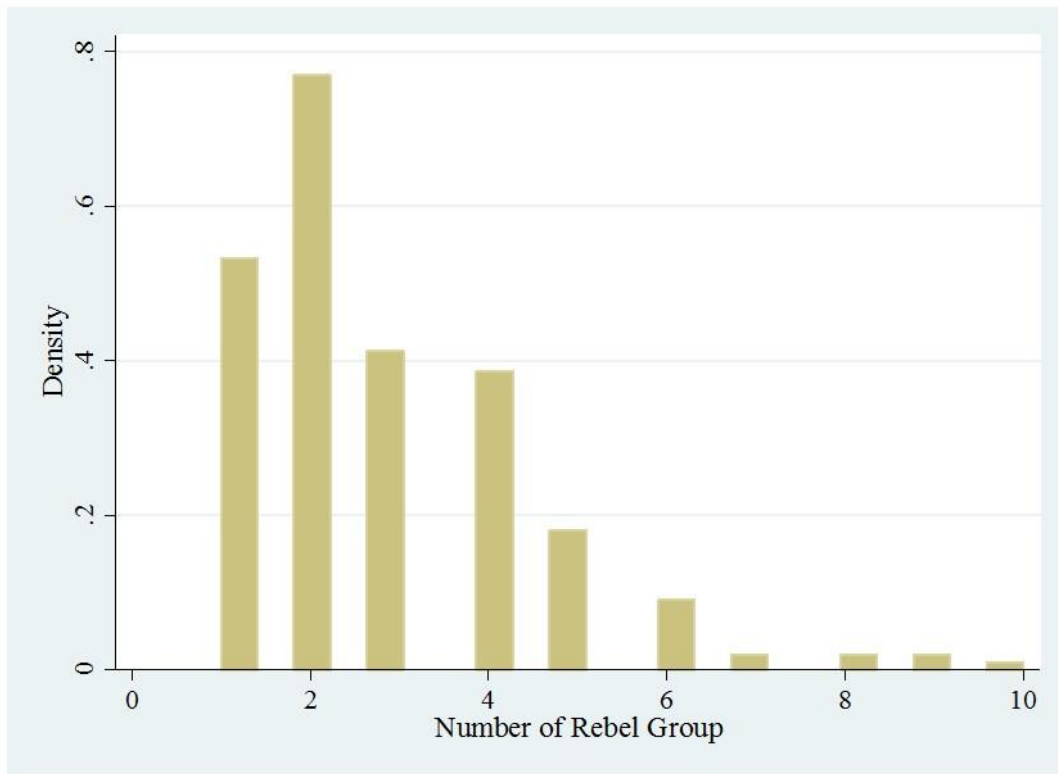


Figure 4.1 displays a distribution of number of rebel groups for the 402 yearly observations in dataset covering 39 multiparty civil conflicts. There are considerable amount of observation incorporating only one insurgent groups (20.9%, 84 yearly observations). Some civil conflicts broke out with only one rebel group but, during the progressing of conflict, the number of opposition groups is multiplied by group splits and emergence of new groups. And there were cases that several insurgent groups were merged into one umbrella group through establishing one headquarter and sharing its official name. As an extreme case, there are 3 observations incorporating 10 insurgent groups, which is Indian civil conflict involving north eastern area in 1997, 1998 and 2008.

## **Research Design**

I estimate the effects of rebel biased interventions on inter rebel dynamics of multiparty civil conflicts, in a large-N framework. The unit of analysis is a conflict-year for 39 multiparty civil conflicts, from 1989 to 2008. Because the main interest of this section is to assess the effect of rebel biased intervention on rebel group dynamics, I have collected information about whether rebel biased intervention exists or not, and how many rebel groups participate in cooperative and competitive interactions for each yearly observation.

In order to test the suggested hypotheses, a cross sectional and time series dataset is established from various data sources. When considering the panel, the data covers 39 multiple party civil conflicts in 33 countries, and it is not balanced in terms of temporal scope, meaning that time periods for each conflict are not consistent with each other. Like the previous chapter, a GEE model is employed for cleaning up the unit heterogeneity. In terms of serial correlation, the dataset has a relatively small variance compared to the number of panels. The longest period of multiparty civil conflict in this dataset is 20 years. For cleaning up potential serial correlation, I have added cubic polynomial approximation in every model (Carter & Signorino, 2010).

Along with the potential problems arising from a dataset in the form of cross sectional time series, estimation biases yield by selection and/or endogeneity problems suspected. In terms of the selection problem, rebel biased intervention does not randomly occur in the multiparty civil conflicts. I have shown the positive correlation between rebel cooperation and the possibility of rebel biased interventions in Chapter 3. Thus, we can

conclude that the interventions are more likely to take place in the civil conflicts incorporating cooperative rebel groups.

If I capture the rebel cooperation in the same way as the previous tests in Chapter 3, the estimated effect of rebel biased interventions would be overstated because of the failure to control for the source of selection problem. However, my focus in this test is centered on estimating the change in cooperation and competition between rebel groups. It may be speculated that a higher level of cooperation is likely to lead to intervention, generating more positive change in cooperation level, which indicates a typical selection problem. However, several prior studies already confirm the fickle nature of rebel alliances (Christia, 2002; Akcinaroglu, 2012). When employing a variable grounded on the concept of change in inter rebel dynamics, it is not necessary to be concerned about the selection problem in the model. I will explain in more detail in the section of the dependent variable.

Finally, I employ the one-year lagged variable for key independent variables for fixing up a potential endogenous relationship between inter rebel dynamics and interventions. With the expectation of contemporaneous reciprocal influence between third party intervention and rebel group interactions, the lagged variables are employed in the statistical model.

### ***Dependent Variable***

I suggest that rebel biased third party intervention influences inter rebel dynamics, and its effect on the direction of change lies in the degree of the intervener's commitment. In order to capture the dynamic change of rebel interaction patterns, I employ the first

differenced dependent variable standing for yearly change in cooperation and competition between rebel groups.

For measuring change in inter rebel dynamics, I have collected information about rebel cooperation and competition in multiparty civil conflicts. The cooperative interactions between rebels are already collected from Akcinarolu's Rebel Alliance Dataset (2012). In order to collect armed incidents between formally organized insurgent groups, I reviewed the UCDP Conflict Encyclopedia. Over the 402 yearly observations, there was no armed interaction between rebel groups in 297 cases (73.9%), but in 105 observations (26.1%) there were more than one armed incidents between formally organized rebel groups.

After figuring out armed incidents among rebel groups, I have counted the yearly number of insurgent groups involved in armed interactions against other groups, and computed the ratio of groups joining armed incidents to all rebel groups of the conflict in a given year. For instance, in 1999 and 2000, several inter rebel armed incidents are reported in the Congolese Civil War. In 1999, 4 insurgent groups are identified in the UCDP/PRIO dataset and all four groups are involved in armed incidents entailing more than 25 battle deaths. This observation is coded 1 (= 4 / 4). In the 2000, Congolese Civil War, 6 insurgent groups are identified because, two groups experienced violent group splits. Out of the 6 Congolese insurgent groups, 3 groups joined in inter rebel armed incidents. This observation is coded .5 (= 3 / 6). This ratio displays the yearly competition level among rebel groups, thus, when the level is 1, it indicates every rebel group is involved in armed interactions with another rebel group, and when it is 0, there

is no armed interaction between insurgent groups that incorporate more than 25 battle deaths.

This measurement of competition level for each yearly observation is concentrated on arranging the percentage of rebel groups involved in inter rebel conflicts to all rebel groups. In order to set up a measurement for a variable representing a state of conflict, several dimensions of conflicts (such as fatalities, longevity and frequency of violent clashes) are used. My measurement of competition level prioritizes the magnitude of actors joining violent interactions over, other dimensions of conflicts. This approach is taken for two reasons. First, it generates a value representing conflict dynamics between rebels. In the examination, a measurement for capturing inter rebel dynamics should be designed, and yearly change of competition level will be used for characterizing inter rebel dynamics.

Secondly, when reviewing the cases of inter rebel conflicts, the overlooked dimensions of inter rebel conflicts are negligible. A main feature of rebel competition is that it is often short-lived and intermittent. It is true that this measurement ignores how many times the groups fight each other in a given year, and how long the groups conduct the actual fighting. However, most armed conflicts between rebel groups reported in the UCDP Conflict Encyclopedia, can be characterized by temporary engagements with other groups. A few battles are continued for more than one month, and most cases can be described as military skirmishes rendering more than 25 battle related death.

In this examination, the dependent variable reflecting inter rebel dynamics is a differenced value on the first order, which indicates a yearly change in cooperation level and competition level. For instance, the competition level between Congolese insurgent

groups is '.5' in 2000 and is deduced from the competition level '1' in 1999, is deduced from '.5' for measuring the yearly change of competition between rebels. In this measurement rule, '-.5' ( $= .5 - 1$ ) is given as the yearly change of competition level between the Congolese opposition groups in 2000. This variable ranges from -1 to 1, and the positive numerical values indicate a move of inter rebel dynamics to a more conflictual form. However, the negative values in this variable denotes a move of the dynamics to a less conflictual form.

