

ABSTRACT

Title of Dissertation: THE IMPLEMENTATION OF PEACE
AGREEMENTS FOLLOWING CIVIL WARS
AND POST-CONFLICT OUTCOMES

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Government and Politics

While previous studies show that conflict is less likely to recur if implementation of an agreement is successful, little work has focused on identifying the factors that lead to successful implementation. In other words, following a negotiated settlement of a civil war, what causes warring parties to fulfill their promises of implementing reforms in different issue areas instead of reneging or returning to violence? Similarly, why are some peace agreements fully implemented while others are only partially or never implemented? Additionally, while successful implementation is a necessary condition for durable peace, not all partial or failed implementation cases lead to conflict recurrence. Therefore, a subsequent question raises, why do some partial and failed implementation processes lead to conflict recurrence while others do not? This dissertation addresses these questions in a two-step process. In the first part, this dissertation identifies the conditions under which state- and non-state actors would be more inclined to fulfill or evade their responsibilities deriving from

particular agreements. The second part focuses at variation in the degree of implementation and its effect on post-conflict outcomes, mainly conflict recurrence. Building upon the bargaining theory of war, this dissertation argues that bargaining between parties does not stop once an agreement is signed. The implementation of an agreement is a continuation of the bargaining process in which both sides try to get the maximum amount of concessions they can while updating their beliefs on the gains and losses to be made by staying in the peace process or abandoning it. Therefore, the negotiation and implementation stage should both be taken into account to fully understand successful transitions to peace, and the incentive of parties to continue implementation. The main argument is that as long as the costs of non-compliance remain high, both parties will continue implementation. Both sides, but especially non-state actors, should retain their military capability to enforce the implementation of the agreement and credibly threaten renewed violence in the wake of failed implementation. A series of statistical models using original dataset on the implementation of peace agreements provides support for this theory.

THE IMPLEMENTATION OF PEACE AGREEMENTS FOLLOWING CIVIL
WARS AND POST-CONFLICT OUTCOMES

by

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Dedication

To my loving husband, Dr. Jacob Aronson. His tremendous emotional and intellectual support allowed me to overcome the toughest obstacles in writing this dissertation.

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List of Abbreviations

ACLED: Armed Conflict Location and Event Datasets

AFRC: Armed Forces Revolutionary Council

ANC: African National Congress

CDF: Civil Defense Forces

CNDD: Conseil national pour la défense de la démocratie (National Council for the Defence of Democracy)

CNDD-FDD: Conseil national pour la défense de la démocratie-Forces pour la défense de la démocratie (National Council for the Defence of Democracy-Forces for the Defence of Democracy)

CNDP: Congrès National pour la Défense du Peuple, (National Congress for the Defence of the People)

COPAZ: Comisión Nacional para la Consolidación de la Paz (Commission for the Consolidation of Peace)

CRA: Coordination de la résistance armée (Coordination of the Armed Resistance)

EPL: Ejército Popular de Liberación (Popular Liberation Army)

FLAA: Front de libération de l'Aïr et l'Azaouad (Air and Azawad Liberation Front)

FMLN: Farabundo Marti Front for National Liberation

FPR: Front patriotique rwandais, (Rwandan Patriotic Front)

Frolina: Front pour la libération nationale (National Liberation Front)

FRUD: Front pour la restauration de l'unité et de la démocratie (Front for the Restoration of Unity and Democracy)

GED: Georeferenced Event Dataset

ISF: International Stabilization Force

LRA: Lord's Resistance Army

LURD: Liberians United for Reconciliation and Democracy

MDD: Mouvement pour la démocratie et le développement (Movement for Democracy and Development)

MDJT: Mouvement pour la démocratie et la justice au Tchad (Movement for Democracy and Justice in Chad)

MJP: Mouvement pour la justice et la paix (Movement for Justice and Peace)

MLC: Mouvement pour la Libération du Congo (Movement for the Liberation of Congo)

MNLF: Moro National Liberation Front

MODEL: Movement for Democracy in Liberia

MPA/Republic of Anjouan: Anjouan Mouvement populaire anjouanais/Republic of Anjouan (People's Movement/Republic of Anjouan)

MPCI: Mouvement Patriotique de Côte d'Ivoire (Ivory Coast Patriotic Movement)

MPIGO: Mouvement Populaire Ivoirien du Grand Ouest (Ivorian Popular Movement for the Great West)

MUFA: Azawad United Movements and Fronts

NPFL: National Patriotic Front of Liberia

ONUSAL: United Nations Observer Mission in El Salvador

Palipehutu: Parti pour la libération du peuple Hutu (Party for the Liberation of the Hutu People)

Palipehutu-FNL: Parti pour la libération du peuple Hutu - Forces nationales de liberation (Party for the Liberation of the Hutu People- Forces for the National Liberation)

RCD: Rassemblement Congolais pour la Démocratie (Congolese Rally for Democracy)

RENAMO: Resistência nacional moçambicana (Mozambican National Resistance)

RUF: Revolutionary United Front

SPLM/A: Sudan People's Liberation Movement/Army

UCDP: Uppsala Conflict Data Program

UN: United Nations

UNAMSIL: United Nations Mission in Sierra Leone

UNAVEM: United Nations Angola Verification Mission

UNITA: União Nacional para a Independência Total de Angola (National Union for the Total Independence of Angola)

UTO: United Tajik Opposition

Chapter 1: Introduction

Why did the El Salvadorian government successfully implement most of the provisions in the Chapultepec Agreement of 1992, while the Lomé Peace Agreement of 1999, signed between Sierra Leone government and the Revolutionary United Front (RUF), failed immediately? Both agreements had provisions on constitutional, electoral, political and military reforms, including measures of guaranteed power sharing between combatants, and UN peacekeepers/observers—the United Nations Observer Mission in El Salvador (ONUSAL) and the United Nations Mission in Sierra Leone (UNAMSIL). What makes the parties, especially governments, fulfill their promises to make certain reforms in various issue areas ranging from political to economic to military?

While both agreements were likely candidates for durable peace based on the content of the agreements and the international community's involvement, in Sierra Leone conflict recurred less than a year after the agreement was signed while in El Salvador parties successfully implemented the agreement. The Farabundo Marti Front for National Liberation (FMLN) transitioned into a legal political party and stayed in politics. What explains the difference in these two peace process outcomes? More generally, why are some peace agreements implemented while others fail or are only partially implemented?

There is no doubt that the successful implementation of agreements is crucial for durable peace. Previous studies (e.g., Hartzell & Hoddie 1999, 2003; Jarstad &

Nillson 2008) show that conflict among the same groups is less likely to recur if the implementation of an agreement is successful. Since most of these peace agreements are the result of a series of negotiations and consist of concessions made by both sides on various issue areas to end the conflict, it is highly likely that peace will be durable once the provisions are implemented. What is more puzzling, and missing in most of these studies, is how the parties achieve successful implementation.

Moreover, failed or partial implementation of peace agreements do not always lead to conflict recurrence. In fact, among the partially implemented agreements included in this study only 50% resulted in conflict recurrence. For example, the Linas – Marcoussis Agreement signed in January 2003 between the Government of Cote d’Ivoire and three rebel groups, the Ivorian Popular Movement for the Great West (MPIGO), the Ivory Coast Patriotic Movement (MPCI) and the Movement for Justice and Peace (MJP), was followed by conflict recurrence roughly a year later in March 2004, while the conflict between the Popular Liberation Army (EPL) and the Government of Colombia did not restart. The level of implementation for both agreements are recorded as 51% and 66%, respectively.¹ Hence, understanding when and why parties resume fighting in the face of failed implementation is also very important.

Building upon the bargaining theory of war, I argue that bargaining between parties does not stop once an agreement is signed. The implementation of an agreement is a continuation of the bargaining process in which both sides try to get the maximum

¹ It is important to note that no implementation event is observed in the Colombian case after two years of the agreement.

amount of concessions they can while updating their beliefs on the gains and losses to be made by staying in the peace process or abandoning it—and potentially returning to violence. Therefore, the negotiation and implementation stage should both be taken into account to fully understand successful transitions to peace, and the incentive of parties to continue implementation or not.

I present two primary determinants of successful implementation that focus on pre- and post-agreement factors. The first factor is the duration of negotiations. I argue that parties' expectations about the implementation of the agreement is likely to shape the way they negotiate. If they expect that the agreement will be implemented successfully, they will invest more time into the negotiation stage. While this process might prolong the negotiation stage, eventually the level of implementation will be higher.

The second factor is the costs of non-compliance at the implementation stage. The main argument is that as long as the costs of non-compliance remain high, both parties will continue implementation. Both sides—but especially non-state actors—should retain their military capability to enforce the implementation of the agreement and credibly threaten to engage in violence in the wake of failed implementation. Hence, greater military guarantees for the rebel that do not disrupt the bargaining range in the post-conflict environment will lead to higher levels of implementation. Moreover, the costs of non-compliance might change during the course of implementation. If one of the parties, especially the non-state actor, gets militarily weaker during the implementation process, it will not be able to make non-

implementation costly for the other actor. As the costs of non-implementation go down, both sides will stop implementing the remaining provisions of the agreement that they are responsible for. For example, if rebel loses its military capability, the state will have reduced incentive to follow through on promised concessions.

Conflict recurrence, consequently, is theorized as the result of bargaining failure in the post-conflict environment. When parties underestimate the willingness of their opponents to reinitiate conflict in the wake of partial or failed implementation, and the incentive to renegotiate the terms of agreement is high, likelihood of conflict recurrence is also high. Additionally, while implementation of certain military provisions will result in lower levels of implementation, since combatants lose the ability to make non-compliance costly, it will also result in a decreased likelihood of conflict recurrence for the same reason.

These propositions are tested statistically using original data on pre-agreement negotiations and agreement implementation encompassed in a new original dataset: the Implementation of Peace Agreements Dataset (IPAD)² This dataset includes all final agreements regardless of their content, i.e., comprehensiveness and/or inclusiveness and all provisions in a given agreement. The dataset records 80 peace processes that took place between 65 government-rebel dyads in 38 civil conflicts between the years 1989 and 2009. Therefore, this dataset does not select on the agreement or provision type, which is crucial to answer the question raised in this dissertation. The main

² This dataset is the result of the work supported by the National Science Foundation under the Dissertation Improvement Grant No. (1424033) and Smith Richardson Foundation World Politics and Strategy Fellowship.

problem with selecting on the content of agreements is that unobserved factors that make agreements more comprehensive are likely to also lead to higher levels of implementation. As a result, statistical analysis will not accurately estimate the effect of any variable on the level of implementation and produce biased results. In addition to the aggregate level of implementation and post-conflict outcomes, this data also records all implementation events and the implementer (state or rebel) to test propositions on progress in the implementation process over time. Several key control variables, which are expected to influence the level of implementation or post-conflict outcomes, are included in the statistical analyses. These control variables include: the presence of third party peacekeepers, domestic monitoring mechanisms (i.e., monitoring commissions established by the parties with or without the presence of third party observers), as well as other agreement, conflict and country characteristics.

The implementation stage of an agreement is as important and as dynamic as the earlier stages of conflict resolution. While there are case studies looking in depth at the implementation processes of select civil wars (Stein & Kirschner 2009, Stedman et al. 2002, Hampson 1996), or focusing on individual aspects of transitions such as post-conflict elections, disarmament and reintegration programs or democratization (Hoddie & Hartzell 2010, 2015; Joshi, Melander & Quinn 2015), there is no comprehensive theory and empirical analysis of the implementation of peace agreements. This dissertation seeks to build upon this existing work and contribute to academic knowledge by introducing a general theory of agreement implementation and by empirically testing implications from the theoretical discussion using original data on the implementation of peace agreements.

Moreover, with the exception of several qualitative studies, there are no quantitative studies that focus on the process of implementation itself. Perhaps one reason for this is that until recently there were no quantitative datasets that would allow researchers to explore the implementation process. This dissertation also contributes to the emerging research agenda on peace processes by introducing a new dataset that not only makes it possible to explore the questions laid out here, but also many other questions that may interest future scholars in this issue area.

Given the relationship found between the successful implementation and duration of peace in various studies (e.g., Jarstad & Nillson 2008), explaining what leads to successful implementation also has implications for conflict recurrence. Therefore, the project not only aims to fill a gap in the empirical and theoretical literature on conflict resolution, but also offers policy implications for international actors seeking to establish stable peace. The findings of this study can help third party states and other international organizations improve practices at both stages of a peace process and to design more stable agreements.

Finally, understanding when and how peace agreements are implemented has implications above and beyond the important process of achieving a more durable peace understood as the absence of armed conflict recurrence. The majority of peace agreements ending civil wars introduce reforms aimed at improving the political, economic and judicial system in a country. Some introduce democratic elections, remove ban on political parties, or establish more inclusive transitional institutions. Other agreements include amnesty for the political opposition, improve the distribution

of state resources to disenfranchised areas, or call for equal representation of minorities in various political and/or judicial offices of the state. In other words, these agreements, *if implemented*, can have a long lasting positive impact on human rights practices, and contribute to the democratization and development of post-conflict societies. Hence, explaining how parties can achieve successful implementation also contributes to our understanding of successful transitions not just away from war but to a more positive peace.

The following chapter reviews the literature on conflict termination, peace duration, and international law. Additionally, this chapter provides a discussion of the gaps in the literature. Chapter 3 presents my theory of agreement implementation and the testable hypotheses that are derived from this discussion. Chapter 4 introduces new original data collected for this dissertation: The Implementation of Peace Agreements Dataset (IPAD). This chapter also provides a detailed discussion of sample selection, different units of observation, and a set of examples to illustrate coding decisions. Chapter 5 presents the dependent and independent variables included in the statistical analysis. This chapter also includes a discussion of control variables, why particular variables are included in each model, and the data sources used for these variables. Chapter 6 presents the results from the statistical analysis, discusses the findings, and the substantive impact of various variables of interest by presenting the predicted level of implementation and likelihood of conflict recurrence. The final chapter, Chapter 7, reviews the theoretical argument, the statistical results, and discusses potential avenues for future research. This chapter concludes with a discussion of contributions to the

literature and the potential policy implications of the theory and findings presented in this dissertation.

Chapter 2: Literature Review

This chapter reviews two bodies of literature: conflict termination and compliance with international law. The conflict termination and peace duration literature gives insights into how civil wars end and the determinants of durable peace. The international law literature focuses on when and why states comply with international laws and regimes which can be applied to understanding state behavior in implementing peace agreements. The final section reviews gaps in this literature—specifically the conflict termination literature—and lays out some of the questions that are, as of yet, unanswered.

Conflict Termination and Peace Duration

There are two general approaches explaining civil conflict termination. The first focuses on factors that facilitate initiating negotiations and/or signing agreements (e.g., Walter 1999, 2002; Zartman 1989). The second focuses on the design and implementation of peace agreements with the aim of explaining when peace is more durable (e.g., Hartzell 1999; Toft 2009; Jarstad & Nilsson 2008, Joshi & Quinn 2015).

Contrary to the previous assumptions that actors in civil wars are irrational and unpredictable, Walter (1999) argues that the two sides in a civil war cooperate as long as agreements guarantee long term benefits. To achieve a settlement parties should send costly signals to their adversaries, and more power (political, military and/or economic) should be distributed among rivals to overcome commitment problems and guarantee future security (e.g., Walter 1999, 2002; Hartzell & Hoddie 2008).

However, guaranteed power sharing, as opposed to concessions such as competitive elections, is a necessary but not sufficient condition for civil war settlement because rebel groups fear that the government will renege on the terms of the agreement once it becomes more powerful. Rebels therefore refuse to sign an agreement in the first place even if all root causes are addressed when the state is not able to credibly commit to implementing the agreement (Walter 1999). Several studies show that third party security guarantees are the most important factor that brings groups to the negotiating table and lead to successful settlement since they help solve enforcement problems and ensure durable peace (Walter 2002, Fortna 2004, Quinn et. al 2007).

In addition to third party security guarantees, several other studies show that the design of a peace agreement, i.e., types of provisions, presence of power sharing, and security sector reforms, affect peace duration following civil wars. For example, more institutionalized settlements—in terms of addressing the security concerns of rebel groups—that encompass control over coercive mechanisms of the new state, political power or the division of economic resources are linked to post-war stability (e.g., Hartzell 1999, Harzell & Hoddie 2003a). Mattes and Savun (2009) also focus on the effect of agreement design and its impact on conflict recurrence. More specifically, they compare the effect of “fear-reducing” provisions such as third party guarantees and power-sharing, to “cost-increasing” provisions such as the separation of forces, that impose costs on both sides and thus make a return to conflict costlier. They find that “cost-increasing” provisions and political power-sharing provisions prolong peace duration. Additionally, if more issues are left out of the peace agreements, i.e., the agreement is less comprehensive, Joshi and Quinn (2015) argue that the likelihood of

conflict recurrence increases because parties will attempt to renegotiate with the hopes of improving the scope of the agreement, which risks conflict recurrence.

Toft (2009) compares different outcomes of civil conflict in an attempt to explain the high rate of failure among negotiation settlements compared to other conflict outcomes, such as military victory by one actor. She suggests that negotiated settlements are usually designed to benefit actors who comply with the terms of the agreement but do not necessarily include provisions about punishing the ones that violate these terms. Negotiated settlements without the credible threat of punishment are vulnerable to cheating or “tactical” ceasefires and lead to increased likelihood of renewed violence (Toft 2009). Toft mainly focuses on reforms that are designed to restructure the security sector, arguing that these reforms would prevent the emergence of spoilers and provide security guarantees to overcome the security dilemma. Even a well-designed agreement, according to Toft (2009), would not convince belligerents to give up arms unless they feel secure.

DeRouen et al. (2009) also looks at the different power-sharing provisions and their effect on the duration of peace agreements, measured as months since the agreement was signed until it is replaced or one party abandons the agreement. They also find that agreements that have military and territorial power-sharing provisions (i.e., autonomy) are more likely to endure. They suggest that this is because political power sharing is costlier and such arrangements would create an incentive for the government to renegotiate or renege as they gain the upper hand in the future compared to the less costly concession of autonomy or military power sharing. Military power

sharing, for example, is less costly because even though the government takes a risk by allowing former rebels into army, in the long run it will likely retain control of this important institution.

On the other hand, several existing studies focus on information problems in the post conflict period. “Uncertainty-reducing” agreements, such as the ones that include UN observer missions to monitor the implementation of agreements, are more likely to reduce information asymmetries in the post-conflict environment and decrease the probability of conflict recurrence (e.g., Savun & Mattes 2010).

In addition to agreement design, a number of studies look at the settlement environment, i.e., the characteristics of the country in which the conflict occurred, the international environment, and factors related to the civil war itself. For example, conflict recurrence is less likely following a negotiated settlement if the government is democratic and the conflict endured for a long time before terminating. By contrast, peace is more likely to fail following short but high-intensity conflicts, as security concerns and mistrust is at its highest levels making peace much more fragile (Hartzell, Hoddie & Rothchild 2001).

Studies have also examined the link between agreement implementation and peace duration. Hartzell and Hoddie (2003b), for example, show that the full implementation of military aspects of an agreement significantly improves the prospects for maintaining the peace since implementation is a costly signal for commitment to peace. Jarstad and Nilsson (2008) later extend the study of implementation by focusing on three different pacts (military, political and territorial)

and their effect on the duration of peace. The authors argue that implementing military and territorial pacts are costlier compared to political pacts and thus the implementation of these pacts enhance the prospects of peace (Jarstad & Nilsson 2008). Like Hartzell and Hoddie (2008, 2003a), they also apply the logic of “costly signaling” which suggests that parties, by engaging in costly concessions, reveal their good intentions of promoting peace (Jarstad & Nilsson 2008).

More recently, Joshi et al. (2015) show that the sequence of implementation also matters in explaining peace duration. Post-conflict elections preceded by high levels of implementation make conflict recurrence less likely, while post-conflict elections without high levels of implementation have destabilizing effects.

While these studies lead to a good general understanding of the relationship between the successful implementation of peace agreements and the duration of peace they do not say much about the successful implementation of an agreement. Several case studies, e.g., Stedman et al. 2002; Hampson 1999; Brosché 2008; Bekoe 2008 Kirschner & Stein 2009, do offer insights. Forexample, DeRouen et al. (2010) looks at the impact of state capacity, i.e. GDP per capita and the CINC score, on agreement implementation by analyzing five countries that experienced 14 agreements. He argues that both state capacity and third party intervention are relevant factors in the implementation of peace agreements. Bekoe (2008) looks at peace processes in Angola, Mozambique and Liberia and focuses on the credibility of promised reforms. She argues that promised reforms are credible as long as they put both parties in a “mutually vulnerable” situation and the implementation of the agreement is carried out step-by-

step. On the other hand, Kirshner & Stein (2009), in their comparison of El Salvador, Guatemala, Mozambique, and Angola, focus on two factors: UN involvement and the balance of capabilities between combatants. Their analysis suggest that UN involvement improves implementation of peace agreements, while the balance of capabilities has an inverse-U relation to implementation. They argue that when the capabilities of the government or the rebel far exceed the other, the implementation of an agreement is likely to be lower. When both sides are at parity, however, the level of implementation is likely to be higher.

State Compliance with International Law

The international relations and international law literature has focused on several mechanisms, such as coincidence of interest, coercion, cooperation or coordination (Goldsmith & Posner 1999), reputational and direct costs due to sanctions (Simmons 2000; Guzman 2002), and the role of norms (Chayes & Chayes 1993; Slaughter 1999) to explain state compliance with different aspects of international law as well as bilateral and multilateral agreements. The overarching theme in this literature is that the enforcement of international laws is rarely strong if at all present, and yet states comply with these various laws. Therefore, high level of state compliance with international law and regimes is puzzling given the lack of enforcement.

