UNCROSSING THE RUBICON

Transitions from Violent Civil Conflict to Peace

Barış Arı

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Department of Government University of Essex June 2018 Dedicated to my grandmothers Saliha Başaran Remziye Beşe

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Abstract

What are the impediments to and stimuluses for transitions from violent civil conflict to peace? This dissertation investigates factors that influence civil conflict resolution. There are four key findings. First, democratisation reforms are likely to prompt peace talks with rebel groups. There are costs associated with recognising internal armed challengers as legitimate bargaining partners that deter governments from initiating peace talks. Democratic reform periods provide a window of opportunity for peace negotiations because factors that make institutional reform more likely also encourage peaceful resolution of conflict. The emergence of democratic institutions changes the state preferences by increasing the influence of the median citizen vis-à-vis the authoritarian elite. Second, fragmented conflicts are harder to resolve because they are likely to be over a multidimensional issue space. Multiparty decision making that involves two or more salient issues are likely to have cyclic collective preferences, which render armed conflict a viable instrument for pursuing political goals. Third, involvement of the United Nations (UN) mitigates the adverse impact of conflict fragmentation over peaceful resolution. UN involvement changes the incentives and opportunities of actors to founder a possible bargain. The UN facilitates a path-dependent peace process and brings institutions that induce an equilibrium by overcoming the problems that arise due to cyclic collective preferences. Finally, the military manpower supply system of a state influences its civil conflict processes. How a state recruits rank-and-file members of the military forces is a central institutional arrangement that influences the incentives and opportunities of relevant actors. Compared to all-volunteer forces (AVFs), conscription is an impediment to conflict termination because the cost some individuals incur by being subject to conscription decreases the opportunity cost of rebellion, increases grievances and insulates influential sections of the population from the cost of conflict. As a result, conflict termination becomes less likely.

Preface

The dissertation includes four main chapters, which were initially written in article form. Each of these chapters deals with a specific problem but they are bound together by an overarching question: how can we better understand transitions from violent civil conflict to peace?

The origin of the dissertation goes back to 2012, when both Turkey and Colombia started peace processes to resolve their long ongoing civil conflicts. I found the opening of peace talks fascinating in both cases, which led me to write a PhD proposal on civil war peace negotiations. These two countries continued to intrigue me during my PhD as the peace process in Turkey failed in 2015 whereas Colombia remained more or less on track, despite many difficulties. Although the dissertation is not about any particular country, the experiences of Turkey and Colombia provided the motivating examples and encouraged me to undertake the Peace Negotiations in Civil Conflicts (PNCC) data project.

The dissertation introduces the PNCC, which has been the fruit of more than three years of painstaking data collection. I probably spent more time on the PNCC than any other aspect of my PhD. Considering that only one chapter, "Democratisation as an Impetus for Peace Talks" utilizes the PNCC, it might be seen as low-return investment. However, all of the chapters have their origins in my efforts to build up the PNCC. Reading extensively about different cases and thinking repeatedly about how to model peace processes have been the backbone of the dissertation.

The PNCC had not been envisioned as a comprehensive project at its beginning. It started as a data collection for instances of peace negotiations in the Americas for a dissertation chapter. However, I soon realized that beyond collecting ones and zeros, I needed a theoretical framework and rigorous conceptualization for proper operationalisation and accurate measurement. This led to a theory-driven data project, which adopts the stage conception of conflict processes. I have also realized that instances of negotiations can be used to model the duration and outcome of peace processes. The collapse of the peace process in Turkey and the continuation in Colombia had surely helped me to see this potential. The PNCC proposes a novel direction for conflict research in this regard by enabling modeling the duration of peace processes. Although my work on duration and outcome only marginally qualified into the dissertation, the second chapter, which introduces the PNCC, demonstrates how such a modeling strategy can be useful to progress peace research.

I am well aware that the PNCC has not been fully utilized yet but it would not be possible for me to exhaustively exploit such a comprehensive data project. The time and space limitations of the PhD dissertation is surely the biggest constraint. It has taken me more than three years to build up the PNCC and it would take many more years to realize its potential through a one-person effort. Therefore, I envision the PNCC to have its own life beyond the dissertation. I aim to publish a data paper and launch a web-site to distribute the PNCC. I hope that the PNCC will become a major resource in civil conflict resolution research.

The fourth chapter, "Conflict Fragmentation and the UN" is a result of collaboration with Theodora-Ismene Gizelis, who is an expert in United Nations Peacekeeping Operations. The ideas in this chapter are developed together, thus we share the co-authorship of the chapter. It started as an investigation into how UN involvement may affect rebel group cohesion during peace processes. Although we found evidence that peace negotiations are likely to prompt splintering, and UN involvement mitigates this adverse effect, our research progressed towards more interesting findings. Some of the ideas in this chapter, particularly a novel approach on how to conceptualize and measure conflict fragmentation, are published in a journal article at *Peace Economics, Peace Science and Public Policy*.

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I hadn't had any training in quantitative analysis when I started writing my proposal five years ago. One of the biggest challenges was to develop quantitative research skills, but I have been privileged to learn from great teachers and practitioners. I am grateful to Christopher Adolph, Denis Cohen, Ozan Eruygur, Alejandro Quiroz Flores, Murat Güray Kırdar, Jonathan Kropko, Denise Laroze, Lucas Leemann and Burak Şendoğdu. The Essex Summer School in Social Science Data Analysis has played an enormous role on my development. I especially thank Jonathan Slapin and Melanie Sawers for such a great institute.

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Abbreviations

ACD	Armed Conflict Dataset
ANC	African National Congress
AUC	Area Under the Receiver-Operator Curve
AVF	All-volunteer Force
BRA	Bouganville Revolutionary Army
CFI	Conflict Fragmentation Index
CINC	Composite Index of National Capability
CPP	Communist Party of the Philippines
CTD	Conflict Termination Dataset
EPR	Ethnic Power Relations
ЕТА	Basque Homeland and Liberty
EZLN	Zapatista Army of National Liberation
FARC	Revolutionary Armed Forces of Colombia
FMLN	Farabundo Martí National Liberation Front
FSLN	Sandinista National Liberation Front
GAM	Free Aceh Movement
GED	Georeferenced Event Dataset
GIS	Geographical Information Systems
IRA	Irish Republican Army
KDP	Kurdistan Democratic Party (Iraq)
LF	Lebanese Forces
MHS	Mutually Hurting Stalemate
MMSS	Military Manpower Supply System
MNLF	Moro National Liberation Front
MRTA	Túpac Amaru Revolutionary Movement

NAG	Non-state Armed Group		
NSA	Non-state Actor		
PAM	Peace Accords Matrix		
РКК	Kurdistan Workers' Party		
РКО	Peacekeeping Operation		
PNCC	Peace Negotiations in Civil Conflicts		
PRIO	Peace Research Institute Oslo		
PUK	Patriotic Union of Kurdistan (Iraq)		
RUF	Revolutionary United Front		
SWIID	Standardized World Income Inequality Database		
UCDP	Uppsala Conflict Data Programme		
UCK	National Liberation Army (Macedonia)		
UN	United Nations		
UN-OMB	United Nations Observer Mission in Bougainville		
UNDP	United Nations Development Programme		
UNMOT	United Nations Mission of Observers in Tajikistan		
UNPOB	United Nations Political Office in Bougainville		
URNG	Guatemalan National Revolutionary Unity		
UTO	United Tajik Opposition		
V-Dem	Varieties of Democracy		

Chapter 1

Introduction

CARL VON CLAUSEWIT'S famous definition of war as "the continuation of politics by other means" has tremendously influenced our understanding of armed conflict (Von Clausewitz, 1832:1976). Bargaining models of war conceptualise armed conflict within such a framework (Fearon, 1995; Lake, 2003; Walter, 2009). Although this conceptualisation is extremely useful, an essential difference between interstate and intrastate conflict is often lost; civil wars take place between two or more asymmetrical units, where one unit, the state, claims *de jure* monopoly over the legitimate use of force. The entity that is challenging the state's claim of having monopoly on the legitimate use of force (Weber, 1918:1946) falls in to the category of a criminal enterprise that must be eliminated from the state's point of view. As such, states often label rival non-state armed groups as mere criminals, bandits or terrorists and categorically refuse to seek a negotiated settlement, particularly at the beginning of a conflict. This asymmetry becomes an important obstacle for conflict resolution (Darby and Mac Ginty, 2000).

Another famous phrase dating back to ancient Rome implies this quality of civil wars. On the banks of the Rubicon River, Julius Caesar, "realising what a step he was taking, turned to those about him and said: "Even yet we may draw back; but once cross yon little bridge, and the whole issue is with the sword" (Suetonius, BCE117:CE2004). It is revealing that Caesar's crossing a tiny stream with a single legion has generated a phrase meaning "a point of no return" whereas far more comprehensive military advancements, such as Hannibal's invasion of Rome had not produced a similar expression. The distinguishing difference between the two is that "the crossing of the Rubicon" was an internal rebellion, which was a capital crime according to the Roman law, rendering Caesar and his forces as lawbreakers. Hence, once the rebellion was initiated, "the whole issue became with the sword". This historical anecdote highlights an essential feature of civil wars; rebellion marks a major discontinuation of political exchange, which is not easily reversible.

The dissertation aims to map out the factors that influence the transitions from violent civil conflict to peace. As such, the main question is about the possibility of "uncrossing the Rubicon". Although the opening paragraphs draw from historical accounts, the rest of the thesis deals with the contemporary era. The focus is on the interaction between a state and rival non-state armed actors.¹ Examples include the successful peace process between El Salvador and Farabundo Martí National Liberation Front (FMLN), failed conflict resolution attempts between Spain and Euskadi Ta Askatasuna (ETA), the multiparty civil war in Lebanon (1975-1990) and the intractable conflict in Syria (2011-).²

There are significant impediments to transitions from civil conflict to peace. First and foremost, engaging in peace talks with non-state armed groups (NAGs) is costly for states because of the *de jure* asymmetry between the two types of entities. States incur costs even by opening negotiations because peace talks entail the recognition of NAGs as legitimate bargaining partners to pursue a joint decision with. In other words, we can consider negotiations as a concession to a NAG. According to Arenas (1985), the Peace Commission of Colombia, which was responsible to conduct negotiations with the rebel group Fuerzas Armadas Revolucionarias de Colombia (FARC) during the first peace process (1983-1986), emphasized this point during the talks:

"the most significant concession that the President of the Republic is making is to negotiate with an organization such as yours [FARC] that has taken up arms against the state. This [until now] has been the principal obstacle, and which in any other country or under any other president would make an official agreement, or even the hint of a negotiation impossible. To negotiate – especially given the current situation – is already a colossal concession that you have obtained (quoted in Chernick, 1988, p. 70).

Peace negotiations are important events that reveal information on civil conflict processes. Following this argument, the dissertation develops the Peace Negotiations in Civil Conflicts (PNCC) dataset. Besides providing data on instances of peace negotiations, the PNCC makes a key contribution by building a theoretical framework to conceptualize peace processes through stages. Such an approach provides proper operatinalization and accurate measurement. More

¹ Non-state parties to violent civil conflict are often called non-state actors (NSAs). Such actors can also be labelled as non-state armed groups (NAGs) or simply as rebels. These terms essentially refer to the same phenomenon and used interchangeably in the dissertation.

² The dissertation relies on the UCDP/PRIO Armed Conflict Dataset (ACD) definition of armed conflict: "a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths in one calendar year" (Gleditsch et al., 2002). The terms *civil war* and *civil conflict* are used interchangeably throughout the dissertation.

importantly, it permits modelling transitions from one stage to another. Therefore, it allows the investigation of peace process duration and outcome. After introducing the theoretical framework to conceptualize peace processes, Chapter 2 discusses the PNCC data. It also carries out a brief empirical analysis on the relationship between violence and peace process collapse to demonstrate how the PNCC can be utilized. The PNCC opens up many avenues for further research. These opportunities are explored in Chapter 2 as well as in the conclusion (Chapter 6).

Besides the impediments, the dissertation also aims to identify factors that may facilitate transitions from conflict to peace. Chapter 3 argues that reform periods that introduce or augment democratic institutions are likely to be followed by peace negotiations. The literature focuses extensively on the relationship between institutions and conflict onset (Hegre, 2001; Cederman, Hug and Krebs, 2010; Gleditsch and Ruggeri, 2010) and the prospects of post-conflict democratisation (Hartzell and Hoddie, 2003; 2015; Jarstad, 2008; Fortna and Huang, 2012). However, many countries have witnessed institutional reform towards democracy³ during an ongoing civil conflict. Chapter 3 theorises that democratisation decreases the costs associated with opening negotiations with rebels by illustrating a clear break from past policies. This window of opportunity provided by the reform period makes negotiations more likely. Democratisation also increases the willingness of governments to pursue a negotiated settlement by increasing the influence of the median citizen in comparison to the authoritarian elite. Democratisation makes the preferences of ordinary citizens relevant for policy making (Przeworski, 1988). As the median citizen is unlikely to attribute more value to a full military victory against the rebels than the authoritarian elite, the bargaining range widens, and negotiations become more likely. The empirical findings through a rigorous analysis of the PNCC strongly suggests that democratisation is associated with a statistically significant and substantively consequential increase in the probability of peace negotiations.

Chapter 4 identifies both an impediment – conflict fragmentation – , and an impetus, – United Nations (UN) involvement – to conflict resolution.⁴ It is well known that fragmented conflicts are harder to resolve (Cunningham, 2006; Blattman and Miguel, 2010). To explain the link between fragmentation and conflict intractability, the literature puts forward essentially three mechanisms; spoilers (Rudloff and Findley, 2016), commitment problems (Kydd and Walter, 2002; Cunningham, 2011; Christia, 2012; Cunningham, 2013; Rudloff and Findley, 2016),

³ Institutional reform towards democracy, or simply democratisation, refers to authoritarian liberalization, democratic transition and democratic consolidation.

⁴ This chapter is developed in collaboration with Theodora-Ismene Gizelis.

and veto-players (Cunningham, 2006). Borrowing a key theorem from social choice theory, which suggests that multiparty decision-making situations are likely to lack a stable solution if they are over two or more salient issues (Plott, 1967; McKelvey, 1976; Schofield, 1978), Chapter 4 proposes an alternative explanation, which may account for conflict intractability as well as the increased likelihood to perceive spoilers, commitment problems and veto-players in fragmented civil wars. Fragmented conflicts are likely to be on multiple salient issues, as shown most visibly by the civil war in Lebanon (1975-1990), in which competing actors had diverging preferences over a multidimensional issue space. Maronites, Sunnis and Shias did not simply compete for the distribution of governmental power, but the conflict also involved cleavages due to religious/secular divide, the status of Palestinian refugees, foreign affairs, economic policy and minority rights. Each principal identity group generated multiple actors that have contending preferences over these salient issues. Based on this conjecture, we postulate that fragmentation is the manifestation of the multidimensionality of the issue space.

Chapter 4 demonstrates the instability inherent in multiparty civil wars as an impediment to conflict resolution by simulating the implications of the McKelvey–Schofield chaos theorem. Conflict fragmentation generates many opportunities for coalition building. For example, two actors that oppose each other on one issue are likely to find common ground on another, against a third actor. This large room for coalition building, in return, creates incentives and opportunities to founder a possible bargain emerging from a peace process. Our simulations using two dimensions and multiple actors show that a possible bargain acceptable to a winning-coalition is likely to be overthrown by an alternative deal garnered by another constellation of majority. The lack of a Condorcet winner may generate cycles, which are likely to go on without reaching to an equilibrium outcome. As a result, armed action for pursuing goals remain a viable option, and transitions from conflict to peace become less likely in fragmented civil wars.

UN involvement in civil wars is a driving force towards peace (Walter, 1997; Doyle and Sambanis, 2000). UN peacekeeping operations (PKOs) increase the likelihood of conflict termination (Fortna, 2004; Ruggeri, Dorussen and Gizelis, 2017), decrease the levels of violence (Hultman, Kathman and Shannon, 2013; 2016), and make conflict recurrence less likely (Gilligan and Sergenti, 2008; Hultman, Kathman and Shannon, 2014). Chapter 4 progresses this line of research by arguing that UN PKOs are particularly effective when the conflict is fragmented. UN involvement provides what Shepsle and Weingast (1981, p. 507) call "institutional restrictions on the domain of exchange". UN facilitates a path-dependent peace process, which is likely to generate memorandums, declarations of intent, agreed principals and interim agreements. The large space for coalition building starts to shrink as proposals become conditional on what has been agreed on. Furthermore, costs associated with defection arises due to UN presence (Doyle and Sambanis, 2000). Overall, UN involvement weakens the incentives and opportunities to founder a possible bargain. Because such incentives and opportunities exist especially in fragmented conflicts, UN impact is stronger when fragmentation is higher. Therefore, we theorise a conditional effect of UN PKOs. The empirical results presented in Chapter 4 strongly suggest that fragmented conflicts are less likely to terminate but UN PKOs mitigate the adverse effect of fragmentation.

Institutions are important for transitions to peace. Scholarly research tends to focus on highlevel institutions that distribute the ultimate political power. Given the importance of high-level institutions, such a focus is not surprising. As discussed, there is a well-established tradition investigating the link between democracy and civil conflict. Chapter 3 contributes to this line of research by revealing that democratisation may prompt peace negotiations. However, there are lower level institutions that are not directly responsible for organizing political power but still consequential on civil conflict processes. Chapter 4 reveals that institutional arrangements that UN brings on a peace process may facilitate conflict resolution by limiting the array of possible deals. Chapter 5 reveals another low-level institution, which is influential on distributing the costs of conflict. How a state recruits rank-and-file members of its armed forces is a central institutional arrangement that influences the incentives and opportunities of relevant actors.

Chapter 5 identifies the institution of conscription as an impediment to conflict to peace transitions. Compared to all-volunteer forces (AVFs), conscription is likely to prolong civil conflict because the costs *some* individuals incur by being subject to conscription decrease the opportunity cost of rebellion, increase grievances and insulate influential sections of the population from the cost of conflict. Therefore, conflict termination becomes less likely.

Chapter 5 theorises that conscription, as a state institution, should reflect and reproduce underlying socioeconomic and ethnic power relations in a polity. Through an extensive survey of the case literature, Chapter 5 shows that there is a discrepancy between *de jure* status of conscription as a universal and equitable duty and its *de facto* implementation. This discrepancy is likely to be large especially in conflict-prone developing countries. As a result, conscription often corrupts into a coercive resource extraction policy that disfavours subsistence farmers, urban poor and discriminated or excluded ethnic groups. This theoretical discussion leads to the formulation of another conditional impact; higher the inequality in a polity, more severe the conflict prolonging effect of conscription. In line with the theoretical expectations, the empirical analysis shows that conscription is associated with longer conflicts when there is high socioeconomic or ethnic inequality but conscription and AVFs are indistinguishable if inequality conditions are absent. Chapter 5 contributes to our understanding of conflict resolution by providing a theoretical framework to explain the nexus between the military manpower supply system (MMSS) and civil conflict processes. To my knowledge, the dissertation provides the first scholarly work to identify the impact of MMSS over the transitions from conflict to peace in a systematical manner. It also reveals that lower-level institutions that are not influential on distributing the ultimate political power may still be relevant for conflict processes because of their influence on the distribution of conflict costs.

The dissertation concludes by discussing the opportunities for further research. Several peripheral findings and many non-findings from this research project did not qualify for the main text. However, accompanied with some of the key research findings, they prompt interesting questions. For example, why do democratisation reforms increase the probability of peace talks but not peaceful resolution of civil conflict? Democratisation has been identified as a source for rebel group radicalisation (Tezcür, 2015). Negotiations also increase the probability of rebel group fragmentation, as the findings of Lounsbery and Cook (2011) can be reproduced through an analysis of the PNCC. Is it possible that these two mechanisms are interacting? Overall, the concluding chapter provides a discussion on how the dissertation opens up new avenues of research.

Chapter 2

The Peace Negotiations in Civil Conflicts (PNCC) Data Project

Compared to interstate wars, finding a negotiated settlement in civil conflicts may require a very different path because the belligerents are asymmetrical units. Particularly due to this feature of civil wars, peace negotiations between governments and non-state armed groups (NAGs) are crucial events that contain vital information on conflict processes. The opening of peace talks not only presents a change in belligerent positions towards a negotiated settlement but also marks the beginning of a possible track to an accord.

Peace negotiations are also important due to their variation in duration and success. Most peace talks collapse instantly whereas some negotiations go on for many years only to be terminated without producing a comprehensive accord. For example, the very first peace talks between El Salvador and FMLN collapsed only in a single session whereas Colombia and FARC had been negotiating for 30 months when they terminated the peace talks in 2002. Similarly, successful negotiations can take a very long time (e.g. Guatemala-URNG, 84 months), or can be concluded in a relatively short period (e.g. Macedonia-UCK, less than a week). The duration and outcome of peace negotiations also contain vital information that can be used to test theoretical approaches on conflict resolution.

Conflict resolution attempts may also influence violence patterns. On the one hand, negotiations may escalate violence (Sisk, 1993; Kydd and Walter, 2002). South Africa presents an important example on how peace negotiations can lead to a surge in violence (Sisk, 1993). The unbanning of the African National Congress (ANC) and opening of peace talks in 1990 led to dramatic increases in violence, which substantially surpassed the years preceding the conflict. Such a trend is discernible in Figure 2.1.¹ On the other hand, many negotiations accompany

¹ Conflict data is from the UCDP GED (Sundberg and Melander, 2013). Data before 1989 is imputed by using Sisk (1993). Data for negotiation periods are taken from the Peace Negotiations in Civil

either a formal or a *de facto* cease-fire between parties, which is likely to curb the violence (Darby and Mac Ginty, 2000). In such cases, the collapse of negotiations almost always trigger a return to the battlefield (Darby, 2001). Turkey illustrates an appropriate example for this pattern. Negotiations between Turkey and the PKK initially terminated the violent conflict but the eventual collapse of negotiations opened up the floodgates for violence, as shown in Figure 2.2. Overall, transitions from no negotiations to negotiations, and vice versa, may generate significant shifts in conflict intensity.



Figure 2.1: Violence Patterns in South Africa



Figure 2.2: Violence Patterns in the Conflict between Turkey and the PKK

Peace negotiations contain vital information on conflict processes. Based on this conjecture, the Peace Negotiations in Civil Conflicts (PNCC) dataset records instances of formal negotiations between governments and NAGs in a civil conflict. Conflict resolution is conceptualized as a dynamic process with five discrete stages. *Formal Negotiations* are understood as one of these stages. The main objective of the PNCC is to locate whether a conflict is within this particular stage. Such a task requires identifying transitions into and out of *Formal Negotiations*. In order to achieve this goal, the PNCC constructs negotiation spells by using the instances of peace

Conflicts dataset. Background colours represent conflict management status.

talks. Special attention is paid to the start and end of peace talks to identify the transitions. This conceptualization allows us to record the onset, duration and outcome of peace negotiations in civil wars.

The PNCC is structured on the dyadic version of the UCDP/PRIO Armed Conflict Dataset (ACD) (Gleditsch et al., 2002; Melander, Pettersson and Themnér, 2016). The coverage is 1975-2013, and the PNCC has a yearly and a monthly version. The unit of analysis is negotiations between governments and NAGs in a given year/month. The yearly version has a global coverage expect Africa,² whereas the monthly version is limited to the Americas, the Middle East and Europe. The plan for future expansion includes a fully global coverage for both versions, accompanied with an automated data collection procedure, which would allow near real-time updating of the PNCC.

The PNCC adopts a theoretically driven way to select cases that are at risk of transition to and out of the negotiation stage. Once a state vs NAGs dyad appears in the ACD, the PNCC follows the dyad until the NAGs signs a peace agreement or the conflict ends by defeat/victory. The condition of leaving the PNCC is not related to the intensity of the conflict. If there is an indication that the actor continues to exist as a non-state armed group, the PNCC keeps on following the dyad even if the conflict is not active in the ACD.

This is an important feature of the PNCC because other datasets on civil conflict resolution focus only on ongoing conflicts and cases that enter into a peace/low-conflict episode leave the sample (DeRouen Jr, Bercovitch and Pospieszna, 2011; Thomas, 2014). Such an approach that excludes cases that fall under a casualty threshold out of the study is problematic because peace and conflict are interdependent (Chiba, Metternich and Ward, 2015). Moreover, level of violence is often a function of ongoing negotiations. Some dyads may cease fighting *precisely* because of peace talks (e.g. Turkey-PKK in 2014), thus leaving the sample, whereas other cases might negotiate despite violence (e.g. Colombia-FARC in 2012-2016).

Testing theories on conflict resolution by analyzing samples that systematically excludes some cases without a theoretically warranted procedure might seriously bias our estimates and lead to erroneous conclusions. For example, Thomas (2014) estimates the impact of terrorist attacks on the level of government concessions by using a sample that is limited to active conflicts, which refers to ongoing violence. Thomas (2014) concludes that terrorist attacks increase the level of government concessions. However, this conclusion is susceptible to be driven by a sample selection bias because rebel groups that do not use violence during the negotiations may also

² Negotiation data for Africa is available through Thomas (2014). The analysis in Chapter 3 integrates this dataset to the PNCC.

receive extensive concessions but such cases would not be in the sample if the negotiations continue towards the next calendar year where the dyad is no longer active in the ACD. This is plausible given that negotiations often span an extended period of time. The PNCC directly addresses this problem through a theoretically driven procedure to identify case entry and exit.



Figure 2.3: Number of Cases in the PNCC by Years.

The PNCC addresses another unwarranted sample selection mechanism by distinguishing mediated peace talks from bilateral negotiations. The rapidly growing mediation has literature expanded our understanding of civil conflict resolution (see Wallensteen and Svensson, 2014). This line of research produced datasets that only include resolution attempts with a thirdparty involvement (DeRouen Jr, Bercovitch and Pospieszna, 2011). Data availability has led researchers to substitute mediation with larger negotiation in empirical analysis (e.g. Lounsbery and Cook, 2011). However, "mediation must in essence be seen as an extension of the negotiation process" (Bercovitch and Houston, 1996, p. 36) and there are many cases in which negotiations take place without a third-party mediator. Several peace accords did not involve any thirdparty mediators during negotiations (e.g. Bangladesh). Again, excluding negotiations without mediation from the sample might cause problems when the focus is broader conflict resolution. For example, if negotiation processes that reach to a progressive level are more likely to invite third-party mediators, we might overestimate the effect of mediation. Conversely, if mediators are invited only if the belligerents fail to make common ground, then we might underestimate the role of mediators. The PNCC addresses this problem by coding whether a third-party mediator was present or not during negotiations as a separate variable. This enables us to distinguish bilateral negotiations from international mediation. The PNCC shows that only 54% of negotiations have involved mediators.

The rest of the chapter as follows. First, negotiations are identified as a distinct phase in a civil conflict process. The procedure to identify the negotiation phase is explained. Next, the

universe of cases and the conditions for leave and re-entry to the risk set are discussed. The third section describes the data collection procedure. A special attention is paid to make the the data collection process replicable. The fourth section introduces a brief empirical analysis to demonstrate the use of the PNCC. The chapter concludes by highlighting the interdependence of conflict resolution stages.

2.1 Conceptualizing Negotiations as a Stage

The term "peace process" captures that achieving a negotiated settlement in civil conflicts inherently requires a series of interdependent phases that can span a period of time (Darby and Mac Ginty, 2000; Findley, 2013). This quality makes the "stage conception of conflict dynamics" (Jones and Metzger, 2016) as a suitable candidate to adopt for conflict management. Indeed, many studies have already conceptualized distinctive stages of a conflict resolution process (Darby and Mac Ginty, 2000; Walter, 2002; Pearson, Suzuki and Zagorowski, 2011). Building on these studies, the PNCC identifies five stages (see Table 2.1).

The objective of the PNCC is to determine whether a conflict is in the Formal Negotiation stage (N). This requires identifying transitions into and out of N. No Contact (C) and Secret/Backchannel Talks (S) can lead to $N.^3$ Once a conflict enters into to Stage N, negotiations can either fail $(N \to C/S)$ or succeed to produce a peace agreement $(N \to P)$.

Table 2.1: Stages of a Conflict Resolution Process

0	С	No Contact
1	\mathbf{S}	Secret/Backchannel Talks (not always observable)
2	\mathbf{N}	Formal Negotiations
3	Р	Peace Agreement
4	Ι	Implementation of the Peace Agreement

2.1.1 Defining Formal Negotiations and Transitions into N

Negotiation, in general, can be defined as "a process by which a joint decision is made by two or more parties. The parties first verbalize contradictory demands and then move toward agreement by a process of concession making or search for new alternatives" (Pruitt, 1981, p. 1). A central feature of negotiation is "explicit bargaining" through verbal communication, which is different from "tacit bargaining in which communication is incomplete or impossible" (Schelling,

³ The transitions between $C \leftrightarrow S$ are out of the scope of the PNCC as the focus is on $C \to N$ and $S \to N$.

1960:1980, p. 53). During tacit bargaining, which is assumed to be always ongoing according to bargaining models of war, parties communicate nonverbally, "by a process involving move and countermove" (Pruitt, 1981, p. 4).

The PNCC operationalises *Formal Negotiation* as a meeting between a state-party and a nonstate armed group that is *recognized* by both parties and that is held to fully or partially resolve the conflict through verbal communication. This definition puts emphasis on recognition to distinguish S from N. It is common in civil conflicts that belligerents hold verbal communication but only do so through secret channels and deny any contacts (Darby and Mac Ginty, 2000). This often stems from parties' official position not to recognize the other as a legitimate entity with whom to pursue a joint decision. It can be argued that "when two sides do not recognize each other's existence, this constitutes a fundamental challenge to the other and reconciliation is clearly not part of the picture" (Bayer, 2010, p. 536). Holding acknowledged meetings to resolve the conflict is a clear recognition of the other. As stated by Bayer (2010) "recognition of the other is an important milestone in relations". Such events are particularly significant in civil conflicts. When a state acknowledges negotiating with an non-state armed group, it accepts the group as a bargaining partner, which inherently precipitates some flow of legitimacy towards the group. This flow of legitimacy also occurs towards the state-party because the rebel side recognizes the government as an actor to pursue a settlement with.

The procedure to distinguish secret talks from formal negotiations relies on the acknowledgement of communication criteria. It is often the case in secret talks that parties reject that any sort of contacts had been taking place. In a speech in the House of Commons, the British Prime Minister John Major declared that "[negotiating with the provisional IRA or Sinn Fein] would turn my stomach ... we will not do it" (Reiss, 2010, p. 70). However, information emerged years later revealed that the British government in fact was talking to the provisional IRA at the time of the speech.⁴ In stark contrast, admission of the Sinn Fein to the peace talks on 15 September 1997 or the meeting between Tony Blair and the Sinn Fein leadership on 13 October were broadcasted as historical events. In such negotiations, we can often observe the date, venue and even the identity of the interlocutors. In backchannel talks, on the other hand, information on these are not readily available. In some extreme cases, even the negotiators are not entirely sure of whom they are negotiating with. For example, the first known contact between ETA and the Spanish government took place in 1975 through a special envoy of the King Juan Carlos

⁴ It is reported that after the PM's speech, the secretary of state for Northern Ireland, Patrick Mayhew, reminded the PM in a private conversation that talks with the IRA were indeed taking place, to which the PM responded by "I said it would turn my stomach. I did not say it would turn yours" (Reiss, 2010, p. 70).