Figure 4.2 Distribution of Yearly Change in Competition Level among Rebel Groups

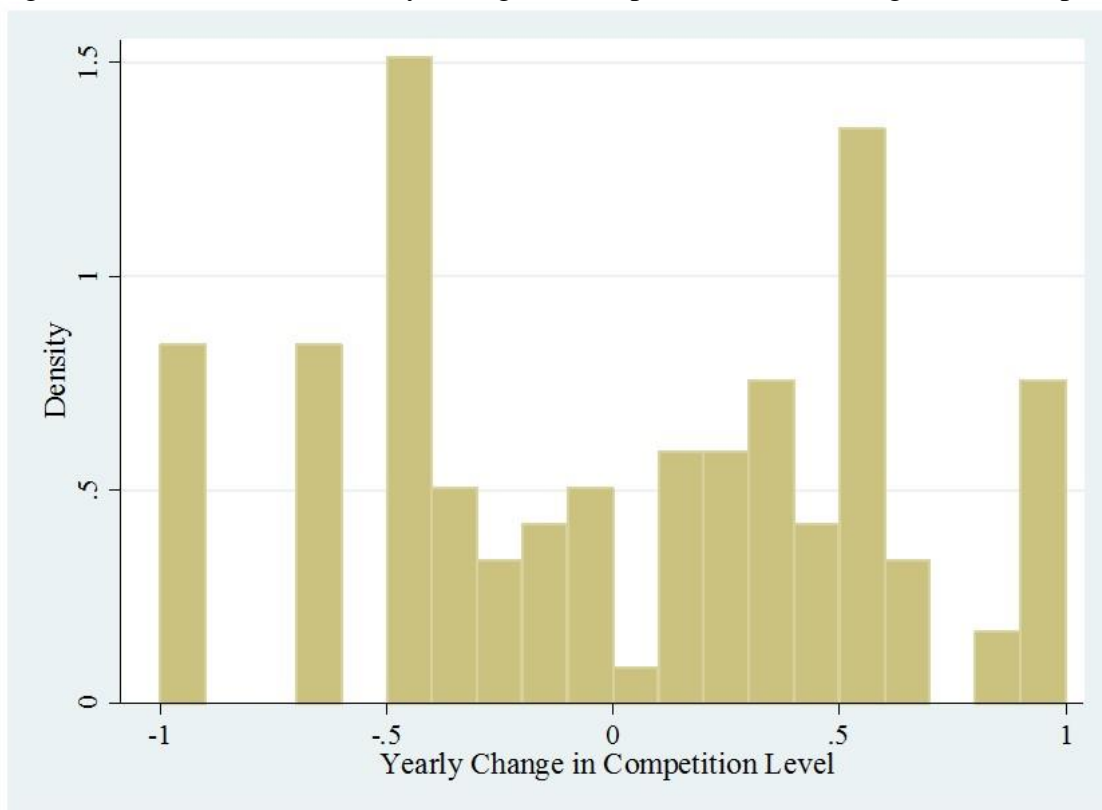


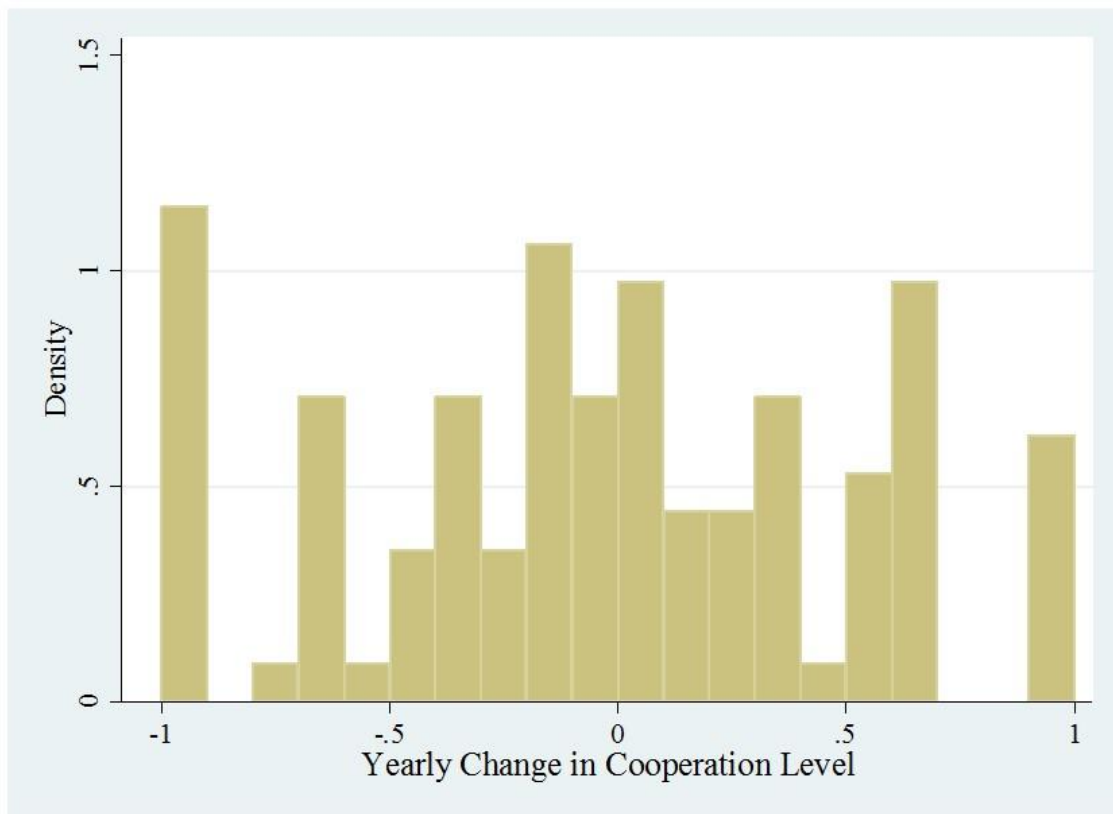
Figure 4.2 displays the distribution of values representing yearly change in competition level. Significant amounts of observations show no change in competition

level, which means the value of yearly change in competition level is coded as '0' in 259 observations (64.4%). However, in 103 observations, a move in inter rebel dynamics is detected. Figure 4.2 is drawn from those 103 observations, which are coded by non-zero values in the yearly change of competition level. As it is seen, about half of the bars are placed in positive values, and another half are placed in negative values. This shows that over the 103 observations containing change in competition level, half of them went through more intensified competition and half of them underwent lessened competition between insurgent groups. One of main points of interest in this examination is to demonstrate the conditional change of competitive inter rebel dynamics by a third party's commitment to intervention.

Another dependent variable reflecting inter rebel dynamics is the yearly change in cooperation level. Akcinaroglu's Rebel Alliance Dataset (2012) is used for estimating the yearly rebel cooperation level and I apply the same rule of first order differentiation. Yearly cooperation levels display the ratio of the number of groups participating in rebel cooperation to all rebel groups in a given year, and the differenced value denotes the yearly change in the cooperation level. This value also covers from -1 to 1. Positive values in this variable demonstrate a move of inter rebel dynamic to a more cooperative pattern, and negative values show a move to a less cooperative form.



Figure 4.3 Distribution of Yearly Change in Cooperation Level among Rebel Groups



The above figure demonstrates the distribution of yearly change in cooperation level between insurgent groups. Like the change in competition level, no yearly change in cooperation level is identified from 263 observations (65.4%) but, in 99 observations (24.6%), the change in cooperation level is detected. As seen in the above figure, about half of the bars are placed in the positive values, and another half are placed in the negative values. One of main points of interest in this examination is to identify the conditional change of cooperative inter rebel dynamics depending on a third party's commitment to intervention.

Theoretically and empirically, employing a differenced variable on the first order has a great importance in hypothesis testing. In terms of theoretical importance, my main

focus in this chapter is to display changed inter rebel dynamics caused by outer shock as applied by rebel biased intervention. Rather than pure value representing rebel cooperation and competition, the differenced value reflecting this change is more relevant for testing my theoretical conjectures on an aggregated level. The reason why I focus on the dynamic change in rebel interaction patterns is to explain how rapidly the rebels can arrived at a mutual agreement by rebel biased intervention in the bargaining process.

Empirically, employing the first differenced dependent variable in statistical models enables to alleviate the concern about a selection problem. The differenced dependent variable showing yearly change in cooperation between rebel groups is grounded on a totally different concept, compared to the cooperation level variable measured in Chapter 3. While the value of cooperation level features a static condition of rebel cooperation in a given year, the first order differenced value captures a shift in the cooperation level in one year, compared to the prior year. Selection problems arising from the relationship between rebel cooperation and intervention is alleviated by the conceptual difference between pure value and differenced value.