One set of studies focuses on regime and agreement design (e.g., Mitchell 1994, Kelley 2007, McLaughlin Mitchell & Hansel 2007). These studies argue that the institutional design of regimes matters. Specifically, compliance information and non-compliance response systems that regulate collection and dissemination of information

about compliance behavior and regulate formal/informal responses in the face of non-compliance (Mitchell 1994). Mitchell & Hensel (2007), on the other hand look at the effects of active and passive involvement of international institutions on compliance with dispute settlement between states and find that active involvement by institutions that involve legally binding mechanisms improves the prospects of reaching an agreement and complying with the terms of the agreement.

However, several studies (e.g., Chayes & Chayes 1991; Downs, Rocke, & Barsoom 1996; Stein 2005) point out the selection effects in compliance behavior. Downs et al. (1996) argue that the high rates of compliance can be attributed to the fact that states generally design and sign treaties that require minimal work to change their behavior in order to comply. In other words, states sign onto agreements that are easy to comply with. Stein (2005) also suggest that the factors that make states more likely to sign an agreement are also likely to influence their post-agreement behavior. She shows that unobservable factors that lead states to sign an agreement significantly increase their likelihood of compliance (Stein 2005).

Gaps in the Literature

This review of the literature points to several theoretical and empirical approaches to explaining post-conflict stability. First, the main assumption is the very occurrence of implementing the agreements puts parties—especially rebels—in jeopardy. When the main focus in the implementation stage is demobilization of forces, any move towards implementation becomes very risky for both parties so they need third party guarantees to enforce the agreement terms (Walter 2002). However, the

main issue is not always demobilization and disarmament that require third party guarantees. In fact, agreements can be self-enforcing. As several studies show, agreements that include power sharing provisions where equal or proportional numbers of government and rebel forces are represented in state institutions prolong peace.

Second, studies that focus on the design of agreements and their implementation point to the “costly-signaling” mechanism as an explanation of durable peace. The main argument advanced is that the implementation of power sharing provisions is costly. By undertaking the implementation of these provisions, parties are able to send credible signals to show their commitment to peace. Incremental steps towards implementing these provisions bolsters the confidence of others in the peace process (e.g., Harzell & Hoddie 2008, Jarstad & Nilsson 2008; Bekoe 2008).

However, “costly-signaling” and “tit-for-tat” strategies are mainly relevant in solving commitment and coordination problems when both sides are uncertain about each other’s intentions and when these actions can be easily identified. In other words, this approach assumes that the parties are willing to implement the peace agreements and as they implement, they send costly signals to their opponents that they are committed to peace and reveal their true type (committed to peace vs. not committed to peace). In a post-conflict environment, however, each side’s dominant strategy is to always cheat given the opportunity. In other words, both sides are aware of the fact that the other one would always prefer to implement less than the agreed upon terms. Thus, any signal to prove otherwise would not be trustworthy (Walter 2002).

“Costly-signaling” mechanism may still be helpful to understanding how high levels of implementation lead to more durable peace by signaling commitment to peace and ensuring trust between parties. This explanation, however, does not offer much insight into what leads to high levels of implementation. Therefore, a better understanding of implantation process that does not rely on the assumption that groups are willing to implement the agreement terms is needed. Previous studies only look at the implementation of power-sharing provisions in a given agreement and their effect on the duration of peace, whereas agreements usually have numerous other reforms that do not explicitly require power-sharing. Therefore, implementation of such agreements and provisions, as well as how they affect the duration of peace, remains to be explained.

Moreover, one should expect similar concerns about inference to be present in the study of state and non-state compliance behavior with peace agreements. As the literature on international law and compliance suggests, states, and likely non-state actors, are able to self-select into agreements that they believe will be implemented. Alternatively, they might work hard to design agreements that they believe will eventually be implemented. Hence, a study of peace agreement implementation should also take into account the factors that lead states and non-state actors to sign an agreement. This is especially important since negotiated settlements are only one of several ways that conflicts end and the occurrence of a negotiated settlement is unlikely to be randomly determined.

The review of the literature reveals that numerous studies focus on the relation between agreement, country, and conflict characteristics, and the duration of peace following civil wars. These studies provide a comprehensive and convincing answer for when and how combatants sign peace agreements and the circumstances under which they reinitiate conflict. When and how they keep the peace, however, is not fully addressed. In other words, there has not been enough attention given to the post-conflict processes.

Several questions are left unanswered: What leads to higher levels of implementation? When do parties make progress towards implementing agreements? When they make progress, which provisions do they implement and which provisions do they avoid implementing? What explains different peace process outcomes such as successful implementation, partial implementation, or conflict recurrence? Why do some failed agreements lead to conflict recurrence while others do not? Additionally, do pre-agreement negotiations and the design of agreements influence implementation? This dissertation aims to contribute to the conflict resolution literature by providing a general theory of implementation and conflict recurrence that addresses these questions.

Chapter 3: A Bargaining Theory of Implementation: Costs of Non-compliance

This chapter introduces a new theory of agreement implementation. The first two sections focus on the pre- and post-agreement factors respectively. These two sections go over the negotiation and implementation stages and present testable hypotheses about the level of implementation. The following section discusses alternative explanations for why some agreements might be fully implemented while others might fail. The final section discusses the circumstances under which different levels of implementation are more or less likely to lead to conflict recurrence during a peace process.

It is true that the implementation process is surrounded with uncertainties. The very act of complying with certain provisions of a peace agreement may put one party at a disadvantage either through demobilization and disarmament provisions, or through other political and/or economic reforms that allow new actors into the political and economic system. Although the implementation process is risky and creates many uncertainties about the compliance of parties, not every agreement requires the full demobilization and disarmament of groups that would paralyze the process unless third parties step in to provide security guarantees. On the contrary, agreements usually envisage partial demobilization and integration into a new national army where equal or proportional numbers of government and rebel forces are represented, and/or appointment of rebel leaders to high ranking positions in the military or government occurs. In some cases, the ratio of rebel forces to government forces is set to be 50-50,

while in other cases rebel and government forces are represented in the new army proportional to the population they represent.

The Bicesse Agreement signed between the government of Angola and UNITA, which called for the incorporation of 30,000 UNITA members into the Angolan Armed Forces, Navy, and Air Force, or the General Peace Agreement (the Acordo Geral de Paz) signed between the government of Mozambique and the Mozambican National Resistance (RENAMO) which called for the incorporation of 15,000 RENAMO soldiers in to the army, are good examples of such arrangements. These arrangements are likely to enable rebel groups to enforce the terms of an agreement. Additionally, rebel groups may be more likely to sign an agreement since they will be less concerned about enforcement problems in the implementation stage. Therefore, the presence of third parties may not be the only solution in addressing enforcement problems. Similar arrangements in peace agreements might alleviate concerns about the implementation stage and move the peace process forward.

First Stage: Reaching an Agreement

I argue that reaching an agreement and implementing it are two different yet interdependent bargaining processes. I assume that both parties act rationally and take into account the costs and benefits of achieving their desired goals through negotiating or fighting and make a decision on which one to use accordingly. When parties believe that they can gain more from negotiating an end to conflict and can ensure these gains would materialize once the agreement is signed, they would rather negotiate and terminate the conflict instead of continuing a costly war. When they believe that they

would not gain more from negotiating or that the gains made at the table would not materialize, they may prefer to continue fighting with the hope of achieving military victory instead of settling (Pillar 1983; Reiter 2009). The timing of negotiations depends on the prospects for future military success or failure (Pillar 1983). Fighting occurs mainly due to commitment and information problems, i.e., either parties cannot ensure commitment to peace if they reach an agreement or that they miscalculate costs and capabilities of their opponents due to information problems at the beginning of war (Fearon 1995). Therefore, information revealed by fighting may reduce the information asymmetry over capabilities that exists at the beginning of a conflict. In this case, parties are more likely to make concessions if they believe future fighting will be costly or the probability of success through fighting is low (Reiter 2009).

The first stage of a peace process, negotiations between a government and a rebel group to reach an agreement, resembles the “war of attrition” model presented by Fearon to explain interstate cooperation (Fearon 1998).³ The model predicts that when the shadow of the future is long (expectation of future gains and long term cooperation), both sides prefer to hold out and wait with the hope that the other side will make concessions first. However, as the parties hold out to reach a better deal, they suffer the costs of noncooperation. One implication from the model is that although eventually a longer shadow of the future makes agreements more enforceable, it also makes the time to reach an agreement longer.

³ See Fearon (1998) for more on the interstate cooperation model.

In the context of civil war termination, the cost of non-cooperation is the cost of continued fighting. Thus, as a general condition, I assume that negotiations occur when both sides have no expectation that they might get a better outcome by continuing to fight. While it is likely that rational actors should always try to find ways to negotiate in order to avoid the costs of fighting, the decision to initiate negotiations depend on each combatant's belief that future fighting is costlier than negotiating and ending conflict.

The process of negotiations, therefore, is dependent on the expectations of the parties in the post-agreement period. Civil war combatants are likely to value future payoffs from peace agreements differently. For example, rebel groups might value provisions regulating future elections, integration into government and reform of the political system more compared to other provisions. The reason is that having a favorable political setting once these provisions are implemented will provide gains not only in the immediate aftermath of the conflict but also in the long-run. When parties value future gains and when they do not expect implementation problems, they will negotiate harder and longer in order to reach the best possible deal. In other words, if the parties expect to be able to enforce the agreement in the second stage, they will bargain more seriously in the first stage. Conversely, if the parties do not believe that the agreement is likely to be fully implemented or believe that once they settle they expect to get other benefits besides gains from the agreement, they might be inclined to reach a quick agreement and not pay much attention to the details.

The main observable consequence is that agreements resulting from a long and tough negotiation process are likely to have higher levels of overall implementation as compared to agreements concluded in a fast fashion. This generates the first hypothesis about the aggregate level of implementation.

Hypothesis 1: The longer the negotiation process preceding an agreement, the higher the level of implementation will be.

Second Stage: Implementing an Agreement

Parties move to the second stage once they reach an agreement. However, bargaining between the parties does not stop once they reach an agreement. The implementation process can be modeled as a multiple-offer bargaining process with an outside option of “using force”, i.e. returning to conflict.⁴ When the provisions in a peace agreement and the complexities of implementation are considered, it is evident that the decision for parties in the implementation process is not dichotomous (implement vs. do not implement). From the perspective of the government, even if it had agreed on sharing power, it would always try to find ways to get away with less power-sharing than what has been agreed to on paper, or to interpret the agreement to its own advantage. For example, the government might agree to allocate a number of ministerial and/or administrative positions to the rebel group, or adopt political, electoral, economic and other reforms. Once the agreement is signed, however, it would rather allocate fewer posts or adopt less comprehensive reforms.

⁴ The structure of bargaining at the implementation stage is similar to the bargaining model developed by Powell (1996).

The “Declaration of the Summit of the Heads of State and Government of the Great Lakes region on the Burundi Peace Process,” signed by the Government of Burundi and the Party for the Liberation of the Hutu People- Forces for the National Liberation (Palipehutu–FNL) in December 2008, serves as a good example of reneging on implementation. The President of Burundi, Pierre Nkurunziza, agreed that 33 posts will be made available to the principal members of the Palipehutu-FNL as a part of the political integration and transition of Palipehutu-FNL from a rebel group to a political party, in addition to agreeing to the release of “all” political prisoners. Several weeks after the agreement was signed, the first dispute arose about which posts would be allocated to Palipehutu-FNL members. While the Palipehutu-FNL maintained that the levels of posts should be agreed on first, the government demanded that the Palipehutu-FNL should submit the list of members to be considered for 33 posts without declaring which posts the 33 members would eventually get.⁵ The second disagreement emerged when the government approved the release of 247 prisoners. The Palipehutu-FNL argued that the government agreed to release 422 prisoners during negotiations while the Ministry of Justice declared the list of prisoners were under review without making further progress towards releasing more political prisoners.⁶ The dispute over the posts later partially resolved after the government appointed 24 Palipehutu-FNL leaders to civil service positions, including governor and ambassador posts. The Chairman of the Palipehutu-FNL was nominated as the Director of the National Social Security Institute, and the Secretary General of the Palipehutu-FNL was appointed as the

⁵ UNSC “Fifth report of the Secretary-General on the United Nations Integrated Office in Burundi”, S/2009/270, May 22, 2009.

⁶ *Ibid.*

principal advisor in the military office of the President; the remaining nine posts were never filled.⁷

The above assumption can also be made for rebel groups. Even if a rebel group agrees to demobilize and disarm, or to release prisoners, it will always try to find ways to implement less than the agreed upon amount. During the disarmament processes of the National Union for the Total Independence of Angola (UNITA), following the Lusaka Protocol of 1994, the quality and the amount of weapons returned by UNITA combatants who reported to the encampment sites was a major concern. While more than 50,000 UNITA troops were registered in quartering sites, only a little over 26,000 personal and 3,000 crew-served heavy weapons were returned by June 1996.⁸ Some 18,000 troops, who reported without any weapons and/or ammunition, were believed to actually be civilians and/or members of local militia who were forced to report to the camps.⁹ By the end of the same year very little progress had been made and the quality of the weapons returned remained a big concern.¹⁰

For the rest of this dissertation, I will generally refer to the government as the party who is making concessions through implementation and refer to the rebel as the dissatisfied party who demands changes in status quo and who needs to be appeased through implementing agreement provisions.

⁷ UNSC “Sixth report of the Secretary-General on the United Nations Integrated Office in Burundi”, S/2009/611, November 30, 2009.

⁸ UNSC “Report of the Secretary-General on the United Nations Angola Verification Mission (UNAVEM III)”, S/1996/503, June 27, 1996.

⁹ *Ibid.*

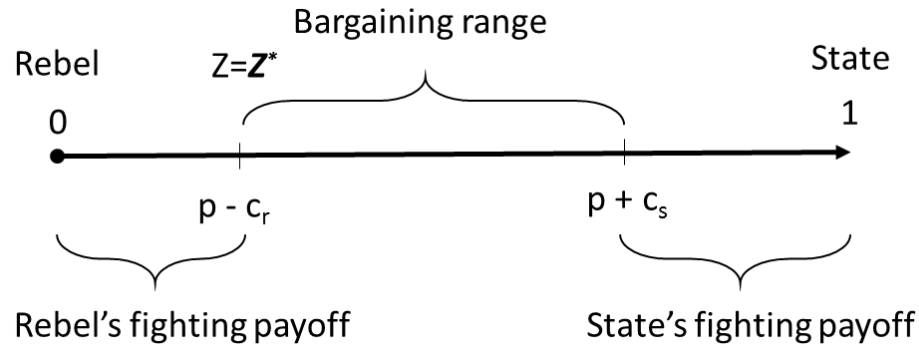
¹⁰ UNSC “Report of the Secretary-General on the United Nations Angola Verification Mission (UNAVEM III)”, S/1996/1000, December 2, 1996.

In the remaining part of this section, I will introduce three stylized scenarios theorizing about the conditions under which the factors at the negotiation and implementation stages will impact the level of implementation. The main dilemma at the implementation stage is that the government would prefer not to implement concessions it made, and avoid potential consequences such as conflict recurrence but have the rebel implement its concessions. In other words, the government would be better off not implementing as long as this action does not trigger conflict recurrence or a reduction in the amount of implementation the rebel undertakes, and therefore, would try to find the minimum level of implementation that is acceptable to the rebel. As a result, the government will comply with the agreement as long as the costs of non-compliance outweigh the benefits of non-compliance.

Scenario 1 – No Room for Bargaining

The agreement $(Z, 1-Z)$, reached in the first stage, becomes the new status quo for bargaining in the second stage. Under complete information the agreement (Z) should resemble the optimal minimum offer for the second stage $(Z = Z^* = p - c_r)$ where there is no room for bargaining and the agreement should be fully implemented. In this scenario both sides know their payoff in both stages of bargaining. Figure 1.1 shows the bargaining range and the optimal minimum offer (Z^*) in this scenario. Knowing the payoffs in both stages of bargaining and enforcement difficulties, the parties should settle on an agreement (Z) that would be implemented fully in the second stage.

Figure 1.1 – No Room for Bargaining



Since ($Z = Z^* = p - c_r$), the rebel would not accept any level of implementation less than full implementation. In this scenario the rebel can credibly threaten to return to fighting since its payoff from fighting would be higher than accepting any level of implementation less than what was agreed upon (Z). Thus, non-compliance with the agreement is costly for the government and the agreement would be fully implemented.

The main incentive of the government at the implementation stage is to prevent conflict recurrence and to find the minimum amount of implementation that would make the rebel indifferent between accepting its offer (i.e., its preferred level of implementation) or rejecting it and turning back to conflict.¹¹ The minimum amount (or optimal offer) depends on the credibility of the threat. The threat is credible when the probability of winning the conflict (p)¹² minus the costs (c_r) of renewed fighting is larger than the gains from the new offer. Under complete information, the government should be able to offer the minimum amount, instead of offering any value more than

¹¹ In line with other studies in the bargaining literature, I assume that both actors are risk averse and would not prefer the outcome of war when the payoffs from both outcomes are equal. Therefore, they will always accept the agreement when they are indifferent between fighting and accepting.

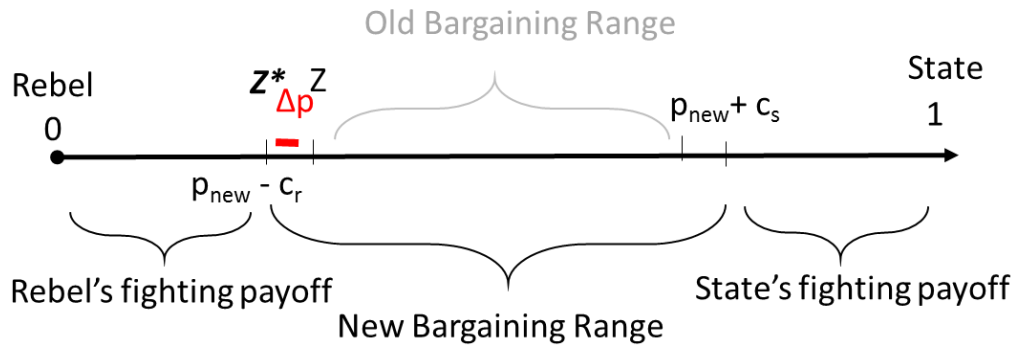
¹² In line with previous studies, e.g. Cunningham et al. (2009), Gent (2011), and Reed (2000), the rebel probability of winning is conceptualized as the rebel's troop size relative to the government's troop size.

the minimum. More specifically, in Figure 1.1 the minimum amount of implementation (Z^*) is the full implementation of agreement (Z) since the rebel would reject anything less.

Since the majority of peace agreements require rebels, and in some cases governments, to demobilize and disarm, demilitarize certain regions of the country and dismantle military posts, it is more realistic to assume that the bargaining range will eventually change in the post-conflict period. Many of these military provisions are designed to alter the war-waging capabilities of combatants, either directly through disarmament, or indirectly through various provisions regulating movement and the position of forces. Several examples include the Donya and Bangui-2 Agreements calling for the withdrawal of the Chadian army from Southern Chad, the provisions regarding the demilitarization of 6th and 7th regions in Northern Mali in the National Pact, or the vast majority of agreements that require the demobilization of rebel forces. Overall, 55 out of 68 agreements in this study have some type of demobilization and disarmament provisions.

However, as mentioned above, not all agreements require full demobilization and disarmament. In fact, various levels of military guarantees, i.e., integration of rebel forces into the new army, are present in 40 out of 68 agreements included in this study. Figure 1.2 illustrates how changes in power (p) can affect the bargaining range.

Figure 1.2 – Small Change in the Bargaining Range



In this scenario, the minimum acceptable level of implementation (Z^*) is lower than the full implementation of the agreement (Z), although the difference is small. The rebel group would still reject any level that is smaller than (Z^*) and return to conflict since its fighting payoff would be higher than any level of implementation below (Z^*). Therefore, higher levels of military guarantees that do not change (p) drastically in the post conflict period would lead to higher levels of implementation, since the rebel group retains its capability to credibly threaten the government with conflict recurrence and increase the costs of non-compliance.

An example of high levels of military guarantees is the integration of rebel forces into a new army when the rebel gets to keep most of its combatants. In addition to above examples on UNITA and RENAMO, both of which were to constitute 50% if the new army, the National Council for the Defence of Democracy - Forces for the Defence of Democracy (CNDD-FDD) secured high levels of military guarantees in the Global Ceasefire agreement signed in 2003. In total, 40% of the forces for the new national army of Burundi would be selected from the CNDD-FDD forces while the

remaining 60% would be selected from the armed forces of Burundi. This suggests that there is not a major change in p (Δp is small), thus the bargaining range does not shift and consequently the level of implementation will be high. As long as the rebel retains its military power at the implementation stage and inflicts costs in case of non-compliance, the level of implementation will be higher.

This generates the next hypothesis:

Hypothesis 2: The smaller the change in rebel capabilities (i.e., the greater the level of military guarantees) the higher the level of implementation will be.

Detecting Non-Compliance: Implementation Commissions

It is reasonable to assume that if one of the parties does not comply with the agreement, and/or cheats during implementation, the other party is not able to respond or detect non-compliance immediately. Detection is one of the fundamental problems of enforcement. While the rebel might retain the capability to inflict costs on non-compliant behavior, it should also be able to detect such behavior.