I but the ETA negotiators were not sure if their counterpart was really representing the King (Clark, 1990).

This definition of formal negotiations which concentrates on the recognition by the parties is extremely useful to identify a distinctive phase in conflict resolution processes with great accuracy across cases. Ideally, we could collect data on transition to and from S but it is rarely possible. More importantly, observing secret talks is dependent on several factors that vary across cases. It is very likely that we would only able to record some secret talks but not others, based on systematic factors such as journalistic coverage or the rules of secret services regarding release of historical documents. Therefore, distinguishing Secret/Backchannel Talks from Formal Negotiations addresses a potential measurement error.

2.1.2 Negotiation Spells

After coding the instances of formal negotiations, the PNCC constructs negotiations spells to identify periods within which a dyad remains in Stage N. A negotiation spell is the period between the first and last instances of formal peace negotiations. Between these two instances, the conflict is understood to be in N. Determining the first and last instances of negotiations in a spell is therefore crucial for identifying transitions into and out of N, especially when there are multiple transitions. To put it another way, if parties stop negotiating for a prolonged period of time and then return to negotiations, these two should be considered different negotiation spells. For example, the Colombian government and FARC had been in a peace process for four years when negotiations finally collapsed in 2002. A decade later, in 2012, the parties re-started negotiations. These two are clearly different peace processes, indicating the following sequence of transitions: $C/S \rightarrow N \rightarrow C/S \rightarrow N$. Therefore, it is necessary to distinguish different negotiation spells within a dyad to identify consequent transitions.

The PNCC adopts two criteria to identify inaugural and terminal instances of negotiations when there are multiple spells. First, the PNCC relies on the case-study literature. If there is an established literature on that particular peace process, the cut-point dates are taken from secondary sources to pinpoint $N \rightarrow C/S \rightarrow N$ transitions. For example, the literature on Guatemalan civil war separates the negotiations that broke down following an auto-coup attempt in 1993 from a new set of negotiations that started in January 1994. As such, the Guatemala-URNG dyad is coded to experience $N \rightarrow C/S \rightarrow N$ transitions in the period 1993-1994.

If there is no established literature to pinpoint transition dates, it is assumed that a spell is ended at the last recorded instance of negotiations if negotiations between governments and rebels have not taken place for at least six consecutive months. Any negotiations after a break of six or more months is considered as a new spell. This six-months threshold is based on experience on coding peace processes (e.g. Guatemala-URNG dyad) but it is somewhat arbitrary. The structure of the PNCC allows users to construct alternative thresholds, such as 3 or 12 months, to re-define negotiation spells. These user-defined spells with alternative thresholds can be used as robustness checks.

There are important gains from focusing on negotiation spells instead of discrete instances of negotiations. First and foremost, many dyadic conflicts have not received sufficient journalistic or scholarly attention to enable us to spot every instance of negotiations. However, the start and collapse of formal negotiations are often reported in news sources. They are also likely to attract scholarly attention. Moreover, it is common that actors take a scheduled break from peace talks, which does not necessarily mean the collapse of the peace process. For example, EZLN took several breaks that lasted multiple months in each instance to have democratic consultations with indigenous communities. Overall, it is empirically more appropriate to look at negotiation spells than instances of negotiations.

2.1.3 Transitions out of N

A negotiation spell may end with two mutually exclusive outcomes: a peace accord or failure. A spell failure refers to a $N \to C/S$ transition. $N \to C/S$ transition happens if and only if parties stop holding peace talks without reaching to an accord. The level of violence during peace talks is not a condition to define a transition. In other words, a conflict does not necessarily get out of N when violence erupts. Similarly, negotiating in "good faith" is not a condition to be in N (cf. Walter, 2002). This is a slightly different conceptualization of negotiations as a peace process phase compared to some well-established definitions, which requires parties to negotiate in good faith and not to use *systematic* violence during the negotiations (Darby and Mac Ginty, 2000). To have a rigorous definition of a negotiation phase that can be coded across cases with the minimal coder discretion, the PNCC deviates from such an operationalization that requires to define systematic violence and good faith. Furthermore, peace talks often continue and progress during ongoing conflicts. Therefore, measuring the level of violence to define Stage N would be misleading. However, users can incorporate level of violence and other variables to the PNCC as additional conditions to generate a user-defined negotiations phase.

If negotiating parties agree an agreement, the peace process moves toward the implementation phase, which refers to a $N \to P$ transition. A peace accord does not mean that the process has been successful but it shows that the negotiation spell has produced an agreement. When such a $N \to P$ transition takes place, the dyad leaves the PNCC sample. It is quite common that a peace agreement fails to end the dyadic conflict. Furthermore, any peace agreement can be re-negotiated. The PNCC does not conceptualize failure of a peace agreement as a $I \rightarrow C/S$ transition. If a peace agreement fails and the dyad becomes active in the ACD after the agreement is signed, it is conceptualized as a re-entry to the PNCC. The dyad gets a new PNCC id and a new start date. Similarly, renegotiation of an agreement is not considered as a $I \rightarrow N$ transition but rather understood as implementation negotiations. As such, negotiations after a peace agreement falls under I. Conditions to enter, leave and re-enter the PNCC sample are discussed in more detail in the next section. What constitutes a peace agreement and how to define agreement failure are also outlined.

2.2 Entry, Exit and Re-Entry to the PNCC

The PNCC deals with the interaction between a state-party and a rival non-state armed group. A non-state armed group is defined as an organized entity, which operates outside a state's command and challenges a state's claim on the monopoly of the legitimate use of force to pursue political goals (Conciliation Resources, 2005; San Akca, 2009).⁵ This definition is employed for identifying group entry, exit and re-entry. A non-state armed group forms a dyad with the opponent state party.

To identify the universe of cases, the PNCC relies on the dyadic version of the UCDP/PRIO Armed Conflict Dataset (ACD) version 4-2015 (Gleditsch et al., 2002; Harbom, Melander and Wallensteen, 2008; Melander, Pettersson and Themnér, 2016). Interstate and colonial wars (type 1 and 2) are excluded. Some of the cases that do not fall on the non-state armed group definition are also excluded from the sample.⁶ The PNCC is integrable to the larger UCDP family by using the DyadId and Year variables.

It is necessary to rigorously define when a case is at risk of transition to or out of N. After the non-state armed groups are identified by using the UCDP Dyadic Dataset, the PNCC follows the dyads until (1) the rebel group is ceased to exist as a non-state armed group, or (2) a peace agreement is signed between the parties. When a dyad exits the study, the reason for this exit is coded as a separate variable. Exit from the UCDP Dyadic Dataset due to low level of violence is not a criteria for exit from the PNCC. This is a central feature of the PNCC that distinguishes it from previously released datasets on civil conflict resolution.

The theoretical reason for such a decision can be explained better by borrowing from the

⁵ The terms non-state armed group, rebel group and non-state actor (NSA) are used interchangeably.

⁶ These are mostly coups and coup attempts. The exclusion reason for a dyad is provided as a separate document for each case.

survival analysis terminology. The dyads in the PNCC can be considered as being in the "risk sets". Here, there are two risks; transition to the negotiation phase $(C/S \rightarrow N)$ and transition out of the negotiation phase $(N \rightarrow C/S \text{ or } N \rightarrow P)$. If we use a conflict intensity threshold to force cases out of the study, some cases that are in the risk of $N \rightarrow C/S$ transition remain in the study whereas others with low level of violence are out of the sample, leading to a selection bias. It is very likely that some cases are below the ACD threshold *precisely* because of the ongoing negotiations as it is very common that negotiations also involve a cease-fire arrangement (Darby and Mac Ginty, 2000).

A dyad can leave the study if the non-state armed group cease to exist. This can happen by victory, defeat or merging with another NAG. The definition of rebel group victory overlap with the UCDP Conflict Termination dataset (Kreutz, 2010). A rebel group may exit the study by defeat if the dyad is inactive in the ACD *and* there is no indication that it continues to exist as a non-state armed group. If there is indication that a non-state armed group continues to exist despite the dyadic conflict is below the ACD threshold, the PNCC keeps on following the dyad. Continuation of armed activity is the most important indication that the entity remains to exist as a non-state armed group.



Figure 2.4: A Hypothetical Conflict Process with Distinct Stages

A negotiation spell can end with signing a peace accord. This conceptualization of an accord as a distinct phase in a peace process falls in line with the understanding that a peace agreement "is a particular result in a process that began before the agreement was signed and continues after the ink has dried" (Wallensteen, 2011, p. 28). According to Wallensteen and Sollenberg (1997, p. 342), "peace agreements are arrangements entered into by warring parties to explicitly regulate or resolve the basic incompatibility". However, peace processes often produce multiple codified documents signed by parties. In other words, in addition to peace agreements, there are "*peace process agreements*, which do not settle the incompatibility, but instead outline a process whereby the issue will be settled" (Wallensteen and Sollenberg, 1997, p. 343). Defining which accord is a phase changing one (or to use Wallensteen (2011), conflict terminating agreement) and distinguishing them from interim *peace process agreements* remains a major task.

Following Wallensteen (2011), the minimum criteria to identify a peace agreement is that it should be negotiated and signed between the parties and openly acknowledged. In the first phase of peace agreement coding, the PNCC relies on two sources to identify such agreements; the UCDP Peace Agreements dataset (Harbom, Högbladh and Wallensteen, 2006; Högbladh, 2012) and the Peace Accords Matrix (Joshi, Quinn and Regan, 2015). Unfortunately, these two sources do not overlap perfectly because of differences in defining a peace agreement. For example, the Taif Agreement that ended the civil war in Lebanon is not coded in the UCDP Peace Agreements dataset whereas it is included in the PAM. In addition, many cases available in the UCDP Peace Agreement dataset are not available in the PAM, as the latter source only deals with the comprehensive peace agreements. As the PNCC time scope is longer than the UCDP Peace Agreements dataset, additional sources were also needed to code peace agreements. The UN Peacemaker dataset and the extant literature on the particular peace process are used to identify peace agreements.

Although the PNCC closely follows the UCDP tradition and adopts the definition by Wallensteen and Sollenberg (1997, p. 342), there are cases in which coding decisions needed to be made to distinguish *peace process agreements* from *peace accords*. This problem arises because peace processes may involve multiple agreements that "explicitly regulate or resolve the basic incompatibility" Wallensteen and Sollenberg (1997, p. 342). However, the PNCC design requires the identification of a single peace accord to code the successful end of a negotiation spell and pinpoint a transition. When the UCDP Peace Agreement dataset and the PAM were not sufficient to identify a *peace accord*, the guiding criteria is that if the agreement includes a provision to disarm the NAG or to put it under the scope of the state control,⁷ the agreement is understood to be a *peace accord*. Similarly, in addition to explicit provisions to regulate or resolve the basic incompatibility, if a NAG pledges not to challenge the state's claim on the monopoly of the legitimate use of force through an agreement, the agreement is coded as a *peace accord*. *Peace process agreements* and communication releases such as memorandums short of a peace accord are coded as "other documents".

Once a peace agreement is coded, the dyad is understood to be in Stage I, and therefore exits the PNCC. Exiting the PNCC does not mean the end of a peace process. As put by , "an agreement is only one element in a larger process" and "it does not mean that entering an agreement is the same as ending a peace process". However, due to the scope conditions

⁷ Such as transforming the rebels to a local force or integration to the military.

of the PNCC, a peace agreement prompts case exit. Other sources such as the PAM dataset can be employed to investigate the implementation stage. However, due to its strict definition of comprehensive peace agreements, the PAM only includes 34 cases. Further data collection on the implementation stage may broaden our understanding of the post-accord phase of peace processes. As an illustrating example, we can look at the the provisional IRA to demonstrate subject entry and exit. The dyad is no longer active in the ACD after 1991 but it is included in the PNCC until the Belfast Agreement of April 1998. Figure 2.4 also illustrates a hypothetical example with different conflict episodes.

Immediate continuation of violence without the full collapse of the peace agreement can happen during I. In other words, a peace agreement may predate the end of violence. In such situations, the dyad can be in the ACD but theoretically in Stage I according to the PNCC. In order to have a full compatibility, such cases are included in the PNCC but flagged by assigning a "2" in the negotiation variable. An important example of this pattern is the Tajikistan vs UTO dyad, in which parties signed a full peace agreement in June 1997 but sporadic violence continued in the implementation phase, making the dyad active in 1998. However, the agreement was successful to integrate UTO to the Tajik government forces and the dyad did not become active after 1998. The year 1998 is included in the PNCC but it is flagged to indicate that it is in I.

A peace agreement can fully collapse and conflict can recur. This is understood as a reentry to the PNCC. Because entry to the PNCC requires active conflict in the ACD, such a conceptualization demands distinguishing violence during the implementation phase from the full collapse of a peace agreement. A method that is very similar to the criteria to distinguish two negotiation spells from each other is employed. First, the PNCC relies on the extant literature on the peace process. Second, if the parties stop engaging in a conflict resolution process for more than six months, it is understood that the peace agreement is abandoned. For example, Iraq and Kurdistan Democratic Party (KDP) reached to a peace agreement in April 1970, which granted autonomy to the Iraqi Kurdistan. However, the parties disagreed on the extent of the autonomy, especially on the status of Kerkuk. KDP rejected a final offer from the Iraqi government in March 1974, which marked the end of the peace process. The Iraq vs KDP dyad is understood to be in Stage I from April 1970 to March 1974, but the dyad re-enters the PNCC in March 1974 because the dyad is active in the ACD and clearly not in I.

Finally, a dyad can re-enter to the PNCC by the re-emergence of the non-state armed group. The Afghanistan vs Taliban dyad is a prominent example for this. The dyad exits the PNCC in 1996 due to the Taliban's victory. However, after the Taliban government was deposed in 2001, the group re-gained the status of a non-state armed group and became active in the ACD. As a result, the dyad re-enters the PNCC in 2001.

2.3 The Procedure for Data Collection

Data collection is carried out through three type of sources: (1) the secondary literature, (2) documents that are released after negotiations, such as joint declarations, and (3) a systematic search on Nexis.

Data collection starts with information available in the UCDP Conflict Encyclopaedia. The Accord Series by the Conflict Resources are also used if these sources cover the particular conflict. Additional secondary sources are often used. A bibliography is provided for each dyad. These sources are employed to map out the conflict. Reported negotiations are noted but not coded in this step. They are used as a guideline for the Nexis search. Information available in other important datasets are also taken into account (Kreutz, 2010; DeRouen Jr, Bercovitch and Pospieszna, 2011; Pearson, Suzuki and Zagorowski, 2011; Högbladh, 2012; Thomas, 2014).

Second, the PNCC turns to the UN Peacemaker database, which includes many digital versions of primary sources such as press releases and peace process documents. There is a total of 633 documents available in the Peacemaker database. Each document is checked for the signatories and tried to be matched with a dyad accordingly. If a document is successfully matched, it is considered as "smoking gun" evidence. There are several memorandums and joint press releases that put many dyads into Stage N without a doubt. These are directly coded into the PNCC. In addition, the UN Peacemaker-UCDP match is provided as a separate file.

In the third step, a series of Nexis searches is conducted. Search commands can vary depending on the dyad but the general guideline is as follows:

CountryName w/15 ("NAG Name" OR "Alt. NAG Name") w/15 (negot! OR "peace process" OR talk! OR dialogue OR barg! OR meet! OR met OR mediat!)

Search terms are modified based on the information gathered from the first and second steps. Names of important individuals who are known to be part of the peace process can be incorporated into the search. The search commands as well as the Nexis articles used are cited in the bibliography for each dyad. This makes the data collection process replicable.

The Nexis search is carried out first for each dyad-year. Because the objective is to separate formal peace negotiations from backchannel talks, special attention is paid to the style of reporting and sources of the news article. If the source of a meeting is "unnamed official in the ministry of interior", it is not considered as a formal negotiation. Another important criterion to distinguish the two type of talks is that new reports on formal negotiations appear before and immediately after the event, whereas secret talks usually surface years after the fact.

Negotiations must be directly or tacitly acknowledged by both parties. If a party rejects the reports of peace talks or make declarations that no negotiations are taking place, the dyad is automatically considered not to be in Stage N at that particular time. A negotiation must be between representatives of the central/federal government and non-state armed group. Negotiations involving local governments are not coded if the central government is not represented. Again, negotiations involving individuals from the legislative branch are not considered as peace talks if these individuals are not appointed by the central government for the purpose of conducting negotiations. Negotiations for hostage taking situations are not considered as peace talks.

For the years that formal negotiations are identified, the search is then expanded to the dyad-month to pinpoint the start and end of negotiation spells. The secondary literature is also used as a guide to determine the cut points. Instances of negotiations coded in the monthly version are used to construct negotiation spells.

For coding negotiations, the PNCC gives more weight to the Nexis sources and to some particular events. Events such as meetings between the leader of a rebel group and the head of government, overlapping declarations by the parties and scheduled talks that are reported before and after the event are considered to be strong evidence for negotiations. However, the Nexis coverage can be quite limited for some cases, especially for the earlier years. When the Nexis coverage is not sufficient, the PNCC relies more on the secondary literature and on other sources.

2.4 An Application: Violence and Peace Process Success

Chapter 3 utilises the PNCC for a rigorous empirical analysis of the opening of peace negotiations. However, the PNCC can also be employed to model the duration and outcome of peace negotiations by adopting the conceptual framework outlined above. This section provides an exploratory example for such a task. The empirical analysis presented here is intended to demonstrate a modelling strategy rather than being a rigorous investigation.

Table 2.2 provides a snapshot of a sample derived from the monthly version of the PNCC. Negotiation spells are constructed using the information on instances of negotiations. A negotiation spell can terminate in two ways; peace agreement and negotiation failure. Figure 2.5 illustrates the cumulative incidence rate for different types of terminations. As shown in Figure 2.5, most of the negotiations fail within a short period of time. After the end of 12 months, roughly 20% of negotiations are still ongoing whereas around 70% of negotiations fail. Only 16.4% of negotiation spells end with a peace agreement in the long run. The mean negotiation spell is 9.8 months.

Side A	Side B	Spell No	Start Date	End Date	Spell Duration	Outcome
Spain	ETA	1	08/1987	04/1988	9	Failure
Spain	ETA	2	01/1989	04/1989	4	Failure
Spain	ETA	3	10/1998	08/1999	11	Failure
Spain	ETA	4	06/2006	12/2006	7	Failure
Turkey	PKK	1	12/2012	07/2015	32	Failure
United Kingdom	IRA	1	09/1997	05/1998	9	Agreement
El Salvador	FMLN	1	08/1983	09/1983	2	Failure
El Salvador	FMLN	2	10/1984	11/1984	2	Failure
El Salvador	FMLN	3	08/1986	09/1986	2	Failure
El Salvador	FMLN	4	10/1987	10/1987	1	Failure
El Salvador	FMLN	5	02/1989	01/1992	36	Agreement
Colombia	FARC	1	01/1983	05/1986	41	Failure
Colombia	FARC	2	06/1991	06/1992	13	Failure
Colombia	FARC	3	06/1998	02/2002	45	Failure
Colombia	FARC	4	08/2012	12/2015	41	Ongoing
Colombia	M-19	1	01/1983	07/1985	31	Failure
Colombia	M-19	2	01/1989	03/1990	15	Agreement

Table 2.2: A Snapshot a Sample Derived from the PNCC Data

How do violent events affect peace processes? Claiming a negative impact of violence on a peace process might sound almost like a truism, considering that the words violence and peace refer to two completely opposing phenomena. As the very success of a peace process is often defined in terms of its ability to get violence under control, it is commonly assumed that violence is detrimental to peacemaking efforts. However, a closer look to conflict resolution processes in civil wars reveals a complex relationship between violence and the likelihood of a negotiated settlement. A striking puzzle is that some peace processes collapse as a result of eruption of violence but in others belligerents do not abandon the search for a negotiated settlement despite the frequency of violent events. One view formulates that violence might act as a driving force behind compromise because it increases the cost of conflict (Darby, 2001; Hultman, 2007; Thomas, 2014). Therefore, the impact of violence on peace negotiations is not clear.

Following the seminal work of Stedman (1997), one strand of the literature has adopted the view that violent actions during a peace process may derail the process (Darby, 2001; Kydd and



Figure 2.5: Proportion of Negotiation Spell Outcome by Months Since Start

Walter, 2006; Höglund, 2008; Findley and Young, 2015). This strand of research is unequivocal in its claim that violence has a negative impact on peace processes. At least three interconnected mechanisms are identified. First and foremost, violent attacks may cause mistrust among negotiating parties by projecting a view that the opposing side is either unwilling to pursue non-violent paths or incapable of controlling violent actions of its extreme factions. Second, violent actions incite hatred among parties and shift the intra-party balance by strengthening the position of those who prefer hawkish strategies (Darby, 2001; Darby and Mac Ginty, 2000; Höglund, 2008). When violence erupts, intra-party balance often shifts towards hawks, who find it easier to capitalise on the impulse for reprisal (Darby, 2001). Terrorism also generates a rally-around-the-flag effect, thus making it harder for governments to offer concessions (Fortna, 2015). Finally, violence can erode the rationale behind peace processes by depreciating the value for concessions (Darby, 2001; Darby and Mac Ginty, 2000). Peace processes generate both costs and benefits for each negotiating party. As every peace process incurs some costs on behalf of the negotiating parties, a peace process can only stay alive if it generates benefits that outweigh its costs. In other words, concessions to the enemy must be balanced by gains from the enemy. Reduction of violence is often the highest benefit that a peace process generates. By inflicting violence, spoilers reduce the gains from negotiations, which tamper the cost-benefit balance and diminish the payoff from the peace process. As a result, peace processes become more susceptible to
failure. Regarding empirical works, Findley and Young (2015) find that terrorist attacks in civil wars increase both conflict duration and the likelihood of conflict recurrence. Fortna (2015) also finds that terrorism increases civil war duration.

Although it is the dominant approach in the literature, not all scholars formulate a direct relationship between violence and peace process failure. Thomas (2014) proposes that governments have stronger incentives to offer concessions to violent NAGs that are carrying out terrorist attacks more frequently. A logical line of thought following Thomas' argument suggests that terrorism might increase the likelihood of a negotiated settlement by enhancing governments' willingness to find a compromise. Darby (2001) also hints at this positive impact of violence on the likelihood of a negotiated settlement. According to Darby (2001), it is possible that violence may emerge as a catalyst for peace by bringing moderates from opposing sides together for a shared cause of finding a resolution.

Nilsson (2008) theorises that peace processes that have excluded at least one or more rebel groups are not less likely to collapse than all-inclusive processes. Nilsson's (2008) proposition rejects the argument that violence conducted by those who are not in the peace process would still have a negative impact on the process by increasing the chances of conflict resumption between signatories. According to Nilsson (2008, p. 479), violence does not necessarily have such a negative effect at the dyadic level because both the government and the rebel group should have already factored in the "risk of violent challenges from outside actors ... into the decision making calculus" when they sign an accord. In addition, Reiter (2015) claims that spoilers are not as effective as they are often assumed to be to derail peace processes.

What is missing from this discussion is a direct investigation of the relationship between violent events and negotiation success. Findley and Young (2015) and Fortna (2015) investigate the civil war duration and outcome without taking conflict management attempts into account. Fortna (2015) acknowledges that use of terrorism provides organisational advantages, and such advantages may drive the empirical results by rendering NAGs that are carrying out terrorist attacks harder-to-defeat.⁸ Thomas (2014) models the impact of terrorism on the government concessions during negotiations but she considers each instance of negotiation as a separate event rather than a part of a single process. Therefore, she does not estimate the probability of a peaceful resolution. Finally, both Nilsson (2008) and Reiter (2015) investigate the post-accord period. Their scope does not include spoiling during negotiations.

The PNCC contributes to this discussion by allowing an estimation of the association between

⁸ Beyond the negative impact of violent events on negotiation success, Fortna (2015) also argues that terrorist groups are less likely to sign a negotiated settlement and more likely to survive.

	Failed Negotiations	Peace Agreements
Deaths due to terrorist attacks	$0.01 < ** \\ (0.01 <)$	-0.65^{***} (0.24)
Ethnic conflict	-0.37 (0.29)	$\begin{array}{c} 0.25 \ (0.99) \end{array}$
Third party mediation	-0.03 (0.26)	$0.17 \\ (1.01)$
Real GDP (ln)	-0.10 (0.16)	-1.90^{**} (0.75)
Population (ln)	0.46^{***} (0.18)	$\begin{array}{c} 0.60 \\ (0.78) \end{array}$
Democracy score (V-Dem polyarchy)	-0.01 < (0.01)	0.01 < (0.05)
Conflict duration when peace process started	$-0.01 <^{**}$ (0.01<)	$\begin{array}{c} 0.01 \\ (0.01) \end{array}$
Relative rebel strength	-0.14 (0.16)	-0.26 (0.37)
Observations Number of peace processes Number of outcomes	631 89 65	631 89 8

 Table 2.3: Proportional Hazard Competing Risks Analysis of Negotiations

Coefficients with robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

violence and negotiations. Table 2.3 presents results for a proportional hazard competing risks regression model on negotiation duration. A negotiation spell can terminate in two ways: peace agreement or negotiation failure. The main exploratory variable, the number of deaths due to terrorist attacks, is taken from LaFree and Dugan (2007). This measure is considered to be a proxy for spoiler violence. Other control variables are discussed in detail in Chapter 3.

The number of people killed due to terrorist attacks in a month is associated with an increased hazard rate for failed negotiation spells. However, for the negotiation spells ending with a peace agreement, the number of deaths is associated with a decreased hazard rate. To put simply, failed negotiation spells with high violence take shorter time to collapse than spells with low violence. On the other hand, time to a peace agreement is longer when the violence is high whereas the spells with low levels of violence are quicker to reach to an agreement. These results provide some preliminary evidence for the spoiler argument. Violence might quicken negotiation failure. More interestingly, factoring the spoiler violence into the negotiation calculus might take time, thus prolonging the negotiation period.

Again, the empirical analysis intends to demonstrate a modelling strategy using the information on negotiation duration and outcome. The results presented in Table 2.3 are far from conclusive and should not be understood as a causal relationship. Terrorist attacks are highly endogenous to negotiations but the endogeneity problem is not addressed at all. In addition, negotiations can itself influence violence patterns, as illustrated by the experiences of Turkey (Figure 2.2) and South Africa (Figure 2.1). Finally, there are also some sample selection problems as the missing values in co-variates caused many peace agreements to drop from the sample. Nevertheless, this modelling strategy has a potential to unravel many important factors that effect peace processes. Even this naive model provides insights on how violence may prolong time to a peace agreement by rendering negotiation calculus more difficult.

2.5 Conclusion

Bargaining models of war are the predominant approach towards conceptualizing civil conflict. These models assume that tacit bargaining between belligerents are always ongoing. Formal negotiations, on the other hand, are events in which explicit bargaining through verbal communication take place. Tacit bargaining in civil conflicts cannot be easily transformed to verbal communication. Even proposing peace talks is often associated with large costs. This erects important obstacles against negotiated settlement, which necessarily requires verbal communication between parties. Attempts to reach a joint decision also mark a milestone in relations as the belligerents recognize each other as a bargaining partner. Negotiations are, therefore, significant events.

Despite this, negotiations have not received adequate attention. Probably because of limitations on data availability, mediation often substitutes for larger negotiation in empirical analysis. The PNCC aims to address shortcomings in the literature by highlighting formal negotiations as a distinct stage in a conflict resolution process and by providing data that would enable researchers to give negotiations the importance it deserves. The conceptual framework developed by the PNCC allows research on peace process onset, duration and outcome. Such a conceptualization is in line with a growing literature that emphasizes conflict as a dynamic process with interdependent stages (Diehl, 2006; Findley, 2013; Jones and Metzger, 2016) and encourages researchers to use all the available information in different stages (Chiba, Metternich and Ward, 2015). History of conflict resolution is important because succeeding attempts are never independent from the preceding ones (Diehl and Regan, 2015). Incorporating history of negotiations can improve our forecasts on conflict termination, agreement implementation and conflict recurrence.

Chapter 3

Democratisation as an Impetus for Peace Negotiations in Civil Conflicts

N EGOTIATIONS with non-state armed groups is a contentious issue, demonstrated most visibly by the Colombian Presidential elections in 2014, where peace talks with FARC turned out to be the main feature distinguishing the candidates. Considering that recognising a non-state adversary as a legitimate bargaining partner can itself be costly for governments, what prompts states to pursue negotiations? What factors influence a state's willingness to search for a negotiated settlement?

Explanations in the literature have overwhelmingly focused on battlefield conditions, relative rebel strength and information asymmetries (Zartman, 1993; Bapat, 2005; Clayton, 2013; Thomas, 2014; Ruhe, 2015). This chapter deviates from this path by proposing that changing state preferences might decrease the state's attributed value for a full military victory. As a result, the real cost of war may increase and peace talks may become more likely. Civil conflicts often span a long period of time within which state preferences might change. The state is not a unitary actor with its own static preferences. Rather, it acts as a *transmission belt* representing the preferences of influential societal actors (Moravcsik, 1997). Preferences represented by the state change according to changes in the distribution of power and influence in societal forces in the polity. Therefore, costs attributed to concessions to rebel groups do not necessarily stay constant over time. If a polity witnesses a major shift in whose preferences represented through the state, then peace talks with non-state armed groups might become more likely as the costs attributed to concessions decrease.

In this chapter, it is argued that democratisation¹ increases a state's willingness to search

 $^{1^{-1}}$ Democracy is conceptualized as an ideal point; political institutions of a state can approach closer or

for a negotiated settlement through such a mechanism. As an institutional change, democratic reforms manifest a significant shift in the distribution of power and influence among societal actors in the polity. As Moravcsik (1997) underlines, institutions of a state are shaped by the influential coalition of actors. Thus, institutions reflect their view on the boundaries of acceptable set of policies. Democratisation marks a major change in state preferences because of the proliferation of societal actors whose preferences are relevant for the state.² As democratic institutions put interests to competition (Przeworski, 1991), state preferences shift towards the median citizen. We can expect the median citizen to attribute less value to fully defeating a non-state armed actor, compared to the regime elite who had built the "authoritarian power apparatus" (Przeworski, 1988) of the state, which had ensured that state policies reflected their preferences. The erosion of the authoritarian power apparatus through the democratic reforms alters state preferences towards the median citizen and paves the way for peace talks.