In the introduction section of this chapter, I have discussed the duel effect of rebel biased interventions on rebels' cooperation and competition. There exists a reasonable doubt about the correlation between cooperation and competition even on an aggregated level. On a cooperative atmosphere, actors in the system are less competitive, and inversely, they are less cooperative with each other on a competitive atmosphere. Thus, I check the correlation between cooperation and competition level; if there is a clear negative association between the two, I would measure an identical state of conflict and I would not need to test separately with two dependent variables.

Figure 4.4 Correlation between Cooperation Level and Competition Level

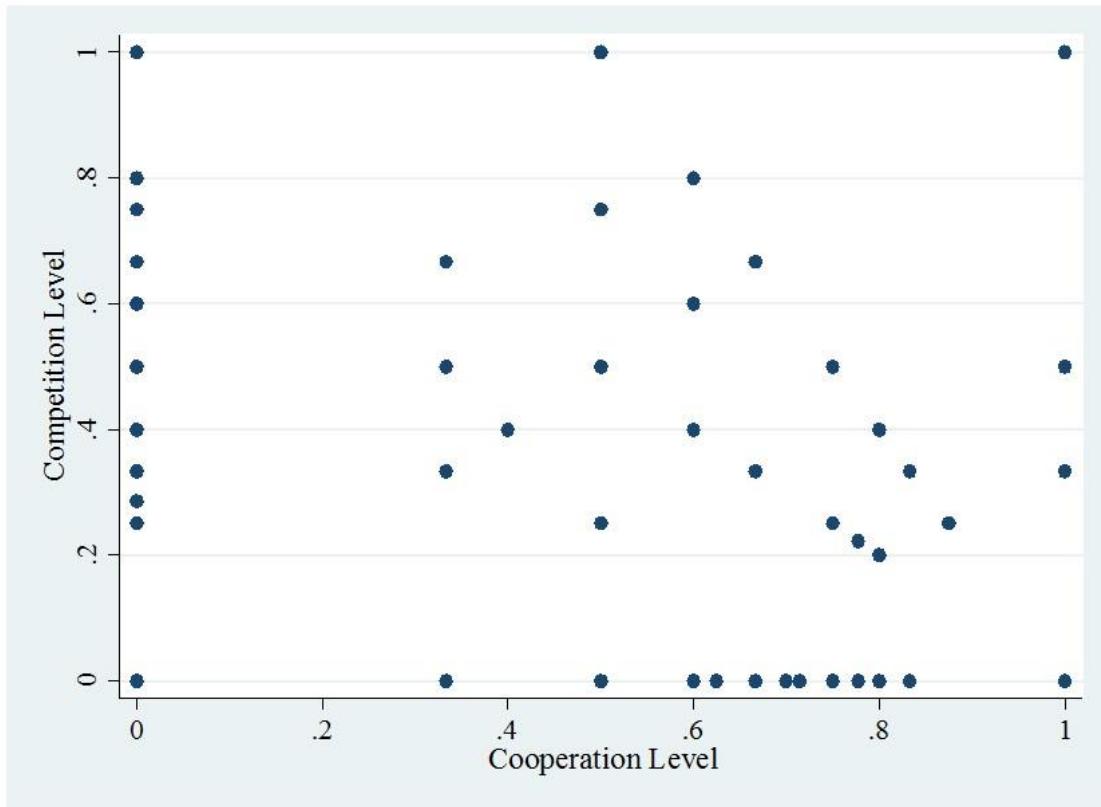


Figure 4.4 demonstrates the correlation between cooperation level and competition level that I have measured. As seen in the above scatter plot, there seems to be a negative correlation between the two variables. However, when checking more formally the correlation between the cooperation level and competition level, the negative correlation is not very strong ( $\text{corr} = -.0709$ ). Thus, it can be concluded that my measurements of cooperation and competition level do not capture an identical state outlined by interactions between multiple rebel groups.

I have argued that the value of yearly change in cooperation and competition level is conceptually different from the pure value of them. It would be reasonable to expect that positive change in cooperation may restrain the fueling of competition, and boosted

cooperation patterns of rebel interactions can prevent rebel dynamics from moving to a more competitive form. Thus, I have tested the correlation between the two variables.

Figure 4.5 Correlation between Yearly Change in Cooperation Level and Yearly Change in Competition Level

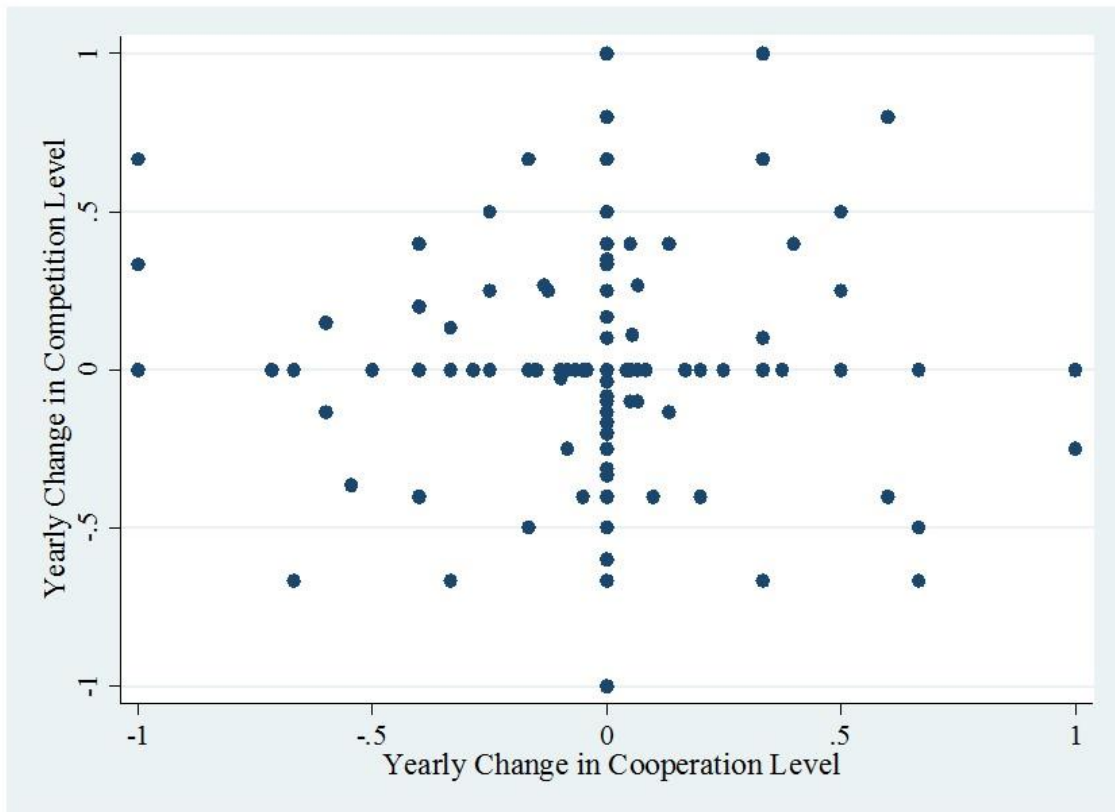


Figure 4.5 shows the correlation between yearly change in cooperation level and yearly change in competition level. Like the previous figure, it is very difficult to detect any association between the two measurements. When checking more formally, a weak negative correlation is identified ( $\text{corr} = -.0353$ ). Thus, it can be concluded that the expected negative association between yearly change in cooperation level and yearly change in competition level is negligible.

### ***Independent Variable***

The independent variable in this examination should represent the third party's commitment to intervention, because my theoretical conjecture is that direction of change in inter rebel dynamics lies in the degree of the third party's commitment to the interventions. As I have discussed in the theory section, the degree of the third party's commitment can be measured by how much the third party can bear the cost of conducting interventions on behalf of the rebel side. I have pointed out that military interventions indicate the strong resolve of the third party more so than in other types of interventions, and dispatch of ground forces likely incurs a relatively high cost of intervention compared to others.

First of all, I collect information for each yearly observation, whether there is outside support on behalf of the opposition side or not, from the NSA dataset (Cunningham et al, 2013). Also, relying on the information given by the dataset, several types of rebel biased intervention are coded. I employ several independent variables for testing the conditional effect of rebel biased intervention. The first one is 'Rebel Support' - whether there is any kind of rebel biased intervention or not. When any sort of intervention supporting the rebel side takes place, it is coded as '1,' and others '0.' For the strongest form of intervention, grounded in the strong resolve of a third party, I have checked whether troop support for the rebel side takes place or not. The 'Troop Support' variable is also coded on a binary basis. Finally, information about the weakest form of intervention is collected. The 'Non Military Support' variable demonstrates whether there is any rebel biased support other than the military form or not, such as economic assistance and diplomatic support.