Therefore, the nature of bargaining in the implementation stage is different than bargaining between two states changing the status quo.¹³ The agreement from the first stage (Z , $1-Z$) serves as a reference point, and if the deviation from that point is not

¹³ Note that the enforcement stage in Fearon's model is a repeated prisoner's dilemma (PD) game in which there is a "grim trigger" punishment strategy for noncooperation. That is, "if either side is **ever** observed to have defected for any length of time, both sides defect and defect forever afterwards" (Fearon 1998). Both sides get their share from the agreement they reached at the first stage if they cooperate (z , $1-z$). If one side cooperates while the other side defects, the one cooperating gets the "sucker payoff" whereas the one defecting has some gains from defection. Thus, the model presented here is different from Fearon's (1998) enforcement stage model.

easily detected both sides have an incentive to claim that they are complying with the agreement. Therefore, the level of implementation would also depend on the detection lag (dl). If one party can instantaneously respond to defection ($dl = 0$), there would not be any short-run gains to be made by reneging on the terms of the agreement. In most cases, however, there is some detection lag. When the detection lag is small, non-compliance can easily be observed and is likely to be punished, which increases the chance that an agreement is implemented. Conversely, if detection lag is larger, i.e., if it is more difficult to observe the compliance of parties, the levels of implementation will be lower since both sides have incentives to cheat.

Monitoring the implementation of some provisions is more easily done than other. For example, withdrawal of military forces to peace time locations would be easy to observe for both parties. A few other examples include the formation of election committees, adoption of new electoral laws, introduction of new legislation allowing multi-party system, or enactment of amnesty laws, which are all easier to observe. Implementing these provisions require the government to take publicly visible actions such as passing laws in the legislation. By contrast, some of the military provisions, such as pace and degree of disarmament, are more difficult to monitor due to both logistical problems as well as the uncertainty about exact numbers.

Almost a year after the initiation of the disarmament process in Angola, the United Nations Angola Verification Mission (UNAVEM III) discovered one of UNITA's secret arms caches in a warehouse in Negage.¹⁴ UNITA only agreed to

¹⁴ UNSC "Report of the Secretary-General on the United Nations Angola Verification Mission (UNAVEM III)", S/1996/960, November 19, 1996.

surrender these arms a month after detection.¹⁵ It is not clear, however, how long UNITA had this warehouse. Similarly, while UNITA claimed that all of its troops reported to quartering centers in Lunda Norte and Lunda Sul, where the largest diamond mines are located, UNAVEM III received information that some UNITA troops simply transformed into “mining police”, while in other areas, there were reports of weapons being distributed to “self-defense militias” that were affiliated with UNITA emerged.¹⁶

One factor that can affect detection lag is the presence of implementation monitoring commissions. Usually, such commissions are composed of both parties, such as the Commission for the Consolidation of Peace (COPAZ) established by the Chapultepec Peace Agreement signed between the Government of El Salvador and FMLN. This commission was composed of two representatives of the Government, one of which is a member of the El Salvador Armed Forces, two representatives of FMLN, and one representative from each party in the Legislative Assembly. The Archbishop of San Salvador and a delegation from the United Nations Observer Mission in El Salvador (ONUSAL) held observer seats in the commission with access to the meetings and the deliberations which were made by majority vote. While COPAZ did not have executive powers, parties were obliged to consult with COPAZ before making decisions or taking measures in regards to any matter that was included in the peace

¹⁵ UNSC “Report of the Secretary-General on the United Nations Angola Verification Mission (UNAVEM III)”, S/1996/1000, December 2, 1996.

¹⁶ UNSC “Report of the Secretary-General on the United Nations Angola Verification Mission (UNAVEM III)”, S/1996/960, November 19, 1996.

agreement. Additionally, when a difference of opinion emerged between the parties, COPAZ would assume a dispute resolution role, and address the question.

While COPAZ is a well-known example of implementation commissions established by a peace agreement with the purpose of monitoring implementation and facilitating coordination and communication between parties, such commissions are not uncommon. Overall, 61% of the agreements analyzed include one or more different types of implementation commissions composed of both parties and that focus on the implementation of the whole agreement, like COPAZ, or solely focus on the implementation of military provisions. The Joint Military Commission established by the Inter-Congolese Dialogue Final Act signed between the Democratic Republic of Congo and two rebel groups, the Congolese Rally for Democracy (RCD) and the Movement for the Liberation of Congo (MLC), or the Joint Ceasefire Commission and the Joint Verification Commission established as a part of the Cotonou and Accra Peace Agreements signed between the Government of Liberia and various rebel groups are a few examples of commissions with a narrower focus.

These commissions provide a forum for continuous interaction, facilitate coordination between the parties as well as with third party monitoring and peacekeeping missions, and allow both sides to review each other's progress more easily. All of these factors reduce the detection lag.

Hypothesis 3: The level of implementation will be higher when implementation commissions are present.

Hypothesis 4: The impact of military guarantees will be larger when implementation commissions are present.

External Costs of Non-Compliance

While this dissertation focuses on the internal costs of non-compliance, i.e., rebel capability to enforce an agreement, it is also important to acknowledge that there may be external costs that influence implementation. Third parties can be directly involved in the implementation process by deploying peace keeping missions to ensure the enforcement of the agreement. Third parties can also assume monitoring and verification roles that might facilitate coordination and reduce uncertainties without necessarily enforcing the terms of the agreement.

Several studies show that peacekeepers and third party guarantees do indeed prolong the duration of peace following civil wars (Doyle & Sambanis 2010; Walter 2002; Fortna 2008; Savun & Mattes 2010; Hultman, Kathman & Shanon 2016). This occurs either by increasing the costs of recurring conflict, or by improving the monitoring capabilities of parties that they might lack otherwise. This type of involvement by third parties alter the bargaining range, and hence are likely to impact the level of implementation. While the direct involvement of third parties in conflict and post-conflict countries is well-explored, third parties can also be involved in the peace process indirectly. This is especially important because certain types of involvement may alter the costs of non-compliance for the government.

One type of indirect involvement by third parties is through the provision of foreign aid. Donors can use aid in order to incentivize progress in implementing

agreements. This is done by threatening to reduce or suspend foreign aid in the face of lack of progress—in other words, by making aid conditional on successful implementation of an agreement. Under these circumstances, the motivation for compliance with the agreement would be high, and, as a result, the level of implementation will also be higher. Foreign aid provision can also be conditional on peace. When a government is enjoying the benefits of continued aid flow in peace time it has an incentive to avoid conflict recurrence, which would cause a disruption in the flow of aid. In other words, foreign aid serves as a peace dividend, increasing the costs of non-compliance indirectly.

In the implementation process of the Chapultepec Agreement, both parties were under pressure from international donors and external backers. The United States especially was pressuring the government to comply with the agreement terms. In fact, the US withheld \$11 million of aid to force the government to comply with the Ad Hoc Human Rights Commission report that called for the removal of all armed forces officers, including the defense minister and the vice minister, who were responsible for human rights violations (Call 2002). Subsequently, the government complied and announced that both the defense minister and vice minister would be removed from their posts and the rest of the military officers would retire.

However, when donors are only involved in the first stage of the peace process, i.e., negotiations to reach an agreement, and use aid as a motivation to reach an agreement, it might have adverse effects in the second stage. This occurs because as the international pressure fades, the parties will implement less than initially agreed

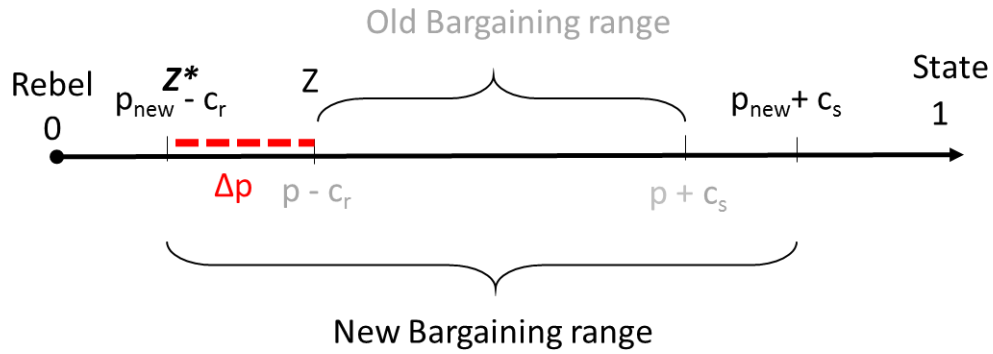
upon. The Guatemalan peace process and the implementation of the 1996 agreement is an example of this scenario. Even though the negotiations gained momentum with UN mediation and resulted in a series of agreements leading up to the final agreement in 1996, difficulties arose in the implementation process (Stanley & Holiday 2002). Although three consecutive civilian governments continued negotiations with the URNG guerrillas, the motivation of the government was to gain international approval and development assistance. Lack of international pressure in the second stage resulted in the government's retreat from most parts of the agreement—especially after the URNG's disarmament further reduced the costs of renegeing (Stanley & Holiday 2002). A Supplementary analysis on the external costs of non-compliance is presented in the Appendix V.

Scenario 2 – Room for Bargaining – Endogenous Factors

Another scenario for bargaining to occur in the second stage is when the bargaining range changes as a result of the agreement being implemented.

Figure 3 shows how a large change in capabilities (p) affects the bargaining range and creates room for renegotiation. Contrary to the example provided under the first scenario, in this example a rebel group loses power (Δp is large) and the bargaining range becomes much larger. While the change in (p) can result from external factors such as the loss of military and/or financial external support, the main focus in this section is the changes that are the result of the implementation process, mainly demobilization and disarmament.

Figure 2 – Change in the Bargaining Range



Military capabilities may change during the implementation process as a result of implementing demobilization and disarmament provisions. As parties, especially the rebel, implement disarmament provisions, their capabilities decrease. Even though both parties should be able to predict this outcome and should not sign an agreement that would jeopardize their position in the post-conflict environment, there is great variation in different military arrangements that can potentially change the capabilities of both parties. Additionally, as the discussion in the above section points out, parties do not always sign optimal agreements. Due to various factors such as international pressure, and/or third party involvement, they may agree to terms that do not benefit them in the long run.

Under this scenario the rebel loses its capability to enforce the agreement in step with implementation of demobilization and disarmament provisions. Since the costs of non-compliance decrease over time as compared to the costs at the time the agreement was signed, the government will stop its progress towards implementing the agreement gradually. While the previous hypotheses focus on the aggregate level of implementation, this final scenario is about how changes in the capability of rebel

throughout the course of implementation impact the government's decision to implement agreed to provisions. If the main mechanism, costs of non-compliance, is the driving force behind the government's progress in implementation, then one would also expect that as the costs decrease the likelihood that the government will continue to make progress towards implementing the provisions will decrease.

This generates the final hypothesis about rebel capability to enforce the implementation of an agreement:

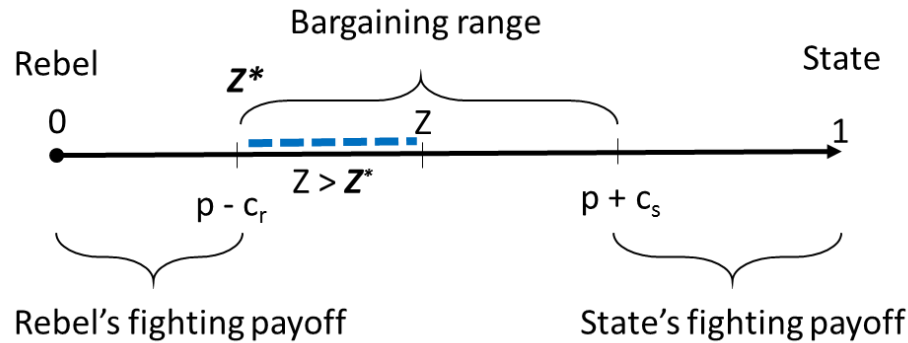
Hypothesis 5: The more the rebel demobilizes, the lower the likelihood that the government will make progress in implementation.

Scenario 3 – Room for Bargaining – External Factors

The agreement reached in the first stage might be any point within the bargaining range. Figure 4.1 illustrates the third scenario in which the agreement (Z) is within the bargaining range but is not equal to the minimum offer ($Z > Z^* = p - c_r$).

In this example, the incentive for the state is to implement the agreement partially, knowing that any threat from the rebel to return to conflict is not credible since the rebel's payoff for fighting is smaller than any level of implementation between (Z) and (Z^*). Therefore, the agreement would be partially implemented and the conflict would not recur as long as the level of implementation does not go below (Z^*).

Figure 3.1 – Agreement within the Bargaining Range



While, as a *general condition*, I argue that negotiations occur when both sides have no expectation that they might get a better outcome by continuing to fight, in interstate and intrastate wars third party involvement in any stage of conflict might affect outcomes—especially the outcome of a negotiated settlement (e.g., Walter 2002, Fortna 2004, Regan & Aydin 2006; Quinn et al. 2007; Beardsley & Lo 2014). Various studies show that while third party involvement might create an incentive to sign an agreement in the short run, the long term effects might be adverse if the agreement does not reflect the parties' expectations about conflict outcome had fighting continued, or when third party mediators are biased and/or use various types of leverage (e.g., Werner & Yuen 2005; Svensson 2009; Beardsley 2011; Reid 2015).

Therefore, this scenario is most likely when there is external intervention in favor of the rebel group, or when there is pressure on the government from the international community to end the conflict that results in an agreement in which the rebels gain more than what they would have gained without intervention. Similarly, third party presence in the negotiation process might pressure parties into reaching a

This leads to the sixth hypothesis:

Hypothesis 6: The more involved the third parties in the negotiation process, the lower the level of implementation will be.

Figure 1: Bargaining range. A horizontal line from 0 to 1 represents the probability of the Rebel winning. A blue dashed segment from 0 to $p - c_r$ is labeled 'Rebel's fighting payoff'. A bracket from $p - c_r$ to $p + c_s$ is labeled 'Bargaining range'. A bracket from $p + c_s$ to 1 is labeled 'State's fighting payoff'. The point $p - c_r$ is labeled ' $p - c_r$ ' and the point $p + c_s$ is labeled ' $p + c_s$ '. The condition $Z < Z^*$ is indicated above the blue segment.

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Agreement Design and Alternative Explanations

In line with the international law and cooperation literature (Fearon 1995), I argue that party expectations about the implementation stage shape how they negotiate. More specifically, if parties expect that there will not be enforcement problems and that the agreement will be implemented, they will engage in a longer and tougher negotiation process in order to make sure that they get the maximum amount of concessions they can. In other words, negotiations of agreements that are more enforceable will last longer. A natural extension of this logic is that the parties' expectations of implementation also impact the design of agreements.

When parties expect that the implementation of a given agreement will succeed, they might design very detailed and comprehensive agreements in order to address any problems that may arise and inhibit implementation. When all, or most, provisions in a given agreement explicitly state changes required in current laws, quotas of integration into military and government, functions and composition of new institutions and modalities of implementation, the implementation of these detailed provisions might, then, inherently be easier. Such detailed provisions often also list steps to be taken at the implementation stage, which may also facilitate monitoring and verification of implementation. In other words, detailed provisions may also reduce the detection lag. As a result, the level of implementation for these provisions will be higher. Conversely, provisions that are less detailed, ambiguous in how they are stated, or that do not specify the quotas for the rebel group or levels of posts to be allocated, leave room for

intentional or unintentional misinterpretation and thus create incentives to renegotiate or cheat. Consequently, implementation of these provisions will be lower.

The Arusha Accords, signed between the government of Rwanda and the FPR, identified the number of seats the FPR would hold in the transitional government as well as the number of seats to be allocated in the legislative assembly. Furthermore, the agreement specified which posts would be allocated to the FPR, namely the Ministry of Interior and Communal Development, the Ministry of Transport and Communications, the Ministry of Health, the Ministry of Youth and Associative Movement, and the Secretariat of State for Rehabilitation and Social Integration. On the other hand, the 1994 Djibouti Peace Agreement, which included provisions on the integration of the Front for the Restoration of Unity and Democracy (FRUD) members into politics, left out specific mentions of quotas and positions.

As another example consider two amnesty provisions, the first relates to India while the second to Sierra Leone. In India the Government of Assam agreed to consider the withdrawal of all cases against persons connected with the Bodoland Movement in Assam as a part of the 1993 Bodoland Autonomous Council Act agreement. The provision, however, was vague as it was difficult to prove who was and was not connected to the movement. By contrast, the Lomé Peace Agreement, signed in 1999 between the Sierra Leone Government and RUF, specified the eligibility criteria for amnesty very clearly, as well as the crimes and the time coverage (in this case, actions taken since March 1991 up to the signing of agreement). The greater specificity made it easier to identify who was and who was not part of the amnesty deal.

This generates two alternative hypotheses at the agreement and provision level:

Alternative Hypothesis 1: The more detailed an agreement is, the higher the level of implementation will be.

Alternative Hypothesis 2: The more detailed a provision is, the higher the level of implementation of that provision will be.

Similarly, the presence of a timetable in the final agreement that lays out the steps to be taken by the parties may facilitate implementation. Even though strict and unrealistic time tables may in some cases create more tension between the parties due to delays in meeting the deadline, the main purpose is to make it easier for parties to detect if defection, i.e., deviation from the agreement has occurred. Therefore, failure to meet certain requirements will be easier to identify when there is a timetable. This beneficial impact is expected to outweigh any additional tensions generated.

Hypothesis Alternative: When an agreement has a timetable, the level of implementation will be higher.

Alternatively, long negotiation processes might be the product of many agenda items. If the parties are negotiating on a lot of different issue areas, the negotiation stage might last longer, but not necessarily because they are trying to reach a better agreement. Therefore, any relation between the duration of negotiation process, measured as rounds of negotiations or days, and the level of implementation may be spurious. For this reason, I use an alternative measure of negotiation length, the

negotiation days per provision, in addition to negotiation rounds and days, which generates the following hypothesis.

Alternative Hypothesis 3: The more days spent negotiating per provision, the higher the level of implementation will be.

Conflict Recurrence and Peace Process Outcomes

A bargaining framework is also helpful in explaining the conditions under which conflict recurs in the second stage. Several studies show a strong relationship between high levels of implementation and peace duration. The general theoretical framework presented in this dissertation does not challenge these findings. In fact, when parties sign an agreement as a result of arduous negotiations and agree to end a civil conflict that may have been ongoing for many years, there is little reason to expect that the conflict would recur as long as the agreement is implemented. Conversely, if the provisions of an agreement are not implemented—parties do not get what they are promised—conflict recurrence is more likely. Yet, partial implementation of agreements does not always lead to conflict recurrence. In fact, out of 61 partial agreement implementations (out of 74) only half experienced conflict recurrence (31 peace processes).¹⁷

¹⁷ The Implementation of Peace Agreements Dataset (IPAD) includes 80 peace processes six of which are ongoing as of the end of 2014. Further discussion of the dataset occurs in the following section.

Figure 4 – Level of Implementation and Conflict Recurrence

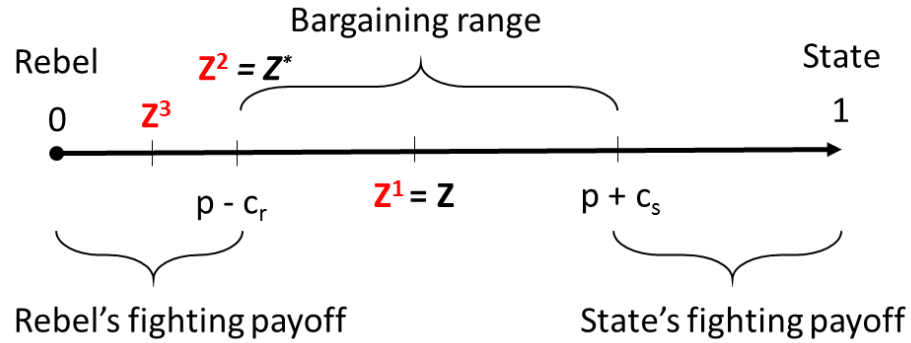


Figure 5 illustrates three different levels of implementation (Z^1 , Z^2 , Z^3), where (Z) is the agreement and (Z^*) is the minimum level of implementation acceptable to the rebel. Z^1 represents the full implementation of the agreement (Z), while Z^2 and Z^3 represent partial implementation. Conflict recurrence is unlikely when the level of implementation is Z^1 or Z^2 since the rebel's payoff for fighting is smaller than the gains resulting from implementation of the agreement. Conflict recurrence is only likely for Z^3 , which occurs when the level of implementation is smaller than the minimum acceptable offer for the rebel (Z^*). Failed or partial implementation in this case leads to renewed conflict when the threat of renewed fighting is credible ($p - c_r \geq Z^3$).

While implementation of military provisions, specifically demobilization and disarmament, reduces the chance that remaining provisions will be implemented, it also reduces the likelihood of conflict recurrence, since the rebel loses its power to enforce the agreement. In other words, the rebel has increased incentive to return to conflict, but much diminished capacity to do so, which leads to a reduced chance of conflict recurrence despite partial implementation. This leads to the seventh hypothesis:

Hypothesis 7: The more the rebel demobilizes, the lower the likelihood that conflict will recur.

Even if the government implements what it believes to be the minimum amount it can get away with, however, conflict might still recur when there is uncertainty around the capability of the rebel and the costs to renew the conflict. In other words, the minimum acceptable level of implementation (Z^*) is not easily identifiable. While the government might think that (Z^3) is acceptable the rebel has private information that it would not accept anything less than (Z^2). When one side underestimates the capability of the other side and makes an unacceptable offer, the bargaining process breaks down. Thus, conflict recurrence may be a result of bargaining failure in the implementation stage due to information problems.