The theoretical trajectory for peace talks is illustrated in Figure 3.1 through the Aceh conflict between Indonesia and the Free Aceh Movement (GAM). The GAM launched an insurgency for the independence of the Aceh region in mid-1970s and conflict casualties passed the UCDP/PRIO Armed Conflict Dataset (ACD) threshold in 1990. From the 1970s until 1998, Indonesia had been governed through authoritarian institutions until the resignation of Suharto following large scale protests in the midst of the Asian financial crisis (1997-98). Suharto's resignation paved the way for the *democratic transition* of Indonesia. This democratic transition is reflected in the respective democracy scores in the major democracy datasets. Indonesia has undertaken another set of reforms in 2004, leading to democratic consolidation. Figure 3.1 paints the background blue for the years when both PolityIV (Marshall Monty, Jaggers and Gurr, 2002) and V-Dem (Coppedge et al., 2016) datasets report an increase in the democracy score relative to the previous year. Figure 3.1 also reports formal peace negotiations between the GAM and the Indonesian government. The very first formal peace negotiations took place in 2000 and the parties held peace talks in the years 2001, 2002 and 2005. The latter negotiation process eventually led to a peace accord between Indonesia and the GAM, which terminated the conflict. A democratic reform period is always followed by peace negotiations in the Indonesian

further away from the ideal democracy (Dahl, 1973). As such, democracy is not a binary question (cf. Przeworski, 1988) but rather presents a continuum. Any move towards this ideal point is understood as democratisation (Tilly, 2007). Therefore, similar to Fortna and Huang (2012), democratisation here refers to three types of institutional reform; autocratic liberalization, democratic transition and democratic consolidation. Theoretical argument presented in this chapter should hold for all three types of institutional reform.

 $^{^2}$ This feature of democratisation can be understood as the enlargement of the selectorate in terms of Bueno de Mesquita et al. (2003).



Figure 3.1: The Conflict between Indonesia and GAM over Aceh

experience, as shown in Figure 3.1.

The Philippines illustrates another well-fitting case to the theoretical argument. After the People Power Revolution that brought down the Marcus regime, the incoming Aquino government sought negotiated settlements for two separate conflicts; one over Mindanao territory (with the MNLF) and another over governmental control (with the Communist Party of the Philippines - CPP). An important point to highlight is that issues at stake and rebel capabilities varied, but both groups were offered peace talks. The Philippines case demonstrates a substantial increase in willingness to negotiate following democratic reforms without any considerable changes in the battlefield conditions or other conflict characteristics.

Although there are several examples for democratisation preceding negotiations, democratic reforms do not always prompt peace talks with the rebels. In Spain, neither democratic transition nor democratic consolidation had led to peace talks with ETA but negotiations emerged in a completely different time. Similarly, several democratic reform periods in Turkey did not prompt peace talks with PKK. To systematically investigate the probabilistic relationship between democratisation and negotiations in civil conflicts, I carry out an empirical analysis by introducing a novel dataset. The results indicate that democratisation in a year is strongly associated with an increased likelihood of peace talks in the following year. According to the selected model, the effect of a discrete change from *institutional status quo* to *democratic reform* on the likelihood of negotiations is calculated as 0.14. To better illustrate this effect, out-of-sample estimates of the probability of peace talks between the Indonesian government and GAM is calculated to be 0.09 in 2000. This predicted probability drops to 0.04 had there been no democratic reform in 1999. In other words, the predicted probability of negotiations in 2000 is more than doubled due to the democratic reforms in 1999. Similarly, according to out-of-sample estimates, the democratic transition in the Philippines is responsible for a 0.20 increase in the probability of peace talks with the MNLF in 1987.³ Overall, the statistical findings are robust to alternative democracy scores available within and across sources, and to several different model specifications. The inclusion of the democratisation variable in the models also increases the in-sample and fourfold out-of-sample predictions.

The contributions of the chapter are threefold. First, a novel mechanism for explaining peace talks is proposed. This mechanism is not directly related to existing explanations in the literature, such as the relative rebel strength or presence of a mutually hurting stalemate. Most importantly, the proposed causal path to peace talks do not lack precision in its definition as it can be easily hypothesised and tested. As such, the chapter contributes to our ability to predict negotiations in civil conflicts. This is particularly an important contribution with policy implications. Recognising the enemy as a legitimate bargaining partner is an important obstacle against peaceful resolution of civil conflicts. Mediation efforts of the international community often concentrate on overcoming this hurdle by bringing belligerents to the bargaining table. As democratic reform periods are likely to coincide with an increased willingness to find peaceful resolution to conflict, the international community may seize this opportunity and increase efforts to start a peace process. Therefore, the findings of this chapter are relevant for thirdparty mediators.

Second, it is highlighted that democratisation can happen *during* an ongoing internal armed conflict. The literature investigating the link between democratisation and civil wars has been largely confined to either conflict onset (Hegre, 2001; Gleditsch and Ruggeri, 2010; Cederman, Hug and Krebs, 2010) or post-conflict democratisation (Gurses and Mason, 2008; Fortna and Huang, 2012; Hartzell and Hoddie, 2015). However, many countries undertake democratic re-

³ The estimated effect differs from case to case because of baseline probabilities. The baseline probability of negotiations between Indonesia and GAM was very low for 2000 due to the negotiation history, i.e. no prior negotiations between the two parties. However, the baseline probability of negotiations between the MNLF was already high due to the precedent negotiations. Nevertheless, the People Power Revolution is estimated to have a substantial effect on the probability of peace talks.

forms during an ongoing civil conflict. For example, around 7% of the internal armed conflicts active in the ACD witness an increase in the country's Polity2 democracy score, excluding the first and last years of conflict.⁴ As demonstrated in this chapter, institutional change during a conflict might influence conflict dynamics.

Finally, the chapter tests the theoretical arguments on civil conflict resolution by introducing a novel dataset on formal negotiations. This dataset addresses important shortcomings in the literature. It is common that theoretical arguments on conflict resolution is tested on mediation data, which is not always a suitable substitute because many negotiations either do not involve mediators at all or only do so after a stage in negotiations has been reached. Similarly, many sources only collect data when a conflict is active and force cases out if they fall below a casualtythreshold (e.g. DeRouen Jr, Bercovitch and Pospieszna, 2011; Thomas, 2014). This causes a grave sample selection problem because negotiations with a cease-fire arrangement are forced out of the sample. I address this problem by collecting data on negotiations during inactive conflict years.

The next section provides a brief summary of the literature on peace negotiations in internal armed conflicts. Then, the theoretical argument is unpacked in detail. The empirical analysis follows. The chapter concludes with a discussion on how the main findings of this analysis can be employed to progress research on civil conflict resolution.

3.1 Explaining Peace Talks: A Review of the Literature

The bargaining model of international war (Fearon, 1995; Pillar, 1983) has been widely translated into civil war studies (see Lake, 2003; Walter, 2009). According to this model, a rebel group puts forward a set of demands, and relies on armed struggle to reach those goals. In return, a state can either suppress or accommodate the rebels. As both parties carry out a cost-benefit analysis, the balance of power between the state and the non-state actor has the greatest influence on the decision of whether to fight or not. The crucial point is that neither the state nor the rebels possess perfect information on their actual or future strengths relative to their adversary. Lack of information on the relative strength makes armed conflict a means of gaining knowledge on military capabilities. This theoretical framework provides an explanation for why a prolonged fighting period is often a necessary condition for opening of peace talks.

Operating under this general theoretical framework, several studies highlight the relative strength of a non-state actor to explain peace talks and degree of concessions (see Hultquist,

⁴ This percentage is around 7% for Lexical (Skaaning, Gerring and Bartusevičius, 2015) and 12% for Freedom House (House, 2014). Colonial wars are not included.

2013). The argument is that states are more likely to engage in peace negotiations and offer more extensive concessions when faced with strong opponents. Zartman's ripeness theory also points out to the relative strength (Zartman, 1993; 2003). According to Zartman, *ripeness* is a necessary condition for negotiations, and a *mutually hurting stalemate* (MHS) is the most common indicator for ripeness. A MHS emerges when none of the warring parties expect further gains through military means. In other words, a MHS inherently refers to a perceived balance of power between the belligerents. Although Zartman emphasizes that the MHS is a perceptional concept, he also acknowledges that a military balance is the best indicator to see whether there is a MHS or not (Zartman, 2003). Empirical studies generally support the relative strength argument. Thomas (2014) and Ogutcu-Fu (2016) find support that relative rebel strength is positively associated with the likelihood of negotiations. Clayton (2013) finds that governments are less likely to accept mediation when faced with weak challengers. However, Pearson, Suzuki and Zagorowski (2011) do not find a relationship between relative strength and negotiations for the Asia-Pacific region.

Bargaining theory expects conflict duration to have influence on actor behaviour because fighting reveals information on relative capabilities and actor resoluteness. Theoretically, duration of the conflict may have a relationship with relative strength as wars tend to be longer when there is power parity between belligerents. By taking insurgent group survival as an indicator for strength, Bapat (2005) argues that states are unlikely to engage in peace talks with the insurgents in the early phases of a conflict because they calculate that the insurgents can be militarily defeated. However, in the later stages, states recognize the resilience of the insurgents and become more likely to offer peace talks. An early finding shows that prolonged civil wars are more likely to be terminated with a negotiated settlement (Mason and Fett, 1996). Pearson, Suzuki and Zagorowski (2011) and Ogutcu-Fu (2016) both argue that duration of the conflict should increase the likelihood of negotiations. Empirical findings of Thomas (2014) also supports this view as conflict duration is positively associated with higher willingness to open peace talks and to give concessions. However, Ogutcu-Fu (2016) put forward that war-weariness does not increase the probability of a negotiated settlement, even though it makes negotiations more likely. Ogutcu-Fu's (2016) analysis suggests that negotiations emerged as a result of war-weariness are less likely to succeed.

Conflict intensity is another puzzling factor in peace processes. Do higher levels of violence increase the likelihood of negotiations? Vaughan (2006) looks at the total number of deaths in a conflict and finds no statistically significant relationship with level of concessions. Looking at terrorist acts in African civil wars, Thomas (2014) finds evidence that level of violence has a positive relationship with concessions; groups that carry out violent terrorist attacks more often are more likely to be invited for peace talks and are more likely to be offered higher number of concessions. Ruhe (2015) argues that conflict intensity and location are important predictors of mediation in civil wars. The MHS can also be operationalised by jointly looking at conflict duration and intensity (Pearson, Suzuki and Zagorowski, 2011). In general, a prolonged conflict with sustained high costs might lead parties to perceive a MHS.

A common criticism against the MHS argument is that it gives too many false positives, as prolonged and intensive fighting is substantially more common than negotiations and negotiated settlements. As a perceptional concept, the MHS argument is susceptible to become tautological because accurate measurement is not easily possible. Historical analysis of cases may mislead scholars to identify a MHS *because* negotiations followed.

Several studies highlight that any sort of compromise requires at least some issue divisibility, and expect that group demands may influence peace processes. Bapat (2005) formulates that negotiations are less likely to occur in ethnic conflicts but does not find a significant relation. On the other hand, Thomas (2014) finds that negotiations are more likely to occur in ethnic conflicts in the African context.

Negotiations and concessions have also been conceived as an instrument to influence internal characteristics of a rebel group. Lounsbery and Cook (2011) emphasise that non-state actors are not homogenous entities and mediation may cause changes in group characteristics. Cunningham (2011) claims that states give more concessions to internally divided separatist insurgents than coherent ones in order to reinforce moderate factions. On the other hand, Walter (2006) proposes that states prefer to build a reputation for resoluteness by refrain from giving concessions to internal challengers. Giving concessions to a rebel group might encourage actual and potential challengers to resort to violent means. Therefore, states are less likely to engage in peace talks and offer concession when faced with multiple challengers.

Heger and Jung (2017) propose that governments are more likely to invite service providing rebel groups to the negotiating table. The argument is that rebels that are capable of providing services are likely to enjoy a broad support base. They are also likely to have a well-established organizational structure, which may signal internal coherence. Heger and Jung (2017) theorise that governments are more likely to negotiate with internally coherent rebel groups because the danger of rebel fragmentation and spoiler violence is low when the non-state actor coherence is high. Therefore, the expected utility from negotiating with coherent rebel groups is higher than negotiating with rebels that lack coherence. Ogutcu-Fu (2016) also highlights the importance of internal cohesion of actors. However, unlike Heger and Jung (2017), Ogutcu-Fu (2016) propose that internal cohesion is not necessary for negotiations to take place but absolutely crucial for reaching to an agreement through negotiations.

3.2 Dynamic State Preferences and Peace Talks

The literature on peace talks in civil wars overwhelmingly focuses on battlefield-related factors and actor capacity. Deviating from this line of research, my main argument is that the domestic political setting of a polity is a strong determinant of a state's willingness to accommodate rebel demands. Changes in the domestic political setting can solely cause an increase in willingness to negotiate without any shifts in the battlefield conditions.

To use the bargaining theory lexicon, changes in preferences would influence a state's utility for costs of a war (see Fearon, 1995). According to (Fearon, 1995, p. 387), bargaining range is influenced by "not only the states' values for the costs of war but also the value they place on winning or losing on the issues at stake". Without any changes in the probability of winning a war, hence no changes in the battlefield conditions, the bargaining range may still expand if a state starts to (1) attribute less value to a full victory, or (2) prefer reallocating resources for war to elsewhere. Such changes decrease the state's value for war, consequently enlarging the bargaining range. The width of the bargaining range is especially crucial for negotiations in internal armed conflicts (Cunningham, 2006). The wider the bargaining range, the more likely the peace talks.

This argument can be presented more formally by adapting Fearon (1995, p. 386-387). Consider two actors, G (government-side) and R (rebels), who contest over an issue represented by the interval X = [0,1]. Utilities for the outcome $x \in X$ are $u_G(x)$ and $u_R(1-x)$. To make it more concrete, we can imagine x as state control over a territory, in which x = 1 represents full government control whereas x = 0 represents full rebel control. The probability of G victory is $p \in [0, 1]$, whereas R prevails with the probability of 1 - p. Based on this, we can calculate G's and R's expected utility for war as follows:

$$E(u_G(war)) = p \, u_G(x=1) + (1-p) \, u_G(x=0) - c_G \tag{3.1}$$

$$E(u_R(war)) = (1-p) u_R(x=0) + p u_R(x=1) - c_R$$
(3.2)

where c_G and c_R represent G and R 's costs of war, respectively. Fearon (1995) shows that

"there exists a subset of X such that for each outcome x in this set", $u_G(x) > p - c_G$ and $u_R(1-x) > 1 - p - c_R$. Following Fearon (1995), the bargaining range is represented by the interval $(p U_G(x = 1) + (1 - p) U_G(x = 0) - c_G, (1 - p) U_R(x = 0) + p U_R(x = 1) - c_R)$. As such, a government's willingness to negotiate does not only depend on p, which represents the probability of a victory, but also $u_G(x = 1)$, which represents utility attributed for a full victory, and c_G , the relative costs of war. Any changes from G to G^{*} that bring $u_{G^*}(x = 1) < u_G(x = 1)$ or $c_{G^*} > c_G$ also enlarge the bargaining range and make the peace talks more likely.

How does a state transforms and G become G^* ? Moravcsik (1997, p. 518) proposes a complex and dynamic theoretical conceptualization of such transformations in state preferences:

"the state is not an actor but a representative institution constantly subject to capture and recapture, construction and reconstruction by coalitions of social actors. Representative institutions and practices constitute the critical 'transmission belt' by which the preferences and social power of individuals and groups are translated into state policy. ... Government policy is therefore constrained by the underlying identities, interests, and power of individuals and groups (inside and outside the state apparatus) who constantly pressure the central decision makers to pursue policies consistent with their preferences".

Based on this theoretical conceptualization, I assume that state preferences are neither exogenously given nor shaped by a solid, single entity. Preferences are formed by a ruling coalition of influential societal actors.⁵ The level of cohesiveness and rivalry within the coalition varies in time. In other words, ruling coalitions are not formed by like-minded allies but rather are the result of distribution of power and influence among societal actors. Some societal actors might join the coalition by increasing their influence or leave it by losing their power. This dynamic conceptualization of state preference formation helps us to understand how alterations in the ruling coalition might cause changes in state preferences and government policy.

Changes in state preferences that decrease a state's attributed value for a full military victory should make peace processes more likely. Put simply, when a successor ruling coalition that inherited a conflict has lower expected utility for war than its predecessor, the likelihood of negotiations increases.

A simple hypothetical example helps to illustrate this point. Suppose that a cohesive ruling coalition is strongly in favour of centralising power in the capital. Such a ruling coalition would construct a unitary state or push for a strong federal government. Therefore the government would be against decentralization at the time t. Suppose that an ethnic minority group located in a remote geography demands higher autonomy. However, the ruling coalition strongly opposes such a demand and the ethnic group starts a rebellion. The state's expected utility for war is

⁵ This would translate as the "winning coalition" in terms of Bueno de Mesquita et al. (2003)

high because the value it places on a decisive victory is high. Thus the real cost of war is low. Therefore state's willingness to give concessions to the rebels is very low. Furthermore, the state has strong incentives to build a reputation on resoluteness to fend off similar autonomy demands from other potential challengers (Walter, 2006). This further decreases the state's willingness to open a peace process. The probability of negotiations would be low in this scenario.

Suppose that the ruling coalition changes in time. Some of the societal actors that favoured strong centralization lost their prominence and left the coalition, and some other actors that are indifferent to decentralization gained influence and entered into the coalition. Such a change from t to t+1 causes a drastic decrease in the state's expected utility for war by increasing the real cost of war. Therefore, the state's willingness to accommodate rebel demands is increased. As a result, the probability of peace talks should also increase.

Although this hypothetical scenario highlights what kind of changes in state preferences might make peace processes more likely, it tells little about how we can identify them. In the hypothetical example, we assumed that newcomers to the ruling coalition were indifferent towards decentralization and prominent enough to reshape state preferences. In the real world we do not have such information. Relying on *ex post* outcomes to measure salience of conflict issues to the newcomers would lead to an unfalsifiable theoretical argument: negotiations happened because state preferences had changed; negotiations did not happen because state preferences had remained the same. Then, the important task is to identify changes in state preferences that make peace processes more likely without knowing the salience of conflict issues to the new members of a ruling coalition. I highlight democratisation as a manifestation of such a drastic change in the polity.

3.3 Democratisation and Civil Wars

The relationship between democracy and internal armed conflicts has attracted extensive scholarly attention (see Hegre, 2014). One strand of literature investigates the impact of institutions on conflict *onset* (Hegre, 2001; Gleditsch and Ruggeri, 2010; Cederman, Hug and Krebs, 2010). Democratic institutions are more effective to handle discontent before it reaches violent levels, especially because they are successful to solve bargaining and commitment problems (Hegre, 2001). Although democratic institutions decrease the risk of civil war outbreak, the road to democracy might be conflict prone (Hegre, 2001). The process within which democratic institutions are built may trigger political violence. The general agreement is that democratisation increases the likelihood of civil conflict onset in the short-term but after a few years, the adverse effect disappears (Cederman, Hug and Krebs, 2010).

The intertwined relationship between democratisation and civil conflict also led scholars to study post-conflict institution building. This line of research asks whether democratisation is attainable after a civil conflict and what are the effects of democratisation on the durability of post-conflict peace. On the one hand, one view formulates that democracy can emerge as a solution to civil war (Wantchekon, 2004; Wallensteen, 2011; Hartzell and Hoddie, 2015). On the other hand, another view argues that there is an inherent trade-off between democracy-building and peace-building efforts (Jarstad, 2008).

Deviating from these discussions, I highlight that democratic reforms can be undertaken *during* an ongoing armed conflict. This is a rare but nevertheless possible phenomenon. Indeed, 29 countries witnessed democratisation excluding the first and last years of civil war.⁶



Figure 3.2: The Conflict between Guatemala and URNG (including predecessor groups)

Guatemala presents an important example to illustrate this point (see Figure 3.2). Democratisation can emerge as a solution to an armed conflict through peacebuilding efforts, as happened

⁶ Democratisation is measured as any increase in both *Polity2* and *Polyarchy* scores of a country compared to respective scores in the previous year. First and last year of conflicts are dropped to account for cases where democratisation might have initiated the conflict, or conflict resolution might have caused the increase in the democracy score.

in Guatemala in 1996. The peace process between Guatemala and URNG ended with a comprehensive peace agreement, and as a result of this peace process, Guatemala undertook reforms that led to an increase in the democracy score. This joint mechanism of institutional reform and peacebuilding is often understood within the framework of *democracy as a solution* (Wallensteen, 2011). However, as shown in the Figure 3.2, Guatemala had also witnessed a set of institutional reforms in the mid-1980s, pre-dating any peace talks with the URNG. Furthermore, this institutional reforms are immediately followed by the very first negotiations between belligerents.

The example of Guatemala shows that democratisation does not necessarily emerge through international peacebuilding measures or elite pacts between warlords. It can emerge independent from an armed conflict resolution process, as happened in many important democratizing countries such as Colombia, Philippines, Bangladesh, Indonesia, Spain and Sierra Leone. Emergence of democratisation independent from armed conflict *resolution* process does not mean that institutional change is exogenous to the civil war. The democratic transition in Sierra Leone definitely was not independent from the armed conflict. However, the transition did not emerge through a bargain between the state and the main rebel group, the Revolutionary United Front (RUF). Quite the contrary, the RUF tried to stop democratic elections taking place. Nevertheless, Sierra Leone managed to elect an executive into office, which dramatically changed the conflict resolution process.

It is important to distinguish democratisation emerging independent from a conflict resolution process in an ongoing conflict from democratisation taking place as a result of a bargain between a government party and a non-state armed group. A non-state actor who had taken the "exit" option by launching an armed rebellion is hardly the only entity that challenges a political regime. Other actors who have adopted the "voice" strategy almost always exist.⁷ Moreover, the ruling elite often contains both the hardliners who would prefer to keep the "authoritarian power apparatus" fully intact and the reformers who would alter or partially dismantle the predominant policies (Przeworski, 1988; 1991). The rivalry and non-violent conflict between these actors might lead to emergence of democratic institutions. The armed conflict itself might strengthen the hands of regime reformers, or alternatively, democratic reforms can take off because of reasons exogenous to an ongoing armed conflict. Whatever the reason, the focus here is on democratisation pre-dating the peace process and then paving the way for the peace talks. This is a different trajectory than democratisation emerging as a solution during peace talks.

⁷ For exit and voice see Hirschman (1970).

I argue that democratic reforms increase the likelihood of having peace negotiations in civil wars by increasing the cost of fighting for the government. Democratisation essentially leads to a proliferation of societal actors whose interests are relevant for the state. To use the terminology adopted by Bueno de Mesquita et al. (2003), democratisation is coupled with the enlargement of the "selectorate", which refers to a subset of citizens who are influential on deciding who will rule. A government can only rule through the support of its "winning coalition", which is formed from the larger selectorate. In full democracies, the selectorate includes all adult citizens. Therefore the winning coalition is at least the plurality in democracies. In contrast, the winning coalition is a handful of elites in autocracies. A move from autocracy to more democracy changes the preferences of the government by enlarging the selectorate, in terms of Bueno de Mesquita et al. (2003), or by increasing the number of societal actors that the state need to take into account, to use Moravcsik (1997). The expansion of democracy in a polity necessarily shifts state preferences towards the median citizen.

Such an enlargement in the selectorate leads to a decreased value for a full military victory against a non-state armed group. Established political economy models suggest that democracies face higher levels of pressure to provide public goods and to carry out income redistribution policies than autocracies (Acemoglu and Robinson, 2005; Bueno de Mesquita et al., 2003). There is also a large pool of evidence that democracies provide more public goods and services compared to their autocratic counterparts (see Ross, 2006). In this sense, domestic political institutions and regime type influence a government's utility function, as the survival of a democratic government depends on its provision of public goods and services. Carter and Palmer (2015) also show that political institutions are influential on government's social and military spending, especially when a government is faced with conflict. In other words, democracies and autocracies behave differently in terms of allocating resources to conflict. Based on the expectation that democratisation would bring incentives for increased public spending, and considering the guns versus butter trade-off, it is reasonable to expect that democratising governments would become more reluctant to direct scarce resources towards fighting the rebels. Instead, we can expect democratisation to incentivize the government to adopt co-optation policies towards the rebels to facilitate increases in social spending. In other words, the real cost of war for is likely to increase when a state becomes more democratic; $c_{G^*} > c_G$.

In addition, democratisation marks the erosion of the authoritarian power apparatus. Influence of the regime hardliners to shape state preferences declines vis-à-vis the reformers and the general public. Compared to the regime hardliners who had built an authoritarian power apparatus and concentrated the state authority on the hands of a few, the median citizen of the polity is more likely to attribute less value to a full military victory. Considering the example of conflict over decentralization and territorial autonomy, a democratic government may attribute less value to full control over a territory, as democratic institutions themselves often indicate decentralization and devolution of power from the centre to the local. In this sense, democratisation is likely to bring a decrease in the utility for victory; $u_{G^*}(x = 1) < u_G(x = 1)$.

To some extent, the theoretical approach presented here echoes the "insurgent path to democracy" approach (Wood, 2001). According to Wood (2001, p. 868), "insurgency in oligarchic societies may emerge and force economic and regime elites to negotiate a transition to democracy". Wood's analysis shows that a sustained peasant insurgency caused a shift in economic elite interests from coffee-production to service sector in El Salvador by transforming the profit-making opportunities in the countryside. Such a change in elite economic interest were driven by the insurgency itself, which marks the main difference between the "insurgent path to democracy" and "democratisation as an impetus for peace talks" arguments. For the former, a democratic push comes from the insurgent group's ability to shift elite interests whereas for the latter, democratic reform may happen due to any reason, which will then subject elite interests to competition, and pave the way for peace talks.

Finally, overarching institutional reforms may symbolise a clear break from the past policies of the state. Societal actors that are willing and influential enough to reform state institutions towards democracy are also very likely to re-consider the prevailing security paradigm of the state. As a result, democratisation may provide a window of opportunity for opening of peace talks.

An important point to highlight is that proposed theoretical approach is developed to better understand and predict peace negotiations in civil conflicts. It does not put forward that democratisation increases the likelihood of a negotiated settlement. Reaching a negotiated settlement requires a complex process, and at least in some cases, the competition that democracy introduces might indeed radicalize rebel groups (Tezcür, 2010). As demonstrated by Ogutcu-Fu (2016), factors that lead to opening of peace talks do not necessarily make a negotiated settlement more likely.

Hypothesis 1 Democratisation increases the likelihood of peace talks in internal armed conflicts

3.4 Research Design

To test the proposed hypothesis, I estimate a series of models of formal peace negotiations in internal armed conflicts between 1975 and 2013. A dyadic approach is adopted because the point of interest is negotiations between governments and rival non-state armed groups. The unit of analysis is the dyad-year. To identify the relevant units, I rely on the dyadic version of the UCDP Armed Conflict Dataset v1-2015 (Gleditsch et al., 2002; Pettersson and Wallensteen, 2015).

The outcome variable, *Negotiation* records instances of formal peace talks for a dyad. I coded formal peace talks for the regions Asia, Europe, the Middle East and the Americas. A formal negotiation is defined as a meeting between a state-party and a non-state armed group that is recognized by both parties and that is held to fully or partially resolve the conflict through verbal communication. Indirect or secret talks are not considered as formal negotiations. The objective is to distinguish tacit bargaining from explicit bargaining (Schelling, 1960:1980), and to concentrate on acknowledged negotiations, which are the puzzling events, from alleged contacts that can be easily denied by parties. The negotiation data include both active and inactive years, in which the dyadic conflict is below the ACD threshold.

The data for Africa is taken from Thomas (2014). Thomas (2014) adopts a very similar approach on defining formal negotiations, and excludes secret/backchannel talks. However, her data cover the period 1989-2010 and only include active conflict years. These missing observations could not be included in the analysis. In some models I limit the data to 1989-2010 period with only active conflicts to have a compatible approach with Thomas (2014). Limiting the data does not influence the substantive results in a meaningful way.

The main explanatory variable, *Democratisation*, is operationalised as an increase in a country's democracy score compared to the previous year. *Democratisation* is a dichotomous variable and takes the value 1 if a country's *Polity2* (Polity IV, see Marshall Monty, Jaggers and Gurr, 2002) and *Polyarchy* (V-Dem, see Coppedge et al., 2016) scores are both increased from the previous year in the respective indices. It is lagged for one year to make sure that estimated effect would not be inflated due to reverse causality, i.e. increase in democracy score due to peace negotiations. Having a dichotomous variable for *Democratisation* is appropriate to model the data-generation process implied by the theory because the theoretical approach refers to a window-of-opportunity for peace talks due to democratic reform without conditioning on the magnitude of the reform. Measuring *Democratisation* through an increase in both *polity2* and *polyarchy* scores is highly appropriate for identifying democratic reform periods consistently but alternative measurements through combinations of Polity IV, V-Dem and Freedom House sources also yield similar results.

All of the estimated models control for both democracy score and the real gross domestic product (GDP) per capita because *Democratisation* can be highly dependent on these two measures. V-Dem's *Polyarchy* index proxy for level of democracy but inclusion of *Polity2* instead returns similar results. *GDP p.c.* (logged) is taken from (Gleditsch, 2002). Previous research has argued that conflict duration and intensity are important predictors of negotiations. These can also influence the likelihood of institutional reform. I include *Dyad duration* to measure the dyadic conflict duration. For conflict intensity, two approaches are adopted. First, a dummy variable is included to distinguish inactive, minor and major conflicts by using the *Intensity level* available in the ACD. Second, *Battle deaths* (logged) is taken from the UCDP Battle-Related Deaths Dataset.⁸ The models that include *Battle deaths* is reduced to a sample that covers the period 1989-2013 due to data availability.

Other control variables are as follows. Active groups measures number of dyadic conflicts above the ACD threshold in a country-year. Number of rebel groups might make negotiations harder to take place by increasing the veto players (Cunningham, 2006) and by incentivizing the government to build a reputation for resoluteness (Walter, 2006). Whether a non-state actor represents an ethnic group in the polity or not is captured by the *Ethnic* variable, which is taken from Vogt et al. (2015). Finally, the relative rebel strength and other rebel-group characteristics are incorporated into models by using the Non-state Actors (NSA) Dataset (Cunningham, Gleditsch and Salehyan, 2009). A dichotomous variable *Weak rebels* is coded as 1 if the rebel group is "weaker" or "much weaker" in the NSA Dataset. Other categories, namely "at parity", "stronger" and "much stronger" are coded as 0. Missing values for the NSA variables are imputed by using the last non-missing value.