In the 402 observations, a considerable number of them (262 observations, 65.2%), is recorded as experiencing rebel biased interventions. In 14 observations (3.5%), troops dispatched by the third party supporting the rebel side are appeared, and in 49 observations (12.2%), rebel biased interventions by non-military measures take place. Saving for the strongest and the weakest type of interventions, in 219 observations (54.5%), rebel biased third party intervention is detected. Most rebel biased interventions on behalf of the opposition side take place with the following measures: providing military intelligence support, military advisors, weapons and ammunitions, training and tactical help, and non-lethal military equipment. My theoretical prediction is that the strongest form of interventions generates a positive change in cooperative inter rebel dynamics, and the weakest form of interventions impacts the change in rebel competition.

### ***Control Variables***

Several prior studies suggest alternative explanations about rebel cooperative and competitive interactions. Those theoretical explanations are highly centered on the state, sub-state level, and attribute of conflict. On the state level, state capacity and natural resource influence the conflict process, including inter rebel dynamics. Causal mechanisms behind the relationship between government capacity and inter rebel dynamics are involved in government and rebel conflict strategy. Prior studies argue that a weak government's partial concession strategy coupled with moderate rebel groups tends to generate violent interactions among the rebel groups, and rebel incentives for allying with each other against a strong government are likely to induce cooperative interactions (Nilsson, 2010; Cunningham, 2011; Christia, 2012; Bapat & Bond, 2012). I

have collected information about governmental capacity relative to rebel groups from the NSA dataset. In the dataset, each rebel group's relative capability compared to the government is indicated by 4 categories, such as 'stronger,' 'parity,' 'weaker,' and 'much weaker.' When the governmental capacity is weaker than one of the rebel groups, it is coded as '1,' and when it competes with any group of parity, it is coded as '2.' In other cases in which the incumbent government fights against weaker or much weaker groups, it is coded as '3.'

Along with state capacity, existence of lootable natural resources also tends to exacerbate the relationships between rebel groups. Fjelde et al (2012) provides rebel incentive to augment resources through attacking another insurgent group as a main reason for competitive interactions between opposition groups. The prediction is that when lootable natural resources are involved in multiparty civil conflicts, the inter rebel dynamics advance in a more competitive pattern. In Chapter 3, all instances of lootable natural resources are aggregated by one control variable, 'Lootable Resource.' However, I employ several specific lootable resources as control variables in this chapter. Ross (2004) explores specific mechanisms behind resource and conflict, and suggests the importance of resource lootability. When considering rebel capacity to extract benefits from natural resource, it is more appropriate to include the type of natural resource in the model. Natural resources that easily produce benefits have a greater influence on inter rebel dynamics, but other types of resources that are difficult to process and sell will likely have a weak effect on them. In this sense, I employ three specific lootable natural resources in the models: 'Drug,' 'Oil Field,' and 'Gemstone.' I have collected natural resource information for conflict area from Buhaug, Gates and Lujala (2009). Their

dataset provides information as to whether the area of interest for each civil conflict contains gemstone, oil field and drug field.

On the sub-state level, the distribution of capabilities among rebel groups, number of rebel groups, the sub-group leader's role, and local level rivalries are suggested as accounting for the rebel cooperative and competitive interactions (Warren et al, 2011; Christia, 2008; Seymour, 2014; Bakke et al, 2012). Though those factors are relevant in predicting inter rebel dynamics, the dataset containing information collected by year is limited at this time point. Thus, I employ only the number of rebel groups as one of control variables in my examinations. General prediction is that when a larger number of groups are involved in civil conflicts, the interactions between rebels are more precarious, which means inter rebel dynamics are relatively unstable compared to rebel dynamics projected by a smaller number of rebel groups.

Finally, ethnic identity, as a conflict property, is suggested as a determinant of rebels' interactions. One of the best candidates in addressing the stability of inter rebel relationship is the ethnic cleavage involved in civil conflict. General prediction on this ethnic issue is that when the conflict is largely processed in accordance with ethnic animosity, interactions between opposition groups would be more stable, resulting in little change in competition and cooperation between them (Kalyvas, 2003). I have collected information about ethnic civil conflict from Kirschner's Ethnic Civil Conflict List (2010). The following table displays descriptive statistics of interested variables in this examination.



Table 4.1 Descriptive Statistics of Interested Variables

Variable	Observation	Mean	S/D	Min	Max
Cooperation Lev.	402	.3657	.4238	0	1
$\Delta$ Cooperation Lev.	362	.0023	.2805	-1	1
Competition Lev.	402	.1428	.2875	0	1
$\Delta$ Competition Lev.	362	.0031	.3059	-1	1
Rebel Support	402	.6517	.4770	0	1
Troop Support	402	.0348	.1836	0	1
Non-Military Support	402	.1219	.3275	0	1
Government Strength	402	2.8433	.3968	1	3
Drug Field	402	.1766	.3818	0	1
Oil Field	402	.6294	.4836	0	1
Gemstone	402	.4900	.5005	0	1
Number of Rebel Groups	402	2.8333	1.6591	1	10
Ethic Conflict	402	.6095	.4885	0	1

## Test Results

My theoretical prediction highlights a conditional effect of rebel biased third party interventions on inter rebel dynamics in multiparty civil conflicts. While a strong commitment of a third party supporting an opposition side generates cooperative inter rebel dynamics, a weak commitment fuels competitive interactions between rebel groups. The degree of the third party's commitment is illustrated by the type of interventions, and inter rebel dynamics is measured by yearly change in cooperation and competition level.

In terms of the empirical issue, I employ the differenced dependent variable on the first order, representing the yearly change in cooperation and competition pattern between rebels. An inherent property of a differenced variable is that the outcome value calculated by the first differentiation is highly dependent on the prior original value. Without properly fixing the property in a differenced dependent variable, the estimated parameters of the independent variable likely misrepresent its effect. In my examination, the prior year's cooperation and competition level are included in order to control for the

autoregressive (AR) process in generating inter rebel dynamics. Technically, I assume the AR(1) process, which means changes in cooperation and competition level are influenced by the last year's cooperation and competition level.

Numerous studies on rebel interactions (Chirstia, 2012, Akcinaroglu, 2012, Cunningham, 2011) point out the fickle nature of this process. Cooperative interactions between rebel groups are not likely to be prolonged by more than 4 years in Akcinaroglu's Rebel Alliance dataset, and very few violent interactions have been protracted by more than 2 years in the UCDP Conflict Encyclopedia. I assume that last year's competition and cooperation among insurgent groups can influence this year's competition and cooperation but, beyond the last year, the prior competition and cooperation have very small effect on this year's change in cooperation and competition. In this sense, I employ one year lagged competition level and cooperation level for the following models.

Table 4.2 GEE Test Results for Rebel Biased Interventions on Change in Competition Level

Independent Variables	Dependent Variables: Yearly Change in Competition Level		
	Model 10	Model 11	Model 12
Rebel Biased Intervention, $t-1$		.082** (.039)	
Troop Support, $t-1$			-.002 (.106)
Mil. Type Support, $t-1$			.052 (.039)
Non-Mil. Type Support, $t-1$			.136** (.054)
Competition Level, $t-1$	-.636*** (.093)	-.656*** (.093)	-.660*** (.089)
Cooperation Level, $t-1$	-.092** (.040)	-.111*** (.037)	-.126*** (.041)
Government Strength, $t$	-.089* (.046)	-.091* (.049)	-.085* (.048)
Drug Field, $t$	.062 (.047)	.079* (.045)	.069 (.043)
Oil Field, $t$	-.029 (.040)	-.025 (.040)	-.023 (.041)
Gemstone, $t$	-.042 (.038)	-.046 (.039)	-.047 (.037)
Number of Rebel Groups, $t$	.034** (.014)	.029** (.014)	.031** (.014)
Ethnic Conflict, $t$	-.012 (.037)	.001 (.036)	.022 (.034)
t	.008 (.012)	.004 (.012)	.004 (.012)
t2	-.001 (.001)	-.000 (.001)	-.000 (.000)
t3	.000 (.000)	.000 (.000)	.000 (.000)
Constant	.289* (.153)	.269* (.155)	.247 (.152)
N	362	362	362
Number of Conflicts	37	37	37
Wald $\chi^2$	(11) = 51.72 (p = .0000)	(12) = 61.47 (p = .0000)	(14) = 136.36 (p = .0000)

Note: Semi-Robust Standard Errors in parentheses, \*\*\* p < .01, \*\* p < .05, \* p < .1

Table 4.2 demonstrates the GEE test results estimating the effect of rebel biased interventions on competitive inter rebel dynamics. The above test results confirm my

theoretical prediction that a weak commitment by a third party supporting the rebel side tends to fuel rebel competitive interactions. In Model 11, the ‘Rebel Support’ variable holds its positive and significant effect on competitive inter rebel dynamics, and in Model 12, ‘Non Military Type Support’ does it. However, ‘Military Type Support’ and ‘Troop Support’ variable do not hold a meaningful effect on competitive inter rebel dynamics. In general, rebel biased interventions turn out to intensify rebel competitive interactions, and weak commitment from a third part through non-military type intervention fuels rebels’ competitive interactions. More specifically, the test result of Model 12 indicates the relative effect of each type of intervention. The baseline effect on rebel dynamics is set by the absence of third party intervention. Thus, the coefficient of the ‘Troop Support,’ ‘Military Type Support’ and ‘Non Military Type Support’ variables show their relative effect compared to the baseline effect. In the theory section, I discussed the increased uncertainty of relative capabilities caused by weak interventions. These test results confirm my theoretical conjecture that a weak commitment by a third party supporting the opposition side is likely to cause a change in competition between rebels, but a strong commitment does not.