Therefore, the mechanisms that facilitate renegotiation of the agreement in the implementation stage may prevent bargaining failures and conflict recurrence. Implementation monitoring commissions, for example, serve as a platform to renegotiate the terms and revise the agreements if necessary but they also facilitate communication and reveal information about the progress made by both parties, and consequently make conflict recurrence less likely by preventing bargaining failures. This leads to a final hypothesis:

Hypothesis 8: The likelihood of conflict recurrence will be lower when implementation commissions are present.

This chapter introduced a new theory of agreement implementation and identified the factors that make armed conflict recurrence likely in the post-conflict

period. In addition, alternative explanations of agreement implementation were also reviewed. The two main determinants of implementation presented are: (1) pre-agreement negotiations and (2) the costs of non-compliance at the implementation stage. More specifically, positive expectations about the implementation stage leads parties to negotiate longer in order to achieve a better deal. In turn, the level of implementation is likely to be higher when preceding negotiations are longer. The second argument put forward is that parties would continue implementing the agreement as long as the costs of non-compliance remain high. When the rebel retains its military capability through high levels of military guarantees, it will better be able to enforce agreement implementation. The level of implementation in these cases will be higher than when the rebel does not retain its military capability.

Similarly, large shifts in the bargaining range at the implementation stage create incentives to cheat on the terms of the agreement because the costs of non-compliance go down. Following the same logic, this chapter also presented several hypotheses on how changes in rebel capability over time influence the likelihood of progress in implementation by the government in order to further unpack the costly non-compliance mechanism. Additionally, several hypotheses on implementation commissions and third party involvement at the negotiation stage are presented. The presence of implementation commission is positively associated with the level of implementation while the third party involvement at the negotiation stage is negatively associated. Finally, this chapter presented a set of hypotheses on peace process outcomes and conflict recurrence. The main argument put forward is that the factors

that make implementation less likely—rebel demobilization and disarmament—also make conflict recurrence less likely.

Chapter 4: Implementation of Peace Agreements Dataset (IPAD)

This chapter introduces the Implementation of Peace Agreements Dataset (IPAD). The first section starts with a discussion of why there is a need for new comprehensive data to address the main questions raised in this dissertation. Additionally, this section provides a discussion of sample selection, i.e., which agreements are chosen to collect data on. The second section discusses the coding procedures used to identify the start and end dates of peace processes. The third section introduces the three units of analysis—process-, provision-, and event-level—in the dataset. The process-level data includes the aggregate level of implementation, peace process outcomes, and the various country and agreement characteristics. The provision-level data includes the level of implementation for each provision and various provision characteristics such as the implementer, specificity and provision type. Finally, the event-level data records each implementation event, the implementer and the category (initiation, continuation, or end of the implementation of a given provision).

Final Peace Agreements

The main research question asked in this dissertation is, “Why are some peace agreements fully implemented while others are only partially or never implemented?” In other words, what makes warring parties, especially governments, fulfill their promises to make certain reforms in different issue areas, such as political, economic or military, after they sign a peace agreement that ends a civil war? In order to answer

these questions, an original dataset, the Implementation of Peace Agreements Dataset (IPAD), was constructed.

Various datasets that are currently available do not provide adequate coverage of agreements in order to answer the questions raised in this dissertation.¹⁸ One main limitation is sample selection. The inclusion of all final agreements and all provisions within these agreements, not just power sharing pacts, is needed to improve statistical inference. Inclusion of all final agreements regardless of their content, i.e. comprehensiveness and/or inclusiveness is especially important in order to explain variation in implementation. Failing to do so may introduce selection bias. The main problem with selecting on the content of agreements is that unobserved factors that make agreements more comprehensive are likely to also lead to higher levels of implementation. As a result, statistical analysis will misestimate the effect of any variable on the level of implementation and produce biased results.

There are two reasons why that might be the case. As discussed above, parties might design more comprehensive agreements when they believe that implementation will be successful. Second, parties might have a greater incentive to push for successful implementation because they have a lot more to gain from comprehensive agreements. Similarly, including only all-inclusive agreements (agreements signed by all parties involved in the conflict) as opposed to dyadic agreements (agreements signed between a state and one or a few non-state actors but not all) introduces bias. The

¹⁸ For example, the Peace Accords Matrix from the Kroc Institute for International Peace Studies at the University of Notre Dame, the Implementation of Pacts dataset (IMPACT) by Anna Jarstad, Desirée Nilsson & Ralph Sundberg, and the Power Sharing Event Dataset (PSED) by Martin Ottmann and Johannes Vüllers.

implementation of all-inclusive agreements might be easier since the fact that it is inclusive means that all involved parties were able to find common ground. Alternatively, dyadic agreements might be influenced by ongoing conflict between the state and other parties who are not signatories, and therefore have lower levels of implementation. In sum, regardless of the direction of bias, to answer the question of why some agreements get implemented while others fail, information on all final agreements, regardless of their success and content is needed.

Second, in order to explain variation in the degree of implementation and specifically why failed implementation sometimes leads to conflict recurrence while in other times it does not, IPAD organically identifies the end date of a peace process. Existing datasets use five or 10 years following an agreement as an artificial cut-off for the end of a peace process, unless conflict recurs before the cut-off point. The first, five-year cut-off, may be missing important implementation events that take longer than five years to implement, which leads to underestimation of the level of implementation. By contrast, a 10 year cut off might be counting many years during which implementation is already over and thus examining the impact of independent variables during periods when they do not actually have any effect. To correct this problem, it is necessary to identify the duration and outcome of all peace processes.

Starting from the UCDP peace agreement dataset, 80 peace processes across 65 dyads in 38 civil conflicts between 1989 and 2009 were identified. A peace process is defined as continuous talks that lead to a final agreement signed between one state and one non-state actor, in which the final agreement at least partially addresses the

incompatibility in the conflict, and lasts for at least one month. Each peace process includes a unique dyad-agreement pair although some dyads sign multiple agreements, such as the Government of Angola-UNITA dyad, which signed three agreements during the time frame of this study. In addition, some agreements include multiple dyads, such as the Arusha Peace and Reconciliation Agreement for Burundi that included three dyads: The Government of Burundi vs. the Party for the Liberation of the Hutu People (Palipehutu), the National Council for the Defence of Democracy (CNDD), and the National Liberation Front (Frolina). This leads to a total of 80 peace processes across 65 unique dyads being included.

The UCDP Peace Agreement Dataset includes 183 peace agreements of various types signed within the timeframe of this analysis. Among these agreements, 68 final agreements are identified based on the following criteria:

- 1) The agreement must be the final product of a peace process. Any agreement that initiates a process and/or references future agreements is not included. These agreements, by their nature, start a process but not all lead to final agreements. Seven process agreements signed between Uganda and the Lord Resistance Army (LRA) between 2007 and 2008 as a part of the Juba Peace Process are good examples of this exclusion criteria. The Juba Peace Process was supposed to end with a final agreement, after which all other agreements would be implemented. After several delays in signing the final agreement, in September 2008 chief mediator Riek Machar disbanded the cessation of hostilities monitoring team and declared the peace process over (UCPD Peace

Agreement dataset). Similar examples of failed processes indicate that implementation does not start until the final agreement is signed. Since the purpose of the project is to explain variation in implementation, these types of agreements are excluded. However, all process agreements that lead to a final agreement, 84 in total, are reviewed and the provisions are accounted for if they are not already incorporated into final agreements.

- 2) An agreement must last at least one month. This criterion enables enough time to assume a reasonable start of post-agreement process. One example is the Paris Accord signed between Air and Azawad Liberation Front (FLAA) and the Government of Niger, which led to internal divisions within the movement. The main rebel faction denounced the agreement making it obsolete within a month after it was signed (UCDP Conflict Encyclopedia).
- 3) Fifteen agreements that are follow-up/supplementary to final agreement or make modifications to final agreements are reviewed and their provisions are accounted for. These agreements are not treated as the start of a new process and are not included as standalone agreements.
- 4) Ceasefire agreements are also excluded. The reason is that the aim of ceasefire agreements is to end fighting for a certain period of time without any obligation to share power/resources etc. Therefore, the effort required in their implementation is not comparable to agreements that contain extensive concessions as in the case of final agreements addressing the underlying incompatibility in a given conflict. Additionally, even though both types of agreements (final and ceasefire) can be tactical, it is reasonable to expect that

ceasefire agreements are more likely to be used tactically for the purposes of gaining time and recouping capabilities as they impose less costs and obligations.

Process Start and End Dates

Once all final agreements are identified, the start and end of the peace process is identified. A number of empirical and theoretical criteria serve to justify why particular start and end dates were used.

In order to identify the start date, I conducted research on negotiations preceding agreements. A peace process starts with the first round of negotiations that leads to the signing of a given agreement. While parties might make several attempts to negotiate, this criterion excludes unsuccessful attempts that do not lead to an agreement. Negotiations that are not direct, failed before signing a final agreement, or have been interrupted by at least two years of active conflict are excluded.

A round of negotiation (whether single day or multiple days) is defined based on the following criteria: A direct negotiation takes place between the warring parties represented by the leaders, representatives and/or negotiating teams, the negotiation takes place in one location, and a start and end date can reasonably be identified. Negotiations that set an agenda for peace talks, address the incompatibility and/or post-conflict political setting, conflict behavior such as conditions for a ceasefire, demilitarized zones, security issues such as disarmament of combatants, resettlement of refugees, or other topics that are included in the peace agreement are included. Negotiations in which parties agree to hold future talks without setting an agenda or do

not address substantive issue are *excluded*. In other words, this coding rule excludes cases in which the parties “talk about talks” or that indirectly communicate through “shuttle diplomacy.” While these indirect attempts may lead to progress towards reaching an agreement, they are not directly related to the substance of the agreement. The main mechanism behind the link between longer negotiations and higher levels of implementation is that in light of optimistic expectations about the possibility of implementation, parties will work towards getting the best possible agreement. Therefore, exclusion of negotiation that are not directly related to the substance of the agreement is justified.

This criterion generates 149 pre-agreement years counting from the year in which the first round of negotiations occurred to the year of agreement. The average negotiation stage is 2.9 years and the longest negotiation stage was 9 years. It should be noted that a finer grained measure of negotiation duration, described below, is used in statistical analysis instead of pre-agreement years as the count of pre-agreement years does not indicate that parties were continuously negotiating throughout these years.

The end of a peace process is defined in two ways. A process is considered terminated when the last observed implementation event takes place and no other implementation (or reversal of implementation) event occurs for five consecutive years. The second definition for termination is when armed conflict recurs between the state and the rebel in the peace dyad. When there are multiple signatories—one government and multiple rebel groups—each dyad may have different start and end

dates. This generates a total of 336 post-agreement years. The average implementation stage lasts 6.5 years.

The list of agreements, peace process start and end dates, as well as detailed information on the content of agreements can be found in Appendices I and II. More information on the coding procedures used can be found in Appendix III.

Process, Provision and Event Level Data

Process Level Data

IPAD records information on the implementation of peace agreements at three different levels. The process-level data records the aggregate level of implementation for all 80 peace processes as of the end of the implementation stage, or as of the end of 2014 if the implementation is ongoing.¹⁹ In addition to the aggregate level of implementation, the process-level data records the duration of negotiations preceding the agreement, and other agreement level variables such as the type of agreement, i.e., comprehensive/all-inclusive, an aggregate variable capturing how detailed a given agreement is, several variables recording the presence/performance of implementation commissions, and whether or not a timeline is included in the agreement. The characteristics of the conflict, i.e., the type and duration of the conflict, the number of other rebel groups in the conflict and in the peace process, as well as aggregate information on the United Nations (UN) and non-UN peacekeepers are also included in the process-level data. Finally, this data includes country – level variables, such

¹⁹ The aggregation rules are described in the next chapter.

regime type (using the Polity IV Score) and other economic indicators, such as GDP per capita from the World Bank Development Indicator data.

In addition, for each peace process the type of termination is recorded. A total of 31 out of 80 peace processes (38.75%) ended with conflict recurrence, 13 peace processes (16.25%) ended with successful implementation, and 30 peace processes (37.5%) resulted in only partial implementation in which there was no activity for 5 years since the last recorded activity but not all parts of the agreement were implemented. In addition, there are six peace processes (7.5%) ongoing as of December 2014.

“Successful implementation” is coded when the level of implementation is 90% or higher and the provisions of the agreement were not reversed for the following five years. In addition, two cases, Sudan (the Comprehensive Peace Agreement) and Angola (the Memorandum of Understanding on Peace and National Reconciliation in Cabinda province), are also recorded as “successful implementation”, although the aggregate level of implementation is 88% in both cases. The implementation of the Comprehensive Peace Agreement signed between the Government of Sudan and the Sudan People’s Liberation Movement/Army (SPLM/A) was successfully completed when the referendum to determine the fate of South Sudan was held in January 2011, as planned in the agreement. As a result of the referendum South Sudan became independent, marking the end of the peace process. The implementation of the Memorandum of Understanding is also recoded as successful since both sides declared the end of implementation. All other cases where the aggregate level of implementation

was less than 90% and no implementation event has been recorded in the following 5 years are recorded as “partial implementation.”

Conflict recurrence is recorded if armed conflict between the two parties to the agreement restarts. This means cases where non-signatory groups continue fighting and/or new splinter groups emerge and continue fighting once the agreement is signed are not considered as conflict recurrence. The measure of conflict recurrence is intended to capture conflict recurrence at the dyad-level. It should also be noted that while the majority of the cases of conflict recurrence crosses the 25-battle related death threshold used by the UCDP datasets, a small number of cases (16%) are recorded as low-level conflict recurrence cases, i.e., situations in which less than 25-battle related deaths occurred. While these cases did not cross the threshold, in all cases the conflict recurrence clearly disrupted the peace process and the parties did not go back to implementing the agreement after a small skirmish. These instance of low-level conflict recurrence is also recorded as conflict recurrence, regardless of the 25-battle related deaths threshold.

Provision Level Data

The provision-level data includes disaggregated information on the implementation of each provision as of the end of the peace process, which is used to calculate the aggregate level of implementation. Provision level data includes 730 provisions across 68 agreements. An average agreement has 11 provisions, with the most number of provisions being 17. In addition to the level of implementation per provision, the provision-level data also includes information on the implementer, i.e., whether a given

provision is supposed to be implemented by the government, the rebel, or both. If a given provision lays out obligations for both parties, the level of implementation is recoded for each actor separately.

For example, the government is responsible for implementing various civil integration provisions such as the National Pact signed between the Government of Mali and the Azawad Unified Movements and Fronts (MUFA), which called for incorporation of officials from the Movements and people from among the populations of Northern Mali into various state organs. Another example is the Lusaka Protocol signed in 1994 and reaffirmed in the Luena Memorandum of Understanding in 2002 which required the government to appoint UNITA members as governors and administrator.

Economic and social reform provisions that regulate land tenure, usage and the exercise of rights in land, as well as equitable sharing of common wealth where the government agrees to transfer funds to rebel controlled areas are also under government responsibility. Political and electoral reform provisions such as allowing rebel groups to become legal political parties, changing electoral laws to introduce multi-party elections, establishing independent electoral commissions, transferring resources to all political parties are other examples of government duties under the agreement. Additionally, political power sharing and transitional government provisions, where the distribution of government positions, ministries and seats in parliament are required, falls under government responsibility.

Provisions regarding amnesty and prisoner release also require the government to take actions it would not otherwise want to do. In some cases, government agrees to pass an amnesty law to cover rebel combatants (Agreement between the Republic Niger Government and the Coordination of the Armed Resistance (CRA), 1995), or release all political prisoners. Amnesty provision may also fall under rebel responsibility, however. In the cases of Mozambique, the Sudan Comprehensive Peace Agreement, and the Sierra Leone Lomé Peace Agreement, both sides agreed to release prisoners. The implementer of these provisions is recorded as “both” and the level of implementation is recorded for each actor separately.

Demobilization provisions that require parties to go back to peace time locations, army barracks or cantonment camps may also require both government and rebels to take action. A good example is the Agreement for the Reform and Civil Concord signed between the Djibouti government and the Front for the Restoration of Unity and Democracy (FRUD)-Ahmed Dini faction. The agreement called for the regrouping of FRUD-AD combatants in the areas of Ripta and Waddi, while government forces were also required to go back to peacetime positions. Similarly, while the Liberian Government agreed to get its armed forces back to barracks, Liberians United for Reconciliation and Democracy (LURD) and Movement for Democracy in Liberia (MODEL) agreed in the Accra Peace Agreement of 2003 to remain in their declared locations until reintegration activities such as training for entry into the restructured Liberian Armed Forces or demobilization to civilian life could occur. Disarmament provisions may also fall under government and rebel responsibility. In the Liberian case, all parties including the Liberian Armed Forces,

agreed to disarm and place all arms and ammunition under constant surveillance by the International Stabilization Force (ISF). The level of implementation is recorded separately for these provisions as well. However, some demobilization provisions only regulate demobilization of rebel forces such as the agreement between the Republic of Niger Government and the CRA. In these cases, the implementer is recorded as “rebel”.

The level of implementation for each provision is recorded as a categorical variable. Limited implementation (a value of “1”) means that the implementation of a given provision was initiated but was not carried out and/or did not go beyond the initial steps taken by the parties. A good example of limited implementation is the demobilization provision in the Lomé Agreement (Liberia). After signing the agreement in February 1991, the parties came to an agreement on procedures for demobilization and cantonment of troops, which was not specified in the peace agreement.²⁰ In the following month, military factions continued talks and in April 1992 they agreed, one more time, to implement the demobilization provisions, yet neither side made any progress. Shortly thereafter, in October 1992, conflict recurred when the National Patriotic Front of Liberia (NPFL) refused to disarm and launched “Operation Octopus” in an attempt to capture Monrovia.²¹ The installation of transitional institutions and a transfer of power from the President of Ivory Coast to the Prime Minister in accordance with Article 56 of the Constitution, following Accra III Agreement, signed in July 2004, is another example of limited implementation. Following the Accord, several ministers returned to their positions in August 2004,

²⁰ “Liberia Summit Produces Agreement on Disarmament,” *Reuters*, September 9, 1991

²¹ “Liberians Agree to Try to Implement Peace Plan,” *Reuters*, April 7, 1992.

however, the transfer of powers were not carried out and MPCCI ministers left their positions after being recalled in October by the MPCCI leader Guillaume Sorro.²²

Partial implementation (a value of “2”) means that the implementation of a given provision was initiated and several aspects of it were implemented, but overall it fell short of full implementation as identified in the agreement. Warring parties in Somalia agreed to form a Transitional National Council in the Addis Ababa Agreement signed in March 1993. The transitional Charter Drafting Committee held its first meeting in mid-April 1993 in Mogadishu with the representatives of 15 political parties. The Committee established a sub-committee which completed its work on the draft charter in early May 1993. The Transitional Charter Committee started to finalize the draft charter with an expanded member body that included the remaining political and non-political factions at the end of May, but this process was never finalized and in June 1993 the Charter stopped its work as the factions returned to conflict.²³ Another example of partial implementation is the economic power sharing provisions of the Accra Peace Agreement (Liberia). A total of 22 public corporations were set to be divided between the parties. MODEL was promised Agriculture, Corporative Development Bank, Forestry Development Authority, Roberts International Airport, National Social Security, and Welfare Corporation. On October 14, 2003, Eugene Wilson, MODEL leader, was appointed as the head of Liberia’s Forestry Development

²² Africa Research Bulletin, Volume 41, Issue 9, October 2004.

²³ UNSC, “Further Report of the Secretary – General Submitted in Pursuance of Paragraph 18 of Resolution 814 (1993),” S/26317, August 17, 1993.

Authority but none of the other appointments were carried out before the peace process ended in January 2006.²⁴

Full implementation (a value of 3”) means that all aspects of the provision were implemented as specified in the agreement. One of the provisions in the Chapultepec Peace Agreement, for example, called for the adoption of legislation to allow FMLN members to participate in politics. On 30 July 1992, FMLN was given political party status after the Legislative Assembly approved a number of reforms to the Electoral Code and FMLN registered as a political party on 1 September 1992 marking the full implementation of the political party reform.²⁵ Another example is the territorial power sharing provision of the Famboni II Agreement signed between the Government of Comoros and the Anjouan People’s Movement/Republic of Anjouan (MPA/Republic of Anjouan). The agreement called for the establishment of a New Comorian Unity and transfer of powers from the main government to the islands, mainly Anjouan. On December 2001, constitutional changes granting more autonomy to the three islands, Gran Comoro, Anjouan and Moheli, and establishing the union were approved with a referendum.²⁶ In January 2002, the Interim Unity government was established marking the full implementation of the territorial power sharing provisions.²⁷

Failed implementation (a value of “0”) means that the parties did not start implementing a given provision. Failed implementation is recorded in two ways: (1)

²⁴ “Liberia-Timber (L-O),” *Voice of America Press Releases and Documents*, October 29, 2003.

²⁵ UNSC, “Report of the Secretary General on the United Nations Observer Mission in El Salvador”, S/24833, November 23, 1992.

²⁶ Africa Research Bulletin, Volume 38, Issue 12, January 2002.