3.5 Empirical Analysis

I start with a contingency table that shows the frequency of negotiation by democratisation in the previous year (see Table 3.1). Negotiations took place 25% of the time when there was no democratisation in the previous year. This proportion jumps to 48% for observations experiencing democratisation in the previous year. The contingency table highlights that democratisation during an ongoing conflict is a rare event. There are only 131 cases (6.77%) in the sample. Nev-

 $^{^{8}}$ Battle deaths is coded as 1 and then logged for inactive years.

ertheless, it also shows that proportion of negotiations are considerably higher for observations that experienced democratisation.

	Negotiation		
	No	Yes	
No Democratisation (t-1)	1344 (74.58%)	458 (25.42%)	
Democratisation (t-1)	68~(51.91%)	63~(48.09%)	

Table 3.1: Frequency of Negotiation by Democratisation

Percentages in parentheses sum to 100 across rows.

Next, I estimate a series of logistic regression models (see Table 3.2). Temporal dependency is controlled by constructing a time-since-last negotiation variable and including its cubic polynomials in the model (Beck, Katz and Tucker, 1998; Carter and Signorino, 2010). Following (Thomas, 2014), robust standard errors clustered on conflict are reported but standard errors are not deflated/inflated by using the Huber-White estimator (King and Roberts, 2015).

Model 1 includes only the core control variables. The coefficient for the main explanatory variable, *Democratisation* is positive, meaning an increase in both *Polity2* and *Polyarchy* scores of a country in a year is associated with an increased probability of having peace talks in the following year. The level of democracy is itself not statistically significant and dropping the *Democratisation* variable does not change this finding (results not reported). Indeed, across all of the models, re-running the analysis without *Democratisation* does not change the findings for the democracy measure, whether it is measured using *Polity2* or *Polyarchy*. The results strongly suggest that level of democracy is not itself associated with peace talks. In other words, it is not the level of democracy in a country but democratisation reforms that increase the likelihood of peace talks. As expected by previous research, longer a rebel group survives, more likely peace talks will take place (Zartman, 1993; Bapat, 2005). Higher GDP per capita is associated with lower probability of peace talks. GDP per capita might be catching the impact of state capacity.

Model 2 introduces the full model. Inclusion of additional control variables do not meaningfully influence the coefficient and standard error estimates of *Democratisation*. As expected, governments are less likely to hold peace talks with *Weak rebels*. The estimates for *Active groups* and *Ethnic conflict* are not statistically different from zero. Model 2 also introduces regional dummies to control for possible spatial clustering and coding differences for the Africa region.

Model 3 introduces *Battle deaths* (logged) to better account for conflict intensity. Based on model fit, both *Battle deaths* and trichotomous conflict intensity variables are included. Inclusion of the *Battle deaths* variable reduces the sample to 1989-2013 but the main results remain intact.

	(1)	(2)	(2)	(4)	(٣)	(0)
	(1)	(2)	(3)	(4)	(5)	(6)
	Baseline	Full	Reduced	Conflict	Reduced	Conflict
	1975-2013	1975-2013	1989-2013	1989-2009	1989-2013	1989-2009
V-Dem Polyarchy	0.30	-0.04	-0.45	-0.98	0.41	0.56
	(0.47)	(0.54)	(0.64)	(0.67)	(1.46)	(1.80)
Democratic Reform	0.80**	0.83**	0.99**	0.99**	1.42***	1.04**
Lagged $(t-1)$	(0.25)	(0.28)	(0.36)	(0.37)	(0.39)	(0.39)
In Dyad Duration	0.68^{***}	0.66^{***}	0.53^{***}	0.53^{***}	1.00^{***}	0.83^{***}
	(0.10)	(0.10)	(0.11)	(0.11)	(0.18)	(0.20)
ln Real GDP p.c.	-0.28*	-0.25^{\dagger}	-0.27^{\dagger}	-0.14	-0.95^{\dagger}	-1.04^{\dagger}
	(0.11)	(0.13)	(0.15)	(0.15)	(0.52)	(0.62)
Active Groups		-0.03	0.15	0.09	0.21	0.09
		(0.11)	(0.10)	(0.11)	(0.13)	(0.14)
Weak Rebels		-1.44***	-1.43***	-1.26^{***}		
		(0.26)	(0.32)	(0.30)		
Ethnic		0.11	0.22	0.30		
		(0.19)	(0.21)	(0.21)		
Minor Conflict		-0.13	-1.59**		-1.76**	
		(0.19)	(0.57)		(0.65)	
Major Conflict		0.03	-2.05*		-2.21*	
·		(0.27)	(0.91)		(0.93)	
In Battle Deaths		()	0.27^{*}	0.18^{*}	0.33**	0.19^{\dagger}
			(0.12)	(0.08)	(0.12)	(0.10)
Constant	1.07	3.17^{**}	3.50^{*}	1.17	()	
	(0.79)	(1.14)	(1.36)	(1.55)		
Cubic polynomials	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Regional Dum.	Х	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Dvad Fixed Effects	Х	Х	Х	Х	\checkmark	\checkmark
AĬC	1614	1484	1137	857	600.6	435
Area under ROC	0.84	0.86	0.87	0.81	0.66	0.63
Observations	1,884	1,777	1,310	828	781	538
Number of Dyads	224	208	184	176	87	72
Negotiation (% all obs.)	510 (27%)	496 (28%)	427 (32%)	289 (35%)	315 (43%)	227(45%)
Reform (% with neg.)	123 (51%)	114 (52%)	84 (61%)	60 (62%)	62 (66%)	51(65%)
(Dobust	tandard or	rorg in por	nthogog	()	()

Table 3.2: Logistic Regression on Negotiation

Robust standard errors in parentheses *** p<0.001, ** p<0.01, * p<0.05, † p<0.10

An important change from Model 2 and Model 3 is that dyads experiencing minor and major conflict become less likely to have peace talks compared to inactive dyads whereas higher battle deaths is also associated with higher probability for peace talks. This finding is unlikely to be an artefact of coding practices because the proportion of negotiations is actually higher in active conflict dyads than inactive dyads. This implies a complex relationship between violence and negotiations in which both escalation and de-escalation may pave the way for negotiations. Further research is needed to shed more light on the negotiation-violence nexus.

Model 4 reduces the sample only to active conflict years and to the 1989-2010 period to have a sample compatible with Thomas (2014). This balanced sample produces very similar results.

Models 5 and 6 are estimated by using a conditional logit (fixed effects) estimator. These models move from a common intercept to dyad-specific intercepts, which is often called fixed effects. Because the regular maximum likelihood estimator tend to be biased when separate intercepts are estimated for each group (dyad in this case), a conditional logit estimator is adopted (StataCorp, 2009). Introducing dyad-fixed effects do not change the main finding on democratisation.

	Discrete Effect of Democratisation		Area Under ROC (AUC)		
	Point	Lower	Upper	In-Sample	Out of Sample
	Estimate	Bound	Bound	Change	Change
Model 1	0.12	0.04	0.20	+0.004	+0.003
Model 2	0.12	0.04	0.20	+0.003	+0.003
Model 3	0.14	0.04	0.25	+0.003	+0.002
Model 4	0.17	0.06	0.30	+0.005	+0.005
Model 5				+0.006	
Model 6				+0.013	

Table 3.3: Quantities of Interest





Figure 3.3: Predicted Probability for Negotiations by Conflict Duration

The coefficients from a generalized linear model do not directly instruct us on the magnitude of impact. The effect of discrete change from *institutional status quo* to *democratic reform* on the likelihood of peace talks is reported in the left hand-side of Table 3.3. According to the estimates from Model 2, *Democratisation* is associated with a 0.12 increase in the predicted probability of negotiations on average. This is a substantial effect that might lead to spikes in the probability of peace talks. As highligted in the introduction, the predicted probability of peace talks between Indonesia and GAM is more than doubled in 2000 due to democratic reforms in 1999.

Figure 3.3 plots the predicted probability of *Negotiations* against conflict duration by two situations: when there is democratisation in the previous year (blue line) and when there is not (black line). The elevated blue line illustrates the substantive effect of democratisation. Conflict duration, which is often theorised as one of the most important factor leading to peace talks (Bapat, 2005), is positively associated with negotiations, as expected. However, 25 years of fighting without a democratic reform has roughly the same predicted probability of negotiations compared to a situation where the war has been going on for 5 years and there was democratic reforms in the previous year.



Figure 3.4: Out-of-sample Predictions by Fourfold Cross-validation (1000 cycle runs)

Statistical significance is a poor measure for judging the predictive power of a proposed variable (Ward, Greenhill and Bakke, 2010). Following Ward, Greenhill and Bakke (2010), I estimated in-sample and out-of-sample performance of *Democratisation* by looking at the area under the receiver-operator curve (AUC). Inclusion of *Democratisation* in the model increases both in-sample and out-of-sample predictions (see right hand-side of Table 3.3). Figure 3.4

plots the AUC for out-of-sample prediction by fourfold cross-validation. The distribution of 1000 cycle runs suggests that the inclusion of *Democratisation* increases the predictive power of the models.

These findings are robust to alternative measurements of *Democratisation* and several different model specifications. Controlling for conflict distance to the capital, whether the conflict involves resources and whether the rebel group has a political wing, control over territory, strong central command or receive external support from a third-party do not influence the main findings for *Democratisation*.

	Markov		
	(7)	(8)	(9)
	Negotiation	Negotiation	Inaugural
	Onset	Continuation	Negotiation
V-Dem Polyarchy	-0.60	-1.59	-0.45
	(0.74)	(1.06)	(0.83)
Democratic Reform	1.34^{*}	0.33	1.13^{*}
Lagged $(t-1)$	(0.55)	(0.62)	(0.53)
ln Dyad Duration	-0.06	0.23	-0.10
	(0.21)	(0.21)	(0.15)
ln Real GDP p.c.	-0.07	-0.47	-0.01<
	(0.29)	(0.30)	(0.22)
Weak Rebels	-1.24*	-1.43*	-1.32**
	(0.63)	(0.63)	(0.48)
Active Groups	-0.05	0.33	-0.05
	(0.13)	(0.33)	(0.10)
Ethnic	-0.09	0.63	0.34
	(0.46)	(0.39)	(0.31)
ln Battle Deaths	0.24^{***}	-0.17**	0.32^{***}
	(0.06)	(0.06)	(0.07)
Constant	0.04	6.85^{**}	-0.78
	(2.86)	(2.53)	(2.10)
Regional Dum.	\checkmark	\checkmark	\checkmark
Observations	793	340	687
AIC	555.4	336.7	440

Table 3.4: Logistic Regression on Negotiation

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

3.5.1 Robustness Checks

It is possible that peace talks may take multiple years, within which democratisation reforms may gradually unbundle as separate bargains between the belligerents. Such cases should be extremely rare because democratic bargains between belligerents are almost always carried out through a big-bang type of reform at the end of negotiations.⁹ Nevertheless, these rare cases may impact the results because for such cases lagging the *Democratisation* variable one term would not be enough to model the effect of democratisation on the likelihood of peace talks.

To address this possible reverse causality, I adopt two additional modelling strategies. First, Markov transition models are estimated. Markov transition models provide a suitable strategy to estimate whether democratic reforms are associated with a move from no negotiations to negotiations. A first-order Markov transition model with a logit link function yields to the following two equations.

$$Pr(Negotiation_{i,t} = 1 | Negotiation_{i,t-1} = 0) = Logit(X_{i,t} | \beta)$$
(3.3)

$$Pr(Negotiation_{i,t} = 1 | Negotiation_{i,t-1} = 1) = Logit(X_{i,t} \ \theta)$$
(3.4)

Second, I redefine the outcome variable as the first negotiation between belligerents. Accordingly, I limit the data by dropping observations after the first peace talks. This effectively changes the question at hand to "do democratic reforms increase the likelihood of inaugural peace talks?" Although highly restrictive, reformulation of the question eliminates the possibility of previous negotiations influencing the likelihood of democratic reforms. Such a modelling strategy presents a hard test for the theoretical argument because the theory is employed to predict only the inaugural peace talks, which is a particular subset of negotiations. This reformulation also yields to a much smaller sample size.

Results are presented in Table 3.4. Models 7 and 8 estimate the equations 1 and 2, respectively. Models 7 and 8 show that democratic reform is associated with negotiation onset but not with negotiation continuation. According to Model 7, *Democratisation* is associated with an increased probability of transition from no negotiations to negotiations. The effect of discrete change in *Democratisation* on the probability of negotiation onset is 0.19. On the other hand, democratic reform in the previous year is not associated with an increased likelihood of continuation of peace talks. This is not surprising because we would expect democratic reforms during a conflict resolution process to coincide with successful conclusion of negotiations by signing a peace agreement.

A particularly interesting result from Models 7 and 8 is that the battle related deaths is positively associated with negotiation onset but negatively with negotiation continuation. This

⁹ Unbundling and big-bang are alternative strategies for carrying out reform (see Sturzenegger and Tommasi, 1998).

finding overlaps with the theoretical argument that violence is the lever which moves parties to the negotiating table but once peace talks take off, it is detrimental to the continuation of negotiations (Darby and Mac Ginty, 2000). As such, this result contradicts with the "rewarding bad behaviour" argument developed by Thomas (2014), which put forwards that governments are more likely to negotiate and give concessions to rebel groups that carry out violent terror attacks. As Thomas (2014) does not distinguish negotiation onset from negotiation continuation, the conclusion that violence *necessarily* increases the likelihood of negotiations should be reevaluated. It is highly likely that the effect of violence is conditional on when it happens. Violence might be increasing both the likelihood of *negotiation onset* and *negotiation collapse*, as suggested by Darby and Mac Ginty (2000). Models 7 and 8 provide exploratory evidence towards such a pattern. Further research on this front will shed light on this complex relationship between violence and conflict resolution.

Moving to the inaugural peace talks, Model 9 shows that *Democratisation* is positively associated with the likelihood of first negotiations between belligerents. The effect of democratic reforms on the probability of opening of first peace talks in the following year is 0.12. This finding is robust to alternative functional form for the time variable. Replacing cubic polynomials of *Dyad duration* with its natural log do not change the results for *Democratisation* in a meaningful way. Model 9 strongly suggest that the theoretical argument can be employed to predict even the very first peace talks between the belligerents.

Finally, an alternative explanation for the empirical results is that leadership change, rather than democratic reform, is the main driving force behind the opening of peace talks. It is possible that leadership change may increase the likelihood of peace negotiations. It is also possible that leadership change and increase in democracy score may coincide. Such a joint process might account for the empirical results at hand. To address this potential problem, I rely on the Archigos dataset, which contains information on leadership changes (Goemans, Gleditsch and Chiozza, 2009). Controlling for leader exit does not change the findings for *Democratisation* in any of the models. Regarding Model 3, the average marginal effect of variables of interest are reported in Figure 3.5 after the inclusion of leader exit. Adding the leader exit variable to Model 3 do not change findings in a meaningful way. Moreover, leader exit (whether irregular or not) is not associated with an increase in the likelihood of peace talks. This strongly suggest that the estimated effect of *Democratisation* is not driven from leadership change.



Average Marginal Effect on the Probability of Peace Talks

Figure 3.5: Results After Leader Exit is Added to Model 3

3.6 Conclusion

Peace negotiations in civil conflicts are puzzling events. It is common that governments refuse to acknowledge internal armed challengers as legitimate bargaining partners. Mediation efforts of the international community often aim to bring warring parties to the negotiating table. Therefore, understanding the factors that make peace talks more or less likely is a crucial task. This chapter proposes a theoretical approach for this end. Two theoretical points are set forward. First, the preferences of a state do not stay constant over time. If we are able to account for changes in state preferences, we may better estimate the likelihood of negotiations. Second, institutional reform towards democracy is coupled with such a particular change in state preferences that make peace negotiations more likely.

In this sense, the focus is not on democratic institutions in itself but rather on *democratisation* as a change in state preference formation. Democracies are not necessarily more likely to negotiate with internal armed challengers, probably because of a selection mechanism; rebel groups emerged in democracies might have different characteristics than rebels in non-democracies. For example, non-state actors that are formed to fight a fully democratic state are likely to have obdurate demands (Fearon, 2004). For non-democracies, on the other hand, a move towards democracy may break the conflict-without-negotiations equilibrium by increasing the real costs of war for the state. The emergence of democratic institutions makes the median citizen more relevant on state preference formation vis-à-vis the authoritarian elite. The median citizen is very likely to attribute less value to a full military victory against a non-state armed group, compared to the authoritarian elite who had successfully excluded large sections of the polity from the political processes. The empirical results provide strong evidence for the implications of this theoretical reasoning. The statistical analysis shows that democratic reform in a year is strongly associated with an increased probability of peace talks in the following year. This finding is highly robust to alternative modelling strategies. Overall, the empirical analysis draws a clear picture in line with the theoretical expectation.

A central objective of this chapter is to draw attention to the cases where democratisation predates the armed conflict resolution attempts. It is crucial to recognize that democratisation can take place *during* a civil conflict, independent from conflict resolution attempts between the belligerents. This is a rare but nevertheless possible trajectory. As demonstrated, democratic reforms during a conflict may profoundly influence conflict dynamics. Societal changes that prompt democratic institutional reform may also pave the way for negotiations between belligerents. As put by Hegre (2014, p. 10), "there might be underlying social changes that explain both the development of democratic institutions and peaceful resolution of social conflicts". However, opening of negotiations may not necessarily translate into an increased likelihood of peaceful resolution (Ogutcu-Fu, 2016). The competition that democracy introduces may incentivize rebel groups to take more radical positions (Tezcür, 2010) and make negotiated settlement less likely. It is highly possible that under some specific conditions, democratisation radicalizes rebel groups and in some other conditions, it acts as a catalyst towards peaceful resolution. Further research on the link between democratic institutional reform and civil conflict resolution may help us to better identify these conditions.

The empirical analysis also reveals a complex relationship between violence and negotiations. Two results are particularly relevant for improving further research on conflict resolution. First, higher battle related death is positively associated with peace talks but inactive conflicts are more likely to witness negotiations than active conflicts. A possible explanation for this pattern is that violence is the lever which moves the parties to the negotiation table (Darby and Mac Ginty, 2000). However, once the negotiations start, belligerents often put a cease-fire arrangement in place, leading to de-escalation (Darby and Mac Ginty, 2000). Inactivity can also be positively associated with negotiations because peace talks tend to last multiple years. This is an essential aspect to take into consideration for future empirical analyses because it shows that peace talks may cause inactivity, which would force some cases out of the conflict datasets that use a violence-threshold for case selection. Unfortunately, the prevailing approach is to consistently adhere to a violence-threshold when collecting data on mediation and negotiation (e.g. DeRouen Jr, Bercovitch and Pospieszna, 2011; Thomas, 2014), which may introduce grave sample selection biases. Cases that become inactive particularly because of peace talks leave the sample. Therefore, violence-threshold may only be used to determine case-entry but it should not be employed for case-exit. In other words, we tend to look at negotiations only when there is violence but most of the negotiations actually take place when we are not looking. This chapter breaks away from this tradition by introducing negotiation data on inactive conflicts.

Second, higher violence is associated with both negotiation onset and negotiation termination. This empirical result can be interpreted by following the theoretical work of Darby and Mac Ginty (2000), which propose that even though violence pushes parties towards the bargaining table, it is detrimental to the negotiation process once peace talks are started. Therefore, distinguishing negotiation onset from negotiation continuation is absolutely important to further unpack the violence-conflict resolution nexus. Overall, earlier empirical results on violence-negotiation nexus should be re-evaluated in the light of these two common problems; (1) adoption of a sample selection strategy that force case-exit based on a violence-threshold, and (2) not distinguishing negotiation onset from negotiation continuation.

Chapter 4

Conflict Fragmentation and United Nations Peacekeeping Operations^{*}

BARIŞ ARI & THEODORA-ISMENE GIZELIS

Since the end of the Cold War, nearly a third of civil war terminations involved a political settlement of some sort (Kreutz, 2010). And yet, as several unsuccessful attempts at negotiation in Syria illustrate, some civil wars are notoriously difficult to resolve. Conflict fragmentation is a possible explanation for why peace remains elusive because low cohesion can generate splintering of actors and multiparty wars are less likely to end (Blattman and Miguel, 2010; Cunningham, 2006; 2013; Cunningham, Bakke and Seymour, 2012; Kydd and Walter, 2002; Rudloff and Findley, 2016). In this paper, we expand research on multiparty civil wars by developing a novel theoretical framework to explain why fragmented conflicts are harder to resolve. We also propose that United Nations interventions are particularly effective to mitigate the adverse effects of fragmentation.

There are three contending approaches in the literature linking fragmentation with conflict intractability. First, fragmented conflicts are more likely to involve spoilers (Stedman, 1997; Rudloff and Findley, 2016).¹ Actors who do not want to settle anything less than total victory or who benefit from continuation of conflict may use violence strategically to derail the peace process. Second, multiparty conflicts tend to have a smaller bargaining range of deals acceptable

^{*} The ideas presented here are developed in collaboration with Theodora-Ismene Gizelis. Some of the building blocks of this chapter, particularly the Conflict Fragmentation Index, is published in an earlier version (see Arı and Gizelis, 2017). We are indebted to T. Clifton Morgan for suggesting that implications of social choice theory could be applicable for our research.

¹ Stedman (1997, p. 5) defines spoilers as "leaders and parties who believe that peace emerging from negotiations threatens their power, worldview, and interests, and use violence to undermine attempts to achieve it".

to actors whose consent is necessary for transition to peace (Cunningham, 2006). In other words, multiparty civil wars are more likely to have more veto-players, rendering peaceful resolution difficult. Finally, fragmentation exacerbates commitment problems (Blattman and Miguel, 2010; Cunningham, 2011; 2013; Christia, 2012; Rudloff and Findley, 2016). The inability of belligerents to credibly commit not to renege on the terms of a possible negotiated settlement is a widely accepted explanation for why civil wars may endure despite years of unfruitful fighting (Fearon, 1995; Walter, 1997; Powell, 2006).² Fragmentation amplifies this problem by diminishing the value of expected gains from compromise (Blattman and Miguel, 2010; Kydd and Walter, 2002), and by making future shifts in power more likely (Christia, 2012).

Here, we present an alternative explanation of the intractability of multiparty conflicts by focusing on the dimensions of salient issues relevant to a conflict. We argue that fragmented conflicts are susceptible to become intractable because multiparty decision-making situations involving two or more salient issues are less likely to reach a stable solution. Findings from social choice theory suggest that any pure majority rule decision-making situation involving a multidimensional issue space is characterized by cyclic preferences, thus rendering it unstable (Plott, 1967; McKelvey, 1976; Schofield, 1978; Riker, 1980; Shepsle and Weingast, 1981).³ We propose that the implications of the McKelvey–Schofield chaos theorem on legislative processes also apply to fragmented internal conflicts.

Conflict fragmentation is often the manifestation of the multidimensionality of the issue space. The number of actors involved in a conflict proliferates in accordance with the number of issues. Existing scholarship tends to measure conflict issues in terms of mutually exclusive categories such as ethnic, territorial or governmental. Similarly, diverging demands of actors are usually measured only in a single-dimension, for example autonomy or full independence (e.g. Seymour, Bakke and Cunningham, 2016). However, a conflict can be ethnic, distributional, religious, governmental and territorial, all at the same time, creating a multidimensional issue spaces as cases like the civil war in Lebanon (1975-1990) illustrate. By examining the multidimensional issue space in highly fragmented conflicts, our theoretical framework introduces a missing link between actor fragmentation and issue dimensionality and identifies the instability inherent in such conflicts.

Furthermore, borrowing from Shepsle and Weingast we argue that the instability in multidimensional conflicts can be overcome by "institutional restrictions on the domain of exchange" (Shepsle and Weingast, 1981, p. 507). In the context of intrastate violent conflicts, UN in-

² For a criticism, see Stedman (1997, p. 7).

³ This finding of social choice theory is commonly referred as the McKelvey–Schofield chaos theorem.

volvement can induce an equilibrium by restricting what can be proposed during a conflict resolution process in ways that create a path dependent peace process. UN-led peace processes often generate memorandums, declarations of intent, agreed principals and interim agreements. As a result, what can be proposed becomes conditional on what has been agreed on. These institutional restrictions discourage would-be gainers from configuring new majorities when the UN is present. In other words, UN limits the array of all possible peace deals.

We empirically test the implications of our theoretical framework in two ways. First, we investigate civil conflict duration. We expect fragmentation to prolong conflict but the effect should be conditional on UN peacekeeping. Our results are in line with this expectation; fragmentation and no UN is associated with longer conflicts whereas UN peacekeeping mitigates the adverse impact of fragmentation. Second, we replicate an influential study by Hultman, Kathman and Shannon (2014) by introducing our conflict fragmentation measure and interacting it with the number of UN troops. Hultman, Kathman and Shannon (2014) find that UN troops decrease the number of battle related deaths. We expect fragmentation to generate more conflict, meaning higher number of battle deaths. We also expect UN interventions to mitigate this impact. As expected, we find evidence that fragmentation in a given month is associated with higher battle deaths in the following month. The average marginal effect of fragmentation on the battle deaths is calculated to be roughly 50. However, if there are UN troops deployed, this effect quickly drops to zero. Our additional terms in the model do not change the findings of Hultman, Kathman and Shannon (2014) but lead to a better model fit. The interaction term is negative and highly significant, providing evidence that UN is particularly effective to curb violence in fragmented conflicts. Overall, these results support our theoretical framework.

The rest of the chapter as follows. Section 4.1 identifies the link between conflict fragmentation and issue multidimensionality. Section 4.2 unravels the instability inherent in civil conflicts. Section 4.3 discusses how the UN may become a driving force for peace by changing the opportunities and incentives in fragmented conflicts. Research design follows. A novel strategy to measure conflict fragmentation is introduced. Section 4.5 presents the empirical results. The chapter concludes by summarising the main contributions.

4.1 Issue Dimensionality and Fragmentation

While recognising that the positions and interests of actors are relevant to the understanding of conflict dynamics, the civil war literature has for long time focused on the structural characteristics of the country to predict the onset of conflict (Gleditsch and Ward, 2013). The literature on fragmentation progressed one step further by examining how competing interests shape the dynamics of conflict and the interactions among actors. The first dyadic studies of civil war actors shed light to the relevance of the actors' interests to the onset of conflict (Cunningham, Gleditsch and Salehyan, 2009).

The growing literature on actor fragmentation has drawn attention to four insights. First, in many conflicts, the "sides" fighting one another are far from unitary. Opposition movements often consist of numerous factions fighting in the name of the same constituency (Christia, 2012; Cunningham, 2014; Staniland, 2014), and the state itself may also lack organizational cohesion (Carey, Mitchell and Lowe, 2013; Clayton and Thomson, 2014; Jentzsch, Kalyvas and Schubiger, 2015). Second, and related, even though there may be unity in terms of what a group is fighting against – e.g. overthrowing the regime, as in conflicts over central government control, or not wanting to be part of the state, as in territorial struggles – there may be disagreement about what the factions within the group are fighting for. Divergent intra-group preferences may not be visible until after the dispute ends (Suhrke, 2007). For example, in Libya the various factions agreed that they wanted to topple the Gaddafi regime, but they have since had serious differences with regards to what the central government should look like, and what the regional distribution of power should be. Third, such divergences in positions matter for conflict dynamics. To the degree that opposition movements consist of numerous factions, each faction finds itself in a "dual struggle", against both the state and the other factions within the movement (Cunningham, Bakke and Seymour, 2012), with implications for how violence unfolds (Lawrence, 2010; Findley and Rudloff, 2012; Seymour, 2014; Fjelde and Nilsson, 2012), as well as whether and how the conflict comes to an end (Johnston, 2007; Nilsson, 2008; Pearlman, 2009; Cunningham, 2011) – which have seen play out in failed attempts at negotiation in Syria in the last few years. Finally, fragmentation may happen through different processes (Cunningham, 2006). It may take place through fission; an entity disintegrates into some of its components. There are alternative explanations for why splinter groups emerge. The balance of power between warring parties and changing battlefield conditions (Christia, 2012), strategic government repression and concession (Cunningham, 2011; 2013), variation in subgroup demands (Cunningham, 2006; Seymour, Bakke and Cunningham, 2016), and diverging responses to a peace process (Lounsbery and Cook, 2011) are suggested as potential reasons for splintering. In addition to splintering, multiple entities can also emerge independently from each other during a conflict process. Cunningham (2006) distinguishes such "original" actors from "splinter" groups. For example, distinct revolutionary rebel groups originated in Colombia

independently during the 1960s and 70s, rather than one entity breaking into multiple actors. However, we know little about the mechanisms behind the emergence of multiple original actors within a conflict. Many studies on fragmentation take such actors as given and investigate the relationship between them, particularly by focusing on the distribution of power (Seymour, Bakke and Cunningham, 2016).

An important limitation of the extant literature is that a crucial link between fragmentation and the multidimensionality of the issue space has not been explicitly recognized so far. For example, investigating the factors causing actor fragmentation, Seymour, Bakke and Cunningham (2016) discuss diversity of demands without explicitly taking issue dimensionality into account. However, diversification of preferences often happens on multiple dimensions. Furthermore, rebel factions may have the very same demands from the government, e.g. independence, but they might have diverging preferences over other salient issues, e.g. how to govern the claimed territory. For example, the divergence between Kurdistan Democratic Party (KDP) and Patriotic Union of Kurdistan (PUK) has not been based on the status of Kurdistan but rather about ideological differences on how to govern the Kurdish territory. Conflict issues involve among the principal identity groups not only along the distribution of governmental power but also over the role of religion over political affairs, foreign policy alignment, and minority rights. Thus, competing actors may have diverging preferences over multiple salient dimensions. For example, the differences between Amal and Hezbollah, KDP and PUK, or Fatah and Hamas do not stem from mere leadership disputes between competing political entrepreneurs but due to genuine differences on issue positions.

We argue that issue dimensions matter for conflict fragmentation. Put simply, there should be a strong relationship between the number of issues in a conflict and the number of actors involved. Assuming the possible issue positions in a dimension are finite, any additional dimension also increases the overall number of positions. Hence, it creates more "space" within which original actors may spring out. Multidimensionality also increases the likelihood of fragmentation through fission; actors can splinter into multiple directions. We use Figure 4.1 to unpack the link between the dimension of the issue space and fragmentation of actors.

To simplify the illustration, the first row of Figure 4.1 deals with fragmentation through splintering whereas the second row considers emergence of "original groups", as defined by Cunningham (2006).⁴ The left pane of the first row shows a single-issue conflict with two actors; the government side G, and the rebel side R. Because each actor is an amalgamation of many

⁴ For simplicity, we separate the two types of fragmentation, but both processes often take place jointly.