Regarding the effect of prior cooperation and competition between insurgent groups, the above test results show that prior values of cooperation and competition level significantly influence the yearly change in competition level. Across models, one-year lagged competition and cooperation level variables hold their statistical significance on a conventional level. An interesting finding is that the prior value of both competition and cooperation have a negative effect on competitive inter rebel dynamics. It makes sense that last year’s cooperation tend to suppress the move of inter rebel dynamics to a more

competitive form. The negative effect of prior competition can be understood by the fickle nature of rebel interactions. As existing studies point out, the last year's high level of competition tends to restrain more competition in the current year.

The 'Government Strength' and 'Number of Groups' variables display a significant effect on competitive inter rebel dynamics across models in the above table. As expected in prior studies, a strong government deters violent competition between rebels. This result indicates that when rebels fight against a strong government, they try to avoid fighting with each other. The 'Number of Groups' in multiparty civil conflicts does matter because as in the number of actors increases, the opportunities of competitive interactions are more provided on aggregated level. This result confirms a positive association between the number of rebel groups and their competition.

Most control variables do not have a meaningful effect on competitive rebel dynamics. Not every type of lootable resource reaches statistical significance on conventional level, but 'Drug Field' variable in Model 11 shows a positive effect on rebel competition on 90% confidence interval. A general prediction regarding the effect of a natural resource is that the existence of it tends to intensify violent rebel competition. While the 'Drug Field' variable demonstrates a consistent positive direction of effect as predicted, two other variables, 'Oil Field' and 'Gemstone,' display a consistent negative effect on it.

'Ethnic Conflict' variable does not reach statistical significance, and its direction of effect is shifted across level. This inconsistent results stem from small variation in this variable. As it is expected, rebel groups are likely to be organized in accordance with ethnic cleavage, and numerous multiparty civil conflicts are classified by ethnic civil

conflicts. When I checked my dataset for multiparty civil conflicts, 245 observations (61%) are identified as ethnic conflicts. These inconsistent results on this variable may be attributable to the small variation within it.

Table 4.3 GEE Test Results for Rebel Biased Interventions on Change in Cooperation Level

Independent Variables	Dependent Variables: Yearly Change in Cooperation Level		
	Model 13	Model 14	Model 15
Rebel Biased Intervention, $t-1$		.059 (.037)	
Troop Support, $t-1$			.204* (.118)
Mil. Type Support, $t-1$			.030 (.034)
Non-Mil. Type Support, $t-1$			.099 (.065)
Competition Level, $t-1$	-.004 (.042)	-.018 (.039)	-.026 (.035)
Cooperation Level, $t-1$	-.382*** (.056)	-.396*** (.055)	-.425*** (.054)
Government Strength, $t$	.023 (.046)	.021 (.045)	.039 (.039)
Drug Field, $t$	.115** (.054)	.127** (.052)	.118** (.052)
Oil Field, $t$	.030 (.043)	.033 (.043)	.048 (.043)
Gemstone, $t$	-.016 (.037)	-.019 (.039)	-.029 (.039)
Number of Rebel Groups, $t$	.042*** (.015)	.038*** (.014)	.041*** (.015)
Ethnic Conflict, $t$	-.008 (.043)	.001 (.042)	.004 (.046)
t	-.021* (.011)	-.024** (.010)	-.018* (.010)
t2	.001** (.001)	.001*** (.000)	.001** (.001)
t3	-.000** (.000)	-.000** (.000)	-.000** (.000)
Constant	-.015 (.146)	-.030 (.142)	-.120 (.130)
N	362	362	362
Number of Conflicts	37	37	37
Wald $\chi^2$	(11) = 83.17 (p = .0000)	(12) = 90.54 (p = .0000)	(14) = 94.46 (p = .0000)

Note: Semi-Robust Standard Errors in parentheses, \*\*\* p < .01, \*\* p < .05, \* p < .1

Table 4.3 demonstrates the GEE test results estimating the effect of rebel biased interventions on cooperative inter rebel dynamics. The above test results confirm my theoretical prediction that strong commitment by a third party supporting the rebel side tends to boost rebel cooperation. Though the ‘Rebel Support’ variable in Model 14 does not hold statistical significance, the ‘Troop Support’ variable in Model 15 does a positive and significant effect on change in cooperation level, in 90% confidence interval. Also, it is seen that ‘Military Type Support’ and ‘Non Military Type Support’ variables do not have any significant effect on cooperative inter rebel dynamics. More specifically, the test result of Model 15 indicates that ‘Troop Support’ likely promotes a positive change in cooperative interactions between rebels. The baseline effect in Model 15 is set by none-intervention. Thus, it can be concluded that the effect of troop support is different from none-intervention, but any sort of support without troop support is not different from none-intervention. In the theory section, I discussed the reduced uncertainty regarding the relative capabilities by a strong intervention and the third party’s role in solving the commitment problem between rebels. These test results confirm my theoretical conjecture that a strong commitment from a third party supporting the opposition side likely makes a change in cooperation between rebels, but a weak commitment does not.

Regarding the effect of prior cooperation and competition between insurgent groups, the above test results show that while prior competition has no effect on cooperative inter rebel dynamics, prior cooperation tends to suppress a positive move toward cooperative inter rebel dynamics. Across models, one-year lagged competition level does not reach its statistical significance on a conventional level, but a one-year lagged cooperation level holds a strong and negative effect on change in cooperation level. These test results



indicate that when inter rebel cooperation is high in this year, it is expected that cooperation will be restrained in the next year.

The 'Drug Field' and 'Number of Groups' variables display a significant effect on cooperative inter rebel dynamics. The positive effect of the natural resource and number of groups may be counterintuitive because prior studies predict their negative effect on rebel cooperation. Prior studies' empirical findings regarding natural resources are grounded on individual group level analyses. Natural resources may provide a good chance of cooperation between rebel groups on an aggregated level. The group controlling a resource can take a hegemonic status. This hierarchical structure among insurgent groups increases the chance of cooperation between them, and leads to successful outcome of war (Krause, 2013). On an aggregated level approach, the positive effect of the 'Number of Groups' makes sense. As the number of actors increases, the opportunity for cooperation is also increased.

Most control variables do not have a significant effect on cooperative rebel dynamics. A theoretical prediction regarding the government's relative capability is that when it is stronger than the opposition side, insurgent groups are more likely to cooperate with each other. As expected, its coefficient is positive, but the 'Government Strength' variable does not reach statistical significance. The 'Oil Field' variable demonstrates a positive but insignificant effect. Its positive direction of effect on cooperative rebel dynamics can be explained by the hegemonic status of a rebel group holding control of an oil field. The 'Gemstone' variable displays a negative but not significant effect on rebel dynamics. The 'Gemstone' is considered as a natural resource to easily produce benefits, compared to other lootable resources (Lujala et al, 2005). Like theoretical prediction, the 'Gemstone'

variable turns out to restrain rebels' cooperation. The 'Ethnic Conflict' variable does not reach statistical significance, and like the previous test, its direction of effect is shifted across level. These inconsistent results for this variable may be attributable to the small variation in it.

## Discussion

Suggested empirical evidences strongly confirms my theoretical conjectures about the conditional effect of the rebel biased intervention on inter rebel dynamics in multiparty civil conflicts. While a strong intervention generates a positive change in cooperative dynamics, a weak interventions create a move of rebel dynamics to a more conflictual pattern.