²⁷ “Comoros unity government hits trouble on first day,” *Reuters*, January 21, 2002.

either the peace process ended before the implementation of a given provision started due to conflict recurrence, or (2) there is supporting evidence (i.e., references in news, non-governmental (NGO) or intergovernmental (IGO) organizations reports) that the implementation of a given provision never started. Following the Abidjan Peace Agreement signed in November 1996, one of the RUF generals, Faya Djoanna, had a meeting with the Vice-President of Sierra Leone, Albert Joe Demby, in Kono on December 16 and indicated that RUF had laid down its arms and was ready to surrender for amnesty.²⁸ However, amnesty provisions were never implemented nor did the demobilization of RUF troops ever start. The conflict itself restarted in March 1997, when the Government arrested the RUF leader, Sankoh, after months of accusations by both sides that the agreement was being violated (UCDP Conflict Encyclopedia). Sankoh's arrest was followed by a coup against President Kabbah by the Sierra Leone Armed Forces and the RUF in May 1997 (UCDP Conflict Encyclopedia).

Another example of failed implementation is the electoral reform provision of the Linas-Marcoussis Peace Accords signed in 2003 between the Government of Ivory Coast and three rebel groups: MPCI, MPIGO and MJP. In addition to the electoral timetable, new citizenship rules and voter registration procedures, the most contentious electoral reform introduced in the agreement was an amendment to Article 35 of the Constitution on the Election of the President of the Republic. According to the 2000 Constitution of the Ivory Coast, a presidential candidate must prove that *both* of his/her parents are of Ivorian origin, which excludes many northerners who have ties to

²⁸ "RUF General Surrenders to Vice-President in Kono," *BBC*, December 16, 1996.

Burkina Faso and Mali. This article was put in place by the military junta in attempt to guarantee electoral victory as the country transitioned from military to civilian rule in 2000, and is one of the precipitating factors for the onset of civil war in 2002 (UCDP Conflict Encyclopedia). A proposed change to the Linas-Marcoussis Agreement was to allow any individual whose mother *or* father is an Ivorian to be elected. This change was not implemented and the conflict recurred in March 2004.

Event Level Data

The event-level data records each implementation event taken by one actor at the most temporally disaggregated level possible. In cases where sources do not indicate the exact date and/or the implementation of a provision is carried out over the course of multiple days/months, the start and end date for each event is recorded.

Two types of events are recorded. Single-day events are events where the implementation event takes place within a single day. Approval of a law, introduction of new electoral rules, appointment of rebel group members to political or military posts, a meeting regarding the demobilization process, or the release of prisoners are all examples of single day events. The appointment of the MPCCI members as the Minister for Territorial Administration, Minister of Scientific Research, Minister of Crafts and the Informal Economy, and Minister of Transport as a part of the Linas-Marcoussis Peace Accords on April 14, 2003 at a ceremony is another example of a single day event.²⁹ If more than one rebel group member is appointed on the same day, like the above example, these appointments are not recorded as separate events since

²⁹ Africa Research Bulletin, Volume 40, Issue 4, May 23, 2003.

these appointments are a part of one action (the same rule applies to approval of one package law, which counts as one event and not four different actions taken by the government).

Due to the nature of some provisions, as well as the nature of reporting, especially the United Nations and other NGO reports that only provide quarterly information on the progress in implementation, some implementation events can only be recorded as a summary event. Examples of multi-day events include progress in demobilization in over a three-month period, or training of ex-rebel members for integration over the last two months. For example, the UN Secretary General reports that a demobilization program “resumed on 18 May 2001, a total of 16,097: 6,523 RUF, 9,399 Civil Defense Forces (CDF) and 175 Armed Forces Revolutionary Council (AFRC/ex-Sierra Leone Army) combatants had been disarmed as of 3 September, out of an estimated 25,000”.³⁰ Therefore, two multi-day implementation events are recorded: The government demobilizing the AFRC/Sierra Leone Army combatants, and the RUF demobilizing its combatants between 18 May 2001 and 3 September 2001. While the current analysis aggregates implementation events to the year-level, future research using the IPAD event-level data will be able to focus on more disaggregated temporal units.

In addition to identifying the occurrence of implementation and who the implementer is, the event-level data also records the category of each event. Each event has one of the following categories: start, continue, and end. The “start” category is

³⁰ UNSC “Eleventh report of the Secretary-General on the United Nations Mission in Sierra Leone”, S/2001/857, September 7, 2001.

assigned to the very first implementation event for a given provision. For example, on 16 November 2001, the Macedonian assembly approved 15 different amendments of the constitution including one on the appointment of Constitutional Court Judges to improve the representation of ethnic Albanians, which was the first step towards implementing judicial reforms in the Ohrid Agreement signed in August 2001.³¹ Another example is the establishment of the Electoral Reform Commission, which was tasked with reviewing the electoral laws and preparing a report with recommendations for the government of electoral reforms that could be included as a part of the Agreement for a Firm and Lasting Peace.³²

The “continue” category is assigned to events following the first event, where one or both parties continue making progress on a given provision. For example, the Government of Macedonia continued the implementation of judicial reform provisions of the Ohrid Agreement to improve the representation of ethnic Albanians in the judicial system. Over the course of the following year, the representation of ethnic Albanians improved in high level courts, especially in the Constitutional Court, and some additional progress was made to improve their representation in lower courts.³³ Therefore, the implementation of judicial reforms continued from the November 2001 constitutional amendment until the end of 2002. Similarly, the Electoral Reform Commission continued its work from May 1997 until late January 1998 and produced

³¹ The American Bar Association’s Central European and Eurasian Law Initiative (ABA/CEELI), “Judicial Reform Index for Macedonia”, November 2003.

³² UNGA, “United Nations Verification Mission in Guatemala Report of the Secretary-General” A/51/936, June 30, 1997.

³³ The American Bar Association’s Central European and Eurasian Law Initiative (ABA/CEELI), “Judicial Reform Index for Macedonia”, November 2003.

its final report.³⁴ Both events are recorded as multi-day events, as described above, and assigned the category of “Continue” since both the Government of Macedonia and Guatemala were making progress on judicial and electoral reforms, respectively.

The final main category, “End” is assigned to events that completes the implementation of a given provision as described in the agreement. This category is valid for provisions that are fully implemented and therefore, the implementation of the given provision is complete, such as the judicial reform that occurred in Macedonia. As of the end of 2002, the representation of ethnic Albanians in high level courts such as the Supreme Court (27.2%) exceeded their representation in the overall population (25.2%) as required by the Ohrid Agreement.³⁵ The Electoral Reform Commission’s final report was then submitted to the National Congress by the Supreme Electoral Tribunal as a draft bill, and the Congress approved the amendments to the Elections and Political Parties Act on March 2002.³⁶ Both events are assigned to the “End” category.

The event-level data records 2,835 unique actor-provision-implementation events. In 1,809 of these events, the government is the implementer, while in 1,026 the rebel is the implementer. 1,334 events are recoded as “single-day”, while 1,602 are recoded as “multi-day events”. 746 of these events are in the category “Start”, 1,418 are in “Continue”, and 637 are in “End”. In 44 events (1.5%) events are recoded as a

³⁴ UNGA, “Second report of the United Nations Verification Mission in Guatemala (1998) United Nations Verification Mission in Guatemala,” A/52/757, February 4, 1998.

³⁵ The American Bar Association’s Central European and Eurasian Law Initiative (ABA/CEELI), “Judicial Reform Index for Macedonia”, November 2003.

³⁶ UNGA, “Seventh report of the United Nations Verification Mission in Guatemala (2002) United Nations Verification Mission in Guatemala,” A/56/1003, July 10, 2002.

“Reversal.” These are events in which progress in implementation actually reversed for a given provision. For example, a year and a half after the demobilization started, UNITA troops started to leave quartering camps, which decreased implementation of the demobilization provision.³⁷ If there was progress made by an actor which was later reversed by that same actor in the same year, then “no progress” is recorded for the given year.

³⁷ UNSC, “Report of the Secretary-General On the United Nations Angola Verification Mission (UNAVEM III),” S/1669/248, April 4, 1996.

Chapter 5: Statistical Analysis

This chapter describes the main variables used in the statistical analysis. The first section describes the measurement of the three dependent variables: (1) the aggregate level of implementation, (2) yearly government progress in the implementation, and (3) conflict recurrence at the year- and process-level. The second section describes the five main independent variables: (1) negotiation duration, (2) rebel military power at the implementation stage, (3) implementation commissions, (4) rebel demobilization/disarmament, and (5) third party presence at the negotiation stage. Each subsection includes a discussion of how variables are measured. The third section describes the control variables that capture various agreement and country characteristics as well as the presence of UN or non-UN peacekeepers at the implementation stage. The final section lays out potential selection biases and how it is addressed in the empirical analysis. Because peace agreements are not signed at random, the results of statistical analyses to determine the level of implementation might be biased. Therefore, a discussion of statistical models to account for selection bias is also provided in the final section.

Dependent Variables

Aggregate Level of Implementation

The main dependent variable, the *Aggregate Level of Implementation*, is a ratio variable ranging from 0 to 1. As described above, the level of implementation for each provision is recorded as a categorical variable: Failed implementation (“0”), limited implementation (“1”), partial implementation (“2”) and full implementation (“3”).

The *Aggregate Level of Implementation* is then calculated as a ratio of the total implementation score over the maximum implementation score. For example, if an agreement has 10 provisions the maximum implementation score is 10 times three (the maximum implementation level for each provision). If half the provisions were implemented fully (5×3), three of them were implemented partially (3×2), and the remaining two were not implemented (2×0), the total implementation score is 21 and the aggregate level of implementation is 0.7 ($21/30$). If a given provision is implemented by both actors, and the level of implementation is not the same for both actors, the lowest value is used. The mean implementation level in the dataset is 0.53.

In addition, since the main theoretical assumption is that the government is the one who is implementing while the rebel is the one who is seeking concessions, I disaggregate the aggregate level of implementation to only include the provisions that the government is responsible for. This variable, *Government Implementation Level*, is calculated using the same process as the *Aggregate Level of Implementation*: the ratio of total implementation for the government over the maximum implementation score.

Progress in Implementation

The event-level data, described above, is used to measure the progress made by actors in a given year. This measures disaggregates the implementation by actor and by year in order to test the mechanisms put forward in the theory section more directly.

For each provision in a given year, I first code whether or not the responsible actor, i.e., the government or the rebel, has made progress. A value of “0” indicates that there was not any implementation event related to the given provision in the given year,

while a value of “1” means that there was at least one implementation event related to the given provision in the given year.

This measure is preferred over total count of implementation events for several reasons. First, the total event count is generally used as a measure of intensity along with battle related deaths in aggregating conflict events. However, most conflict event datasets, such as the UCDP Georeferenced Event Dataset (GED), or the Armed Conflict Location and Event Dataset (ACLED), have a very specific definition of a conflict event which allows each observation to be comparable across and within cases. A conflict event is defined by the GED as “an incident where an armed force was used by an organized actor against another organized actor or against civilians, resulting at least 1 direct death at a specific location and a specific date” (Croicu & Sundberg 2015). Therefore, a conflict event that involved the Government of Angola and UNITA forces and resulted in 15 deaths on February 26, 2001 in Huambo town was more intense than another encounter between the same actors ten days earlier near Kuito town that resulted in just five battle related deaths (UCDP-GED v.4). Also, the aggregate number of conflict events and fatalities can be compared across cases at a yearly level. A conflict-year in which the total number of conflict events is 10 can be construed as less violent than a conflict-year in which the total number of conflict events is 100. This measure of conflict intensity can further be normalized by accounting for the total number of battle related deaths in a given year for statistical analysis. Implementation events, however, cover a wide range of issue areas and any two events, or a total count of events, may not be comparable within and across cases. The total count of implementation events may not necessarily provide an accurate measure for the

magnitude of the progress towards implementing and therefore might bias the results of statistical analysis. In other words, higher count of events does not, by itself, indicate substantial progress. For this reason, a more simplified binary measure of progress is used when aggregating the events to the year-level.

The main mechanism presented in the theory section, the costs of non-compliance, is further explored with the year-level analysis. If the government is more likely to implement when the costs are high, we would expect it to be reluctant to implement as the costs go down. Therefore, I construct the following variable, *Government Progress* as a ratio variable that ranges from 0 to 1 at the year level. For each peace year, the total number of provisions the government made progress on is divided by the total number of provisions the government is expected to implement. If the government completes the implementation of a provision in a given year, this provision is not included in the total number of provisions in the following year. If the government is required to implement 10 provisions and makes progress on five in the first year and completes the implementation of one out of 5, the *Government Progress* is 0.5 (5/10). The following year, the *Government Progress* variable is calculated with a denominator of nine provisions to reflect the fact that one provision was completed.

Conflict Recurrence and Peace Process Outcomes

The *Conflict Recurrence* variable is a binary variable recoded at the year and process level, as described above. In addition, a separate categorical variable records peace process outcomes, (complete, partial or ongoing) at the process-level. As described above, partial implementation is recorded for all cases where the level of

implementation is below 90% and where no implementation event was recoded for five years following the last event.

Main Independent Variables

Duration of Negotiations

In order to test the first hypothesis on the duration of negotiations, three variables are used in the statistical analysis: the total number of negotiation rounds, the total number of negotiation days, and negotiation days per provision. The total number of negotiation days is created based on the start and end date of each round of negotiation. The first two measures attempt to address one potential measurement problem, which is that parties might have few rounds that last for a long time or they may have numerous rounds of negotiations that each last for only a few days. Both examples might introduce measurement problems. Because the purpose is to identify the occurrence of long and serious negotiations, two rounds each lasting for 15 days and 10 rounds each lasting for three days might be considered as equal for the purpose of measuring the duration of negotiations. Therefore, I try both *Total Rounds* variable and *Total Negotiation Days* variable in the statistical analysis. The final variable, days per provision, attempts to address another potential measure problem. Negotiations might last longer not because both sides are negotiating harder in order to secure the best possible agreement, but because there are many topics to negotiate over. In order to normalize the measure of negotiation duration, I divide the total days by the total number of provisions in an agreement.

A total of 536 rounds of negotiations are recorded. In cases where the start and end date was not clear, temporal precision codes are recorded in order to account for uncertainty. 94% of rounds were recorded at precision level 1; both the start and end date of a given round is known at the day level. In addition, a separate variable records two types of negotiations. Single day and/or continuous negotiations for each day between the start and end date are record as type “1”, while a round with interrupted talks where the parties had negotiations occur on and off, or cases in which it is not clear if parties are negotiating every day are recorded as type “2”. 94% of the rounds are type “1”. For type “2” negotiation rounds, the total days of negotiations are calculated with the assumption that the parties negotiated only one third of the time. This rule does not dramatically change the total number days, since only a small percentage of rounds are of type “2”. The longest round recorded as type “2” lasted 30 days. Therefore, the above rule assumes that parties only negotiated for 10 days out of 30. This assumption potentially slightly undercounts the total number of days; hence, it is likely to bias results against finding support for *Hypothesis 1*. Due to the small number of cases that are recoded as type “2”, this assumption is unlikely to bias the results.

Rebel Military Power

Rebel Military Power measures the rebel power (p) at the implementation stage, in order to test the second hypothesis. This variable is a combination of two pieces of information. The first piece of information is the *Level of Military Guarantees* in the agreement, i.e., whether or not the rebel will integrate its forces into the national army

and if so, what the new ratio of rebel forces to government forces in the post-conflict period is. The second piece of information is the extent to which these guarantees are put in place in the implementation stage, i.e., the *Implementation of Military Guarantees*.

The *Level of Military Guarantees* is recorded as “0” when there are no military guarantees provided and “1” when the guarantees are at a low level. Agreements that mention that the rebel will be able to integrate its forces without providing any quotas or specifics are coded as having low level guarantees. The reasons for this coding decision is that these types of provisions introduce another layer of uncertainty into the post-conflict process. In many cases, the integration of ex-combatants is tied to other conditions such as completion of demobilization or a training process in order to qualify for integration. For example, the Comprehensive Ceasefire Agreement between the Government of Burundi and the Palipehutu-FNL states that once demobilization and disarmament is complete, the Joint Verification and Monitoring Mechanism will determine the selection criteria for integration. Similarly, the Dougia Accord leaves the determination of which combatants to be incorporated to the technical committee.

Medium level guarantees “2” are cases in which rebels constitutes less than 30% of the new army. High level guarantees “3” are recorded when the rebel constitutes 30% or more of the new army. It should be noted that while some agreements specify the balance in the new army, such as the agreement between the Government of Burundi and CNDD-FDD which determines the share of CNDD-FDD to be 40%, others provide only the total number of rebel troops to be integrated, such as the

Ouagadougou Political Agreement signed between the Government of Ivory Coast and the New Forces, which states that 5,000 rebel combatants will be integrated. For cases in which a portion is not specified, the balance in the army is calculated based on the total number of state forces at the time of the agreement. 42.5% of processes are recorded as having no military guarantees, 33.75% as having low guarantees, 11.25% as medium guarantees, and 12.5% as high guarantees.

The *Implementation of Military Guarantees* variable is recorded as “0” if the implementation never started, “1” if the implementation initiated but did not progress, “2” if some, but not all required, members of the rebel were integrated, and “3” if all stipulated rebel forces were integrated as specified in the agreement. 57.5% of cases recorded as no implementation, 8.75 % as low level, 13.75% as medium and 20% as high.

Some examples help make this coding scheme clear. The Yebibou agreement signed between the Government of Chad and the Movement for Democracy and Justice in Chad (MDJT), stated that 600 rebels were to be integrated, yet this process was never initiated, which leads to a coding of “0”. On the other hand, following the Arusha Accords, the Government of Rwanda and the Rwandan Patriotic Front (FPR) held a meeting on September 7, 1993 to discuss the modalities of implementing various parts of the agreement, including the integration of two armies in which the FPR was specified to constitute 40% of the new army.³⁸ This meeting was followed by another on December 10, 1993 to further discuss the integration of FPR into the new army,

³⁸ BBC, “Government and FPR Agree on Neutral International Force”, September 8, 1993.

however, the implementation of this provision did not go beyond initial meetings and hence receives a coding of “1”.³⁹ The integration process of the United Tajik Opposition (UTO) members in to the Tajik Army following the Moscow Declaration started in August 1998 when the first wave of UTO members joined the military.⁴⁰ By the end of 1999, however, out of 6,039 positions that were allocated for the UTO members, only 2,309 former fighters had been integrated, and fewer fighters were actually integrated into the chain of command or are being provided salaries, uniforms, food and accommodation.⁴¹ This generates a coding of “2”. The integration of the National Congress for the Defence of the People (CNDP) forces following the 2009 Agreement, on the other hand, was successful. The process started in January and officially completed on April 18, leading to a coding of “3”.⁴²

Rebel Military Power is then recoded as multiplication of the Level of Guarantees and the Implementation of Guarantees. Therefore, even if a rebel is promised the highest level of guarantees a “3, if these guarantees are not carried out, an implementation of “0,” the Military Power variables is coded as “0” ($3*0 = 0$). On the contrary, if the rebel secured the highest level of guarantees “3” and these guarantees are fully implemented—a score of “3”—Military Power is recorded as “9” ($3*3 = 9$). In order to make sure that the results presented in the following chapter are

³⁹ BBC, “Government and FPR Discuss the Merger of Armies, UN Commander of Security”, December 10, 1993.

⁴⁰ UNSC, “Interim report of the Secretary-General on the situation in Tajikistan,” S/1998/754, August 13, 1998.

⁴¹ UNSC, “Interim report of the Secretary-General on the situation in Tajikistan,” S/1999/1127, November 4, 1999.

⁴² UNSC, “Twenty-eighth report of the Secretary-General on the United Nations Organization Mission in the Democratic Republic of the Congo,” S/2009/335, June 30, 2009.

not dependent on this coding decision, I also code two new “high level guarantees” variables in which the rebel constitutes 40% and 50% of the new army instead of 30%. In addition, I use a categorical variable, *Military Power (categorical)*. This variable is coded as “0” when *Rebel Military Power* is “0”, as “1” when *Rebel Military Power* is at low values (values between 1 and 3), and as “2” when *Rebel Military Power* is at higher values (values between 4 and 9). Furthermore, instead of the composite measure of the *Rebel Military Power*, I also include an interaction term between the *Level of Military Guarantees* and the *Implementation of Military Guarantees*. The expectation is that the effect of the *Level of Military Guarantees* is conditional on whether or not these guarantees are put in place, i.e., the effect of military guarantees will be greater if they are implemented.

Statistical models that include *Rebel Military Power* as the main independent variable exclude provisions regarding the integration of rebel forces from the measure of the *aggregate level of implementation*, or *progress in implementation*. These provisions are also excluded from the provision-level analysis, which focuses on the *level of implementation per provision*.

Implementation Commissions

In order to test the third and fourth hypotheses, I record whether or not the agreement establishes an implementation commission and, if yes, whether or not the commission was active during the implementation stage. These commissions are composed of members from both sides, and in some cases they include third party states or international organizations as observers. The tasks and composition of these

domestic implementation commissions vary. In some cases, parties form several commissions and sub-commissions, each dealing with one aspect of implementation. These commissions are grouped into two general categories based on their tasks: political and military. Political commissions are primarily tasked with monitoring the overall implementation of the peace agreement and oversee other commissions when applicable, while military commissions are tasked with monitoring provisions regarding demobilization, disarmament, and integration of ex-rebels into army and/or reformation of the existing army.

The *Commission Active* variable is a categorical variable that records how active a given commission was throughout the implementation process. This variable takes a value of “0” if there was not any commission, or “1” if there were one or more commissions envisaged in the agreement and the commission was established but did not go beyond first meeting and/or it never become functional, “2” if commission is established and held sporadic meetings but did not complete its specified mandate and “3” if the commission is established and held regular meetings and completed its mandate. The expectation is that the presence of domestic commissions and their activities would positively correlate with the level of implementation. In total, 41.25% of processes did not have any commissions, 8.75% are coded as “1”, 13.75% as “2,” and 36.25% as “3.”