Figure 4.1: Actor Fragmentation and Issue Multidimensionality

sub-party units, and the preferences of these sub-units diverge, actors are always under a latent threat of disintegration. However, the magnitude of this threat depends on the distribution of power and preferences of sub-units, which jointly define the cohesiveness of the actor. This threat is illustrated for R, which may fractionalize between the moderates, R_m , and the extremists, R_e . R_m is closer to G than R_e ; hence here R_m is defined as the "moderate" faction. When preferences can diverge only on a single dimension, internal divides within a party are often conceptualized in this manner and are labelled as either "moderate" or "extreme" (e.g. Kydd and Walter, 2002).

However, when we move from a single-dimension issue to a two-dimensions issue space, the conceptualization of actors as "moderates" or "extremes" based on their positions on the singleissue scale is not necessarily meaningful anymore. In the upper right pane, R, R_a and R_b are all at the same distance to G. Overall, none of these three points are more moderate or more extreme. Nevertheless, R_a and R_b clearly hold different issue positions. The distance between R_a and R_b is equal to the distance between R_m and R_e . The dichotomous labels "moderate" and "extreme" are not applicable in this scenario. Furthermore, competing factions may now try to move R towards more directions, increasing the latent pressure of disintegration. This may, in return, prompt splintering. In short, comparing the left pane to the right pane, there is more space within which an actor may fragment.

The second row of Figure 4.1 illustrates essentially the same argument through the presentation of "original" actors instead of splintered ones. It is reasonable to assume that presence of a non-state armed group (NAG) decreases the probability of another original NAG to spring up on or close to the same issue position. In other words, the market is too competitive for rival political entrepreneurs. The presence of R may discourage the emergence of another original NAG close to the position of R. However, when the issue space is wide, the available space for original NAGs to emerge is also large. The lower left pane illustrates a situation where other original NAGs K and L emerge on the available issue space. Again, an increase in the issue dimension also leads to a multiplicative increase in the issue space within which original NAGs can emerge, as illustrated by the lower right pane.

4.2 Fragmentation and Conflict Intractability

Conflict fragmentation is linked to questions of power and control of the government, preferences over governmental policies, and structure of the post-conflict society. Thus, rebel fragmentation increases the number of actors that formulate preferences over a wide range of issues and even more important over the most relevant dimensions of a future post-conflict agreement. Infighting becomes more about conflict outcomes emphasizing the strategic interactions between and among the belligerents (Akcinaroglu, 2012; Fearon, 1995; Toft, 2005). Implementing peace agreements depends on whether the warring parties can trust both the other side and their own allies to commit to any deal reached (Blattman and Miguel, 2010; Hartzell and Hoddie, 2003; Greenhill and Major, 2007; Kydd and Walter, 2002; Pearlman, 2009; Stedman, 1997; Walter, 2002; 1997).

Multi-party conflicts and two-party conflicts with low inter-party cohesion are harder to resolve (Cunningham, 2006; 2013; Rudloff and Findley, 2016; Blattman and Miguel, 2010; Kydd and Walter, 2002; Stedman, 1997; Cunningham, Bakke and Seymour, 2012). Considering that attempts to find a peaceful settlement may trigger splintering (Lounsbery and Cook, 2011), seemingly two-party disputes might be transforming to multiparty conflicts through conflict resolution processes. Alternatively, conscious leaders may strategically avoid conflict resolution attempts by calculating that such a move may prompt splintering. In other words, conflictprolonging mechanisms that are discernible in multi-party conflicts may also be ongoing, however concealed, in seemingly two-party conflicts. Fragmentation related factors that make peace less likely can be at play both in two-party and multi-party conflicts. For example, Elie Hobeika,
then leader of the Lebanese Forces (LF), negotiated a peace deal with Muslims and Druze in 1986 through Syrian mediation but this led to an internal coup by Maronite hardliners. Hobeika's faction was promptly defeated in the infighting between LF factions. A similar fragmentation process emerged among Maronite Christians during the Taif peace negotiations in 1989-1990. Michel Aoun, then a Maronite hardliner, opposed the peace agreement and kept fighting both rival Maronite Christians as well as the Sunni, Shia, and Druze groups.

What are the mechanisms that render fragmentation an impediment for conflict resolution? The predominant explanation is that fragmentation exacerbates commitment problems (Blattman and Miguel, 2010; Cunningham, 2011; 2013; Christia, 2012; Rudloff and Findley, 2016). Internal cohesion of actors may affect their ability to make credible commitments (Cunningham, 2011; 2013). As put by Blattman and Miguel (2010, p. 16), "the possibility that groups might split could exacerbate commitment problems" because "signing a peace deal with a rebel group leader is of limited value if hard-liners are able to secede and continue fighting". Rudloff and Findley (2016) take one step further and suggest that splintering may undermine post-conflict peace and lead to the recurrence of violence by exacerbating commitment problems. Christia (2012) argues that fragmentation generates commitment problems because junior partners of a military alliance cannot be sure that their stronger allies would not double-cross them in the post-conflict era. As a result, junior coalition actors have incentives to keep the conflict ongoing by switching sides.

Borrowing from social choice theory (Tsebelis, 2002), Cunningham (2006) proposes a vetoplayer framework as an alternative to commitment problems. Veto-players are the actors that their consent is necessary for a negotiated termination of conflict. Cunningham (2006, p. 875) argues that "more parties involved in conflict make civil wars more difficult to resolve through negotiation". We highlight two points raised by Cunningham. First, multiple actors with diverging preferences shrink the bargaining range, and as a result, there are fewer acceptable agreements. Second, the negotiation process is more difficult because of shifting alliances, which "emerge when parties can form different coalitions on separate issues" (Cunningham, 2006, p. 880). Shifting alliances prevent groups to form stable negotiating blocs "because groups that agree with each other on one issue often disagree on others" (Ibid.). As we will show next, these two points are somewhat contradictory because what makes alliance shifting common is an abundance of acceptable deals, rather than a narrower bargaining range.

Building on these two strands of literature, we consider fragmented conflicts as a multiparty

decision-making situation with a particular property, i.e. cyclic collective preferences,⁵ which generates incentives and opportunities to founder a possible bargain for the sake of getting a higher payoff. We resemble the coalition of actors whose agreement is sufficient to terminate the conflict to a collective decision-making majority. Like the bargaining model assumption that implicit bargaining is ongoing between belligerents throughout the fighting, we may assume that some sort of a collective decision-making process is ongoing when the parties try to resolve a multiparty civil war.

Our key argument is that, in fragmented conflicts, actors or sub-actors have preferences over multiple dimensions. This suggests that preferences may diverge or converge depending on the issue-dimension, which generates both cleavages and linkages. In other words, actors can oppose each other on one issue but find common ground on another. As a result, there is a great room for coalition building.

We recognize that possible bargains do exist. These possible bargains can be understood as an array of all potential peace agreements. The crucial point is that each agreement is acceptable to *a* majority in terms of distribution of power. Multiparty civil wars are resistant to negotiated settlements not because there is no possible peace agreement that is acceptable to the majority of power-holders. Rather, there are too many possible deals acceptable to various configurations of majority. In other words, the set of possible solutions do not involve any stable solution; once a solution that is acceptable to a majority of power-holders is proposed, a different configuration of majority still have incentives to deviate from the proposed solution. The multidimensional issue space intrinsic in many fragmented conflicts allows losers of the proposed solution to configure a new possible solution, which is preferable by another constellation of majority. This instability inherent in multiparty decision-making renders war to peace transitions less likely, and armed conflict remains a viable instrument for pursuing goals.

We underline that not all parties may need to agree on a deal to terminate the conflict. In some civil wars, a majority in terms of distribution of power may struck a deal and then impose the terms of the bargain on non-participatory actors. Indeed, negotiated settlements that terminate a multiparty civil war rarely involve all the actors. In the most extreme cases, such as Lebanon and Cambodia, the final bargain may even exclude the predominant factions.

In reality, not all parties have "equal voting rights" on the final outcome. Nevertheless, we can simply assume a voting procedure weighted by relative military capabilities to take this

⁵ Cyclic collective preferences emerge due to the lack of a Condorcet winner, which refers to "an alternative that can defeat each of the other alternatives in a pairwise majority vote." (Johnson, 1998, p. 25)

aspect into account. Similarly, a majority in terms of military capabilities might not be enough to end a conflict because relatively weak actors may still have enough capabilities to continue the conflict (Cunningham, Gleditsch and Salehyan, 2009). Veto-players may exist, and they can block a majority agreement. Our theoretical framework shows that even under assumptions favorable for conflict resolution, i.e. no veto-players and a majority agreement is sufficient, actors may still not reach a stable agreement because of cyclic collective preferences.

To better illustrate the argument, we resemble conflict resolution to a legislative process where each actor may propose a comprehensive peace deal. This comprehensive peace deal proposes a position on each conflict dimension. If a majority of actors prefer the *proposed bargain* to the *status quo*, then it becomes the *accepted deal*. Using insights from social choice theory, we argue that fragmented conflicts are likely to lack a stable *accepted deal* that can defeat all other possible bargains. For any *accepted deal* that can beat the *status quo*, there is yet another *proposed bargain* that can defeat the *accepted deal*.

More formally, we use the McKelvey–Schofield chaos theorem to present our main argument.⁶ In an *m*-dimensional issue space with *n*-belligerents, X refers to a set of feasible outcomes. Each party has their ideal outcome, point x, where $x \in X$. Any party can offer an agreement point x_i , which would be accepted if a majority of actors prefer x_i to the *status-quo*, x_0 , which we consider the government position in the first round of a civil conflict process. If a majority of actors prefer x_i to x_0 , then x_i defeats x_0 and becomes the *accepted deal*. This deal is mutually preferable to the *status quo* by the actors who voted in its favor. However, there is another set W(x), which is called the *majority-rule win set at* x_i , which includes points that would prevail over x_i . The McKelvey-Schofield theorem proves that in all but some extreme preference distributions, $W(x) \neq \emptyset$, meaning that there are some point(s) x_j that would win against x_i in every point of x.

This has three important implications for the civil war literature. First, alternative deals available in the W(x) account for incentives and opportunities for derailing a possible bargain. In other words, it explains why there might be outside spoilers.⁷ Parties who left out from x_i may try to assemble another winning coalition and push the outcome towards x_j . In practical terms, we are likely to observe such parties that would pursue x_j as outside spoiler. This implication also formalizes a caution against the spoiler literature, which often categorizes actors by types (Greenhill and Major, 2007). Given enough time, each actor may emerge as a spoiler at some

⁶ Explanation of the theorem is adapted from Shepsle and Weingast (1981, pp. 504-506).

⁷ Outside spoilers refer to those actors who are not party to a civil war peace deal and try to undermine the agreement (Stedman, 1997). Inside spoilers may also try to undermine a peace deal but they are party to the agreement.

point in the cycle.

Second, the presence of veto-players is not a necessary condition for peace process failure. Any actor may become influential on assembling an alternative winning-coalition despite lacking a capability to single-handedly continue the conflict. Even in the absence of any veto players, multiparty conflicts are still difficult to resolve if there are two or more salient issue dimensions. Equally important, identifying an actor as a veto-player in civil wars is not a straightforward task. Any actor can be observed as a veto-player because of the cyclic preferences, which enable actors to instigate coalitions aiming to founder a possible solution.

Finally, alternative deals available in the W(x) make actors unable to credibly commit to any x_i . Parties who would prefer x_i to x_0 can still be tempted by x_j , which explains the incentives to abandon a mutually preferable deal for the sake of getting a higher individual payoff. This aspect of cyclic preferences is essentially a commitment problem because at least some of the parties would have incentives to renege on a mutually preferable bargain for a more desired outcome. In more technical terms, there are higher pay-off bargains available in the W(x) at any possible peace deal, which make actors unable to credibly commit to the particular deal.

Social choice theory expects legislative cycles in pure majority rule systems when the issue space is multidimensional. In terms of civil wars, we expect that the instability inherent in fragmented conflicts should generate endless cycles of shifting alliances and constantly changing conflict fronts. This is indeed a central feature of many multiparty civil wars (Christia, 2012; Otto, 2017).

Instead of replicating the formal proof, we simulate the implications of the McKelvey-Schofield chaos theorem in civil wars by using a two-dimensional issue space, where each axis spans from -1 to 1. We assume a government-party and 4 rebel groups. We positioned the government-party at the center (0, 0) and assigned each of the rebel group to a random coordinate on the issue space. Next, we ran one million rounds where a randomly selected point is proposed as a comprehensive peace deal, which we call a *proposed bargain*. We assumed that the *status quo* is the government position (0, 0) in the first round. In each round, every actor compares the *proposed bargain* to the *status quo* and votes yes or no. If the yes votes are the majority, then the *proposed bargain* becomes the *accepted deal*, and hence the new *status quo*. We simulated this procedure one thousand times and estimated that around 95% of the simulations, deals do not stay constant. In other words, the *accepted deal* does not converge towards an equilibrium bargain. Moreover, as expected by the McKelvey-Schofield chaos theorem, it moves freely around the issue-space. Large jumps from one position to another is possible, even

after many iterations.



Figure 4.2: Heat-maps for four different simulations using one million rounds. Deals do not stabilize and wander around in the issue space.

Our simulations with two dimensions and multiple rebel groups show that a possible deal garnered by a winning-coalition is likely to be defeated by yet another winning-coalition with an alternative deal, and this cycle may go on without reaching to an equilibrium. Figure 4.2 illustrates four selected simulations by using heat-maps. Each dot represents an accepted deal throughout the simulation rounds. Simulation-1 represents a situation where all four rebel groups have positive demands on the y-axis whereas more diverging demands on the x-axis. Simulation-2 and Simulation-3 present situations where rebel groups have diverging demands in both dimensions. Simulation-4 demonstrates that instability is not limited to specific number of rebel groups; the decision-making process is still unstable when there are only two rebel groups. As shown by these heat maps, although some positions are visited more often than the others, no deal is stable.

More importantly, even after substantial iterations, an *accepted deal* can be defeated by another proposed bargain that is located in a very different position. In other words, substantial jumps from one position to another are possible. Figure 4.3 shows that *accepted deals* can go far away from the government position but can also promptly return back, regardless if it is the first or the last 10k rounds. Even in the last one thousand rounds of one million iterations, *accepted deals* virtually fluctuate between minimum to maximum distance to the government



Figure 4.3: Distance between the government position and the accepted deal by rounds for Simulation-1. Large jumps are possible.

position. We hypothesize that fragmented conflicts are harder to resolve.

Hypothesis 1 The more fragmented a conflict is, the less likely its termination.

4.3 Fragmentation, Conflict Management and the UN

The Bougainville Conflict (1988-1998), known as the longest war in Oceania since WWII, could have been an example of "most likely case" for fragmentation/splintering. During the conflict, the Bougainville Revolutionary Army (BRA) was fighting against Papua New Guinea for independence. The Bougainville Peace Agreement signed in Arawa, Papua New Guinea, in 2001 led to an internal division within BRA when some of the commanders opposed the peace agreement. Although the opposing commanders tried to splinter from BRA to form a new organisation, the mobilization attempt failed, the conflict did not reignite, and the peace agreement held. What are the reasons for fragmentation not leading to further conflict? A possible explanation is the role that a small UN observer mission, the UN Observer Mission in Bougainville (UN-OMB) played in supporting the peace agreement. Initially United Nations Political Office in Bougainville (UNPOB) was established in 1998, following the ceasefire and the signing of the agreement, known as the "Lincoln Agreement" (signed at Lincoln University, Christchurch, New Zealand). The purpose of UNPOB was to monitor, observe, and report the implementation of the Lincoln Agreement (S/1998/506, June 15, 1998). Because of the challenges in the implementation of the Agreement, Papa New Guinea requested an observer mission. The United Nations Observer Mission in Papua New Guinea (UNOMB) had the mandate to monitor the constitutional process leading to the adoption of a Bougainville constitution and certify compliance of the fighting parties with the decommissioning plan. Finally, the mission coordinated with UNDP on reconciliation and reconstruction programs. The mission, which was pulled out in 2005, hailed to be successful in the decommissioning process and the election of the autonomous region of Bougainville (see Joshi, Quinn and Regan, 2015).

This little-known conflict highlights the impact that even "small" UN missions have played in supporting peace in violent armed conflicts. The literature on peacekeeping effectiveness argues that peacekeeping matters both at the national and local level. Although elites generally negotiate peace agreements at the national level, peace is often won in the areas where conflict occurs. On the one hand, peace agreements and ceasefires provide opportunities for government and rebel authorities to strengthen their hand (Ruggeri, Dorussen and Gizelis, 2017). On the other hand, they may lead to rebel fragmentation, as discussed in the previous section. Forms of conflict management such as direct negotiation and mediation can facilitate peace processes by either supporting the flow of information between the belligerents or by enhancing transparency in the real interests of actors. In case of manipulative tactics, mediation can also alter the expectations of the belligerents in the bargaining spectrum (Beardsley et al., 2006).

Yet, the fragmentation of rebels renders the role of conflict management methods particularly challenging. The emergence of new actors with diverging positions on how conflict should be settled decreases the likelihood that forms of conflict management such as mediation and negotiation will be effective in ending violence. Fragmentation introduces new conditions of anarchy. The emerging actors might have different preferences over multiple dimensions on how the post-conflict environment will be shaped. Depending on the availability of the resources each one of these groups has two strategies: to solidify support among its core supporters and to attract new supporters, thus, broadening the support base. The McKelvey-Schofield chaos theorem predicts that if preferences are defined over a multidimensional policy space, then majority rule tends to be unstable (McKelvey, 1976; Schofield, 1978). Yet, the social choice literature also suggests that stability is quite common (Shepsle and Weingast, 1981). Shepsle and Weingast (1981) argue that institutional modifications restrict the power of suggesting new proposals, which in return induce stability. Similarly, conflicts end, even the most fragmented ones. This raises the question how highly fragmented conflicts end and how actors can reach a stable agreement.

We argue that UN involvement can provide a level of stability in highly fragmented conflicts. Peacekeeping missions might have an advantage over other forms of conflict management because the deployment, even of small missions, tends to provide more transparency about the actions of government and rebel leaders, inducing stability even in highly fragmented conflicts. While the literature has addressed the relevance of the UN in mitigating the commitment problems emerging in civil wars (Fortna, 2008; Hultman, Kathman and Shannon, 2014; Ruggeri, Gizelis and Dorussen, 2013), fragmentation presents an additional challenge for conflict management. First fragmentation leads to coordination problems where the actors fight over multiple dimensions making a stable agreement difficult. Second, the larger number of competing actors further aggravates the possibility that actors will be against specific deals and proposals.

UN becomes particularly relevant in these hard and highly fragmented conflicts by mitigating both commitment and coordination problems among actors. We argue that UN involvement generates path dependency in peace processes, which may induce an equilibrium by restricting the ability of actors to propose replacement bargains and to assemble alternative winningcoalitions. For example, the civil war in Tajikistan (1992-1998) was a highly fragmented conflict with multiple actors (Wilson, 2007; Peimani, 2009). UN mediation, which had started in April 1994, resulted in a temporary ceasefire agreement between warring factions in September. This led to the establishment of the United Nations Mission of Observers in Tajikistan (UNMOT) in December by the Security Council Resolution 968 (UN, 2017). UN-led negotiations generated a total of 11 protocols, interim agreements and temporary cease-fires until the parties finally signed a comprehensive peace agreement in June 1997. Although the comprehensive agreement did not curb the violence immediately, the peace agreement held, and the conflict is terminated by the end of 1998. What is more important is that several factions, both from pro-government and opposition sides, tried to derail the agreement using violent means. However, these attempts to build alternative coalitions to continue the conflict failed (Driscoll, 2012).⁸ Similarly, until the signing of a comprehensive deal, UN-led peace processes produced 12 interim agreements in Guatemala between 1994-1996 and 7 codified documents in Bosnia & Herzegovina between 1993-1995. In contrast, without the UN presence, negotiations between Kurdish factions and the Iraqi government during the Saddam era did not produce a path dependent peace process. Agreements remained bilateral and uncodified. Saddam government often played Kurdish factions against

⁸ Driscoll (2012) also resembles the Tajik Civil War a to coalition-building game but in his model the UN does not play any role on curbing down the abilities of actors to build alternative coalitions. On the contrary, Driscoll (2012) claims that it is "difficult to identify concrete mechanisms that connect [UNMOT's] modal activities to peace or stability".

each other, and abandoned a deal with one faction for an alternative alliance with another.

UN-led peace processes also need to comply with international law and norms as well as regional and international power dynamics; thus, not all combinations will be supported by the international community. UN intervention, supported by UN Security Council resolutions, impacts to large extent what is the domain of internationally acceptable outcomes. All these processes build a path dependency by gradually restricting the domain of possible solutions. As a result, possible bargains become conditional on what has been agreed on. This institutionalized peace process discourage would-be gainers from configuring new majorities.

One additional mechanism through which the UN can mitigate the effects of fragmentation is by changing the cost function of fighting of the groups. The cost of fighting depends on the resources (both material and human capital) available to each group. In the anarchical environment of a fragmented conflict, the UN involvement shifts the balance in favor of some actors over others (Dorussen and Gizelis, 2013). As more resources are concentrated in fewer groups, the process of fragmentation is reversed, leading to an equilibrium with lower levels of violence.

UN PKOs can address local conflict dynamics by highlighting local grievances, interests, and sources of power, which is often linked with rebel fragmentation and the broader conflict (Ruggeri, Dorussen and Gizelis, 2017). As such, they can impact the distribution of resources and cost of fighting in two ways. First, the presence of peacekeepers in peripheral areas where there is a vacuum of power can deter rebel groups to fragment and start infighting over local grievances and resources with other groups. Often substantial presence of peacekeepers is required to deal with breakaway factions relying on their local power-base in regions out of the control of the central government to pursue local agendas and their vision of how peace should be shaped. Thus, effective peacekeeping halts the escalation and spread of conflict, it maintains trust in the peace process, and avoids areas of lawlessness where infighting becomes endemic (Ruggeri, Dorussen and Gizelis, 2017).

Second, by suppressing breakaway factions, peacekeepers reduce overall uncertainty about the positions and interests of rebel groups and minimizes security dilemmas that might lead to more fighting. The suppression of the breakaway factions occurs not only by the presence of peacekeepers in locations experiencing conflict episodes, but also by activities like decommissioning that reduce the opportunity for rebel forces to mobilize and continue the struggle against the government and other rebels. Thus, UN involvement mitigates the commitment problems that emerge with the further fragmentation of conflict actors. If commitment problems are mild, the difference the UN involvement would make on conflict resolution will be a limited value. However, if the commitment problems are severe, then the UN is extremely important. In other words, the UN impact on commitment problems is not additive but multiplicative. Thus, to summarise our argument we formulate the following hypothesis:

Hypothesis 2 UN PKOs increase the likelihood of conflict termination in highly fragmented conflicts.

4.4 Research Design

Two approaches are adopted to investigate the moderating effect of UN peacekeeping on rebel fragmentation. First, we look at conflict duration by using the conflict-level version of the UCDP Conflict Termination Dataset (CTD) version 2-2015 (Kreutz, 2010). The CTD contains information on start and end dates of conflicts globally for the period 1946-2013. Duration is measured in conflict days. We limit our sample to civil conflicts and drop the coups following Thyne (2015). Second, we replicate Hultman, Kathman and Shannon (2014), which analyse battle related deaths in African civil conflicts from 1992 to 2011. The outcome variable is the number of deaths due to fighting between a government and a non-state actor dyad in a given month (see Hultman, Kathman and Shannon, 2014, for detailed explanation of the data). In sum, we analyze two outcome variables – (1) duration and (2) intensity – to test the hypothesis that fragmented conflicts are harder to resolve and UN involvement mitigates this adverse effect.

The data on UN Peacekeeping Operations is from Kathman (2013). For the conflict duration analysis, we generate a dummy variable, UNPKO, which denotes UN personnel deployment in a country in a given year. Kathman (2013) also provides information on the number and type of UN personnel but only 27 countries experiencing a civil conflict have received UN peacekeeping. Estimation limitations prevent to further breakdown the level of UN involvement to respective personnel numbers. For intensity models, however, we follow the original study by Hultman, Kathman and Shannon (2014) and use the number and type of UN personnel.

4.4.1 Conflict Fragmentation Index

Operationalizing and measuring conflict fragmentation is not a straightforward task. The dominant approach to measure fragmentation is to simply look at the number of actors in a conflict. However, this measurement does not capture differences between rebel groups in terms of their prominence within a conflict. To illustrate, suppose one conflict A has 4 active rebel groups and each government-rebel dyad accounts for 25% of the total battle field related deaths. Suppose another conflict B, again with 4 active rebel groups but this time one predominant dyad accounts for 95% of the total deaths and other 3 dyads only account for the remaining 5% combined. Considering that total number of battle deaths should reflect the distribution of power (Bakke, Cunningham and Seymour, 2012), conflict A should be more fragmented, and thus more intractable, compared to conflict B. Although these two conflicts would be different on their level of conflict fragmentation, looking only at the number of active rebel groups gives the exact same measure.

We build the Conflict Fragmentation Index (CFI) to address this problem (Arı and Gizelis, 2017). We start with the premise that the distribution of combat activity among conflict-parties is a relevant measure to proxy fragmentation. Civil wars may have core actors responsible for most of the fighting, and tangential groups that marginally take part in the conflict. Holding the total number of actors fixed, a conflict is less fragmented if most of the fighting is concentrated between particular actors, compared to conflicts that have the fighting more equally dispersed across conflict-parties. Therefore, depending on the concentration of combat activity, conflicts with equal number of actors can have different levels of fragmentation. To use the fragmentation through splintering as an example, if a NAG divides into two equally prominent entities, then fragmentation should increase more than a situation in which a relatively small component of the NAG disintegrates to form a new entity.

CFI, which is constructed by adapting the Herfindahl–Hirschman Index, takes the information on the prominence of conflict-fronts into account, and is calculated by the following formula;

$$CFI = 1 - \sum_{i=0}^{n} {s_i}^2$$

where s_i is the relative prominence of a conflict-front. It can be approximated as;

$$s_i = \frac{casualties \ in \ dyad \ i}{total \ casualties \ in \ conflict}$$

Using this formula would give a CFI measure of 0.75 for our first hypothetical example whereas the second conflict would have a CFI of roughly 0.10. The CFI can be computed by using any casualties data. Figure 4.4 illustrates the distribution of CFI by number of rebel groups through the casualties data available in the UCDP Georeferenced Event Dateset (Sundberg and Melander, 2013). For the duration analysis, however, we use the casualties data corresponding to the CTD, which is the dyadic-level version of the UCDP Battle-Related Deaths Dataset (Melander, Pettersson and Themnér, 2016). We find the share of each dyad on the total deaths within a conflict and calculate the CFI by following the formula. Therefore, CFI is a time varying measure.

0.8 9 o. 4.0 E 2 ö o 0.0 1 2 3 5 6 7 8 9 4 10 Number of Groups

Figure 4.4: Distribution of the CFI by the Number of Groups in Conflict

The Hultman, Kathman and Shannon (2014) data already include information on battle related deaths both at the dyad and the conflict level. We directly use this data to build the CFI index. As the data is on monthly level, we lag CFI for a month. We expect CFI in month m to produce more deaths in month m + 1.

Since the Hultman, Kathman and Shannon (2014) data include non-active conflict periods, it is possible to have an observation with zero total deaths in a given month. This is potentially a problem, because the CFI is undefined when there are no battle deaths in all dyads. We adopt three alternative approaches to address this problem. First, we assign zero for CFI when there are no battle related deaths in a conflict. This approach overestimates the effect of CFI because the index also captures non-conflict situations. Second, we generate a dummy variable for situations in which zero is assigned to CFI and then plug this variable into regression. Finally, we leave CFI undefined and drop the observations when there are no deaths within a conflict in a previous month. This effectively reduces our sample to conflict months with at least one battle death and a following month. All three approaches yield very similar substantive results. We report results from the reduced sample because it should give more conservative estimates.

CFI by Number of Groups in GED

4.4.2 Control Variables

Civil wars can be over governmental power or territorial control. Rebel fragmentation is likely to be correlated with conflict incompatibility and whether conflict has an ethnic dimension. We control for both conflict *Incompatibility* and *Ethnic* civil wars to account for this aspect. Incompatibility is taken from the CTD (Kreutz, 2010). *Ethnic* is coded by using the ACD2EPR data (Vogt et al., 2015; Wucherpfennig et al., 2012). There is an overlap between incompatibility and ethnic civil wars as territorial conflicts are more likely to have an ethnic dimension. Based on measures of model fit, we only report results using the *Incompatibility* variable. Whether the conflict involves lootable resources or not can influence both rebel fragmentation and conflict duration. Therefore, we control for this using the dummy variable, *Resources* (Buhaug, Gates and Lujala, 2009). The level of battle related deaths can impact both the conflict duration and the CFI index. To account for this, we control for *Battle Deaths* (Melander, Pettersson and Themnér, 2016). Internationalization of civil wars may influence both UN involvement and rebel fragmentation. We control for *Internationalized Conflict* by using the information available at the ACD.

Previous research has highlighted additional country-level factors as influential on conflict duration. These include population, GDP per capita and level of democracy. The data on *Population* and *GDP p.c.* are from Gleditsch (Gleditsch, 2002). We use the V-Dem's (Varieties of Democracy) *Polyarchy* for measuring democracy (Coppedge et al., 2016). The V-Dem Data project adopts Robert Dahl's concept of polyarchy (Dahl, 1973) and uses more than 2600 experts to build a new measure of electoral democracy in 173 countries from 1900 to present. As UN might be more inclined to intervene to militarily weak countries, we control for relevant variables in the National Military Capabilities data (Singer, Bremer and Stuckey, 1972). We present results with the number of *Military Personnel* of the country experiencing conflict. In the full model, we also control for whether a rebel group within a conflict receives explicit support from a third country. *Explicit support* is taken from Non-State Actors dataset (Cunningham, Gleditsch and Salehyan, 2009). Finally, we include regional dummies.