Table 4.4 Summary of Effect for Key Independent Variables

Independent Variables	Competitive Dynamics		Cooperative Dynamics	
	Model 11	Model 12	Model 14	Model 15
Rebel Biased Intervention, $t-1$	+			
Troop Support, $t-1$				+
Military Type Support, $t-1$				
Non-Military Type Support, $t-1$		+		
Competition Level, $t-1$	-	-		
Cooperation Level, $t-1$	-	-	-	-
Government Strength, $t$	-	-		
Number of Rebel Groups, $t$	+	+	+	+

Note: +: Positive and Significant Effect, -: Negative and Significant Effect

Table 4.4 shows a summary of effects for key independent variables. The first to third rows show how the rebel biased interventions influence inter rebel dynamics of cooperation and competition. In general, rebel biased interventions tend to intensify the rebel competitive interactions, but the effect is conditioned by type of intervention. On the second row, we find that the ‘Troop Support’ variable generates a positive move of cooperative inter rebel dynamics, and on the third row the ‘Non-Military Type Support’ encourages the advance of competitive dynamics between insurgent groups. GEE test results in this chapter is relatively easy to interpret substantively. The coefficient of each variable can be interpreted by change in rebel dynamics of cooperation and competition. In Model 12, the estimated parameter of ‘Non Military Type Support’ is .136, which indicates that when a rebel biased non-military type intervention occurs, the competition level is increased about 13.6%. In Model 15, the parameter of ‘Troop Support’ is .204, which indicates that when a rebel biased troop support occurs, the cooperation level is increased about 20.4%. I have described the inter rebel dynamics as a bargaining process for arriving at mutual agreement and, argued that while a strong form of intervention representing the third party’s resolve boosts rebel cooperation, a weak form of intervention indicating its weak commitment intensifies rebel competitive interactions. From the above table, we can recognize the conditional effect of rebel biased interventions on inter rebel dynamics. My argument that inter rebel dynamics are influenced by external shock is strongly confirmed by these empirical examinations.

On the fourth and fifth row, the effect of prior cooperation and competition is suggested. We can find that the effect of prior cooperation and competition shows movement in a negative direction for both dynamics across models. From the test results,

the precarious nature of rebel interaction is confirmed: a high level of cooperation in one year restrains cooperation in the next year, and a high level of competition in one year limits competition in the next year. Christia (2012) and Seymour (2014) explore the reasons for rebels' alliance switches during multiparty civil conflicts by focusing on the distribution of capabilities and local level political rivalry. While these studies confirm the fickle nature of rebel cooperation on individual and dyadic levels with case studies, I have shown it on an aggregated level analysis. Another interesting finding in my examination regarding prior competition and cooperation is that while the cooperative inter rebel dynamics are influenced by their own prior values, the competitive dynamics are affected by both their own prior value and that of prior cooperation. This finding shows the difficulties in generating cooperation between insurgent groups. The measures needed to boost inter rebel cooperation can hinder the violent competition between them, but the means to deter competition between them may not raise cooperation with each other.

The effect of 'Government Strength' is also very interesting, and is shown on the sixth row of the above table. The government strength has a negative impact on competitive inter rebel dynamics, but it does not have one on cooperative dynamics. My test results indicate that when multiple rebel groups fight against a strong government, they tend to avoid fighting against other rebels, but they do not necessarily cooperate with each other. I think this test result also indicates the difficulties in generating rebel cooperation. It is true that rebels' strategic avoidance of fighting against other rebels likely lowers the cost of war but, this strategic avoidance does not necessarily incentivize an individual rebel to collaborate with each other. When thinking about the difficulties of

encouraging rebels' cooperation, my findings regarding the effect of troop support advancing cooperative inter rebel dynamics have a great implication in studying multiple civil conflicts.

The effect of 'Number of Group' is noticeable across models. It has a dual effect on inter rebel dynamics which means that as the number of rebel groups increases, both cooperation and competition increases. I have discussed coinciding cooperation and competition in the international system, and have shown a weak correlation between rebel cooperation and competition on the dataset as established on an aggregated level. My test results indicate that cooperative dynamics and competitive dynamics can be simultaneously encouraged by increasing the number of rebel groups. On an aggregated level, it makes sense that increasing the number of system actors will generate more opportunities for the actors to interact with each other, and those interactions can be both cooperation and competition.

In the introduction, I have discussed the potential of this project for civil war studies, especially studies on the relationship between intervention and war outcome. Prior studies suggested contesting arguments and mixed empirical test results in exploring the effect of interventions on duration and termination of civil war. Those studies largely rely on the relative power hypothesis. Though it is true that power relationship determines the outcome of war, they do not clearly describe the mechanism of the conflict process. My findings can provide a better explanation for the effect of interventions, though it is limited to multiparty civil conflicts.

Rebel biased interventions in a weak form are likely to protract the duration of a conflict. The process of a multiparty civil conflict is comprised of bargaining between the

government and opposition side, and bargaining between rebel groups. As I have shown, the weak interventions on behalf of the rebel side tend to increase uncertainty in the inter rebels' bargaining process, which demands rebels' efforts to gain more information on the distribution of capabilities. Temporally protracted bargaining between rebels can impede the advance of negotiation between government and oppositions, and finally leads to protracted war duration.

Rebel biased interventions in strong form likely lead to rebel victory. It is true that the third party likely intervenes into ongoing civil war with higher probability of victory and, the rebel's capability added by third party changes the distribution of power in its favor. However, this explanation cannot characterize the conflict dynamics between rebels, especially in multiparty civil conflicts. Ackinaroglu (2012) suggested a positive effect of rebel interdependency on rebels' victory. My findings suggest that because the strong rebel biased intervention reinforces rebel cooperation, they finally lead to outright rebel victory.

In this chapter, I confirm the effect of exogenous shock on inter rebel dynamics. Prior studies have not looked at the effect of interventions on rebels' cooperation and competition. I suggest an alternative explanation about inter rebel dynamics in considering of the third party interventions. Also, I have discussed the duration and termination of multiparty civil conflict with inter rebel dynamics shaped by interventions. This test result shows that the success of intervention lies in the third party's commitment, meaning that a strong measure generates rebels' cooperation that is likely to lead to victory, whereas a weak measure results in rebels' competition that is likely to bring about stalemate.

## **CHAPTER 5**

### **CONCLUSION**

This study analyzes how rebel biased interventions and inter rebel dynamics are connected with each other. Given the considerable amount of multiparty civil conflicts and numerous of internationalized civil conflicts, I focused on two related research questions: How do inter rebel group dynamics influence a third party's decision to intervene? What kinds of rebel group interactions are encouraged by such interventions? For the first question, my empirical evidence indicates that when rebels are more cooperative with each other the third parties are more likely to be involved in ongoing multiple party civil conflicts, in support of the opposition side. Regarding to the second question, the estimated results conclude that strong interventions boost rebel cooperation, whereas weak interventions fuel rebel competition. I conclude that although third parties are more likely to intervene in an ongoing civil war on behalf of the opposition if the rebel groups are cooperative, the effect of interventions on inter rebel dynamics is conditioned by the third party's commitment.

#### **Summary of Findings**

When examining the cause and effect of internationalized multiparty civil conflicts, I began studying with two interlocked conflict processes: third party interventions and inter rebel dynamics. Though the existing literature on the causes of intervention offers numerous explanations with various foci, few studies concentrate on the unique nature of multiparty civil conflicts in addressing the cause of interventions. Also, though conflict

duration and termination receive a vast amount of attention, the correlation between interventions and terminations rely on rough causal mechanisms centered around relative power considerations.

In Chapter 3, inter rebel dynamics, generating the distinctive conflict process of multiparty civil conflicts, are centered on exploring the cause of third party interventions on behalf of the opposition side. Relying on Regan's decision-making model (2002), I predicted that inter rebel dynamics play an important role in a third party's decision to intervene. I speculated that inter rebel dynamics influence on third party's expectations regarding the likelihood of successful intervention and the cost of war, and rebel cooperation heightens the probability of success and lowers the cost of intervention. Regarding the likelihood of successful intervention, empirical evidence from a prior study (Akcinaroglu, 2012) confirms the positive effect of rebel interdependency on the possibility of outright rebel victory. The main purpose of rebel biased intervention is to defeat the incumbent government, thus rebel victory makes the third party's goal of intervention more attainable. In terms of intervention cost, cooperation between insurgent groups is able to reduce the intervener's incurred costs. A cooperative atmosphere among rebels tends to unify the battle front. In other words, it drives rebel groups to actively engage in fighting against a common foe, the government, without concerns about fighting against other insurgent groups. Thus, this unified front of rebel cooperation decreases the cost of intervention. In this sense, I argue that cooperation between rebels provides an intervention enriched environment in the rebels' favor.

When examining my theoretical conjecture, the effect of rebel cooperation is assessed on a large-N framework. I have collected information about rebel cooperative interactions



and third party interventions for 55 multiparty civil conflicts covering 1946 to 2008. My examination confirms the facilitating effect of rebel cooperation on rebel biased third party interventions. Most estimated parameters involving rebel cooperation have a strong statistical significance and a positive direction. Substantively, my examination suggests that rebel cooperation doubles the chances of rebel biased third party interventions. Beyond the encouraging effect of rebel cooperation, my test results confirm the importance of international level explanations about interventions. Prior studies found that international rivalry and transnational constituency play an important role in accounting for third party interventions. My test results, again, show the significance of international level factors.