Demobilization and Disarmament Subsection

In order test *Hypothesis 5*, two variables are included that capture progress in rebel demobilization and disarmament for the year-level analysis. The event-level data

is used to generate two binary variables: *Rebel Demobilization & Disarmament (DD)* – *Continuing* and *Rebel DD – Ended*. The excluded category is years in which rebel demobilization and disarmament has not yet started.

Rebel DD – Continuing records whether or not in a given year a rebel group made progress towards demobilizing and disarming its troops. While *Rebel DD – End* records whether or not a rebel group completed its demobilization and disarmament process. The expectation is that as rebel groups makes more progress towards demobilizing and disarming, the government will be less likely to make progress towards implementing the agreement because the costs of non-implementation decrease.

The *Rebel Demobilization and Disarmament (DD)* is also recoded at the process level to test *Hypothesis 7*. This variable is coded in the same way as the *Rebel Military Power* and takes into account two pieces of information: The *Demobilization and Disarmament Scale* and the *Implementation of Demobilization and Disarmament*.

The *Demobilization and Disarmament Scale* is coded as a categorical variable ranging from 0 to 2, where “0” represents no demobilization and disarmament, a value of “1” indicates cases where the rebel is only required to demobilize but not disarm, and a value of “2” indicates cases where the rebel is required to demobilize and disarm. Among the peace processes that include some demobilization and disarmament provision (67 out of 80), both provisions are included in 76% cases. For example, the Movement for Democracy and Development (MDD) fighters were supposed to report to encampment sites (demobilization) following the Dougia Accord. However, the

agreement did not require them to hand over their weapons (disarm). According to the agreement, after they reported to encampment sites a technical committee would work on the integration of MDD combatants into the army. While the demobilization process could put MDD fighters at a disadvantage since they needed to demobilize from their war-time positions, it is not as extensive as the demobilizations that occurred in other cases. Another example is the demobilization provisions included in the Inter-Congolese Final Act. All three parties—the Government of Democratic Republic of Congo, RCD and MLC—were required to move their forces back to defensive positions. On the other hand, a more extensive demobilization occurred in the Bicesse Agreement, where UNITA was required to report to the assembly areas and turn over arms to be secured in warehouses. Similarly, the provisions of the Comprehensive Ceasefire Agreement between the Government of Burundi and the Palipehutu-FNL, called for the separation of forces, and the transfer of combatants to assembly areas where they were disarmed.

Examples of agreements with no demobilization or disarmament include the Abuja Peace Agreement and the Abuja II agreement signed between the Government of Liberia and NPFL, both of which included incorporation of rebel group members into government and establishment of a transitional government. The Mindanao Final Agreement signed between the Government Philippines and the Moro National Liberation Front (MNLF), and the Famboni II Agreement, which granted autonomy to the Mindanao region and Anjouan island respectively also did not include demobilization or disarmament provisions.

The *Implementation of Demobilization and Disarmament* is recorded as “0” if these provisions are not carried out, as “1” if their implementation was initiated but not carried out, as “2” if they were partially implemented, and as “3” if they were fully implemented as specified in the agreement.

The *Rebel Demobilization and Disarmament (DD)* is then calculated as the multiplication of *Demobilization and Disarmament Scale* and *the Implementation of Demobilization and Disarmament*. For example, if the agreement only requires the rebel group to demobilize “1” and demobilization is successfully completed “3” then the *Rebel (DD)* variable is coded as “3.” This can be compared to a case where the rebel is expected to disarm and demobilize “2” and successfully completes the demobilization process “3”, which leads to the *Rebel (DD)* being coded as “6.” Unlike, *Rebel Military Power*, higher values represent more demobilization and disarmament from the perspective of the rebel group. In other words, increasing values of *Rebel (DD)* indicate reduced rebel ability to make state non-implementation costly.

Third Party Presence in the Negotiation Stage

As discussed above the presence of third parties during the negotiation stage might incentivize parties to reach a premature agreement, which in turn would likely impact the level of implementation negatively. For each round of negotiations, I record whether or not third parties were present as mediators, facilitators or observers. In cases of overlap, I cross-checked the coding of the third party presence variable with the occurrence of direct talks recorded in the Managing Interstate Conflict Africa Dataset (v 2.1) that covers years between 1993 and 2007 (Melander and Uexkull 2011).

Out of 536 total negotiation rounds, 166 rounds (30%) did not experience any third party presence, while the rest (70%) had one or more third parties present. Since third parties might be present in one or many rounds throughout the negotiation process, I include a variable, *Third Party Presence (Negotiation Stage)*, which records the percentage of negotiation rounds in which third parties were present in some capacity in a given process. For example, a value of “1” means that in all rounds of negotiation, third parties were present, while a value of “0.5” means that third parties were present in half of the rounds. The expectation is that the presence of third parties in the negotiation stage is likely to have a negative effect on the level of implementation.

Control Variables: Agreement Design, UN and Non-UN Peacekeepers, Conflict and Country Characteristics

A number of control variables are included in the analysis. The first control variable is an aggregate measure of the specificity of provisions in a given agreement. One alternative explanation for higher levels of implementation is that highly precise and specific agreements might be inherently easier to implement since every aspect of the post-agreement stage has been planned out and regulated. Alternatively, if provisions on political reforms, for example, are very detailed and specific, then the only job left for the implementation stage is to pass laws and/or regulations as approved by the parties instead of designing new laws and legislation.

For each provision, IPAD records how detailed and specific a given provision is. A categorical variable, *Specificity*, that ranges from 1 to 3 (1 being least detailed, 3 being most detailed) is coded using the original text of the agreement and/or unofficial

translation provided by UCDP. Provision-level analysis includes this variable. Out of 68 final agreements, 9 agreements are only available in summary format, thus, *Specificity* of provisions is not available for these agreements. The *Agreement Specificity* variable is aggregated as a ratio of the sum of the specificity score to the maximum specificity score for a given agreement. For example, if half of the provisions in a 10 provision agreement are very detailed (5×3) and the other half are not detailed (5×1), the variable is coded as 0.66 (20/30). Higher values indicate more specific and detailed agreements, which are expected to be correlated with higher levels of implementation.

A similar reasoning can be applied to agreements with a timeline. If an implementation timeline is built into the agreement, the level of implementation might be higher for one of two reasons: either the timeline signals the commitment and willingness of parties to implement the agreement, or the timeline itself increases the chance that parties will remain on course and implement more of the agreement. The *Timeline* variable is coded as a binary variable that records whether or not a given agreement includes an implementation timeline as a part of the agreement (in the main text or in the appendix). The *Timeline* variable is expected to be positively related to the level of implementation. When a timeline is present, agreements should see higher levels of implementation.

Additionally, certain provisions, when implemented, actually provide gains to the implementer. This is especially likely to be the case for rebel groups who are being provided concessions in an agreement. When this is the case, there is a natural

incentivize to press for higher levels of implementation. For example, if a rebel group received a concession such as guaranteed positions in the government and/or a share of revenues from natural sources it would be more likely to take steps to ensure the implementation of these provisions, which leads to higher levels of average implementation. In order to capture this dynamic, I construct the *Guaranteed Power Sharing* variable. The Guaranteed Power Sharing is a ratio of the number of provisions in an agreement guaranteeing political, military, economic and territorial power sharing divided by the total number of provisions. Low values indicate agreements that have few gains for the rebel, while high values indicate agreements that have many gains for the rebel. It is expected that higher values of guaranteed power sharing will, in general, be related to higher levels of implementation.

Another alternative explanation, as discussed in the theory chapter, is the inclusiveness of an agreement. The UCDP Peace Agreement Dataset records whether or not an agreement is comprehensive. Comprehensive agreements are agreements in which all the dyads in a conflict are included. By contrast, dyadic agreements exclude at least one of the warring parties in the conflict. The *Comprehensive Agreement* variable records whether or not an agreement includes all dyads in a conflict. The expectation is that the implementation level of comprehensive agreements is likely to be higher due to the fact that all parties to a conflict agreed to the settlement, which suggests that all combatants believed they would gain more from peace than continued conflict. In comparison, in cases where the government signs an agreement with only one group while fighting against another, implementation might suffer due to continued fighting that would occupy the government's attention and time.

The involvement of peacekeepers for securing peace, establishing trust, and monitoring implementation is a crucial part of the post-conflict processes. As previous research suggests, the presence of peacekeepers makes the duration of peace longer, the probability of recurrence less likely, and in cases where they are deployed in ongoing conflict situations, help mitigate conflict intensity and civilian victimization during and after conflict (Walter 2002; Fortna 2004; Hultman et al. 2013, 2014; Kathman & Wood 2014).

In order to record the presence of peacekeepers I use data on state personnel commitments to United Nations peacekeeping operations from the International Peace Institute's Peacekeeping Database, which records the total number of uniformed personnel by type and contributing country for each mission between November 1990 and June 2014. The number of deployed troops and police/military observers are coded at the monthly level for the duration of the mission. I combine this data with the Third-Party Peacekeeping Missions Data Set, v.3.1, which records all third party missions from 1946 to 2014. The Third-Party Peacekeeping Missions Data Set is used in order to capture the size of Non-UN missions. In addition to the total number of peacekeepers in a given year, I also use an aggregate measure of peacekeeper presence at the process-level: the mean number of peacekeepers deployed throughout the peace process.⁴³

In addition to these control variables, I include a host of variables that capture the type, intensity, and duration of conflict. Several studies offer strong theoretical

⁴³ I also run the models with a binary variable recording peacekeeper presence. Neither variation of the variable changed the results presented in the following chapter. Therefore, a more nuanced measure of total number of troops is preferred.

reasons and empirical evidence as to why these conflict characteristics affect the duration and outcome of civil conflicts. The type of incompatibility (over territory or government) as defined and coded in the UCDP Peace Agreement Dataset (Högladh 2012) is included since various studies (e.g., Walter 2009; K. Cunningham 2011, 2013) shows that the dynamics and resolution of territorial conflicts are different from conflicts featuring contestation over control of the central government. Separatist conflicts tend to be more violent, especially if there are other groups who can potentially make self-determination claims in the future in a given country, since the government will seek to violently suppress groups making these claims in order to set a precedent and build a reputation for being tough (Walter 2009).

On the other hand, states might offer concessions as part of a strategy to divide fragmented self-determination movements (K. Cunningham 2011). Hence, the process of implementing agreements following conflicts over territory might be different. The government, for example, may have greater incentives to cheat since there is a lot at stake such as losing control of a part of the territory in the country, or granting autonomy to a particular group. On the other hand, if the agreement is part of an arduous bargaining process and/or concessions in the agreement are granted as a part of a larger bargaining process to exclude other groups, the implementation of an agreement might be higher. The analysis presented below does not test the interaction between the presence of other separatist movements and the implementation of agreements signed with one or more of these groups. It does, however, look at the type of conflict by using a binary variable that record whether or not the conflict is over territory. Future analysis could fruitfully explore these highlighted dynamics.

Additionally, the number of parties in a conflict and the intensity of conflict (e.g., D. Cunningham 2006; Zartman 2001) are linked longer wars and less durable peace. The presence of many veto players, i.e., actors whose approval is necessary to reach a settlement, increase the duration of war because there are fewer potential agreements acceptable to all (Cunningham 2006). Similarly, if there are multiple groups that are party to an agreement, implementation might be more difficult due to the fact that all parties need to work together. On the other hand, since it is already difficult to settle conflicts that include multiple rebel groups, once these conflicts are settled the implementation of the agreement might actually be easier.

To account for this, the current analysis includes two variables: the total number of dyads in an agreement and a dummy variable measuring the intensity of conflict, which is coded as “0” for minor conflicts in which 25-999 battle related deaths occurred and “1” for major wars in which 1000 or more battle occurred. Both of these variables are drawn from the UCDP dyadic dataset (Harbom, Melander & Wallensteen 2008). More intense and costly wars are more difficult to resolve, hence the implementation of agreements following these conflicts may also be difficult. A variable that records the duration of the conflict is included to control for this.

Additionally, several country characteristics are included as control variables. In order to capture the regime type, I include the Polity 2 score from the Polity IV project, which ranges from 10 to -10. A score of 10 is given to the most democratic states and -10 is given to the most autocratic ones (Marshall & Jaggers 2010). I expect that democratic countries are likely to implement more of an agreement for two

reasons. First, democratic states and leaders are held accountable for their actions through elections, which in turn might reduce their incentive to cheat once they sign an agreement. In addition, because democratic states are more accountable they may only sign agreements that they think are easy to implement as compared to autocratic states who have an easier time of reneging on an agreement already signed. As a result, the level of implementation of agreements that are signed by democracies might be inherently higher. In addition, because there is a democratic accountability system in place, agreements signed by democracies are more likely to introduce limited changes, as opposed to the agreements signed by autocratic states that may include greater changes. By their nature agreements that require parties to make more substantive changes will be harder to implement.

I also include variables that capture economic development and state capacity. Specifically, I include the infant mortality rate, the GDP per capita, the total natural resource rents as a percentage of GDP, and the net official development assistance as a percentage of central government expenses from World Bank Development Indicators. Infant mortality rate, a proxy for state capacity, is used because previous research has shown that state capacity is an important determinant of implementation (DeReouen et al. 2010; Harzell & Hoddie 2003). Missing values for these variables are imputed using a Bayesian Gaussian copula approach (Hoff 2007).

Finally, I account for time. It is likely that the longer the peace process lasts, the more parts of the agreement that will be implemented. It is also likely, however, that if parties are willing to implement the agreement and have the means to enforce

and oversee it, they are also likely to complete the implementation process swiftly. In turn, agreements in which parties do not have the incentive to implement and/or do not face pressures internally and/or externally are more likely to last longer and result in lower levels of implementation. For these reasons both time and time-squared are included in the year-level analysis.

Potential Selection Biases and Threats to Inference

While the analysis presented in the following chapter includes all final peace agreements signed between two combatants (a state and a rebel) and does not select on the type of agreement, it is still important to address two potential threats to inference associated with analysis. First, not all civil war combatants sign a peace agreement to end the conflict. In other words, negotiated settlement is only one of several potential war outcomes. Some civil wars terminate when one of the sides achieves a military victory, while other civil wars end without a decisive outcome when the level of violence drop down to very low levels. Previous studies show that different factors affect the type of civil war termination (e.g., Walter 2002; Hartzell & Hoddie 2008; Hartzell 2009; Toft 2010; Hultquist 2013; Sawyer, Cunningham & Reed 2015; Prorok 2016).

There are strong theoretical and empirical reasons to believe that negotiated settlements are not random. For example, if only strong rebel groups sign a peace agreement because they know that they will be able to enforce the agreement terms, while less capable ones avoid signing peace agreements thus selecting out of the sample, the analysis would underestimate the effect of rebel military power on the level

of implantation. Additionally, combatants might only sign “easy to implement agreements” that do not require them to make substantial concessions. Alternatively, rebel groups that are committed to ending a conflict may be more likely to sign a peace agreement and, in turn, implement the agreement. Therefore, it is important to empirically address how unobserved factors might impact the probability of signing an agreement and the level of implementation. To account for these potential selection problems, the following chapter also presents results from a Heckman Selection Model that estimates the level of implementation given the probability of signing a peace agreement.

Chapter 6: Results

This chapter presents the results of the statistical analysis and discusses the substantive impact of the main independent variables on the level of implementation. Descriptive statistics are presented in Table A1 in Appendix IV. The first section presents the results of the process-level analysis where the dependent variable is the aggregate level of implementation. This section also presents the results from a Heckman (1977) selection model. The second section introduces the provision level analysis in order to provide further evidence for hypothesized relationships at a more disaggregated level. The third section discusses the results from the analysis at the year-level. This analysis disaggregates implementer and time by focusing on yearly government progress in implementation. The fourth and final section presents the results of the process- and year-level analysis of peace process outcomes. Specifically, I look at the likelihood of conflict recurrence given various levels of implementation as well as when and why partial implementation leads to conflict recurrence.

Process Level Analysis and Selection Model

The process-level analysis uses ordinary least square (OLS) regression. While OLS might technically predict values that go above or below 0 to 1 range and might not be appropriate for ratio variables, the majority of the data for the dependent variable, *aggregate level of implementation*, falls in to the middle (0.2-0.8) range and is normally distributed, therefore OLS with robust standard errors does not pose any estimation problems (Long 1997). The unit of analysis is the peace process (final agreement-dyad). Robust standard errors are clustered on the dyad to account for non-

independence across observations. The six peace processes that are ongoing as of the end of December 2014 are excluded from the process-level analysis. In addition, models that include Polity Score are missing two observations, Bosnia Herzegovina vs. Bosnian Serbs and Bosnia Herzegovina vs. Bosnian Croats. The Polity IV project categorizes post-conflict Bosnia as among the cases of foreign interruption and thus does not provide a polity score.

Table 1 present three models that test the relationship between negotiation durations and the aggregate level of implementation. Due to the small number of observations, I include only a select number of variables in order to avoid model overfitting. Table 2 presents a more comprehensive model that includes several additional control variables. As hypothesized, the total number of negotiation rounds (Model 1) is a significant predictor of the level of implementation. Similarly, the variables recording the total number of negotiation days (Model 2) and the number of days per provision (Model 3) are statistically significant in the expected direction.

Table 1 – Level of Implementation – Duration of Negotiations

	Negotiations (Rounds) (1)	Negotiations (Days) (2)	Negotiations (Days/Provision) (3)
Main Variables			
Negotiation (rounds)	0.013*** (0.005, 0.021)		
Negotiation (total days, ln)		0.070*** (0.022, 0.118)	
Negotiation (days per provision)			0.015*** (0.007, 0.023)
Agreement Characteristics			

Agreement (comprehensive)	0.130* (-0.021, 0.280)	0.117 (-0.034, 0.268)	0.129 (-0.029, 0.286)
Controls			
Total peacekeepers (mean, ln)	-0.003 (-0.020, 0.014)	-0.002 (-0.018, 0.015)	0.001 (-0.016, 0.018)
Polity Score (mean)	0.007 (-0.010, 0.023)	0.008 (-0.009, 0.025)	0.009 (-0.009, 0.027)
Infant Mortality Rate (mean, ln)	-0.148** (-0.268, -0.029)	-0.150** (-0.269, -0.031)	-0.164** (-0.292, -0.036)
(Intercept)	1.018*** (0.482, 1.555)	0.893*** (0.321, 1.466)	1.084*** (0.518, 1.649)
N	72	72	72
AIC	20.374	20.684	22.199
Adj R2	0.335	0.333	0.318
Significance Level (95% CI is in parentheses): * p < .1, ** p < .05, *** p < .01.			

These variables are not only statistically significant but also substantively important in predicting the level of implementation. Going from one round of negotiation (the 10th percentile) to 17 rounds (the 90th percentile) causes the predicted level of implementation to increase from 0.44 to 0.65, which is a 47% increase. When producing predictions all other explanatory variables are set to their observed values (Hanmer & Kalkan 2013). Similarly, going from a total of three days of negotiations (10th percentile) to 124 days (90th percentile) increases the level of implementation by 61% (from 0.39 to 0.63). Finally, the predicted level of implementation is 0.46 when parties spend 0.6 days per provision (the 10th percentile) compared to 0.60 when they spend 9.7 days per provision—a 30% increase. Given that the level of implementation varies between 0.1 and 0.95 across 90% of the agreements, an absolute increase in the implementation score of 0.2 to 0.25 represents a substantial impact.

Figure 5 – Duration of Negotiations

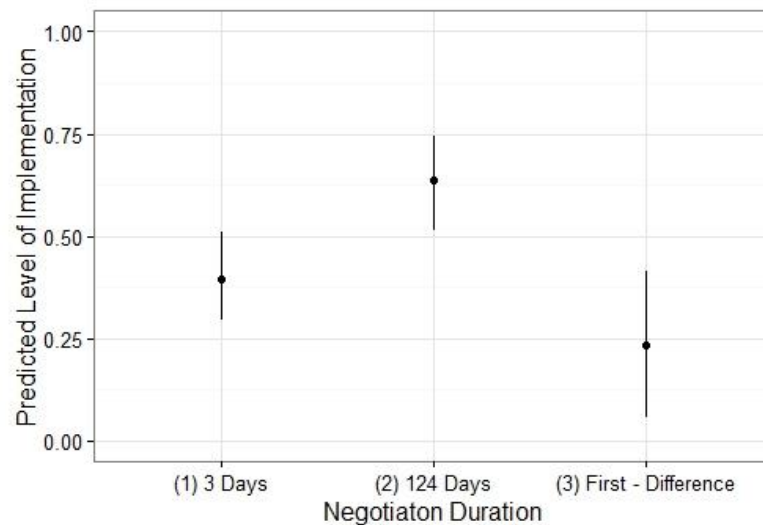


Figure 5 shows the predicted level of implementation and the first-difference between low and high values for total days of negotiations. Values are calculated using the observed value approach with bootstrapped confidence intervals running 1000 iterations. The line presents the 95% confidence interval around the median value. The confidence interval for the first difference does not cross zero which indicates that moving from low to high negotiation duration has a statistically significant impact on the predicted level of implementation. Taken together, these results provide strong support for the first hypothesis: the longer negotiations last, the higher the level of implementation.

Turning to the discussion of control variables, *Comprehensive Agreement* is also statistically significant in Model (1) but not in Model (2) and (3) at the 90% level (p-values are close to significance in a one-tailed test with values of 0.13 and 0.11, respectively). The substantive significance of these variables, however, is weaker as compared to the pre-agreement factors such as the duration of negotiations. The implementation level of a comprehensive agreement is 28% higher than the implementation level of an agreement that is not comprehensive, although the difference is not statistically significant at the 95% level.