4.5 Results

We start with the conflict duration analysis. Table 4.1 reports results from Cox proportional hazard models on conflict duration. We use Cox models because we do not have any theoretical reasons to define the shape of the baseline hazard for conflict termination. CFI, as we expected, has a negative coefficient across models, meaning higher CFI is associated with decreased hazard

	Model 1	Model 2	Model 3	Model 4	Model 5
	Baseline	UNPKO	Interaction	Full model	Alternativ
CFI	-1.20*	-1.20*	-2.00**	-1.76**	
	(0.57)	(0.56)	(0.66)	(0.65)	
UNPKO	()	0.10	-0.01	-0.06	-0.78
		(0.16)	(0.18)	(0.19)	(0.47)
CFI * UNPKO			2.26^{*}	2.54*	
			(1.01)	(1.02)	
Group No					-0.57**
on or the second s					(0.21)
UNPKO * Group No					0.73*
					(0.35)
Incompatibility	-0.34*	-0.32^{\dagger}	-0.33*	-0.32^{\dagger}	-0.31^{\dagger}
1 0	(0.16)	(0.16)	(0.16)	(0.17)	(0.17)
ln Real GDP p.c	-0.08	-0.07	-0.08	-0.13	-0.11
	(0.07)	(0.07)	(0.07)	(0.12)	(0.12)
In Population	-0.14**	-0.14**	-0.14**	-0.10	-0.10
	(0.05)	(0.05)	(0.05)	(0.09)	(0.08)
Polyarchy	-0.47	-0.48	-0.47	-0.77*	-0.78*
	(0.34)	(0.33)	(0.33)	(0.36)	(0.36)
In cumulative Battle	-0.27***	-0.27***	-0.26***	-0.25***	-0.25***
Deaths $(t-1)$	(0.05)	(0.05)	(0.05)	(0.06)	(0.06)
Resources	-0.23	-0.23	-0.22	-0.14	-0.14
	(0.16)	(0.16)	(0.16)	(0.17)	(0.17)
Rebel Support				-0.34^{\dagger}	-0.33^{\dagger}
				(0.18)	(0.18)
ln Military Personnel				-0.04	-0.04
				(0.07)	(0.07)
Internationalized				-0.47	-0.48
Conflict				(0.30)	(0.31)
Regional Dum.	Х	Х	Х	\checkmark	\checkmark
Observations	833	833	833	813	813
Log Likelihood	-811.3	-811.2	-809.4	-781.6	-781.4
Number of Subjects	224	224	224	220	220
Number of Failures	199	199	199	195	195

Table 4.1: Cox Proportional Hazard Regression on Conflict Duration (Peacekeeping Missions)

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, † p<0.10



Figure 4.5: Predicted Survival Functions using Model 4

rate, and thus longer conflicts. Model 1 presents results from the baseline model with only the core controls. Model 2 introduces UNPKO as a dummy without an interaction with the CFI variable. UNPKO is not significant and Model 2 performs worse than Model 1 in terms of model fit. Model 3 introduces an interaction term between CFI and UNPKO. Although UNPKO is still not significantly different from zero, the interaction term is positive and statistically significant, indicating a possible mitigating effect of UN peacekeeping on the conflict prolonging impact of CFI. In other words, UN is particularly influential on terminating fragmented civil wars. Model 4 presents the full model including the additional control variables. The interaction term remains significant. Inclusion of the interaction term performs better in all the models. Among comparable specifications, the best model fit is reached when CFI and the interaction term are both included.

Although we fail to find a direct effect for UN intervention on conflict duration, our results suggest a possible conflict shortening effect of UN through mitigating the adverse impact of conflict fragmentation. This relationship is most visible in Figure 4.5, which illustrates predicted survival functions using Model 4 in Table 4.1. When CFI is 0 (no fragmentation), conflicts with and without UN peacekeeping both follow a very close predicted survival pattern. However, when CFI is 0.4 (median CFI when there is fragmentation), conflicts involving UN are more likely to end quicker than conflicts not involving UN. This finding is strongly in line with the theoretical argument, which expects fragmented conflicts to be longer than non-fragmented

conflicts when there is no UN peacekeeping.

Model 5 replaces *CFI* with *No.* of *Rebel Groups*, which is the conventional approach to measure fragmentation in the extant literature (e.g. Hultman, Kathman and Shannon, 2014). Model 5 shows that *CFI* does not drive our results and the conventional approach also yields to similar results, expected by our theoretical framework. Both *No.* of *Rebel Groups* and its interaction with *UNPKO* are statistically significant. Figure 4.6 illustrates predicted survival functions using Model 5, which shows a very similar pattern in Figure 4.5; when there is rebel fragmentation, UN peacekeeping operations make a large difference on conflict duration.



Figure 4.6: Predicted Survival Functions using Model 5

In addition to peacekeeping operations, UN political involvement short of deploying peacekeeping personnel may also act as a stabilizing factor in fragmented civil wars. UN political involvement may provide an institutional setting and path dependency that facilitate the peace process to succeed by overcoming the instability inherent in fragmented conflicts. To test the impact of UN political involvement, we adopt two approaches. First, we consider a dummy variable, *UNPM*, which indicates UN political missions short of peacekeeping personnel deployment. This data is taken from Maekawa, Arı and Gizelis (2018). Second, we create an indicator variable, *UN*, which captures both UN peacekeeping and political involvement.

Results are reported in Table 4.2. Model 6 includes *UNPM* and its interaction with *CFI*. Neither *UNPM* nor the interaction term with *CFI* are statistically significant. This is also the case for Model 7, which replaces *CFI* with *No. of Rebel Groups*. When we aggregate UN peace-

	Model 6 Political	Model 7 All	Model 8 Political	Model 9 All
	1 ontroat		1 ontroat	
CFI	-0.78	-1.49*		
	(0.56)	(0.64)		
UNPM	0.56	· · /	1.03	
	(0.38)		(0.80)	
UNPM * CFI	-1.92			
	(1.97)			
UN (all)		-0.04		-0.43
		(0.19)		(0.46)
UN (all) * CFI		1.46		. ,
		(1.12)		
Group No			-0.31^{\dagger}	-0.49*
			(0.17)	(0.20)
Group No * UNPM			-0.50	. ,
			(0.61)	
Group No * UN (all)				0.39
				(0.36)
Incompatibility	-0.37*	-0.34^{\dagger}	-0.36*	-0.32^{\dagger}
	(0.19)	(0.17)	(0.18)	(0.17)
ln Real GDP p.c	-0.09	-0.12	-0.10	-0.11
	(0.12)	(0.13)	(0.12)	(0.13)
In Population	-0.08	-0.10	-0.09	-0.10
	(0.09)	(0.09)	(0.09)	(0.08)
Polyarchy	-0.87*	-0.76*	-0.83*	-0.76*
	(0.39)	(0.37)	(0.39)	(0.37)
In cumulative Battle	-0.26***	-0.26***	-0.26***	-0.25***
Deaths (t-1)	(0.06)	(0.06)	(0.06)	(0.06)
Resources	-0.23	-0.13	-0.21	-0.13
	(0.17)	(0.17)	(0.17)	(0.17)
Rebel Support	-0.35^{\dagger}	-0.35^{\dagger}	-0.34^{\dagger}	-0.33^{\dagger}
	(0.18)	(0.18)	(0.18)	(0.18)
In Military Personnel	-0.04	-0.04	-0.03	-0.04
	(0.07)	(0.07)	(0.07)	(0.07)
Internationalized	-0.45	-0.45	-0.41	-0.44
Conflict	(0.29)	(0.30)	(0.29)	(0.31)
Regional Dum.	\checkmark	\checkmark	\checkmark	\checkmark
Observations	813	813	813	813
Log Likelihood	-782.3	-782.9	-781.8	-782.4
Number of Subjects	220	220	220	220
Number of Failures	195	195	195	195

Table 4.2: Cox Proportional Hazard Regression on Conflict Duration (Political Missions)

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, † p<0.10

keeping and political missions, the main conflict shortening effect of UN involvement through interacting with fragmentation disappears; neither UN nor its interaction with fragmentation measures are significant in Model 8 and 9. In short, our main finding is limited to UN peace-keeping operations and we don't find evidence that UN political involvement also mitigates the conflict prolonging impact of fragmentation.

In light of these results, we emphasize two points from our theoretical argument. First, UN involvement reflects the position of international community and demarcate the domain of internationally acceptable outcomes of a conflict. The deployment of UN peacekeeping personnel may signal that the international community attributes high issue salience to its domain of acceptable outcomes. In other words, UN peacekeeping operations show the resoluteness of the international community. Political missions, on the other hand, might not give a similar signal that the international community strongly favours or disfavours particular outcomes in the peace process. Our results suggest that such a limited involvement is not sufficient to shrink the alternative deals in the win set.

Second, UN involvement has an impact on the rebel groups' cost function of fighting and may shift the balance of power among actors (Dorussen and Gizelis, 2013). Such shifts are likely to generate power vacuums, which then provide opportunities and incentives for breakaway factions. Effective peacekeeping addresses the problem of areas of lawlessness, especially in the periphery (Ruggeri, Dorussen and Gizelis, 2017). The presence of peacekeepers in peripheral areas where there is a power vacuum can deter rebel groups to fragment and start infighting over local grievances and resources with other groups. The presence of peacekeepers is required to deal with such a problem. Political missions short of UN peacekeeping personnel might be insufficient to influence the cost function of fighting, provide stability in the periphery and deter breakaway factions. As a result, political involvement short of peacekeeping is not enough the mitigate the adverse impact of fragmentation on peace processes.

Next, we turn to number of battle related deaths in African civil wars. We re-run the analysis of Hultman, Kathman and Shannon (2014) by introducing conflict fragmentation and an interaction term with the main UN peacekeeping variable. Table 4.3 presents results from a negative binomial regression on the number of deaths in a given month. Model 10 is the replication of original results of Hultman, Kathman and Shannon (2014). Model 11 shows that reducing our sample by dropping observations which follow the non-conflict months does not substantively influence these findings. In Model 12, we introduce our lagged CFI variable. As we had expected, CFI is positive and significant, indicating that higher CFI in a previous month is associated with higher battle deaths in the next month. Model 13 includes an interaction term between UN troops and CFI. The interaction term is negative and significant. In other words, when we look at the joint effect of UN troops and fragmentation, increasing numbers of UN troops mitigate the adverse effect of CFI.

	Model 10	Model 11	Model 12	Model 13		
	Original	Reduced	CFI	CFI		
CFI (t-1)			1.25^{*}	1.38**		
	0.4.0.4		(0.50)	(0.50)		
UN Troops (t-1)	-0.13*	-0.15***	-0.14***	-0.14***		
	(0.05)	(0.04)	(0.04)	(0.04)		
CFI (t-1) * UN Troops (t-1)				-0.62***		
				(0.10)		
Police	0.23	0.20	0.18	0.25		
	(0.20)	(0.17)	(0.18)	(0.19)		
Observers	2.73^{*}	2.73^{*}	3.13^{*}	3.18^{*}		
	(1.34)	(1.18)	(1.23)	(1.25)		
Cease Fire	-0.07	0.07	0.05	0.05		
	(0.39)	(0.30)	(0.32)	(0.32)		
Rebel Strength	0.39	0.32	0.28	0.27		
	(0.30)	(0.26)	(0.24)	(0.24)		
No of Reb. Groups	0.01	-0.10**	-0.10**	-0.10**		
	(0.06)	(0.04)	(0.04)	(0.04)		
In Population	0.06	0.16	0.18	0.18		
	(0.19)	(0.20)	(0.19)	(0.19)		
Biased Intervention	1.41^{***}	0.58*	0.56^{*}	0.57^{*}		
	(0.42)	(0.29)	(0.27)	(0.27)		
Battle Deaths (t-1)	0.01^{***}	0.01 < **	0.01 < **	0.01 < **		
	(0.01 <)	(0.01 <)	(0.01 <)	(0.01 <)		
Observations	5,861	2,465	2,465	2,465		
Log Likelihood	-11858	-8541	-8534	-8529		
Bobust standard errors in parentheses						

Table 4.3: Negative Binomial Regression on Battlefield Deaths in Civil Conflicts in Africa, 1992-2011. Data from Hultman, Kathman and Shannon (2014)

Robust standard errors in parentheses *** p<0.001, ** p<0.01, * p<0.05, † p<0.10

Figure 4.7 plots the number of battle deaths against CFI by classifying observations UN or non-UN. Lines are fitted using the predicted number of battle deaths from Model 13. The red line represents a scenario with no UN troops whereas the blue line represents a scenario with 7000 UN troops deployed in the previous months. Figure 4.8 illustrates the marginal effect of CFI conditional on the number of UN troops. When UN troops are deployed, the effect of fragmentation on predicted number of battle-deaths declines very quickly suggesting that larger number of UN troops mitigates the impact of CFI on battle-deaths.

Overall, the empirical analysis suggest that fragmentation is an impediment to peace. Fragmented conflicts are longer and deathlier. However, UN PKOs mitigate the adverse impact of fragmentation. When UN is present, fragmented conflicts are shorter and less deathlier compared to no UN involvement. UN peacekeeping makes a significant difference for fragmented



Figure 4.7: Predicted Number of Deaths (Model 13) and the Data



Figure 4.8: Marginal Effect of CFI

conflicts.

There are two main limitations of the empirical analysis. First and foremost, UN involvement is not randomly assigned (Gilligan and Sergenti, 2008). It is plausible that UN peacekeepers are especially sent to fragmented conflicts. Policymakers may instinctively channel UN resources to civil wars where UN would be more effective. This would not be against the theoretical framework. After all, it is reasonable that UN gets involved where it can make a difference. However, such a pattern may bias our estimates. Therefore we caution to interpret the empirical results with their face value, and present our analysis as an exploratory work to draw attention to this important process. The problem is not limited to the empirical analysis in this chapter. As far as we know, there are no empirical analyses considering the relationship between fragmentation and the UN. Studies using matching and balancing techniques do not match on conflict fragmentation (e.g. Gilligan and Sergenti, 2008; Hultman, Kathman and Shannon, 2016). Further research should take into account the relationship between conflict fragmentation and UN PKO deployment.

Second, our measurement for conflict fragmentation is biased when the conflict is extremely fragmented. Again, this problem is not limited to the CFI, or this chapter. Collecting disaggregated data on conflict processes – especially belligerent groups and fighting intensity – becomes almost impossible for extremely fragmented conflicts. For example, the UCDP data family (Melander, Pettersson and Themnér, 2016) only reports "Syrian insurgents" instead of actual actors because it is virtually impossible to collect data on large number of factions in the Syrian civil war. In this sense, alternative measurements such as number of actors would not circumvent the problem. Therefore, we refrain from claiming precise effects. Instead, we present these results as discernible patterns in the data, in line with our theoretical expectations. It is hard to imagine how measurement inaccuracy for the highly fragmented cases may affect the estimates. On the one hand, we might be underestimating the adverse effect of fragmentation and the mitigating impact of UN because of our inability to measure extreme fragmentation. On the other hand, extremely fragmented conflicts might be immune to the UN impact because UN might fail to kickstart the peace process. Further research should develop approaches to address this measurement problem.

4.6 Conclusion

In this chapter, we examine if conflict fragmentation leads to longer and harder-to-resolve intrastate armed conflicts. Using insights from social choice theory, we develop a new theoretical framework and a novel approach to measure conflict fragmentation to explore why such conflicts often become intractable. What insights do we gain from our proposed theoretical framework vis-à-vis the extant literature? First, there are apparent incentives and opportunities to derail a bargain by those who would vote against a deal. This provides an explanation for why we may observe spoilers in civil wars. It also suggests that categorizing actors as spoilers and nonspoilers might be a futile task; given enough time, every actor might emerge as a spoiler. Second, even in the lack of any veto-players, we still may not reach a stable bargain. In this sense, objection of a veto-player might be a sufficient condition but it is not necessary for peace process failure. Furthermore, the theoretical framework cautions when identifying veto-players. Given the right configurations, any actor can be observed as a veto-player because of its instantaneous ability to inspire coalitions to push the bargain towards another direction. For example, peace in Lebanon had not been conceivable without the approval of the Maronite hardliners as they succeeded to veto preceding accords, but their resistance to the Taif Agreement was defeated. Similarly, despite being a dominant actor for decades, Khmer Rouge failed to veto a peace deal and was eventually eliminated. Finally, the instability emerging from cyclic preferences suggests a particular commitment problem because at least some of the parties have incentives to renege on a mutually preferable bargain for a more desired outcome.

Is it possible to resolve highly fragmented conflicts? We argue that UN PKOs can mitigate the adverse impact of conflict fragmentation on finding a stable peace agreement. UN involvement is likely to bring institutional arrangements to the conflict resolution process, which would provide path-dependency. This, in return, help overcoming the instability inherent in fragmented conflicts. We adopt two approaches to investigate the moderating effect of UN intervention on fragmentation. First, we look at conflict duration and we find that fragmentation prolongs civil conflict but the UN involvement mitigates this adverse effect. Then, we re-run the analysis by Hultman, Kathman and Shannon (2014) and find that fragmentation is associated with increased battle related deaths in African civil wars but UN involvement modifies this impact. Therefore, in addition to a direct impact of UN on reducing battle related deaths, we find evidence of an indirect effect.

Overall, our findings suggest that UN PKOs do mitigate the effect of fragmentation and lead to shorter and less intense conflicts. What do these findings mean in practice? They suggest that UN PKOs do not necessarily make things better. However, in the worst cases of fragmentation, UN PKOs can make a positive difference towards conflict management, especially by reducing battle-deaths and by shortening conflict duration. This implies that the deployment of UN troops makes it more difficult for breakaway rebels to mobilize and use resources to support their fighting against the government. This finding also suggests that UN troops can successfully diminish the capacity of rebel groups to use violence. It is a bit harder to interpret why UN PKOs can mitigate the impact of high levels of fragmentation on the duration of conflict. It is possible that our second finding might provide a partial explanation. UN decreases the ability of rebel breakaways to use violence, thus, leading to shorter conflicts. Moreover, if the literature is correct that the UN chooses the harder cases, then an extension of our research is to examine if the UN will be present and with broader mandate in the more fragmented conflicts.

Chapter 5

Tax-in-Kind on the Deprived: How Compulsory Military Service Prolongs Civil Conflicts

H^{ow} a state recruits rank-and-file members of its armed forces is an institutional arrangement that shapes the relationship between the state and the citizen (Levi, 1997). Whether a state relies on all-volunteer forces (AVFs) or levies conscription have substantial consequences on how the costs of raising and maintaining the armed forces is distributed among the society (Friedman, 1967). Due its importance, the military manpower supply system (MMSS) has been investigated extensively in terms of the state's propensity and effectiveness to use of force and the citizens' response. However, its discussion has been almost exclusively based on the experiences of advanced democracies, particularly the United States, and the use of force in interstate conflict.

In this chapter, I develop a framework to theorise how the MMSS influences *civil* conflict processes by focusing on intrastate war duration. Such a task requires a shift from conceptualising conscription through the experiences of advanced democracies. Indeed, *de jure* universal conscription is far from being a feature of the highly-developed and democratic state. Several historical states (e.g. the Ottoman Empire or the Imperial Russia) and many conflict prone developing countries adopted *de jure* universal conscription. Although a Kantian conceptualization understands conscription as a pacifying, democratic and equitable duty on all citizens (see Vasquez, 2005; Kriner and Shen, 2016), in many conflict prone countries, it is employed as a coercive resource extraction policy that disfavours subsistence farmers, urban poor and discriminated or excluded ethnic groups. It is important to recognize the gap between *de jure* status of universal conscription as an equitable duty and its *de facto* implementation. A survey of the experiences of many conflict-prone countries strongly suggest that conscription tends to get corrupted into a coercive resource extraction policy, especially when there is ethnic, economic or political inequality.

Based on this conjecture, the chapter argues that when the state relies on a conscription army instead of an all-volunteer force (AVF), civil conflict is likely to get intractable and last longer because the mandatory service influences the interests and incentives of the individuals $de \ facto$ subject to conscription, the general populace, and the ruling elite in three interrelated ways.

First, conscription decreases the opportunity cost of joining to a rebel organization. The wages in the private sector have no immediate value for a person who is going to be conscripted into the military. Unlike AVFs, which are subject to market constraints, material compensations to conscripts are set administratively and substantially below the market value (Lee and McKenzie, 1992). An example illustrates how severe this difference can be; according to 2015 figures, compensation payment for a conscript in Turkey is about 3% of the minimum wage and 2.2% of the average wage for males with high school diploma or less. Similarly, Russia pays a negligible pocket money to conscripts instead of market wages (Lokshin and Yemtsov, 2008).

Conscription not only eliminates the prospects of financial gain through employment in private sector but also induces the non-pecuniary costs of fighting to individuals who might otherwise prefer to stay away from armed combat (Warner and Asch, 1995). If the individual is also very likely to be compelled to fight during his military service, the decision for joining a rebellion is reduced to just a matter of taking sides. It should be no surprise that during the Kurdish insurgency in the 1980s, the cadres of KDP and PUK were filled with young males who evaded the Iraqi draft or deserted the army (McDowall, 2003). Instead of serving in Saddam's forces, young Kurdish males flocked to the insurgency in so large numbers that KDP and PUK were forced to turn recruits away due to overcrowding of the rank-and-file. Overall, the decreasing opportunity cost of rebellion leads to higher rebel recruitment and retainment capacity, and thus longer civil wars (Collier and Hoeffler, 1998; Collier, Hoeffler and Söderbom, 2004).

Second, conscription exacerbates grievances by reflecting and reproducing underlying inequalities in a society. Conscripts from less advantageous backgrounds are likely to be overburdened with the most dangerous tasks, such as deployment to combat positions against a rebel organization. Individuals from privileged backgrounds, on the other hand, often have many instruments to 'dodge the draft' through avoidance or evasion (Poutvaara and Wagener, 2011). Even when conscripted, the well-off are likely to be positioned in more secure and prestigious positions, such as the navy or the air forces, and act as ranking officers rather than rank-and-file members in the frontline. Colombia presents a crucial example illustrating how conscription can put the burden of actual fighting to the lowest stratum of a society. As a Colombian politician once put, "the poorest of the poor do the fighting, and the rich people drive the generals' cars, if anything."¹ Taken as a whole, we can conceptualize conscription as a tax-in-kind, imposed by the state on the deprived sections of a society.

Conscription aggravates underlying grievances also because it reproduces the ethnic power relations in a society. Conscription is often part of the nation-building attempts of modern states (Levi, 1997; Centeno, 2002; Wimmer, 2002). As such, military service is likely to be intended as a "melting pot" for integrating ethnically diverse populace through a state institution. This melting pot, however, entails forceful attempts to forge new loyalties through the imposition of the language and cultural practices of the ethnically dominant group. Conscripts from ethnically excluded groups are very likely to experience mistreatment and physical abuse during this process. Overall, conscription may function as an institution facilitating and reproducing ethnic domination. For example, conscription entailed "whitening" indigenous populations in the Americas (Gill, 1997; González-Cueva, 2000; Yezer, 2007; Boesten, 2010), imposition of Sunni Islam Arabism over Shias, Kurds and Yazidis in Iraq (Fuccaro, 1997; Simon, 2004; Wimmer, 2002), oppression and torture against Christians in Eritrea (Human Rights Watch, 2009), Russification of Muslims in the Soviet Union and Russia (Curran and Ponomareff, 1982; Daugherty III, 1994), and Turkification of ethnic minorities in the Ottoman Empire and modern Turkey (Icduygu, Romano and Sirkeci, 1999; Ciçek, 2014).

Grievances are associated with higher propensity to joining to a rebellion and higher cost tolerance on behalf of the recruits (Cederman, Weidmann and Gleditsch, 2011; Wucherpfennig et al., 2012; Cederman, Gleditsch and Buhaug, 2013; Tezcür, 2015). This enhances rebel recruitment and retainment capacity, paving the way for longer conflicts (Cunningham, Gleditsch and Salehyan, 2009; Wucherpfennig et al., 2012).

Third, conscription decreases the proportion of conflict costs borne by those who have higher ability to influence the government policy. As the costs associated with continuation of fighting the rebels are dispersed mainly to the lowest strata of a society, those who are in more advantaged positions have little incentives to encourage the government to find a settlement, and the conflict lingers on. High socioeconomic classes find it easier and faster to secure exemptions, deferments and other instruments to dodge the draft, which yields a superior private payoff compared to

¹ Francisco Santos, the former vice-president of Colombia, made this declaration in 2002 during his election campaign (Wilson, 2002).

war-prevention, which is a public good marred by free-rider problems (Henderson and Seagren, 2014). Once individuals are released from the dangers of the military service, conscription transfers overall costs of conflict away from them to conscripts in combat duties. For AVFs, on the other hand, if serving in the military becomes too dangerous due to an ongoing civil conflict, the government needs to compensate rank-and-file members of the army accordingly, which puts increasing pressure on the general taxpayer. This argument does not suggest that AVFs are more equitable on distributing the human costs of conflict. In both systems, the well-off are unlikely to serve in the combat positions.² However, the state needs to pay the market value for the services of rank-and-file members in AVFs, whereas it does not need to compensate conscripts when it relies on mandatory recruitment. This feature of AVFs decrease the cost tolerance of the government, enlarge the bargaining range and shorten civil conflict.

It is important to highlight that these three mechanisms are neither independent nor alternative. They rather take place concurrently as a joint process. The costs *some* individuals incur by being subject to conscription decreases the opportunity cost of rebellion, increases grievances and insulates influential sections of the population from the cost of conflict. In return, it helps rebel groups to overcome collective action and free-rider problems, and render governments more tolerant to costs of conflict.

The chapter also departs from the so-called greed vs. grievance divide by adopting the view that these two mechanisms are neither mutually exclusive nor necessarily distinct from each other. Conscription decreases the opportunity cost of rebellion *particularly for* low socioeconomic classes and discriminated ethnic groups. The distributional consequences of state policies influence the opportunity cost of violence. This understanding is well in line with the recent advances in the literature that show that opportunity and grievances are not mutually exclusive (Cederman, Gleditsch and Buhaug, 2013), and that they can, indeed, interact (Koubi and Böhmelt, 2014; Bara, 2014)

The implications stemming from the theoretical framework is tested on a global dataset on civil conflict duration that covers the period 1950-2005. The results show that conscription is associated with longer conflicts if there is high socioeconomic inequality or ethnic discrimination. However, if the inequality conditions are absent, conscription armies and AVFs are indistinguishable in terms of conflict duration. These results strongly suggest that conflict prolonging effect of conscription is due to its distributional consequences, as opposed to alternative mechanisms such as military effectiveness. Because the estimated effect is conditional on under-

² For example, in the analysis of US, Kriner and Shen (2010) find that ethnic minorities are overrepresented in casualties both during the draft-era and after the introduction of AVF.

lying inequalities in a polity, the empirical analysis provides strong evidence for the theoretical framework.

The contributions are twofold. First and foremost, the chapter identifies conscription as an institutional arrangement with important consequences on civil conflict processes. In my knowledge, this is the first analysis to investigate how the MMSS influence civil conflict. The chapter develops a theoretical framework by linking the literature on the MMSS with the wellestablished theories of civil conflict. A missing connection between the opportunity approach to civil war and the MMSS literature is provided. It is highlighted that conscription can render the option of civilian-life unattainable for many young males, as exemplified most visibly by conscripts in the Syrian army serving in the ongoing civil war.

Second, the chapter contributes to our understanding of the MMSS by revealing the ubiquitous practice of conscription as an instrument to transfer conflict costs from one strata of society to another. Many theoretical approaches in the extant literature focus closely on the implementation of conscription in United States and neglect the overwhelming majority of cases. Although the inequitable implementation of *de jure* universal conscription is well-known for each individual country, its severity and ubiquity has not been recognized by many cross-country analyses. On the contrary, many studies associate conscription with political fairness (see Choi and James, 2003; Vasquez, 2005; Pickering, 2010; Kriner and Shen, 2016). Crucial cases such as Turkey and Colombia show that even electoral democracies can implement conscription in a very inequitable manner. The ubiquity of inequitable implementation of conscription has strong implications for the relationship between MMSS and conflict for further theory development. For example, it may explain why countries using conscription are more likely to initiate interstate conflict (Choi and James, 2003; Pickering, 2010). Similarly, it may advance our understanding on why countries are more likely to waste resources and incur higher casualties when using conscription (Horowitz, Simpson and Stam, 2011).

The rest of the chapter proceeds as follows. Next section discusses how conscription has been conceptualised as a tax-in-kind by providing an overview of the literature. Section 5.2 concentrates on the distributional consequences and identifies conscription as an *unequal* tax. Section 5.3 develops how this institutional arrangement influences interests and motivations of ordinary men as well as the policymakers. Section 5.4 outlines the empirical design to test the theoretical expectations on conflict duration. Empirical analysis and a discussion of results follows. The chapter concludes with a discussion on further research.

5.1 Military Manpower Supply System: An Overview

Modern armies can be classified into two categories based on their military manpower supply systems (MMSS); conscription and all-volunteer forces (AVFs). AVFs rely completely on voluntarily enlisted personnel, which subject the military to market constraints to recruit rank-and-file soldiers. Conscription, on the other hand, compels all or some citizens to serve in the military for a specified period of time, which release armies from competitive wage demands (Lee and McKenzie, 1992).

Comparisons of the two systems and their consequences generated a lively debate in terms of overall benefits to society, combat readiness, equitability and government propensity and effectiveness to use of force (Warner and Asch, 1995; 2001; Poutvaara and Wagener, 2011; Horowitz, Simpson and Stam, 2011). A literature focusing on the overall social effectiveness of conscription grew out of this debate (for a review, see Warner and Asch, 1995; Poutvaara and Wagener, 2011). This line of research conceptualized conscription as a tax imposed on young male citizens, exacting forced labour below market-prices (Friedman, 1967). An important point highlighted by the economic models is that, states do not need to match the market value for soldiers when relying on conscription. Rather, compensations to conscripts are set administratively and often considerably below the market value (Lee and McKenzie, 1992). This difference is indeed a tax (Warner and Asch, 1995).

A consensus emerged from the early models that AVFs are more desirable because the real cost of an AVF is lower than the real cost of conscription (Warner and Asch, 1995). Under conscription, there would be many individuals receiving payments below their supply price. This income foregone is the primary argument against conscription (Lee and McKenzie, 1992). Many individuals who would have generated income had they stayed in civilian life are drafted into the military, creating substantial losses in opportunity costs. The aggregate opportunity cost of a conscription army is higher than the aggregate opportunity cost of an AVF because AVFs are selective to enlist "only the qualified persons with lowest opportunity cost" (Mulligan and Shleifer, 2005, p. 89). Although the military personnel wage bill is higher, the losses in opportunity costs are substantially higher than any nominal gain. Therefore, due to aggregate losses in opportunity cost, conscription is costlier than an AVF. The literature reaches to this conclusion by comparing the opportunity costs of military and civilian options. As will be discussed in section 5.3.1, economic approaches to civil conflict propose a hypothesis in a similar fashion, by comparing the opportunity costs of civilian and rebel options. I will integrate these



Proportion of Countries Using Conscription

two approaches in section 5.3.1.

Figure 5.1: Proportion of Countries Using Conscription

Although the US abolished the draft and many countries followed the trend, conscription proved to be a sticky state policy. For example, 41.15% of countries were still enforcing mandatory military service in 2004 (see Figure 5.1). This widespread presence of conscription presents a puzzle; if AVFs are socially more desirable, why do many states insist on compulsory service? Later economic models presented that when the military manpower requirements proportional to the population is very high, deadweight losses due to taxation to pay the military wage bill might offset the relative gains from an AVF, rendering conscription feasible (Lee and McKenzie, 1992; Warner and Asch, 1996).