In Chapter 4, I have focused on the consequences of rebel biased interventions in terms of inter rebel dynamics. Relying on the bargaining theory, I highlighted the conditional effects of the interventions on inter rebel dynamics. Inter rebel dynamics comprised of interactions between multiple rebel groups can be outlined as a process meant to arrive at a mutual agreement concerning the distribution of benefits, reflecting a mutual understanding about the distribution of capabilities. The occurrence of interventions generates a change in bargaining structure, and imposes a shift of the balance of capabilities between rebel groups. I predicted that the effect of rebel biased interventions into multiparty civil conflicts is conditioned by the third party's commitment. Weak intervention representing a weak commitment of the third, such as economic assistance, tends to increase uncertainty regarding power relations and the third party's resolve. Uncertainty imposed by weak forms of intervention generates incentives for individual actor to get more information about the altered distribution of capabilities

and the new actor's resolve. A primary measure of obtaining information is to engage in fighting. Strong interventions indicate a strong commitment by the third party, and strong interventions, such as troop support, tend to decrease uncertainty regarding relative capabilities between combatants and the new actor's resolve. Moreover, a capable third party can play the role of rule enforcer by helping rebels to overcome the commitment problem. When the relative capability is clarified, and mutual trust between rebels is strengthened, rebel groups do not need to fight each other. In this sense, I argue that rebel biased interventions in a weak form fuel rebels' competitive interactions, whereas the strong interventions boost rebels' cooperative interactions.

For testing the theoretical expectations, the effect of rebel biased interventions are estimated on a large-N framework. I have examined the association between rebel biased interventions and inter rebel dynamics for 39 multiparty civil conflicts covering from 1989 to 2008. The estimated results strongly confirm my theoretical prediction about the conditional effect of the interventions. The estimated results show that third party troop support for the opposition side, representing strong interventions, generates a positive move for cooperative inter rebel dynamics; whereas non-military type support by the third party, indicative of weak interventions, creates a move of inter rebel dynamics to a more conflictual pattern. Beyond the effect of rebel biased intervention, my empirical findings confirm the fickle nature of rebel interactions. Prior interactions between groups turns out to attenuate the chance of similar interactions in the future. Additionally, a strong incumbent government encourage insurgent groups to avoid fighting each other, but it does not necessarily generate rebel cooperation.

## **Contribution and Implication**

The framework of this project depicts the process of internationalization of domestic armed conflicts and the change in domestic conflicts caused by outer shock. The arguments herein provide an answer for the question: when is internal conflict likely to be externalized, and how does external conflict influence internal conflict? (Levy, 1989). I have clarified the causal mechanism behind rebel biased interventions and inter rebel dynamics in multiparty civil conflicts. Overall, my findings present a distinctive process of multiparty civil conflicts in terms of third party interventions and rebel group dynamics. Despite the considerable number of multiparty civil conflicts, prior studies tend to develop theoretical explanations with the underlying assumption of a single rebel group acting as a unitary actor. In this work, I highlighted inter rebel dynamics as structured by cooperation and competition between insurgent groups. The multiple-ness of warring parties generates its own unique conflict dynamic, and I employ rebel interactions as cause and consequence of the rebel biased third party interventions.

My first findings regarding the effect of rebel cooperation on rebel biased interventions extend the intervention literature by focusing on investigating the distinctive conflict dynamics of multiparty civil conflicts. The low cost and high probability of success drive the outside actors to actively involve themselves in ongoing civil conflicts. On this rational choice approach, prior studies have focused on the international level and state level factors, and recent studies begin to pay more attention to the attributes of conflicts. The estimated results in Chapter 3 provide an alternative explanation for rebel biased third party interventions. Conflict dynamics projected by multiple rebel groups have a comparable explanatory power for the international and state level factors. I have

shown that depending on the variations in inter rebel dynamics, a third party's expectation concerning the cost and probability of success is determined.

My findings in Chapter 3, assist in generating more sophisticated explanations regarding civil conflicts. Prior studies have shown that intensity and duration are negatively associated with the possibility of third party interventions. My findings bolster those prior findings and fill the gap in prior literature relating to intensity and duration of multiparty civil conflicts. Inter rebel dynamics likely condition the intensity and duration of multiparty civil conflicts, and as I have shown, they have an impact on the chance of rebel biased interventions. Causal mechanisms behind rebel interactions and interventions reinforce the existing explanations in prior works, and offer promising avenues for encompassing understanding about civil conflicts.

In Chapter 4, I have shown the conditional effect of rebel biased intervention on inter rebel dynamics. My findings suggest an alternative explanation about inter rebel cooperation and competition. The literature on inter rebel dynamics has focused on domestic properties, such as government strength, lootable natural resources, and the ethnic identity of combatant groups. This research shows the importance of outer shock in explaining inter rebel dynamics. Empirical evidence confirms that the outer shock applied by third party interventions impacts interactions between combatant groups.

Theoretically and empirically, this insight in Chapter 4 is of central importance to the study on civil war termination. The literature on interventions has focused on conflict termination and it offers contesting predictions and mixed empirical evidence. Prior studies seeking correlation between interventions and terminations rely on the power relationship without consideration as to the going processes of the war. My findings

suggest the importance of process between onset and termination of conflicts. When concentrating more on the process of conflict, the contesting arguments can be combined. On the mixed empirical evidence in prior studies, the conditional effect of interventions on inter rebel dynamics can be connected to a protracted duration of war through a weak intervention, and to an increased likelihood in a decisive one-side victory by as encouraged by a strong intervention.

This work has an important implication for the policy community. Civil conflicts involving multiple insurgent groups are supposed to be more difficult for third parties to manage in the negotiation process, and the various combatant groups are more problematic than civil conflicts involving a single rebel group. Basically, these difficulties in multiparty civil conflicts arise from its distinctive conflict process, containing unique inter rebel dynamics. I have underscored the conditional effect of interventions on inter rebel dynamics. A strong commitment coupled with troop support creates a more cooperative atmosphere between insurgent groups in multiparty civil conflicts, whereas a weak commitment fuels the violent competition between them. My findings in this work display that success lies in the policy measure of interventions. When a strong tool of intervention is employed in multiparty civil conflicts, the difficulties in them are likely to be alleviated by cooperation between combatant groups. However, when the weak tool of intervention is used in multiparty civil conflicts, the complicated nature of them is likely exacerbated by competition between combatant groups.

Particularly, this research has a great implication for the ongoing Syrian Civil War, at this point in 2015. The Syrian Civil War began in the early spring of 2011, corresponding

to other Arab countries' protests against their respective incumbent governments. In the initial stage of this civil war, it was a nationwide mass protest against the despotic rule of President al-Assad's government, but in response to the government's coercive reactions, the protest groups were rapidly transformed into armed rebel groups. Though the UCDP/PRIО reports the difficulties in counting the number of rebel groups, it is very clear that a number of well-armed rebel groups are involved in this ongoing civil war, and there is a great diversity in the political aims of these groups, including many that center around religious and ethnic identity among the combatant groups.

In regard to strategic importance and humanitarian response, the ongoing Syrian Civil War provides enough incentive for active involvement by the United States. A considerable amount of deaths and refugees, the use of chemical weapons and severe human rights violations have been reported by various sources in this ongoing civil war. Its oil production and geographic contiguity with Israel and Iraq add strategic importance to the stability of Syria. From 2014, the United States has been conducting several airstrikes specifically targeting the Islamic State in Iraq and Syria (ISIS), and several insurgent groups are reported to receive training and military equipment support from the United States. However, the United States government never dispatched ground forces in support of any opposition groups, so far.

The hindered active intervention of the United States can be explained by this project. The United States' active intervention is now restrained by the low likelihood of success and high cost of war rising from the competition among rebel groups. One of the noticeable aspects in the ongoing Syrian Civil War is the competition between insurgent groups. The UCDP/PRIО reports nine armed incidents between Syrian rebel groups

during 2011 to 2013, and numerous media sources report considerable deaths by military clashes between Syrian rebel groups. Though two or three umbrella groups, which represent rebel cooperation, have been organized, several violent group splits and armed incidents between sub-factions have been reported as well. It is true that domestic dissidence and Russia's role can restrict the United States' active involvement into the Syrian Civil War, but it is also true that the competitive atmosphere among the Syrian rebel groups makes the United States hesitant to become actively involved in the war.

The United States' activities supporting the Syrian rebels may exacerbate the ongoing conflict. In Chapter 4, I have shown that inter rebel competition is encouraged by weak rebel biased interventions. Military support without dispatching of ground forces likely generates uncertainty about the power relationships between supported Syrian rebel groups and the unsupported Syrian rebel groups. Moreover, the Syrian government and rebel groups do not know clearly the extent to which the United States will bear additional costs for this war.