As expected, *Infant mortality rate* is statistically significant and negative. Higher values suggest lower state capacity, which is negatively correlated with the level of implementation. Similarly, *Polity Score* is positively correlated with the level of implementation, which is as expected, but the impact is not statistically significant.

Although, there are various findings in existing work showing a strong relationship between the presence of peace keepers and the duration of peace, the *total number of peace keepers* is not statistically significant across the three models. This may be due to the fact that peace keepers do not directly affect the level of implementation. Although, peace keepers do prevent conflict recurrence and thus indirectly influence the peace process, the factors that influence the level of implementation are likely to be closely related to the incentives facing parties to the agreement but not to the incentives facing third parties. Peace keepers might also be effective in enforcing certain parts of an agreement, such as demobilization and/or demilitarized zones, while they might be less effective in enforcing other parts of an

agreement. This mixed impacts may wash out the effect of the variable or make it difficult to detect. More importantly, as Fortna (2008) shows, peace keepers are deployed in more difficult cases. When this selection issue is taken into account, the effect of peacekeepers on peace duration is positive and significant (Fortna 2008). By extension, it is probable that the number of peace keepers deployed to difficult and fragile post-conflict cases where the implementation is more likely to fail is larger. In order to identify the true effect of peace keepers on the implementation of peace agreements, which is outside the scope of this current analysis, it is necessary to address this selection issue.

Table 2 presents three additional models. The first two models include agreement and conflict characteristics and do not take into account the duration of negotiations. The final model includes several agreement and conflict characteristics along with the duration of negotiations. Model (1) includes agreement characteristics. The *Agreement Specificity* variable is not statistically significant at conventional levels, although it is in the expected direction. On average, more detailed agreements do not seem to have higher levels of implementation. The presence of a *Timeline* is not statistically significant either. This suggest that the aggregate level of implementation of an agreement with a timeline is not different from the aggregate level of implementation of an agreement without a timeline. The ratio of *Guaranteed Power Sharing* provisions in a given agreement to total number of provisions is not statistically significant in Model (1) but is significant in Model (3) in the expected direction. Having more provisions dealing with guaranteed power sharing may have an effect on the level

of implementation, but this effect seems to be dependent on model specification and thus it is not possible to make strong claims about the correlation.

Model (2) includes variables that are related to conflict characteristics. The sign of the coefficient for the conflict intensity variable is in the expected direction but not statistically significant, suggesting that the level of implementation may be lower following more intense conflicts. Variables recording conflict duration and conflict over territory are both significant and positive, while the number of rebel groups and conflict intensity are not significant at conventional levels. Further analysis to identify how the type and duration of conflict might impact the post-conflict processes should take into account how agreements are reached in these conflicts in order to determine the effect of conflict characteristics on the level of implementation.

Table 2 – Level of Implementation – Agreement and Conflict Characteristics

	Base Model (Agreement) (1)	Base Model (Conflict) (2)	Full Model (3)
Main Variables			
Negotiation (total days, ln)			0.066** (0.016, 0.116)
Agreement Characteristics			
Agreement (specificity - ratio)	0.179 (-0.545, 0.903)		
Agreement (comprehensive)	0.153* (-0.021, 0.326)		0.174** (0.035, 0.314)
Timeline	0.101 (-0.066, 0.269)		
Guaranteed Power Sharing (ratio)	0.154 (-0.386, 0.694)		0.306 (-0.107, 0.718)
Controls			
Total peacekeepers (mean, ln)	-0.004 (-0.024, 0.016)	0.013 (-0.008, 0.033)	
Polity Score (mean)			0.013 (-0.005, 0.032)
Infant Mortality Rate (mean, ln)			-0.146** (-0.259, -0.034)

Conflict (intensity)		-0.009 (-0.167, 0.149)	-0.045 (-0.185, 0.095)
Conflict (over territory)		0.205** (0.025, 0.385)	0.026 (-0.170, 0.223)
Conflict (# of rebels)		0.023 (-0.073, 0.119)	0.055 (-0.029, 0.139)
Conflict (duration)		0.019*** (0.007, 0.032)	0.007 (-0.007, 0.020)
(Intercept)	0.307 (-0.126, 0.740)	0.298** (0.029, 0.567)	0.658** (0.012, 1.305)
N	65	74	72
AIC	36.79	39.437	23.109
Adj R2	0.123	0.145	0.382
Significance Level (95% CI is in parentheses): * p < .1, ** p < .05, *** p < .01.			

The final model, Model (3), includes all conflict variables, two of the agreement level variables, and the total duration of negotiations in days. The inclusion of these control variables do not change the direction and statistical significance of the negotiation duration variable. When the models are compared, higher adjusted R squared values suggest that models including the duration of negotiations are better at explaining variation in the data than models that only include conflict and country characteristics. Additionally, the Akaike Information Criterion (AIC)—lower values indicate better models—suggests that the models including the duration of negotiations are well specified compared to the baseline model that does not include the duration of negotiations. The baseline AIC that excludes total days of negotiations is 26.887 (not shown here) while AIC drops to 20.684 in Model (2) of Table 1.

Negotiations between South Africa and the ANC might provide some anecdotal evidence in favor of the theoretical mechanisms and finding presented here. In a total of 24 rounds spanning over 200 days, parties negotiated an end to 8 years of violence and white minority rule. Designing a new political system was demanding. There were

many issues to cover from amnesty and the release of prisoners, to drafting a new constitution and designing transitional institutions. Even taking this into account, the negotiations that led up to the 1993 agreement are very long, 23.5 days per provision. If the proposed mechanism linking negotiation length to implementation is at play, we would expect to see long and arduous talks at each round working towards solving the underlying issues. In other words, long duration should reflect genuine attempts to produce acceptable provisions that are likely to be implemented.

Looking at the content of the negotiations reveals that from the very first round in May 1990, both sides were hard at work. At the end of the first round they set up a working group to decide issues of definition related to political offenses, which were to be included in the general amnesty provision.⁴⁴ For the following year and half, they worked on finalizing the list of political prisoners and other issues such as the post-apartheid education system, while the government started to take steps to dismantling the apartheid system.⁴⁵ Later in 1991, multi-party talks started that included the African National Congress (ANC) and other smaller parties. The convention started with a presentation of positions and continued with establishment of five additional working groups, which were established to address specific issues.⁴⁶ From mid-1992 until mid-1993 the process slowed down due to deadlock in multiparty talks. The ANC and the government, however, continued bilateral negotiations. The two sides signed the Record of Understanding in September 1992. One of the main issues was the structure

⁴⁴ Associated Press, “*De Klerk and Mandela Open Talks on Black-White Power Sharing*,” May 4, 1990.

⁴⁵ Reuters, “*ANC and Pretoria at Odds over Prisoner*,” June 19, 1991.

⁴⁶ Associated Press, “*Interim Government Heads Agenda of Historic Talks*,” December 19, 1991.

of the post-apartheid regime. While the government preferred strong regional governments to protect minorities such as whites, the ANC favored a powerful central government.⁴⁷ Additionally, the process of drafting and adopting the new constitution was another point of contention. The ANC proposed an interim government which would be elected by national elections and work on constitutional changes to prevent the government from manipulating the transitional process. The government agreed that a more inclusive forum should work on the new constitution but opposed the idea of an interim government and insisted on staying in power throughout the transitional period (Hoglund 2008; Marajah 2008).

Designing the new constitution that would shape the post-apartheid regime was crucial for both parties since it had consequences for years to come. Finally, in June 1993, they agreed on a two-step process in which inclusive elections would be held to elect a national assembly that would finalize the constitution. It was reasonable for the ANC to expect that it would secure a majority in an all-race election, replacing the minority government. As a result, the ANC focused for nearly two years on securing the best possible arrangement for the transition. In fact, in April 1994 in the first all-race elections, the ANC won 62% of the seats in the National Assembly, and the draft constitution was finalized in December 1996 (Hoglund 2008).⁴⁸

Table 3 and 4 presents findings from models that include alternative measures of *Rebel Military Power*. The dependent variable, *Aggregate Level of Implementation*, excludes provisions regarding the integration of rebel groups into army.

⁴⁷ Associated Press, “*Black, White Parties Agree to Resume Negotiations by April 5*,” March 6, 1993.

⁴⁸ Keesing's Record of World Events, Volume 42, 1996, 41078

Across the three models presented in Table 3, different specification of *Rebel Military Power* is statistically significant in the expected direction. All three models control for the *Duration of Negotiations*, *Comprehensive Agreement*, and the total number of peace keepers, polity score, and the infant mortality rate. All variables are in the expected direction.

Table 3 – Level of Implementation – Rebel Military Power

	Implementation (Integration 30%+) (1)	Implementation (Integration 40%+) (2)	Implementation (Integration 50%+) (3)
Main Variables			
Military Power (30%)	0.053*** (0.032, 0.074)		
Military Power (40%)		0.057*** (0.034, 0.079)	
Military Power (50%)			0.061*** (0.037, 0.086)
Negotiation (total days, ln)	0.056*** (0.019, 0.094)	0.056*** (0.019, 0.092)	0.056*** (0.022, 0.091)
Agreement Characteristics			
Agreement (comprehensive)	0.153** (0.029, 0.277)	0.151** (0.026, 0.275)	0.144** (0.020, 0.268)
Controls			
Total peacekeepers (mean, ln)	0.006 (-0.008, 0.019)	0.005 (-0.008, 0.018)	0.006 (-0.007, 0.020)
Polity Score (mean)	0.013* (-0.002, 0.029)	0.015* (0.000, 0.030)	0.016** (0.001, 0.030)
Infant Mortality Rate (mean, ln)	-0.163*** (-0.271, -0.055)	-0.157*** (-0.259, -0.055)	-0.156*** (-0.257, -0.055)
(Intercept)	0.844*** (0.338, 1.351)	0.818*** (0.339, 1.297)	0.804*** (0.333, 1.275)
N	72	72	72
AIC	0.652	-0.124	-1.455
Adj R2	0.527	0.532	0.541

Significance Level (95% CI is in parentheses): * $p < .1$, ** $p < .05$, *** $p < .01$.

The substantive impact of *Rebel Military Power* is also very important. The predicted level of implementation when *Rebel Military Power* is 0, i.e., when there are

no military guarantees provided to the rebel, or the military guarantees are not put in place is 0.43 (holding all other variables are at their observed values). The predicted level of implementation when *Rebel Military Power* is at its highest level, 9, i.e., situations where the rebel secured high level guarantees and these guarantees were implemented, is 0.91, a 111% increase. Similarly, the predicted level of implementation is 0.75, when *Rebel Military Power* has a value of 6, which captures situations where the level of military guarantees is modest—the rebel constitutes less than 30% of the new army (2*3) or the rebel secures higher levels of guarantees but these are not fully implemented (3*2). The substantive impact of this variable is also large. When there are no military guarantees, the remaining provision in an agreement are likely to be less than half implemented. By contrast, fully implemented military guarantees result in nearly full implementation of all other provisions.

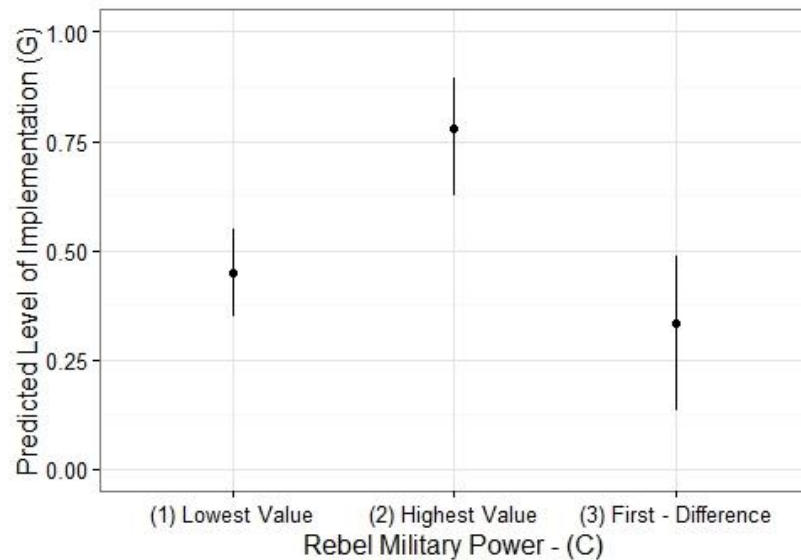
Table 4 presents three additional models. Model (1) includes a categorical measure of *Rebel Military Power*. Model (3) uses a different dependent variable, the *Government's Level of Implementation*. In both models, Model (1) and (3), the *Rebel Military Power* variable is statistically significant in the expected direction. The predicted level of implementation for the government is 0.44 when the categorical *Rebel Military Power* variable is set to 0 and it increases by 0.33 points to 0.77, a 75% increase when set to its highest value, 2. This change, using the observed values approach, is significant at the 95% level.

Table 4 – Level of Implementation – Alternative Measures of Rebel Military Power and Government Implementation Level

	Implementation (Categorical) (1)	Implementation (Interaction) (2)	Government Implementation (3)
Main Variables			
Military Power (categorical)	0.174*** (0.094, 0.254)		0.165*** (0.073, 0.256)
Military Guarantees		-0.029 (-0.137, 0.079)	
Implementation of Military Guarantees		0.069* (-0.002, 0.139)	
Interaction (Guarantees*Implementation)		0.034 (-0.012, 0.081)	
Negotiation (total days, ln)	0.053*** (0.014, 0.091)	0.062*** (0.021, 0.103)	0.058** (0.012, 0.104)
Agreement Characteristics			
Agreement (comprehensive)	0.157** (0.032, 0.281)	0.143** (0.011, 0.275)	0.137** (0.001, 0.273)
Controls			
Total peacekeepers (mean, ln)	0.006 (-0.008, 0.020)	0.010 (-0.003, 0.023)	0.009 (-0.006, 0.024)
Polity Score (mean)	0.016** (0.000, 0.032)	0.013* (-0.002, 0.029)	0.019** (0.002, 0.035)
Infant Mortality Rate (mean, ln)	-0.165*** (-0.271, - 0.059)	-0.160*** (-0.269, - 0.052)	-0.143*** (-0.235, - 0.052)
(Intercept)	0.843*** (0.347, 1.340)	0.791*** (0.283, 1.299)	0.748*** (0.312, 1.184)
N	72	72	72
AIC	2.371	0.848	3.803
Adj R2	0.516	0.552	0.513
Significance Level (95% CI is in parentheses): * p < .1, ** p < .05, *** p < .01.			

Figure 6 shows the substantive impact, i.e., the predicted level of implementation given low and high values of *Rebel Military Power (categorical)* and the first-difference, calculated using the observed value approach with bootstrapped confidence interval running 1000 iterations based on Model (1). The line presents 95% confidence interval around the median represented by the dot.

Figure 6 – Rebel Military Power and Government Level of Implementation



Model (2) includes an interaction term between the *Level of Military Guarantees* and the *Implementation of Military Guarantees*. The *Level of Military Guarantees* is not significant by itself. In other words, if *Military Guarantees* are not implemented there is little impact on the level of implementation. The *Implementation of Military Guarantees*, on the other hand, is statistically significant at the 90% level and in the expected direction regardless of the *Level of Military Guarantees*. The interaction term is also in the expected direction, yet not significant at conventional level on a two-tailed test ($p \text{ value} < 0.15$). In order to interpret the interaction term, I calculate the predicted level of implementation for several combinations of the interaction term and the difference in predictions. The predicted level of implementation is 0.34 when the *Level of Military Guarantees* is at its highest value, 3, and when the *Implementation of Military Guarantees* is at its lowest value, 0. On the other hand, when the *Implementation of Military Guarantees* is at its highest value, 3, the predicted level of implantation is 0.85, while the *Level of Military Guarantees* is at

highest value, 3, and the all other values in Model (2) in Table 4 are set to their observed values—a 0.51 point change (a 150 % increase).

The evidence from the models presented in Table 3 and 4 provides strong support for *Hypothesis 2*. The small change in (p), i.e., rebel military power, leads to higher levels of implementation. The substantive impact of rebel military power is quite large across the different models, even when controlling for other factors that are likely to impact the level of implementation. Model fit diagnostics indicate higher values of Adjusted R square (0.51 to 0.55) and lower AIC scores indicating that the models that include *Rebel Military Power* perform better overall and explain more variation in the level of implementation than the ones that do not include this variable. Model (3) in Table 4, in which the dependent variable is *Government Level of Implantation*, provides further evidence for the theorized relationship between the costs of non-compliance and the level of implementation. Greater rebel military power predicts higher levels of government implementation.

As discussed in the previous chapter, negotiated settlements are likely to occur non-randomly. Table 5 presents the results from a selection model developed by Heckman (1977), using the maximum likelihood estimation method. The selection equation estimates the probability of signing an agreement in a given year, while the outcome model estimates the level of implementation. I combine several conflict datasets in order to create a master dataset that includes information on all civil conflict combatants recoded by UCDP at the dyad-year level. I include several group, conflict

and country level characteristics that are known to impact the probability that a conflict will end, as well as end as a result of a negotiated settlement.

The first set of variables, *State Forces*, and *Rebel Forces*, records combatant capability as the total troop size (Aronson & Huth, *forthcoming*). In addition, I control for the balance of power between the state and the rebel since several studies show that the relative power effect the likelihood that a conflict will end in a negotiated settlement. Rebels that are at an advantage are less likely to settle given their superior power, while groups that are weak are less likely to receive concessions through negotiations since they will not pose enough of a threat to the government (e.g., Cunningham, Gleditsch & Salehyan 2009; Hultquist 2013; Park 2015; Sawyer, Cunningham & Reed 2015). *Rebel Parity* is a dummy variable that records whether or not the rebel group is at parity, while *Rebel Advantage* is a dummy variable that records whether or not the rebel group is at an advantage relative to the state's troop size. The excluded category is relatively weak rebel groups.

Table 5 – Selection Model

	Selection Model (1)
Selection DV: Peace Agreement	
Rebel Parity	0.217 (-0.504, 0.710)
Rebel Advantage	-0.309 (-1.996, 0.464)
State Forces (ln)	-0.197** (-0.347, -0.053)
Rebel Forces (ln)	0.072 (-0.060, 0.229)
External Troop Support(State) (ln)	-0.065* (-0.132, -0.011)

External Troop Support(Rebel) (ln)	0.017 (-0.812, 0.089)
External Fungible Support (Rebel) (binary)	-0.370* (-0.705, -0.025)
External Territorial Support (Rebel) (binary)	0.103 (-0.254, 0.429)
Mediation Attempt (binary)	1.001*** (0.669, 1.324)
Conflict (over territory)	-0.785*** (-1.192, -0.481)
Conflict (intensity)	-1.178*** (-5.665, -0.668)
Total Number of Peacekeepers (logged)	0.069* (0.000, 0.126)
Polity Score	0.017 (-0.004, 0.040)
Time	0.015 (-0.165, 0.182)
Time Squared	0.004 (-0.011, 0.025)
Time Cubed	0.000 (-0.001, 0.000)
(Intercept)	0.874 (-0.584, 5.346)
Outcome DV: Aggregate Level of Implementation	
Rebel Military Power (%30)	0.065*** (0.043, 0.106)
Negotiation (total days, ln)	0.069* (0.011, 0.130)
Agreement (comprehensive)	0.199* (0.046, 0.361)
Conflict (over territory)	-0.055 (-0.393, 0.194)
Conflict (intensity)	-0.133 (-0.363, 0.037)
Total peacekeepers (mean, ln)	0.015 (-0.008, 0.045)
Polity Score (mean)	0.010 (-0.018, 0.029)
Infant Mortality Rate (mean, ln)	-0.181* (-0.407, -0.049)
(Intercept)	0.644 (-0.353, 1.465)
Sigma and Rho	
Sigma	0.230*** (0.170, 0.417)
Rho	0.548 ^ (-0.374, 1.000)
Significance Level (95% CI is in parentheses): ^ p < .2, * p < .1, ** p < .05, *** p < .01.	

Also included in the selection equation is a set of variables that records information on external support given to warring parties by state and non-state actors pulled from the UCDP External Support dataset. Several studies show that different types of external support might impact the bargaining range differently, which in turn, will impact the probability that combatants will settle or not (e.g., Regan & Aydin 2006; Salehyan, Gleditsch & D. Cunningham 2011; Sawyer, K. Cunningham & Reed 2015). Specifically, fungible support to the rebel, i.e., financial support, that can be translated into fighting capabilities would create uncertainties and lower the likelihood that a conflict will end (Sawyer, K.G. Cunningham & Reed 2015). On the other hand, access to extraterritorial bases might lower the costs of fighting and, in turn, impact conflict dynamics (Salehyan 2011).

In line with previous studies, rebel groups that are at parity are more likely to sign agreements while the groups that are at an advantage are less likely. Neither variable, however, is statistically significant. The absolute value of state force size and the external troop support to the state have a statistically significant and negative effect on the likelihood of a negotiated settlement. Additionally, financial external support also makes negotiated settlements less likely. Total rebel forces size and external support to rebel are both in the expected direction but neither variable is significant.

The *Mediation Attempt* variable records whether or not there was a mediation attempt made by third parties in a given year. I use the Civil War Mediation Dataset that includes all occurrences of civil war mediation to record this variable. *Mediation Attempt* is a significant predictor of peace agreements. The remaining variables,

Conflict over territory, *Conflict intensity*, *Polity Score* and *Total Number of Peace keepers* are all in the expected direction. With the exception of *Polity Score* ($p < 0.2$), conflict variables are statistically significant at conventional levels. Finally, the selection model includes time, time squared, and time cubed to account for issues of time dependence in binary outcome models as suggested by Carter and Signorino (2010).