Others turned to political explanations, leading to the emerging determinants of conscription literature. This literature is important for our purposes because it highlights that conscription is a political decision with significant distributional consequences. Poutvaara and Wagener (2007) highlights the intergenerational dimension to argue that those who have already served have strong incentives to keep conscription in place because a change towards an AVF would introduce higher taxes. Anderson, Halcoussis and Tollison (1996) show that societal interest groups, such as trade unions, can benefit from conscription and lobby for its retainment. Others claim that countries using conscription might be prioritizing equity over efficiency (Ng, 2008). Primarily focusing on US and other advanced democracies, this literature often associates conscription with equity. Although this view will be challenged in the next section, these studies lay down the conditions within which conscription is equitable and show how conscription can distribute costs across a society. It is argued in the next section that these conditions are almost always not present in countries facing civil conflict.

There are two lacunas in the literature. First, the literature has not explicitly considered the impact of MMSS on civil conflict processes. There are studies on how conscription influences conflict casualties (Vasquez, 2005; Horowitz, Simpson and Stam, 2011), the public opinion on war (Horowitz and Levendusky, 2011; Kriner and Shen, 2016), and a state's propensity to use force (Choi and James, 2003; Pickering, 2010). However, all of these studies focus on interstate disputes.³ Some of the arguments in these studies are transferable to civil conflict. Second, overwhelming majority of theoretical models on MMSS are developed based on the experience of advanced democracies, particularly the US. Theoretical expectations do not necessarily match with actual functioning of conscription armies for many countries that face civil conflict. This is particularly the case for the distribution of the burden of conscription among the society. I now turn the assumption that conscription is more equitable than AVFs.

5.2 Distributional Consequences of Conscription

Conscription is often assumed to be a more equitable policy compared to AVFs (Vasquez, 2005; Ng, 2008; Kriner and Shen, 2016). Indeed, this assumption has formed the basis of support for the draft in US (Warner and Asch, 2001). Its supporters had argued that if the draft was to be abolished, underprivileged racial groups and lower socioeconomic classes would constitute the majority of the military. Equity in the distribution of cost of conflict also lies at the heart of the argument that conscription lowers public support for war and leaders' propensity to use of force (Vasquez, 2005; Pickering, 2010; Kriner and Shen, 2016). Pickering (2010, p. 3) summarises the underlying line of thought: "to the extent that the draft calls up young men and women from politically important groups within society, it has the potential to act as a brake on any leader's foreign military ventures. ... Since AVFs are typically drawn from the less privileged in society and volunteers are well aware of the conditions of their service, political leaders have little reason to fear a political backlash when they deploy them." Vasquez (2005, p. 852) bases

³ In his analysis, Pickering (2010) includes "operations other than war" which refers to military operations outside of a state's borders to target non-state actors. However, there is no specific focus on intrastate conflict and civil wars are not included in the sample.

his argument on an assumption that "militaries that rely on conscription are more likely to have in their ranks citizens from high status or wealthy social groups with access to political power when compared to militaries that depend on voluntary enlistment". Similarly, Kriner and Shen (2016, p. 1423) argue that "whereas the AVF insulates most citizens from direct exposure to [conflict] costs, conscription spreads the risk more evenly across the country".

I argue that this widespread assumption does not reflect the practical realities in many developing countries where conscription is employed as a resource extraction policy that disadvantages the lower socioeconomic classes, namely the subsistence farmers, urban poor, less educated citizens and politically excluded or ethnically discriminated groups.

A survey of the literature reveals that conscription is more equitable only under some certain conditions (Oi, 1967; Friedman, 1967; Pauly and Willett, 1972; Flynn, 1998; Warner and Asch, 2001; Warner and Negrusa, 2005; Ng, 2008; Poutvaara and Wagener, 2011). Conscription, in theory, is *ex ante* and *ex post* equitable as long as *all* citizens serve for an equal time under same or similar circumstances without any exemptions,⁴ deferments and lotteries. However, if the supply of manpower exceeds the demand and the state introduces a lottery, as in the case of US in the 1970s or the present-day Thailand, the draft becomes only *ex ante* equitable (Pauly and Willett, 1972). Moreover, each exemption and deferment render the draft less and less equitable (Friedman, 1967). Similarly, any policies that set conscripts apart in terms of type and duration of service further diminish the equity. Finally, if the probability of evading the military is not uniformly distributed across the population, conscription becomes less equitable. Overall, each and every distortion cause transfers from those who serve under compulsion and those who do not (Friedman, 1967). If there are substantial distortions, these transfers are large and conscription is less equitable.

Equity of the draft assumption requires an impartial state that codifies and rigorously implements universalistic rules. Such a state needs to have well-established institutions, high administrative capacity and a willingness to tradeoff equity over efficiency (Ng, 2008). The view that attributes higher equity to conscription often proxies these conditions with the regime type. This brings an assumption that democracy will necessarily provide the conditions that make conscription equitable. However, even for the US, whether these conditions had been present is not entirely clear. Some studies suggest that the draft was indeed more equitable when applied in the US (Kriner and Shen, 2010; 2016),⁵ whereas others claim that this is not

⁴ Exemptions based on education, skill, occupation or marital status.

⁵ Even Kriner and Shen (2010) reveal that the "casualty gap", referring to the overrepresentation of ethnic minorities in military casualties, existed under both conscription and AVF, but it has increased with the AVF.

necessarily the case (Warner and Asch, 2001; Korb and Duggan, 2007; Poutvaara and Wagener, 2011).

What is unequivocal is that the equity-enforcing conditions are simply lacking in overwhelming majority of countries that use conscription and face civil conflict, including some electoral democracies such as Turkey and Colombia. Deferments, exemptions (including exemption by a commutation fee) and widespread availability of evasion for high socioeconomic classes are very common features of conscription. In other words, the well-off are not necessarily more likely to serve in the presence of a mandatory military service compared to an AVF. Furthermore, even if they serve, higher classes almost always serve under better conditions and for a shorter period of time. These better conditions include deployment in secure areas far away from conflict zones, serving as ranking officers and serving in less demanding positions in the navy or air-forces (Boesten, 2014).

Allowing deferments and exemptions to the well-off through distinguishing individuals based on education is a common feature in many developing countries. In Colombia, individuals without a high-school diploma are bound to serve for 18 months in a *combat post* whereas those with a degree have a chance to not to serve by paying a commutation fee or to be deployed to a *non-combat post* for 12 months (Wilson, 2002). Similarly, individuals with a university degree in Turkey serve less than 6 months whereas those without a degree serve 18 months⁶ and are more likely to be assigned to a combat post. Russia is another country where pursuing higher education allows individuals to avoid the military through legal means (Lokshin and Yemtsov, 2008). It is not surprising that these paths to avoid the military service through attaining education is specifically open to the higher socioeconomic classes in all of these cases. Such practices render conscription as a transfer from the poor to the wealthy.

In addition to legal exemptions and deferments that enable the well-off to avoid the draft, de facto implementation of conscription also generates large imbalances on distribution of costs. Having contacts in official posts, securing fake medical reports and bribery are all common features that are available to the well-off to evade the draft. On the other hand, draft evasion is often not a viable option for lower socioeconomic classes because recruitment officers target these strata to fulfill quotas. Peru is a striking example where conscription was implemented as a tax-in-kind on the poor, particularly on the non-white subsistence farmers, whereas middle and upper classes were not obligated to serve through their networks in the military bureaucracy or through bribes (McCormick, 1990; Elton, 1998; González-Cueva, 2000; Dean, 2002; Yezer,

 $^{^{6}\,}$ This number has gradually dropped to 12 months in the last decade

2007; Boesten, 2010; 2014). This pattern is also evident in Russia where conscripts are mostly drafted from the rural poor (Lokshin and Yemtsov, 2008), in Colombia (Wilson, 2002), and in Guatemala (Peled, 1994). As put by Adams (1968, p. 95), "to be liable for conscription [in Guatemala] is a good index of one's lack of power to avoid it" (quoted in Peled, 1994, p. 63). In these contexts, overall, mandatory military service has been largely understood as an obligation of the poor.

Besides the inequitable distribution of the burden, conscription armies have very low standards for taking care of their rank-and-file members. This argument falls in line with established theoretical approach that proposes that countries relying on AVFs face market constraints to match wages in the private sector in order to be able to recruit. Following the same line of thought, we can expect that AVFs need to match the expected utility of joining the army with the expected utility of finding employment in private sector.⁷ These market-like pressures influences AVFs to improve the 'working environment' of the military. Bailey (2007) reveals that after the introduction of AVF, the US army started to refer potential recruits as "customers" and the army itself as a "product" in its internal documents, and engaged in what it labelled as "product improvement". An illustrative change of practice is that the US army abolished forcing the standard military haircut and let recruits to grow their hair as they like (Bailey, 2007). Armies relying on conscription, on the other hand, do not face market pressures to improve the conditions of military service. Therefore many substandard aspects of military life, such as maltreatment by superiors, physical and emotional abuse and discriminatory practices are less likely to be addressed when the military service is mandatory. Altogether, conscription armies are more likely to consider its rank-and-file members as disposable cheap-labour (Horowitz, Simpson and Stam, 2011; Poutvaara and Wagener, 2011). Case evidence reveals that abuse and gross mistreatment are very common features of military service in Turkey (Saymaz, 2010), Peru (González-Cueva, 2000) and Russia (Lohman, 2004; Human Rights Watch, 2002). Notorious terms such as "dedovshchina", "disbat" (Russia) or "disko" (Turkey) emerge to refer widespread hazing and abuse. In this sense, conscription not only distributes the burden on low socioeconomic sections inequitably, it also increases the overall burden due to low standards, mistreatment and discrimination.

The widespread abuse and exploitation of conscripts often have an ethnic dimension as well. Conscription is a state institution, and it reflects and reproduces ethnic power relations dominant

⁷ Friedman (1967) also raised a similar argument in his support for abolition of the draft; "Not the least of the advantages of a volunteer army is that the military would have to improve their personnel policies and pay more attention to meeting the needs of the enlisted men. They now need pay little attention to them, since they can fill their ranks with conscripts serving under compulsion."

in a polity. It is not surprising that individuals from ethnically discriminated groups are also very likely to witness exploitation, discrimination and mistreatment during their military service.

The experience of Peru vividly illustrates this pattern. Conscription in Peru not only prompted transfers from the indigenous populations to the urban-white, but also entailed outright ethnic domination (González-Cueva, 2000). Rank-and-file members of the Peruvian army were overwhelmingly formed by Quechua-speaking indigenous ethnic groups whereas the officers were almost always Spanish-speaking urban whites (McCormick, 1990; Elton, 1998; Boesten, 2014). Moreover, conscripts from indigenous ethnic groups were often deployed in conflict zones and compelled to carry out the fighting whereas urban-white conscripts serve in non-combat positions (González-Cueva, 2000; Boesten, 2014). Beyond the cost transferring aspect, conscription reproduced domination of the urban-white over the indigenous populations. It is widely accepted that the mandatory military service in Peru was designed as a 'disciplining', 'whitening' and 'civilizing' mechanism to 're-shape' conscripts from indigenous populations (González-Cueva, 2000; Dean, 2002; Yezer, 2007; Boesten, 2010). González-Cueva (2000) reveals that the Peruvian military maintained racial classifications in its official documents and kept records of "skin colour". As put by González-Cueva (2000, p. 90) mandatory military service was "one of the few arenas in Peru in which discriminatory labels are publicly and legally used".

Such ethnic discrimination patterns are also common in Turkey where ethnic minorities are not exempted from the draft. Military service has traditionally functioned as an institution to "Turkify" ethnic minorities through means such as teaching Turkish (Icduygu, Romano and Sirkeci, 1999; Watts, 2006). More importantly, Kurdish conscripts in the army are very likely to face mistreatment from their peers and superiors, especially since the beginning of the secessionist insurgency by the PKK. Associating ethnic Kurds as "terrorists" and carrying out verbal and physical attacks are common features in the Turkish military. Many cases of suspicious "suicides" and "accidental deaths in training" involve ethnic minorities, particularly Kurdish conscripts (Amnesty International, 1999; Saymaz, 2010). Practices in Turkey provided systematic impunity to those who abuse ethnic minorities in the military.

Institutionalized ethnic discrimination in the military is not limited to Peru and Turkey. As put by Peled (1994, p. 90), "conscription-by-force usually characterizes states where the central government is very powerful and ethnic groups are extremely vulnerable. Thus, for example, in Guatemala it has always been the practice to conscript men from the ranks of the Indian and rural Ladino population". Similarly, military service in Bolivia has been envisioned as an institution "to create citizens out of Indians" (Gill, 1997, p. 527). In the post-colonial Iraq, ranking officers were traditionally drawn from Sunni population whereas Shias, Kurds and Yazidis served as rank-and-file conscripts (Fuccaro, 1997; Wimmer, 2002). Daugherty III (1994) provides a detailed account of institutionalized ethnic discrimination in the Soviet and Russian military, particularly targeting non-Slavs and Muslims from Central Asia. Human Rights Watch (2009) documents that Christian conscripts in Eritrea were beaten and imprisoned if they were caught with a Bible or engaged in Christian prayer.

Finally, the conscription tax can have long term effects for those it has been levied on, which may trap households in poverty for subsequent generations. Previous studies have shown that compulsory service has a negative impact on human capital formation (Lau, Poutvaara and Wagener, 2004; Lokshin and Yemtsov, 2008; Poutvaara and Wagener, 2011). Conscription profoundly deteriorates the household income of poor households (Lokshin and Yemtsov, 2008) and lowers the lifetime earnings of those who have served compared to their not drafted counterparts (Angrist, 1990). AVFs, on the other hand, often provide educational benefits and transferable skills training in order to attract recruits by addressing the human capital accumulation problem (Warner and Asch, 1995; 2001). Coupled with widespread selection bias against the poor, these features of conscription can impede social mobility and cause intergenerational cycles which may entrap households in poverty.

To sum up, several countries that face civil conflict and practice conscription feature common patterns; middle and upper classes either get a preferential deal when they serve or find many instruments to evade or avoid the military altogether. Coupled with the economic literature that identifies the conditions that makes the draft equitable, these patterns seriously challenge the view that conceptualize conscription as a necessarily more equitable policy on distributing the costs of conflict over the population. Next, how this central state policy may affect civil conflict processes is elaborated through placing conscription within the well-established theories of civil conflict.

5.3 Conscription and Civil Conflict

5.3.1 Opportunity Cost of Rebellion

Opportunity cost of rebellion refers to the potential income an individual forfeits by joining to a non-state actor. Economic approaches to civil conflict postulate that this opportunity cost affects the recruitment capacity of rebel groups (Collier and Hoeffler, 1998; Collier, Hoeffler and Söderbom, 2004; Collier, Hoeffler and Rohner, 2009). Low opportunity cost is associated with higher recruitment ability for non-state actors because recruits must be compensated and the
amount of compensation is proportional to the amount they forfeit by participating in a rebellion (Collier and Hoeffler, 2004). The higher the forfeited income, the higher the rebel groups need to pay for recruits.

Many insurgencies around the world have managed to survive for decades thanks to new generations of recruits. If potential recruits need to give up large amount of prospective income, they are less likely to join a rebel organization, and the rebellion is more likely to die off. Using per capita income, growth rate and male secondary school enrollment rate for proxies of opportunity cost of violence, Collier, Hoeffler and Söderbom (2004) find that all three are negatively associated with conflict duration.

When estimating the income foregone due to joining to a rebellion, the MMSS of a country has not been taken into account so far (e.g. Collier and Hoeffler, 1998; Collier, Hoeffler and Söderbom, 2004). However, if a person is excluded from accessing the labor market due to the military service requirement, potential wages in the private sector has a little or no immediate value for him/her. The economic literature on MMSS highlights conscription as a tax, exacting labour way below market values. In this sense, conscription dramatically changes potential income of young males. For the overwhelming majority of countries relying on conscription, young males need to join the military for a period of roughly 24 months.⁸ Therefore, conscription effectively blocks the access of young males to labour market for a long period of time, rendering pay in the private sector irrelevant. As such, income foregone is not the wages in civilian life but military wages for conscripts. As highlighted by economic models on the MMSS, military wages for conscripts to match the market value because they are set administratively and the state has little incentives to match the market prices. This leads to substantial differences in civilian life pay and military wage.

Beyond the real wages, the opportunity cost hypothesis should also take the non-pecuniary costs of military life into account.⁹ As formalized by Warner and Asch (1995), the utility forfeited because of serving in an armed force, whether a state military or a rebel army, is the sum of pecuniary and non-pecuniary payoffs from the civilian life. Participating in an armed rebellion is a demanding task. It is often extremely dangerous, and it involves living in precarious conditions. There might be non-pecuniary benefits from rebellion, such as the utility of pursuing an ideological goal or some social gains (e.g. feeling of solidarity and respect

⁸ The average duration of mandatory service is 24.04 months for countries using conscription and facing civil conflict (Toronto, 2005; Melander, Pettersson and Themnér, 2016). Data on service duration is available only for 39% of the cases. Conscription of females is a very rare practice.

⁹ This argument borrows from Warner and Asch (1995). Warner and Asch (1995) compare civilian and military life. I extend this discussion to civilian, military and rebellion life.

from an ethnic/ideological community). Although payments by a non-state actor might exceed payments in civilian life, an individual still would not join if the difference between the nonpecuniary value of civilian life and non-pecuniary value of rebel life exceeds monetary gains from the rebellion.

It is fair to expect that many individuals would attribute very high non-pecuniary costs to armed conflict. An individual might have large opportunity cost of rebellion because of high non-pecuniary benefit he attributes to civilian life. Conscription, however, cancels this nonpecuniary benefit by compelling individuals to participate in the military. More specifically, high benefit attributed to staying away from an armed conflict is taken away by the compulsion to serve in the military, leading to a decrease in opportunity cost of rebellion. The level of decrease in this opportunity cost of rebellion is related to non-pecuniary costs of mandatory military service. If the military service involves living standards close to civilian life and very low risk of involvement in an armed conflict, then the decrease in opportunity cost of rebellion due to non-pecuniary aspects is low. However, if the living standards are bad and military service is very risky, non-pecuniary costs of military service is high, thus leading to a substantial decrease in opportunity cost of rebellion. As conscription often entails the worst practices, it should substantially decrease the opportunity cost.

We can expect this decrease in opportunity cost to have a prolonging effect on conflict duration (Collier and Hoeffler, 1998; Collier, Hoeffler and Söderbom, 2004). Everything else being equal, decreasing opportunity cost is associated with increasing rebel recruitment capacity. Therefore, the rebellion becomes more feasible to sustain thanks to lower recruitment costs. As a result, we can expect that conscription should increase conflict duration.

5.3.2 Conscription as a Grievance Inducing State Policy

Conscription increases grievances among low socioeconomic classes and excluded ethnic groups through two interrelated mechanisms. First, as a result of common practices in many countries, conscription effectively functions as a grossly unequal tax-in-kind falling particularly on the worse-off. Such an inequitable tax should increase grievances among those groups. This is the *tax-imposing* component of state induced grievances.

Second, compulsory military service is very likely to entail mistreatment and abuse especially against subsistence farmers, politically excluded ethnic groups and other identities associated with low social status. Conscription is a state policy, and as such, it manifests, reflects and reproduces the state-citizen relations. When an identity group is widely discriminated or politically excluded from the state, individuals from that group are also very likely to get a bad deal from the draft. This is an important grievance-inducing mechanism because many individuals from low socioeconomic groups experience how gravely the state discriminates them at first hand during their military service. Interaction with the state through the practice of conscription vividly reveals discriminating, disciplining and punishing features of the state. Wucherpfennig et al. (2012, p. 90) argue that "ethnic exclusion manifests itself in everyday life, and members of excluded groups are often subject to humiliation and treated as second-class citizens." *Everyday life in barracks* is one of the most extreme manifestation of this mechanism. We can consider this as the *ill-treatment reproducing* component.

Existing research has shown that grievances are associated with higher inclination to joining to a rebellion and higher cost tolerance on behalf of recruits (Cederman, Weidmann and Gleditsch, 2011; Wucherpfennig et al., 2012; Cederman, Gleditsch and Buhaug, 2013; Tezcür, 2015). As conscription gives rise to grievances, it can generate increased support for a rebel organization that is championing the cause against the state. This support can come not only from individuals who directly faced discrimination through their military service but also from their friends and family members. Conscription entails identity based discrimination, and a group-level mistreatment often gives rise to a group-level response (Cederman, Weidmann and Gleditsch, 2011; Cederman, Gleditsch and Buhaug, 2013; Tezcür, 2015).

Overall, grievances lead to higher recruitment and rebel retainment capacity for non-state actors. Reconsidering the Peruvian experience, it is reasonable to expect that some *campesinos* who had been grossly mistreated by the state, either directly or through a loved one, might have become more inclined to support a rebel group actively fighting the state, such as MRTA or Sendero Luminoso. It is also very likely that widespread mistreatment of Kurdish conscripts in the Turkish army increased the aggregate grievances held by the Kurdish community.

Interaction of Grievances and Opportunities

It is important to explicitly recognize that conscription decreases opportunity cost of rebellion particularly for individuals belonging to low socioeconomic strata. The opportunity cost argument delineated in section 5.3.1 has not considered the distributional effects of conscription so far. In other words, conscription is claimed to decrease the opportunity cost of violence for *everyone* in a polity. However, taking distributional consequences of conscription into account reveal that opportunity cost of rebellion should decrease *particularly* for low socioeconomic and politically excluded groups. Both *tax imposing* and *ill-treatment reproducing* components of grievances are in play in this decrease because both real and non-pecuniary costs of the military service are very high for low socioeconomic groups. This emphasis on the interplay between opportunities and grievances is an important departure from the economic approaches to civil conflict as it brings the inequality aspect back in by highlighting conscription as a grossly unequal policy. Opportunity based explanations, which consider grievances too ubiquitous to have an impact on rebellion, associate poverty – but not inequality – with civil conflict (Collier, Hoeffler and Söderbom, 2004; Collier and Hoeffler, 2004; Collier, Hoeffler and Rohner, 2009). Recent studies have demonstrated that opportunities and grievances are neither mutually exclusive (Cederman, Gleditsch and Buhaug, 2013) nor completely unconnected (Koubi and Böhmelt, 2014). Indeed, opportunity and grievances often interact (Bara, 2014).

5.3.3 Insulation of the Ruling Elite

The MMSS of a country influences how costs of conflict are distributed across society (Horowitz and Levendusky, 2011; Horowitz, Simpson and Stam, 2011; Kriner and Shen, 2016). A line of research has claimed that conscription makes governments less cost-tolerant (Vasquez, 2005; Kriner and Shen, 2016). The argument is that due to equitable features of conscription, human costs of conflict are distributed more evenly across society. Therefore, no strata, including high socioeconomic classes, are insulated from the costs of conflict. This shared-burden renders conflicts more costly for governments.

I argue the opposite. Conscription insulates socioeconomic classes whose interests are disproportionately represented by the state from costs of conflict. Whether conscription or AVF, higher socioeconomic classes are less likely to bear the human costs of conflict. In this sense, comparing the two systems solely based on human costs would be misleading. The crucial point is that the state needs to pay the market value for the services of enlisted personnel in an AVF, whereas it does not when there is conscription. As such, conscription becomes a transfer from those who serve, i.e. lower strata, to those who do not, i.e. higher strata.

Countries with AVFs need to rely on taxpayers to pay the military personnel bill. A bloody civil conflict would lead to soaring budgetary costs because it would be more costly to hire the same amount of personnel when the danger is higher. This increase in the budgetary costs need to be balanced through higher taxes. The well-off are not insulated from these soaring taxes under the AVF. However, if the state relies on conscription, the cost of manning the army is exacted in forms of tax-in-kind and this tax largely falls upon the underprivileged. Therefore, the well-off are insulated from the costs of conflict.

The view that associates conscription with low-cost tolerance on behalf of governments expect that when a conflict is ongoing in a country using conscription, high socioeconomic classes would pressure government to find a settlement to the conflict because they would bear some human costs. However, in the overwhelming majority of countries facing civil conflict, high socioeconomic classes find it easier and faster to secure exemptions, deferments and other instruments to dodge the draft. Henderson and Seagren (2014) essentially make this point by underlining that war-prevention is a public good whereas avoiding a war by dodging the draft is a private good. Therefore, war-prevention presents free-rider problems because "seeking a deferment provides an alternative with a superior private payoff. (Henderson and Seagren, 2014, p. 133)" Once individuals are released from dangers of the military service, conscription remains in their best interest because it transfers overall costs of conflict away from them to conscripts in combat duties.

As conscription insulates influential sections of society from costs of conflict, it renders the state more cost-tolerant. As a result, the state has weaker incentives to accommodate rebel demands and accept a settlement. The state is more likely to continue the conflict.

5.3.4 Alternative Mechanism: Military Effectiveness

Scholars have shown that countries using conscription have higher labour-to-capital ratio in their military, meaning these countries are more likely to rely on large numbers of personnel to increase their defense instead of adopting more capital-intensive approaches (Warner and Asch, 1995; Poutvaara and Wagener, 2011). We can also expect that, because of higher specialization, soldiers in an AVF should have higher combat effectiveness than conscripts (Warner and Asch, 1995; Poutvaara and Wagener, 2011). Countries often try to correct for this, again with higher number of personnel (Warner and Asch, 1995). These characteristics of a military can influence its fighting effectiveness. It is likely that greater numbers are not necessarily useful when fighting an insurgency (Cunningham, Gleditsch and Salehyan, 2009). As most of the civil conflicts involve non-state armed groups that are weaker than government forces, a viable option for the rebels is to use guerrilla warfare, which is something high labour-to-capital armies are not particularly good at. Therefore, conscription can prolong civil conflict by lowering military effectiveness of the government.

5.3.5 Implications for Civil Conflict Duration

Figure 5.2 summarises the theoretical approach developed. Delineated mechanisms are not rival; they can take place concurrently. Their implications for civil conflict are also observationally equivalent with one major difference. On the one hand, combat effectiveness and pure opportunity-cost do not consider the distributional consequences of conscription and expect the



Figure 5.2: Summary of the Theoretical Discussion

effect to be persistent across countries with mandatory military service. The rest, on the other hand, suggest that the effect of conscription is conditional on inequality. Therefore it expects particularly longer conflicts when there is conscription and high socioeconomic inequality.

Hypothesis 1a Conscription increases the duration of civil conflict.

Hypothesis 1b Conscription increases the duration of civil conflict. The magnitude of this effect is conditional on socioeconomic equality. The higher the inequality, the stronger the prolonging impact of conscription.

5.4 Research Design

5.4.1 Sample

To test the hypotheses, the chapter analyses a global sample of civil conflicts in the 1946-2005 period. Duration data on civil conflicts are taken from the dyadic UCDP Conflict Termination Dataset (CTD) version 2-2015 (Kreutz, 2010). Interstate and colonial wars are dropped to limit the data to civil conflicts. Following convention, two conflict episodes of a single dyad with an interval less than two years are considered as a single conflict (Fearon, 2004). The explanatory variable, *Conscription*, is taken from Toronto (2005). *Conscription* is true when there is compulsory recruitment to the military forces. Missing values are imputed using closest available non-missing observation.

Argument	Step 1	Step 2	Proposed Effect		
Conscription	* Opportunity cost of rebellion ↓	Enhanced recruitment capacity for rebels.	Longer civil conflict		
	∗ Grievances ↑				
Conscription reproduces underlying inequalities	Costs of conflict is dispersed to low socioeconomic classes	Rebels recruit from lowest strata more easily	Longer conflicts when higher inequality		
	Discriminated groups are likely to be abused in the military	Rebels recruit from discriminated ethnic groups more easily	 Rebellions representing excluded ethnicities are prolonged Given country-level discrimination of ethnic groups, non- ethnic rebellions are prolonged 		
	* Elite is insulated from costs of conflict	Contracting bargaining range	Longer civil conflict		
Alternative: Conscription is ineffective	- Fighting capacity of the army is decreased		Longer civil conflict		
Counter: Conscription is more equal	- Costs of conflict is dispersed to the public more equally, no one is insulated	Government refrains from use of force. Expanding bargaining range.	Shorter civil conflict		

Figure 5.3: Breakdown of Theoretical Expectations

The CTD includes military coups. Because military coups are internal fightings within the state, they are inherently different from civil conflict processes that involve non-state actors (Thyne, 2015). As the theoretical approach refers to conflicts between governments and non-state actors, coups are dropped from the sample by following Thyne (2015).

Some cases that are included in the CTD can be problematic. It can be argued that the conflict between United States and Al-Qaeda is not a civil conflict. Another case that should be taken into consideration is Israel. Israel uses conscription, but does not recruit Muslims and some other ethnic minorities. Due to involvement in long civil conflict, Israel might singlehandedly influence our results. Keeping or dropping these cases do not influence the results in a meaningful way.¹⁰

¹⁰ Reported results do not contain US and Israel. Adding these countries separately or jointly does not

5.4.2 Socioeconomic Inequalities and Ethnic Exclusion

It is possible to leverage socioeconomic inequalities and ethnic discrimination to test the hypothesis that predicts a conditional effect of conscription. Figure 5.3 summarises this view. The first argument, "conscription", just predicts longer conflicts. The second argument, "conscription reproduces underlying inequalities" predicts particularly longer conflicts when there is high socioeconomic inequality or ethnic discrimination.

If there is high socioeconomic/ethnic inequality within a polity, conscription should exacerbate the grievances of the disadvantaged and substantially decrease their opportunity cost of rebellion. This should be translated as a higher recruitment capacity for non-state actors. This increase in recruitment capacity, according to the second hypothesis, is a sum of (1) a baseline decrease in opportunity cost, (2) a further decrease in opportunity cost due interplay of grievance and opportunity and (3) increase in grievances. Furthermore, because conscription disfavors discriminated ethnic groups and low socioeconomic classes, it can act as a transfer, (4) insulating members of non-discriminated ethnic groups and the well-off from the cost of conflict (e.g. Peru). On the other hand, the hypothesis 1a only predicts increase in conflict duration through (1) a baseline decrease in opportunity cost. These differences should lead to divergent expectations on conflict duration.

For socioeconomic inequalities, I rely on the Egalitarian Component Index (v2x_egal), available in the Varieties of Democracy (V-Dem) Project (Coppedge et al., 2016). The index is suitable because it measures socioeconomic inequalities.¹¹. A Higher score refers to a more egalitarian polity. It is possible to interact *Egalitarian Index* (v2x_egal) with *Conscription* to test whether the effect of conscription has a higher magnitude when there is higher socioeconomic inequality.

The data on ethnic power relations is well-developed (Vogt et al., 2015; Wucherpfennig et al., 2012; Cederman, Wimmer and Min, 2010). We can separate rebel organizations that represent an ethnic identity (ethnic rebellions) from non-ethnic rebellions. Wucherpfennig et al. (2012) further divides ethnic rebellions into two; those who fight on behalf of politically excluded ethnicities and those who fight for included ethnic groups. Wucherpfennig et al. (2012) finds that ethnic rebellions last considerably longer, and this effect is mainly driven by rebel organizations

change the main findings.