It is evident that the main purpose of third party's active involvement in ongoing civil war is not to encourage rebels' cooperation, but is a conflict termination in its favor. Stable domestic condition of Syria under democratic government is desirable, and conflict termination of the Syrian civil war is preferable to the United States. This project implies that the success of interventions lies in the extent to which it shows the third party's commitment. A weak commitment by the third party is likely to intensify the competition between multiple warring parties of civil conflicts, and the boosted armed competition between them is likely to delay termination of war and to exacerbate the

human right problem. In order to achieve the desired outcome in the Syrian Civil War, the United States should employ more appropriate tools showing its commitment.

### **Future Research**

Drawing from this project, I will focus on three issues. Firstly, I will develop more about dynamic and reciprocal relationship between rebels' interactions and third party interventions. In Chapter 3, I have shown the increased likelihood of third party intervention by rebels' cooperation, in Chapter 4, I confirmed the reinforced rebels' cooperation by strong interventions. The two main arguments of this project can be theoretically integrated by highlighting the mutual influence between rebel's cooperation and third party interventions.

Second issue is about methodological advance. I have tried to solve the potential endogenous problem between the rebels' conflict propensities and the third party interventions with the differenced dependent variables on the first order and lagged dependent variables. However, though those solutions may not be enough for fixing up a strong endogeneity problem, because they are designed to capture a weak endogeneity. In order to show more robust test results, selection model using an instrument variable on the second stage can deal this issue. Another methodological issue is related to show different effect between several types of interventions. In Chapter 4, I have shown the different effect of three types of interventions on rebels' cooperation and competition. The unbalanced temporal scopes between panels and unit heterogeneity of dataset impose some difficulties for more advanced empirical estimations, but competing risk duration



model and multinomial logit model would better capture the different effect of each types of interventions.

Finally, I will further theoretical explanation and empirical estimations on a dyadic ground. I have developed a theoretical expectation on aggregated level, and the empirical estimation supportive to my prediction is also conducted on aggregated level. Because my analysis in this work is structured by aggregated level, individual group's conflict behavior and dyadic relationship between the third party and individual rebel group are not specifically discussed. Also, my discussion and empirical test do not provide information about whether cooperative rebels are more likely to receive outside support or not. A robust theoretical explanation should generate an identical prediction across levels of analysis. Dataset established on rebel-rebel dyad and rebel-third party dyad will be built up for the dyadic level analysis.

**APPENDIX: List of Multiparty Civil Conflicts (1945 - 2008)**

Country	Duration	Involved Rebel Group	Number of Identified Rebel Groups
Philippines	1969 - 2008	CPP, MIN, MNLF, MILF, ASG, Military Faction of Honasan, Military Faction of Abenina & Zumel, MNLF-NM, MNLF - HM	9
Russia	1946 - 1978	Forest Brothers, LNPA, LTP(p)A, BDPS, UPA	5
Guatemala	1965 - 1995	FAR I, FAR II, PGT, EGP, PFT, ORPA, URNG	7
Israel	1949 - 1998	PLO, Non PLO Group, Rejectionist Front, Fatah, Hezbollah, PIJ, Hamas, PNA	8
Israel	2000 - 2008	Fatah, PLO, PNA, Hamas, PFLP, AMB, PIJ, PRC, Hezbollah	9
Indonesia	1958 - 1961	Darul Islam, Permesta Movement, PRPI	3
Algeria	1991 - 2008	Takfir wa'l Hijra, AIS, GIA, AQIM,	4
Argentina	1974 - 1977	EPR, Montoneros	2
Iraq	1961 - 1996	KDP, KDP-QM, PUK, SCIRI	4
Iraq	2004 - 2008	Al-Mahdi Army, Ansar al-Islam, ISIS, RJF	4
Lebanon	1975 - 1976	NSF, LAA	2
Lebanon	1982 - 1990	NSF, Amal, NUF, LNM, Forces of Michel Aoun, Lebanese Forces – Hobeika Faction	6
Lao	1959 - 1973	Pathet Lao, Neutralists	2
DR Congo (Zaire)	1996 - 2001	AFDL, MLC, RCD	3
DR Congo (Zaire)	2006 - 2008	CNDP, BDK	2
Angola	1975 - 2008	FNLA, UNITA, FLEC-R, FLEC-FAC	4
Burundi	1991 - 2008	Palepehutu, CNDD, Frolina, Palipehutu-FNL, CNDD-FDD	5
Chad	1966 - 1972	Frolinat, First Liberation Army, Second Liberation Army	3
Chad	1976 - 2008	FAN, FAP, GUNT, CDR, Islamic Legion, MOSANAT, Revolutionary Forces of 1 April, CNR, CSNPD, FNT, MDD, FNT, FARF, MDJT, FUCD, RAFD, UFDD, AN	18
Colombia	1964 - 2008	FARC, ELN, M-19, EPL	4
Peru	1965	ELN, MIR	2
Peru	1982 - 1999	Sendero Luminoso, MRTA	2

Country	Duration	Involved Rebel Group	Number of Identified Rebel Groups
Cambodia	1967 - 1998	KR, KNUFNS, KPRLF, FUNCINPEC	4
Sudan	1983 - 2008	SPLM/A, NDA, JEM, SLM/A, NRF, SLM/A – MM, SLM/A - Unity	7
Uganda	1979 - 2008	Fronasa, Kikosi Maalum, UNLF, FUNA, NRA, UNRF, UFM, HSM, UPDA, Load's Army, LRA, UPA, ADF, UNRF II, WNBf	15
El Salvador	1979 - 1991	ERP, FPL	2
Zimbabwe	1973 - 1979	ZANU, ZAPU	2
Pakistan	2004 - 2008	BLA, Baloch Ittehad, BRA	3
Pakistan	2007 - 2008	TTP, Lashkar-e-Islam, TTP-TA	3
Afghanistan	1978 - 2008	PDPA, Jam'iyat-i Islami-yi Afghanistan, Harakat-i Inqilab-i Islami-yi Afghanistan, Hizb-i Islami-yi Afghanistan, Hizb-i Islami-yi Afghanistan - Khalis faction, Jabha-yi Nijat-i Milli-yi Afghanistan, Mahaz-i Milli-yi Islami-yi Afghanistan, Ittihad-i Islami Bara-yi Azadi-yi Afghanistan, Hizb-i Wahdat, Forces of Shahnnawaz Tanay, Junbish-i Milli-yi Islami, Taleban, MQM, UIFSA, BLA, Baluch Ittehad, BRA, TNSM, TTP, TNSM	20
Somalia	1982 - 1996	SNM, SSDF, SSM, SPM, USC/SSA, USC/SNA	6
Somalia	2006 - 2008	ARS/UIC, Al-Shabaab, Harakat Ras Kamboni	3
Iran	2005 - 2008	PLAK, Jondullah	2
Liberia	1989 - 1990	NPFL, INPFL	2
Liberia	2000 - 2003	LURD, MODEL	2
Sri Lanka	1984 - 2008	LTTE, TELO, EPRLF, JVP	4
Georgia	1991 - 1993	National Guard and Mkhedrioni, Zviadists, Republic of Abkhazia, Republic of South Ossetia	4
Serbia	1991	Croatian Irregulars, Republic of Croatia, Republic of Slovenia	3
Bosnia-Herzegovina	1992 - 1995	Serbian Irregulars, Serbian Republic of Bosnia-Herzegovina, Autonomous Province of Western Bosnia, Croatian Irregulars, Croatian Republic of Bosnia-Herzegovina	5
Haiti	2004	FLRN, OP Lavalas	2
Sierra Leone	1991 - 2001	RUF, AFRC, Kamajors, WSB	4
Tajikistan	1992 - 2000	PFT, UTO, Forces of Khudoberdiyev, Forces of Mullo Abdullo	4

Country	Duration	Involved Rebel Group	Number of Identified Rebel Groups
Congo	1997 - 2002	Cobras, Cocoyes, Ninjas, Ntsiloulous	4
Ivory Coast	2002 - 2004	MPCI, MPIGO, MJP, MPCI-FN	4
Bangladesh	2005 - 2006	PBCP, PBCP-Janajudhha	2
Ethiopia	1964 - 2008	ELF, EPLF, ALF, EPRP, TPLF, WSLF, EDU, SALF, OLF, ELF-PLF, EPDM, Forces of Amsha Desta, ONLF, Forces of Harar gasrrion, IGLF, AIAI, al-Itahad al-Islami,	17
India	1956 - 1968	NNC, MNF	2
India	1983 - 2008	Sikh Insurgents, Kashmir Insurgents, PULF	3
India	1982 - 2008	TNV, PLA, ABSU, ULFA, PWG, NSCN-IM, ATTF, MCC, NDFB, UNLF, NLFT, KNF, NSCN-K, CPI, KCP, PREPAK, DHD-BW, PULF	18

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