¹¹ Some indicators in the index are "class and social group equality in respect for civil liberties", "percent of population with weaker liberties", "power distribution by socioeconomic position", and "health and educational equality" (see Coppedge et al., 2016). Some recent articles (Bartusevičius, 2014; Houle, 2016) on the economic inequality and civil conflict nexus rely on the Standardized World Income Inequality Database (SWIID; Solt, 2016). Unfortunately, the SWIID is not appropriate for our purposes because the income inequality data is missing for 51% of the civil conflict cases.

representing excluded ethnic groups.

A similar approach is adopted here but I further break down non-ethic rebellions into two, based on whether there is country-level discrimination against any ethnic group or not. An illustrative example would be FARC, which is not linked to any ethnic group. However, there had been country-level discrimination against some ethnic groups in Colombia during most of FARC's insurgency. The intuition is that because conscription disfavors members of the discriminated ethnic groups, conscripts from discriminated ethnicities can be more likely to be deployed against a non-ethnic rebellion, leading to a transfer of civil conflict costs away from non-discriminated ethnicities. Moreover, the non-ethnic rebellion can find it easier to recruit from discriminated ethnicities because of increasing grievances and decreasing opportunity cost of violence in this category. Discrimination and conscription, therefore, should jointly influence conflict processes by insulating the well-off and by changing recruitment capacities of rebels.

Based on this conjecture, four categories are identified; (1) rebel group represents a discriminated ethnic identity (discrimination & ethnic), (2) rebel group represents an ethnic identity that is not discriminated (no-discrimination & ethnic), (3) rebel group does not represent an ethnic identity but there is country-level discrimination (discrimination & non-ethnic), and (4) rebel group does not represent an ethnic identity and there is no country-level discrimination (no-discrimination & non-ethnic). Each category is further broken down into two based on the MMSS, yielding to eight categories in total.

The theoretical approach always expects conscription to prolong civil conflict, in all of the categories. However, the magnitude is conditional on ethnic discrimination. When there is discrimination, conscription has a combined effect through all four components. When there is no discrimination, the effect of conscription is the baseline decrease in opportunity cost. Therefore we can test whether conscription is conditional on ethnic equality.

In order to create these four main categories, I rely on the Ethnic Power Relations (EPR) data family (Vogt et al., 2015; Wucherpfennig et al., 2012; Cederman, Wimmer and Min, 2010). ACD2EPR links non-state actors to ethnic groups in the EPR dataset through claim, recruitment and support variables. If at least two variables take the value 1, the rebellion is considered to be ethnic, and non-ethnic otherwise. Then I turn to the EPR Core dataset (Cederman, Wimmer and Min, 2010) to determine whether these ethnic rebellions represent at least one ethnic group that is coded as discriminated in that year. If none of the linked ethnicities are discriminated, the rebellion falls into the *no-discrimination* \mathcal{E} *ethnic* category. A similar approach is then taken for non-ethnic rebellions to create discrimination \mathcal{E} *non-ethnic* and *no-discrimination* \mathcal{E}

non-ethnic categories.

5.4.3 Reverse Causality

A concern for this study is that states facing civil conflict might be adopting conscription as a response. United States during the Civil War is the most significant example. If this is a general pattern, there might be reverse causality or some feedback loops. In order to address this, I rely on the determinants of conscription literature. This literature strongly suggests that decision to adopt conscription is not significantly related to civil conflict, and that there are other powerful predictors of the MMSS (Asal, Conrad and Toronto, 2015; Mulligan and Shleifer, 2005). Most importantly, the MMSS generates strong path-dependency. In this sense, the MMSS is a sticky policy and countries rarely change their MMSS. Horowitz, Simpson and Stam (2011) show that countries facing interstate conflict most often try to maximize utility from their MMSS instead of introducing a change.

Following Horowitz, Simpson and Stam (2011), I compare the proportion of change towards conscription for countries in peace and in civil war. This proportion is 0.0068 for countries in civil peace and 0.0106 for countries in civil conflict. Although countries facing civil conflict are more likely to change towards conscription, this difference in proportions is not statistically significant (p = 0.17). Going back to the US Civil War example, however, it is reasonable to expect that there might be some countries that would adopt conscription as a response to civil war. This might be the case especially for big civil wars with conventional battles, in which government needs to recruit large numbers of soldiers. Although this pattern should be very rare and countries should likely to retain their MMSS, it nevertheless introduces some error. However, civil wars that cause governments to adopt conscription should be more likely to involve decisive conventional battles. In this sense, a change towards conscription might also be associated with shorter civil wars because conventional warfare shorten civil war duration (de Rouen JR and Sobek, 2004; Balcells and Kalyvas, 2014). As a result, the bias should work against the hypotheses presented here.

5.4.4 Control Variables

As the alternative mechanism highlights, conscription most likely influences the military effectiveness. In order to account for this, I rely on the Composite Index of National Capability, *CINC*, in the National Material Capabilities dataset (Singer, Bremer and Stuckey, 1972). This composite index includes information on military personnel and military expenditure. Therefore it should control for military capability to a large extent. However, as the CINC does not di-

VARIABLES	Ν	mean	sd	\min	max	p25	p75
Conscription	$1,\!996$	0.519	0.500	0	1	0	1
Polyarchy	$1,\!996$	0.325	0.237	0.0164	0.912	0.123	0.493
Egalitarian Index	$1,\!996$	0.384	0.210	0.0444	0.971	0.205	0.542
Cold War	$1,\!996$	0.557	0.497	0	1	0	1
ln GDP p.c.	$1,\!996$	7.534	1.009	5.315	10.80	6.729	8.127
In Population	$1,\!996$	10.09	1.423	5.958	13.95	9.087	10.68
ln Distance	$1,\!996$	5.602	1.321	0	9.332	5.078	6.518
CINC (*100)	$1,\!996$	0.901	1.925	0.00762	18.06	0.115	0.520
Legal Political Wing	$1,\!996$	0.117	0.322	0	1	0	0
Territorial Control	$1,\!996$	0.449	0.498	0	1	0	1
Resources	$1,\!996$	0.782	0.413	0	1	1	1
Ethnic	$1,\!996$	0.623	0.485	0	1	0	1
Ethnic Breakdown	$1,\!995$	1.865	1.130	0	3	1	3

Table 5.1: Summary Statistics

rectly control for combat readiness, it is not possible to fully separate the effect of conscription on conflict duration through military effectiveness. This mechanism should be considered as another conflict prolonging feature of conscription.

There are other country-level factors that might correlate both with conscription and conflict. Data on domestic institutions is taken from the V-Dem Project (Coppedge et al., 2016). The models include the aggregate Electoral Democracy index *polyarchy*. Data on population and GDP per capita is taken from Gleditsch (2002). I also control for geography because if large countries are more likely to adopt conscription and if rebellions in the distant corners of large countries are more likely to last long, this correlation might bias our estimates. Using the Geographical Information Systems (GIS) software and geocoded data from the UCDP (Croicu and Sundberg, 2012), I control for the Distance of conflict geography to the capital. As the UCDP data goes back to 1970, there are many missing cases. For those missing cases, I rely on data from Buhaug, Gates and Lujala (2009). For the remaining missing cases, data is imputed first using conflict-level mean distance and then country and regional means. The Cold War is associated with both conscription and longer civil conflict. Therefore a dummy for the Cold War is included in all of the models. Following Wucherpfennig et al. (2012), I control for a variety of non-state actor related variables. These variables are Territorial Control, Strong Central Command and Legal Political Wing. They are taken from the Non-State Actors dataset (Cunningham, Gleditsch and Salehyan, 2009). Finally, I control for natural resources, which



Figure 5.4: Kaplan-Meier Survival Estimates

can influence rebel recruitment (Buhaug, Gates and Lujala, 2009).

5.5 Analysis and Discussion

Figure 5.4 presents Kaplan-Meier survival estimates for conscription and AVFs. Although the estimated survival curve is elevated for conscription, both conscription and AVF cases follow a very similar pattern and the difference is not statistically significant. Next, a series of Cox proportional hazard models are estimated. Alternative estimation using parametric models do not change the main results. Fully specified models (Model 4 and 5) do not violate the proportional hazard assumption.

The results are presented in Table 5.2. Model 1 is the baseline model with only core control variables included. This model controls for essential characteristics of a state that can highly correlate with conscription and military capability. *Conscription* has a negative coefficient, meaning it is associated with a decrease in the hazard rate. This suggests longer civil conflicts for countries using conscription but the effect is not statistically significance at the 95% level. Model 2 introduces variables proxying characteristics of a rebellion. Again, *Conscription* has a negative coefficient but it is not significant. These results suggest a weak association between MMSS and civil conflict duration. The coefficients of core control variables are in the expected direction. As expected from previous findings, level of democracy and the Cold War are both associated with longer conflicts (Fearon, 2004). Previous research found strong association between conflict distance from capital and duration but the *Distance* variable is not significant.

	Model 1	Model 2	Model 3	Model 4	Model 5
Conscription	-0.20	-0.20	-0.21^{\dagger}	-0.90***	
	(0.13)	(0.13)	(0.12)	(0.22)	
Egalitarian Index			0.74^{\dagger}	-0.36	
			(0.44)	(0.56)	
Conscription * Egalitarian	L			1.86^{**}	
				(0.59)	
Ethnic		-0.28*	-0.31*	-0.32**	
	1 01.44	(0.12)	(0.12)	(0.12)	بادياد مامار
Polyarchy	-1.01**	-1.17^{**}	-1.56***	-1.56***	-1.11**
	(0.36)	(0.37)	(0.44)	(0.44)	(0.37)
In GDP p.c.	0.08	(0.05)	(0.04)	(0.01)	(0.05)
he Denvelation	(0.08)	(0.08)	(0.09)	(0.09)	(0.09)
In Population	-0.07	-0.07	-0.07	-0.04	-0.00
In Distance	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
III Distance	-0.09+	-0.00	-0.05	-0.00	-0.00
CINC	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
CIIVO	(0.00 <)	(0.00 < (0.00 <))	(0.00 < (0.00 <))	(0.00 < (0.00 v))	(0.00 <)
Cold War	(0.00 <)	-0.50***	(0.00 <)	-0.48***	-0 53***
	(0.14)	(0.13)	(0.13)	(0.14)	(0.13)
Legal Political Wing	(0.11)	0.55**	0.53**	0.48^{*}	0.55**
Legar i ontrear tring		(0.19)	(0.19)	(0.19)	(0.19)
Territorial Control		-0.28*	-0.26*	-0.32**	-0.29*
		(0.13)	(0.13)	(0.12)	(0.12)
Resources		-0.25+	-0.14	-0.26+	-0.26+
		(0.13)	(0.14)	(0.14)	(0.14)
Non-Ethnic Rebels & No A AVF	Discrimination		· · /	~ /	-0.23
					(0.23)
Conscription					-0.42^{\dagger}
					0.25
Non-Ethnic Rebels & Disc	rimination				
AVF					baseline
Conscription					-0.43*
					(-0.20)
Ethnic Rebels & No Discr	imination				
AVF					-0.67***
					(0.23)
Conscription					-0.47^{\dagger}
					(0.31)
Ethnic Rebels & Discrimin	nation				
AVF					-0.42*
a					(0.19)
Conscription					-0.65^{**}
01	1 000	1.000	1.000	1.000	(0.22)
Observations	1,996	1,996	1,996	1,996	1,995
Log Likelihood	-2043	-2026	-2024	-2018	-2018
Number of Subjects	365	365	365	365	364
number of Failures	442	442	442	442	441

Table 5.2: Cox Proportional Hazard Estimates

Robust standard errors clustered on conflict in parenthesis



Figure 5.5: Hazard Ratio of Conscription by Egalitarian Score (Model 4).

in both of the models. This is mostly because of dropping coups and US from the sample. Higher National Military Capabilities, *CINC* score, is associated with shorter civil conflict. As expected by Wucherpfennig et al. (2012), ethnic rebellion is strongly associated with longer conflicts.

Models 3-5 addresses the inequality aspect. Egalitarian Index is added in Model 3. Model 4 introduces an interaction term between Egalitarian Index and Conscription. Model 4 is the fully specified model according to the theoretical approach summarised through hypothesis 1b. If the impact of conscription is due to combat effectiveness and opportunity cost but not because of grievances and insulation of the elite, then an interaction with inequality should not change the results. Introduction of Egalitarian Index without an interaction term returns similar results (Model 3). An interaction term between the two, however, shows that the negative coefficient of Conscription is mainly driven by cases with low Egalitarian Index scores. Figure 5.5 plots the hazard ratio of Conscription by Egalitarian Index. The hazard ratios and their 95% confidence intervals are below 1 (the threshold level) roughly up to the median score of Egalitarian Index.



Figure 5.6: Predicted Survival Functions (Model 4).

This suggests that *Conscription* is associated with a decrease in the hazard rate (longer conflicts) when *Egalitarian Index* score is below the median. However, the estimated effect of conscription becomes insignificant for those with higher *Egalitarian Index* scores.

Figure 5.6 plots the predicted survival functions for low and high *Egalitarian Index* scores. When we plug in the 25^{th} percentile value for *Egalitarian Index* (high inequality) to the Model 4, the estimated survival function is significantly higher when there is conscription. However, when we plug in the 75^{th} percentile value (low inequality), the difference between conscription and all-volunteer disappears.

Results from Model 4 strongly suggest that the estimated effect of conscription is conditional on socioeconomic inequalities within a country. The theoretical framework expects such a conditionality. Military capability and bare opportunity-cost argument, on the other hand, expect an effect that is not conditional on inequality. Therefore this result gives weigh to the hypothesis 1b. Results from Model 4 is robust to alternative model specifications and different estimation techniques.

Model 5 turns to ethnic inequality to further investigate the link between conscription and conflict duration. The idea behind Model 5 is to compare the use of conscription and AVFs within the respective discrimination categories. Categories with ethnic discrimination are again



Hazard Ratio of Conscription (Model 5)

Figure 5.7: Hazard ratios of Conscription when the baseline is AVF in the respective category (Model 5).

Predicted Survival Functions (Model 5) Non-Ethnic Rebellion & No Discrimination Non-Ethnic Rebellion & Discrimination --.75 .75 ŝ ŝ 25 22 Survival Rate 0 0 365 1825 3650 365 1825 3650 Ethnic Rebellion & No Discrimination Ethnic Rebellion & Discrimination .75 .75 ŝ ŝ 52 25 0 0 365 1825 3650 365 1825 3650 All Volunteer ____ Conscription Conflict Days

Figure 5.8: Predicted Survival Functions (Model 5).

expected to demonstrate the strongest prolonging effect of conscription.

Interpreting the results directly from Table 5.2 is not possible. Instead, hazard ratios of the conscription sub-categories when the baseline is the AVF in the respective category are plotted

in Figure 5.7 (with 95% confidence intervals). Conscription is associated with longer civil conflict in 3 out of 4 parent categories. In the non-ethnic rebellion and no discrimination category, conscription is associated with longer civil wars (indicated by a hazard ratio below 1) but this association is not statistically significant. On the other hand, when the rebellion is non-ethnic but there is country-level ethnic discrimination, conscription is strongly associated with longer conflicts compared to AVFs in this category. This pattern is also discernible in ethnic rebellion and discrimination category although the result is not statistically significant. More strikingly, in the included rebels and no discrimination category, conscription and AVF cases are not really distinguishable from each other. Figure 5.8 illustrates this finding by plotting the predicted survival functions with respect to eight categories. The survival curve for conscription is actually below the AVF in no-discrimination ethnic-rebellions. In the other three parent-categories, however, conscription has an elevated survival curve and this elevation is greatest when there is discrimination. It is important to highlight that cases in the discriminated ethnic rebellion category already have the highest expected duration compared to other parent-categories (Wucherpfennig et al., 2012). Further distinguishing cases in this parent-category based on their MMSS presents a hard test. Results suggest that even in this parent-category that includes longconflicts, the data contains discernible patterns that can be revealed by considering the MMSS of a country.

Overall, the analysis suggests that conscription is conflict prolonging if there are socioeconomic and ethnic inequalities in a polity. The conditionality of the estimated effect suggests that distributional consequences of conscription should be taken into account. These results seriously challenge the conjecture that conscription is conflict prolonging only because it influences military effectiveness. Conscription may prolong civil conflict through interacting with inequalities within a society.

5.6 Conclusion

Although there is a well-developed research program on the nexus between institutions and civil conflict, the focus is tend to be on the most aggregate level, such as the overall democracy score. Lower level institutions, however, do matter. This chapter identified the military manpower supply system (MMSS) as a central state institution, which influences civil conflict processes. Employing the well-established theories on civil conflict, the chapter expected conscription to have a conflict-prolonging effect. The empirical results provide strong support for the theoretical framework; conscription is associated with longer conflicts when there is socioeconomic or ethnic

inequality. However, when the inequality conditions are absent, conscription and AVFs are not distinguishable.

This is the first comprehensive analysis of the nexus between the MMSS and civil conflict processes. The focus of this chapter has been on conflict duration but conscription may also influence conflict onset, intensity and outcome. There are historical accounts linking conscription with conflict. For example, several rebellions in the Middle East were due to tribal leaders and local populace resisting the efforts of central government to levy conscription . More recently, Druze villagers in Syria violently resisted the Assad government's attempts to conscript from the Druze (Irshaid, 2015). There is also evidence that some Irish nationalists supported conscription during the WWI hoping that the military experience gained by the Irish conscripts would facilitate the fight for independence (Levi, 1997). Similarly, the Imperial Russia reconsidered conscripting Muslims from Central Asia due to fears that it may facilitate rebellion (Daugherty III, 1994). In contemporary times, Russia stopped recruiting Chechens after the civil war. In short, there is a strong link between the MMSS and civil conflict and this chapter only explored the surface.

The MMSS may also affect other important phenomenon such as coups, immigration/refugee flows and violent repression of dissent. The incentives of the ordinary men who are subject to conscription are different from those who are free to decide whether to serve in the armed forces or not. This difference in selection may influence the behavior of rank-and-file members of the military. The decisions of regular soldiers, such staying loyal to the government, defecting or shirking, are extremely important on the outcomes. In this sense, further research on the MMSS would be fruitful.

Chapter 6

Conclusion

U NCROSSING THE RUBICON is not a straightforward task. Once armed action becomes a viable option for pursuing political goals, its reversal requires a complex and frail process. This dissertation investigated factors that influence the transition from violent civil conflict to peace. The objective is to identify incentives to seek a negotiated settlement as well as impediments to conflict termination. To assess the overall performance of the dissertation, two questions are worth asking. First, how does it contribute to our understanding of civil conflict resolution? Second, what opportunities does it generate for further research? This chapter addresses these two questions.

The dissertation proposed that negotiations, which refer to explicit bargaining between belligerents, are major events that contain information on conflict processes. In order to utilise this information, the dissertation developed the Peace Negotiations in Civil Conflicts (PNCC) data project. The PNCC provides data on instances of peace negotiations between states and rival non-state actors (NSA). More importantly, however, the PNCC builds a novel conceptual framework, which opens up new avenues for research through modelling the onset, duration and outcome of peace processes. This modelling strategy can be particularly useful for progressing the research on the negotiations-violence nexus.

As demonstrated in Chapter 2, there is a complex and reciprocal relationship between violence patterns and peace negotiations in civil conflicts. How violent events affect conflict resolution attempts is a central question in civil war research (Stedman, 1997; Darby, 2001; Kydd and Walter, 2002; Höglund, 2008; Thomas, 2014; Fortna, 2015; Reiter, 2015; Findley and Young, 2015). Violence influences the incentives to compromise but its precise impact is far from clear. Violent events are likely to pose a serious threat to conflict resolution by exacer-

bating the mistrust and intensifying the enmity between parties (Darby, 2001; Höglund, 2008; Findley and Young, 2015). Alternatively, violence may encourage governments to give more extensive concessions to internal armed challengers (Thomas, 2014) and push belligerents towards a settlement by increasing the cost of conflict (Darby, 2001).

The PNCC framework is useful in this discussion because it identifies transitions from one conflict resolution stage to another. If spoiling is an impediment to conflict resolution, violent events should be associated with an increased probability of negotiation failure. Similarly, time to negotiation failure should be quicker. A less obvious expectation is that violence might prolong the time to negotiation success, as shown in Chapter 2. Modelling the duration and outcome of negotiations will advance the extant literature by allowing us to better estimate the impact of spoiling on conflict resolution. For example, Findley and Young (2015, p. 1115) claim that "terrorism can spoil peace processes" but their empirical analysis investigates the effect of terrorist attacks on civil war termination without taking negotiations into account. If no conflict resolution attempts are ongoing, terrorist attacks are not *spoiling*, as defined by Stedman (1997). Therefore, it is not possible to estimate the effect of spoiling without taking conflict resolution attempts into account.

Beyond testing two contending hypotheses by estimating an average effect of violence, the PNCC can reveal conditional effects. It is possible that the two contending hypotheses both hold under certain conditions. Unraveling these conditional effects should be the main objective. Taking negotiation history and duration into account is a promising approach to achieve this aim. The effect of violence is likely to be conditional on *when* it happens. Previous research has highlighted that violent events may lead to negotiation termination but some peace processes are proved to be resilient to violence (Darby, 2001; Höglund, 2008). Darby (2001) argues that peace talks are most vulnerable at their inception and when they become "prolonged" but not during a time period in between when they are resilient. In this sense, the resilience of a peace process may change as a function of time. The PNCC framework allows the estimation of effects conditional on this area, especially using parametric life-time distributions, has the potential to bring fruitful insights.

A less investigated question asks how conflict resolution attempts affect violence patterns (Sisk, 1993). As illustrated by the experiences of South Africa (Figure 2.1) and Turkey (Figure 2.2), the opening of peace talks is likely to prompt sharp shifts in violence patterns but the direction is not always the same. Why do peace negotiations lead to a surge in violence in some

civil conflicts but not in others? In this sense, the information on conflict management status can be used to improve forecasting violence (see Hegre et al., 2017). If we are able to identify the features that made South Africa more conflict prone during peace talks, we can expect other cases that have similar features to experience surges in violent events after the start of negotiations.

Modelling the duration and outcome of negotiations is also useful for forecasting conflict because the collapse of negotiations often opens the floodgates for violence and causes conflict recurrence. Understanding the resilience of a peace process to spoiler violence is particularly important with this respect. Why do some peace processes collapse easily due to spoiling whereas others are resilient to violent events? If we are able to understand when negotiations become more vulnerable to violent events, we can distinguish triggering events that lead to escalation patterns from violent events that fizzle out. For example, after two violent events – a bombing targeting Kurdish protestors on 20 July 2015 and assassinations of two Turkish policemen on 22 July – the negotiations between Turkey and the PKK collapsed and violence dramatically escalated. However, several deadly incidents in 2014 did not cause negotiation breakdown (see Figure 2.2). Why did deadly events in Turkey not lead to peace process collapse in late-2014 but trigger conflict recurrence in mid-2015? Identifying triggering events is particularly useful for forecasting violence (Colaresi, Hegre and Nordkvelle, 2016). In sum, we have strong theoretical reasons to expect violence and conflict resolution processes to influence each other but we know little about the specific mechanisms. The PNCC brings new opportunities for further research to investigate this complex relationship.

Another key finding of the dissertation is that democratisation is likely to prompt peace talks. When the competition of conflicting interests turns violent, a major discontinuation of political exchange occurs. Negotiating with the enemy incurs costs, especially to the governmentparty. This is an impediment to opening of peace talks. Institutional reform may change state preferences and decrease the value attributed to a full victory. As a result, it may act as an impetus for peace talks. In this sense, democratic reforms augment the incentives for finding a negotiated settlement.

Despite the capacity of democratisation to induce peace talks, there is no evidence that such peace talks lead to an increased probability of peaceful conflict termination. This is an interesting non-finding that deserves further investigation because it is possible that democratic reforms are influencing the incentives and opportunities of NSAs. A single-case study provides strong evidence that "democratization and political reforms do not necessarily bring the moderation of ethnic insurgents" (Tezcür, 2010, p. 785). In fact, Tezcür (2010, p. 785) argues that the introduction of "non-violent competition over the ethnic constituency" may generate "a process of radicalization". This argument falls in line with the empirical finding that democratisation actually increases the likelihood of civil conflict onset in the short run (Hegre, 2001; Cederman, Hug and Krebs, 2010).

Two questions arise with respect to the democratisation-conflict nexus. First, what are the long term effects of democratisation on conflict resolution? The extensive literature on the nexus between democratic institutions and civil conflict almost exclusively focus on either conflict onset or post-conflict democratisation. However, democratic reforms can take place during an ongoing conflict. Second, how do changing incentives and opportunities of NSAs influence the durability of democratic reforms? A process that Tilly (2007) calls de-democratisation may follow institutional reform periods. Does rebel group radicalisation make democratic reversals more likely? This is plausible if the rebel group radicalisation following democratisation strengthens the hands of government hardliners and facilitates concentration of power.

In addition, there might be a complex relationship between democratisation, radicalisation and fragmentation. Radicalisation may erode the internal cohesion and cause splintering by widening the rift between moderates and hardliners. Lounsbery and Cook (2011) also argue that negotiations can cause fragmentation because they influence the internal dynamics of rebel groups. Hardliners or recalcitrant factions may splinter due to their opposition towards compromise. An investigation using the PNCC reproduces the Lounsbery and Cook's (2011) finding that negotiations increase the likelihood of rebel splintering. Considering that democratisation increases the probability of peace talks on the one hand, and radicalisation on the other, the two mechanisms leading to splintering are likely to be interrelated.

Chapter 4 provided an alternative explanation for why fragmented conflicts are harder to resolve. Multiparty decision-making situations over a multidimensional issue space are likely to be marred by cyclic preferences, and are thus unstable (Plott, 1967; McKelvey, 1976; Schofield, 1978). Implications of this theorem are used to unravel the instability inherent in fragmented civil conflicts. An important contribution is that the theoretical framework reveals a strong link between issue multidimensionality and conflict fragmentation. Beyond being simple leadership disputes between competing political entrepreneurs, fragmentation often entails rival factions pronouncing genuine differences over issue positions. As such, issue multidimensionality is likely to be a driving force behind conflict fragmentation. Acknowledging this link may advance how we conceptualise and measure fragmentation (Bakke, Cunningham and Seymour, 2012). It may also help us to investigate the causes of fragmentation (Seymour, Bakke and Cunningham, 2016).

The theoretical framework developed in Chapter 4 provided three gains vis-à-vis the existing literature. First and foremost, the veto-player framework does not fully explain why multiparty civil wars are harder to resolve (Cunningham, 2006). The objection of a veto-player might be a sufficient condition for peace process failure but it is not a necessary condition. Multiparty civil wars can become intractable due to cyclic collective preferences, even if no actor is a vetoplayer. Second, we should be cautious when labelling actors as spoilers. Simulations in Chapter 4 showed that due to cycles in conflict resolution processes, any actor may be observed as a spoiler in a particular time frame. Third, multiparty civil wars are likely to have a distinct commitment problem; at least some of the parties to a deal have incentives to renege on the mutually preferable bargain, in favour of a more desirable outcome achieved by assembling an alternative winning coalition.

Additionally, the dissertation provided evidence that United Nations (UN) peacekeeping operations are effective in mitigating the adverse impact of fragmentation. UN involvement is likely to generate a path-dependent peace process, which addresses the problems emerging from the instability inherent in fragmented conflicts. Furthermore, considering that the higher the fragmentation, the more severe the commitment problems, the UN makes more difference in fragmented conflicts because it mitigates commitment problems.

This finding also has implications for the literature investigating the determinants of UN intervention in civil wars (e.g. Gilligan and Stedman, 2003). The UN does not intervene to all civil wars but rather gets selectively involved. The UN selects into more violent and harder-to-resolve cases (Gilligan and Stedman, 2003; Fortna, 2008). Considering that fragmented conflicts are harder-to-resolve and bloodier, the UN might be choosing to get involved in highly fragmented civil wars. Furthermore, the UN may channel its resources to civil wars where it anticipates that intervention would make a substantial difference. Then, a natural next step is to examine if the UN is more likely to select fragmented conflicts and allocate more resources with a larger mandate.

UN peacekeeping operations are influential in mitigating the adverse impact of fragmentation but what about UN mediation, short of deploying the blue helmets? The UN repeatedly tried to mediate the Syrian civil war but its attempts failed to advance conflict resolution. As a result, UN involvement fell short of a peacekeeping operation. Successful mediation attempts in Cambodia and Guatemala, on the other hand, led to the deployment of the blue helmets. Indeed, UN mediation often predates peacekeeping operations. Therefore, UN mediation during negotiations can be influential on the calculus of personnel deployment. Again, this conjecture communicates to the literature on determinants of UN intervention. Successful UN mediation is likely to be a precursor of peacekeeping operations. With this respect, the PNCC can be further utilized to link the mediation and UN peacekeeping literatures. As emphasized in Chapter 2, the PNCC can progress the literature on mediation, most notably by allowing a comparison between bilateral negotiations and mediated peace talks. Similarly, the argument developed in Chapter 4 can be expanded to third-party mediation. Do some mediators make the resolution of fragmented conflicts easier by bringing institutions that provide a path dependent peace process? Addressing this question may bring fresh insights on mediator types.

Chapter 5 proposed that the mode of recruitment for rank-and-file members of the armed forces is an institutional arrangement that affects civil conflict processes by influencing how the costs of conflict are distributed among a society. In this sense, the mode of recruitment is identified as a low-level institution that is not directly influential on appropriating political power but nevertheless significant in distributing the costs of conflict. Such institutions may also change the opportunity cost of violence. In addition, low-level institutions may augment grievances by reflecting and reproducing underlying inequalities. This is shown most visibly by conscription, which prolongs civil conflict when there is high socioeconomic inequality or ethnic discrimination. In sum, instead of focusing exclusively on high-level institutions that allocate executive power, paying more attention to low-level institutions that directly influence ordinary citizens may progress our understanding of conflict processes.

Finally, it is plausible that conscription may influence migration and refugee flows. There is evidence that the draft during the Vietnam war prompted large numbers of Americans to migrate to Canada. Estimates vary from 50,000 to 100,000 (Hagan, 2001, p. 3). Such large scale migration patterns did not take place following the US invasion of Iraq in 2004 (Squires, 2013), possibly because conscription had been replaced with an all-volunteer force (AVF). It is likely that conscription similarly affects the incentives to immigrate in civil conflicts as well. There is anecdotal evidence that some Syrian refugees, who had been living in areas largely spared from violence, nevertheless left their country to escape the dreaded draft (Gopalakrishnan, 2017). Further investigation of the effect of conscription on migration will be useful for conflict research because refugee flows may cause conflict contagion (Salehyan and Gleditsch, 2006).

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