Most importantly, the statistical significance and substantive importance of the main variables in the outcome model remains unchanged. The Rho parameter, measuring the correlation in the error terms between two models, is positive suggesting that unobservable factors that lead to an agreement are also positively related to the factors that make the level of implementation higher. This confirms that a selection model is appropriate. The increase in the predicted level of implementation when *Rebel Military Power* is at its highest vs. lowest values, is 0.58 points (a 141% increase) and is significant at the 95% level. Similarly, the predicted level of implementation is 0.39, when the *Negotiation Duration* is at 10th percentile, compared to 0.63, when it is at 90th percentile (61% increase). This variable is also significant at the 95% level.

While the Heckman model addresses sample selection bias, another potential threat to inference is endogeneity, especially for the *Rebel Military Power* variable. This variable records the level and the implementation of military guarantees in an attempt to measure whether or not there has been a change in the bargaining range during the implementation stage. However, it may be that strong rebels receive high levels of military guarantees and they are able to ensure the implementation of these

provisions as well as the others in the agreement. If this was the case, rebel capability at the time an agreement was signed would be correlated with *Rebel Military Power* and *Aggregate Level of Implementation*. In other words, omitted variables may be correlated with the key independent variable and the error term, suggesting spurious relation between *Rebel Military Power* and *Aggregate Level of Implementation*. In attempt to address this I run several bivariate models regressing the level and implementation of military guarantees, both combined and separately, on rebel force size at the time of agreement. Data on rebel force size at the time of signing the agreement or the last year of conflict comes from Aronson and Huth (*forthcoming*). The total armed forces a rebel has at the time an agreement was signed has no significant impact on the level or implementation of military guarantees (p-values of 0.7 and 0.6 respectively).

Table 6 presents two models, looking at the effect of domestic commissions and third party presence at the negotiation stage.

Table 6 – Implementation Commissions and Third Party Presence

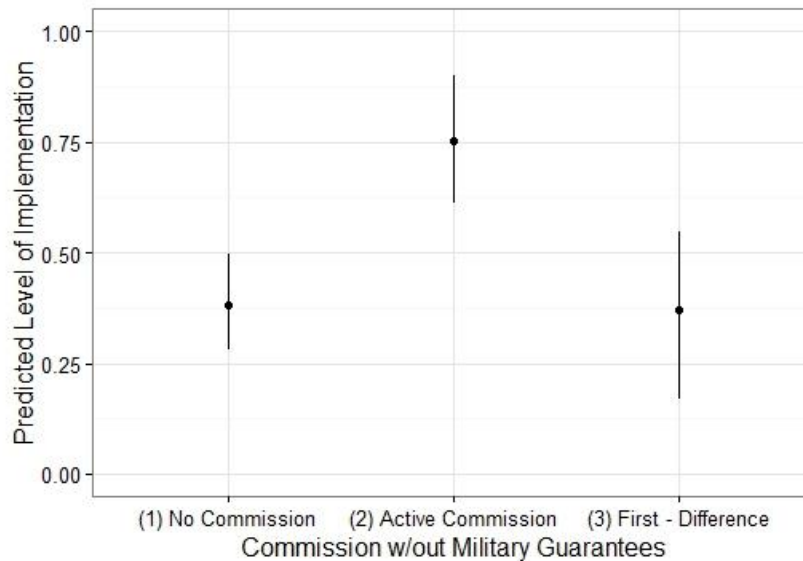
	Implementation (commission) (1)	Implementation (third parties) (2)
Main Variables		
Military Power (30%)		0.058*** (0.038, 0.078)
Military Power (binary)	0.331*** (0.172, 0.489)	
Active Commission	0.058** (0.009, 0.106)	
Military Power * Active Commission	-0.082* (-0.168, 0.004)	
Negotiation (total days, ln)	0.047* (0.000, 0.093)	0.049*** (0.014, 0.085)

Third Party Presence - Pre-Agreement		-0.142* (-0.298, 0.014)
Agreement Characteristics		
Agreement (comprehensive)	0.167** (0.039, 0.294)	0.134** (0.009, 0.259)
Controls		
Total peacekeepers (mean, ln)	0.008 (-0.007, 0.023)	0.011 (-0.005, 0.027)
Polity Score (mean)	0.013 (-0.003, 0.029)	0.012 (-0.003, 0.026)
Infant Mortality Rate (mean, ln)	-0.168*** (-0.276, -0.060)	-0.149*** (-0.249, -0.048)
(Intercept)	0.800*** (0.274, 1.326)	0.876*** (0.420, 1.333)
N	72	72
AIC	6.126	-0.369
Adj R2	0.517	0.529
Significance Level (95% CI is in parentheses): * p < .1, ** p < .05, *** p < .01.		

Both the presence of active domestic commissions at the implementation stage and third party presence during the negotiation stage are in the expected direction and statistically significant. Model (1) also includes an interaction term, *Military Power (binary)*Active Commission*. *Military Power (binary)* is recoded as “0” for cases where no military guarantees were provided to the rebel or military guarantees were not put in place, and coded as “1” for the remaining cases. In other words, category “1” represents cases where the rebel retained its military capability to some extent.

As *Figure 7* shows, having an actively functioning implementation commission increases the level of implementation by 0.37 points (a 97% increase that is statistically significant at the 99% level) compared to not having a domestic commission when the *Rebel Military Power (binary)* is set to (0) and all other variables are held in their observed values in Model 1 presented in Table 6.

Figure 7 – The Implementation Commissions



In order to test *Hypothesis 4*, stating that the impact of rebel military power will be greater when implementation commissions are present, I compare different values of the interaction term. Contrary to the expectations in *Hypothesis 4*, however, the presence of implementation commissions does not increase the effect of military guarantees. In fact, the sign of the coefficient of the interaction term is negative and significant. Additionally, the predicted level of implementation when there are active commissions is slightly smaller (a decrease of 0.07 points) compared to the predicted level of implementation when there are no commissions (the *Rebel Military Power* (binary) variable is set to a value of “1”). This difference is not statistically significant at conventional levels. When the same model, Model (1), is rerun without the interaction term, not shown here, the predicted level of implementation increases by 0.09 points when there is an active implementation commission, although this effect is not significant at a conventional level ($p < 0.2$). This suggests that the effect of domestic

commissions is greatest when rebels do not retain their military power in the post conflict period. Taken together, these results provide weak support for *Hypothesis 3*, which suggests that implementation commissions have an independent effect on the level of implementation, and no support for *Hypothesis 4*. One plausible explanation for this finding is that the parties establish domestic commissions only in cases where they expect problems in the implementation stage, which introduces selection bias into the analysis and makes it difficult to determine the true effect of implementation commissions.

Turning back to third party presence at the negotiation stage, the level of implementation when there were no parties present is 0.61, compared to 0.47 when there were third parties present in all negotiation rounds—a 21% decrease). This difference, however, is not significant at conventional levels ($p < 0.2$). While this finding provides weak support for *Hypothesis 6*, which argues that level of implementation will be lower if third parties are more involved at the negotiation stage. However, it should be noted that a more refined measure of third party involvement might perform better. As previous studies point out (e.g., Svensson 2009; Beardsley 2011; Reid 2015), the involvement of third parties might create adverse effects in the long-run. These adverse effect is greatest when third parties are biased or have political and economic leverage over the combatants.

Provision Level Analysis

The provision-level analysis focuses on examining provision level characteristics in addition to the main variables—specifically, how rebel military power relates to the

level of implementation per provision. The main purpose of this analysis is to provide additional evidence for the theory of implementation presented here that highlights the costs of non-compliance, while controlling for several alternative explanations that focus on provision and conflict characteristics. More specifically, I look at whether or not certain types of provisions are more likely to be implemented. The unit of analysis is the provision-implementer, i.e., a particular provision implemented by the state or by the rebel. I use a dummy variable that records whether or not the given provision is implemented fully. The reason for creating a *Full Implementation* binary variable is two-fold. First, a dichotomous variable allows the use of a logistic regression analysis which has less required assumptions about the data than does an ordered logit. An ordered logit, for example, requires that values of each category have a meaningful sequential order and be equally spaced apart (proportional odds). While *the Level of Implementation per provision* is ordered, moving from one category to the next is not necessarily proportional. *Full Implementation* is recoded as “1” when a given provision is fully implemented, and as “0” for all other levels. 48% of provisions are fully implemented.

The agreements whose implementation is ongoing as of the end of 2014 is excluded from this analysis. Table 7 presents four models. The first three models use the full sample, while the fourth model uses a sub-sample of provisions where the government is the implementer. The N is smaller in the first two models since the *Specificity* variable is not available for 9 agreements. Model (1) presents a base model that includes agreement and provision characteristics, while Model (2) and (3) also

include rebel military power, negotiation duration, and the presence of implementation commission.

Table 7 – Provision Level Analysis

	Implementation (1)	Implementation (2)	Implementation (3)	Implementation (government) (4)
Main Variables				
Military Power (30%)		0.057*** (0.036, 0.078)		
Military Power (categorical)			0.169*** (0.082, 0.255)	0.145*** (0.062, 0.227)
Active Commission			0.043 (-0.014, 0.100)	0.041 (-0.018, 0.100)
Negotiation (days per provision)		0.006 (-0.004, 0.016)	0.007 (-0.003, 0.016)	0.009** (0.000, 0.019)
Agreement Characteristics				
Agreement (comprehensive)	0.212*** (0.060, 0.364)	0.267*** (0.139, 0.394)	0.260*** (0.132, 0.389)	0.254*** (0.119, 0.389)
Provision Count	0.022** (0.001, 0.043)	0.016* (0.000, 0.033)	0.009 (-0.010, 0.028)	0.009 (-0.011, 0.029)
Provision Characteristics				
Provision (specificity)	0.025 (-0.030, 0.081)	0.015 (-0.035, 0.064)		
Provision (difficulty)	-0.070 (-0.175, 0.035)	-0.082 (-0.186, 0.021)	-0.073 (-0.170, 0.024)	-0.083* (-0.180, 0.015)
Provision (reform)	0.023 (-0.075, 0.121)	0.067 (-0.029, 0.163)	0.065 (-0.032, 0.161)	0.033 (-0.073, 0.139)
Controls				
Implementer (Government)	0.008 (-0.078, 0.094)	0.021 (-0.063, 0.105)	0.037 (-0.043, 0.117)	
Total peacekeepers (mean, ln)	-0.010 (-0.030, 0.009)	-0.003 (-0.020, 0.014)	-0.005 (-0.023, 0.013)	-0.002 (-0.022, 0.017)
Infant Mortality R. (mean, ln)	-0.184*** (-0.301, -0.068)	-0.243*** (-0.333, -0.153)	-0.235*** (-0.337, -0.134)	-0.184*** (-0.290, -0.078)
Conflict (intensity)	-0.070 (-0.222, 0.083)	-0.140* (-0.290, 0.011)	-0.177** (-0.345, -0.008)	-0.183** (-0.351, -0.016)
Conflict (over territory)	0.026 (-0.169, 0.221)	-0.001 (-0.193, 0.192)	0.039 (-0.159, 0.236)	0.120 (-0.069, 0.308)
Conflict (# of rebels)	0.042 (-0.050, 0.135)	0.030 (-0.050, 0.110)	0.025 (-0.049, 0.098)	0.037 (-0.034, 0.109)
Conflict (duration)	0.011 (-0.003, 0.025)	0.004 (-0.008, 0.016)	0.003 (-0.009, 0.016)	0.004 (-0.009, 0.017)
(Intercept)	0.861** (0.203, 1.518)	1.046*** (0.500, 1.591)	1.060*** (0.504, 1.615)	0.850*** (0.263, 1.437)
N	597	597	630	465
AIC	774.197	722.368	766.778	588.648
Adj R2	0.183	0.256	0.248	0.221
Significance Level (95% CI is in parentheses): * p < .1, ** p < .05, *** p < .01.				

A given provision is more likely to be fully implemented if it is part of a comprehensive agreement. The total number of provisions in an agreement is only statistically significant in Model (1). The positive sign of the coefficient suggests that provisions that are a part of agreement with more provisions are more likely to be fully implemented. Provision level characteristics do not appear to have a consistent effect on the probability that a provision will be fully implemented. *Provisions Specificity*, a categorical variable that ranges from 1 to 3 and captures how detailed a given provision is, is in the expected direction but is not statistically significant.

Provision Difficulty is a binary variable that records whether or not a provision is in one of the following categories: military, political, or economic. Previous studies suggest that these provisions are costlier to implement (e.g., Jarstad & Nillson 2008; DeRouen, Lea & Wallenstein 2009). This variable is coded as “0” if a given provision is in the judicial or territorial category and a “1” in all other cases (i.e., military, political, or economic). While this variable is in the expected direction, it is only significant at conventional levels in Model (4) (p values of 0.15 to 0.2 in the remaining models). Previous studies have theorized about the costs of implementation from the perspective of the government, so the statistically significant negative results in Model (4) but not Models (1) through (3) is not surprising. A next step is to use a more refined measure of how costly the implementation of a given provision is for each actor.

Provision Reform is a binary variable that records whether or not a given provision is about political, economic, territorial or judicial reform. This variable is recoded as “0” if the provision is on guaranteed power sharing in military, political, territorial and economic issue areas. The expectation is that the government might be

more willing to engage in reforms rather than directly sharing power with the rebel. Additionally, the implementation of guaranteed power sharing might be less likely to be implemented because the government will try to renege on the terms over time. Another explanation is that the implementation of reforms might be more likely to be fully implemented because the steps to implement are easier to undertake, e.g., passing an electoral law, or allowing—but not enabling—new political parties. The coefficient for this variable is in the expected direction but it is not statistically significant at conventional level ($p\text{-value} < 0.2$).

Negotiation Days per provision is only statistically significant in Model (4). This means that at the provision level the duration of negotiations only matters for the implementation of government provisions. This finding is in line with expectation from the theory in this dissertation. If rebel groups expect that the implementation of an agreement will be successful, they will invest more time during the negotiations stage to ensure that they get the best possible agreement. However, the same might not be true of the government, partially explaining the non-finding in Models (1) through (3) which includes all provisions where the implementer is either the government or the rebel.

Finally, across all models, different specification of *Rebel Military Power* is statistically significant in the expected direction, controlling for provision, conflict, and agreement level characteristics. The probability that a provision will be fully implemented is 0.38, when *Rebel Military Power (categorical)* is at its lowest value “0” and is 0.71 when *Rebel Military Power (categorical)* is at its highest value “2”—an 84% increase in the probability of full implementation that is statistically significant

at the 99% level. The predicted probability, first-differences and confidence intervals are calculated using the same methods used for all other predictions.

Progress in Implementation

The year-level analysis uses the change in government progress towards implementing the provisions of the agreement over time as the dependent variable. The purpose of this analysis is to provide additional support for the theorized relationship between the costs of non-compliance, i.e., rebel capability to enforce the terms of the agreements and the level of implementation. The *Change in Government Progress* is calculated as a change in *Government Progress* from the previous year to the current year: *Government Progress* at time (t) minus *Government Progress* at (t-1). Model (1) in Table 8 presents the analysis at the year-level using OLS regression because the dependent variable ranges from -1 to 1. Positive numbers represent further progress in implementation, while negative numbers represent declines in implementation progress. In Model (2), the dependent variable is conflict recurrence in a given year. A logistic regression is used for this model.

Table 8 – Government Progress in Implementation

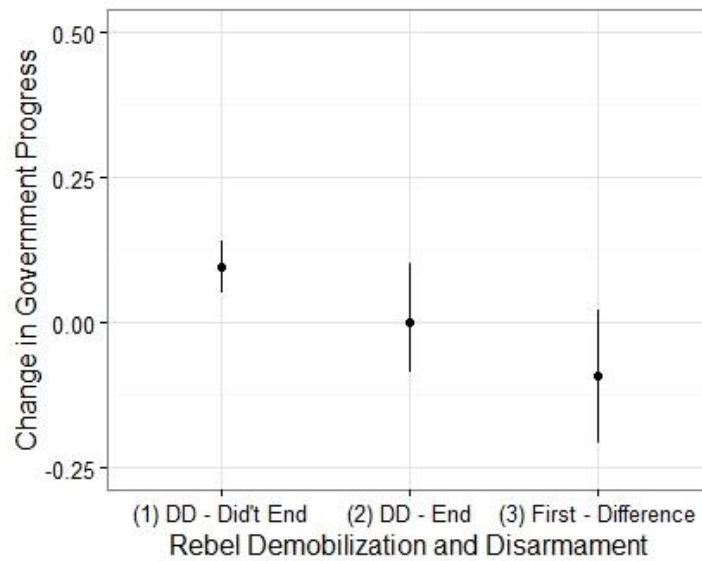
	Government Progress (1)	Conflict Recurrence (2)
Main Variables		
Rebel (DD) – Continuing (Lag)	-0.076 (-0.312, 0.160)	0.060 (-1.610, 1.730)
Rebel (DD) – Ended (Lag)	-0.091* (-0.193, 0.011)	-1.950* (-4.197, 0.296)
Agreement Characteristics		
Agreement (comprehensive)	0.046 (-0.014, 0.106)	-0.043 (-1.198, 1.113)

Controls		
Military Guarantees	0.017 (-0.012, 0.046)	-0.702** (-1.288, -0.116)
Total peacekeepers (ln)	0.002 (-0.005, 0.009)	0.009 (-0.126, 0.144)
Polity Score	0.005 (-0.003, 0.013)	-0.113* (-0.239, 0.013)
Infant Mortality Rate (ln)	-0.018 (-0.058, 0.022)	1.914*** (0.765, 3.062)
Conflict (over territory)	0.015 (-0.057, 0.086)	0.490 (-0.795, 1.776)
Time	-0.101*** (-0.152, -0.049)	0.814 (-0.325, 1.952)
Time (squared)	0.006*** (0.002, 0.010)	-0.075 (-0.220, 0.070)
Military Integration (continuing)	-0.072 (-0.217, 0.074)	0.441 (-0.971, 1.853)
Military Integration (ended)	0.036 (-0.073, 0.144)	-0.532 (-2.048, 0.984)
(Intercept)	0.351*** (0.131, 0.570)	-11.284*** (-16.909, -5.660)
N	320	320
AIC	182.517	190.76
Adj R2	0.159	0.198
Significance Level (95% CI is in parentheses): * p < .1, ** p < .05, *** p < .01.		

The main independent variables, *Rebel (DD) – Continuing* and *Rebel (DD) – Ended*, are recorded at time (t-1). Overall, the government is much less likely to make progress in implementation when the rebel continues demobilization and disarmament, compared to cases in which demobilization and disarmament have not yet started. The *Rebel (DD) – Continuing* variable, however, is not statistically significant. This finding is not surprising because during the demobilization and disarmament process, rebel groups are likely to retain their capacity to return to violence in the face of poor government performance. However, when the rebel completes the demobilization and

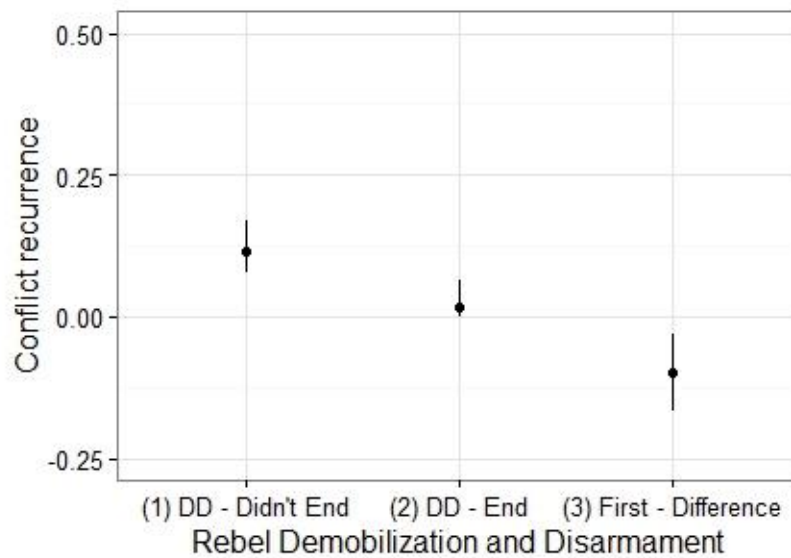
disarmament process, *Rebel (DD) – Ended*, the government is much less likely to make progress in implementation—a 96% decrease. This difference is only significant, however, in a one-tailed test ($p\text{-value} < 0.15$). This provides weak support for *Hypothesis 5*. Figure 8 below shows these results graphically.

Figure 8 – Rebel Demobilization and Disarmament and Government Progress



Model (2) looks at the effect of the same independent variables on the probability of conflict recurrence in a given year. As suggested in *Hypothesis 9*, rebel demobilization and disarmament makes conflict recurrence less likely. More specifically, conflict is less likely to recur when a rebel completes demobilization and disarmament: an 85% decrease (from 0.11 to 0.01) that is statistically significant at the 95% level. This change is substantively significant as the mean predicted probability of conflict recurrence is only 0.094, providing support for *Hypothesis 7*. Figure 9 below shows this impact graphically.

Figure 9 – Rebel Demobilization and Disarmament and Conflict Recurrence



Level of Implementation and Conflict Recurrence

The last set of models focus on the likelihood of conflict recurrence at the process level and the level of implementation. As shown in Model (1) of Table 9, higher levels of implementation are associated with a lower likelihood conflict recurrence.

Table 9 – Conflict Recurrence and Level of Implementation

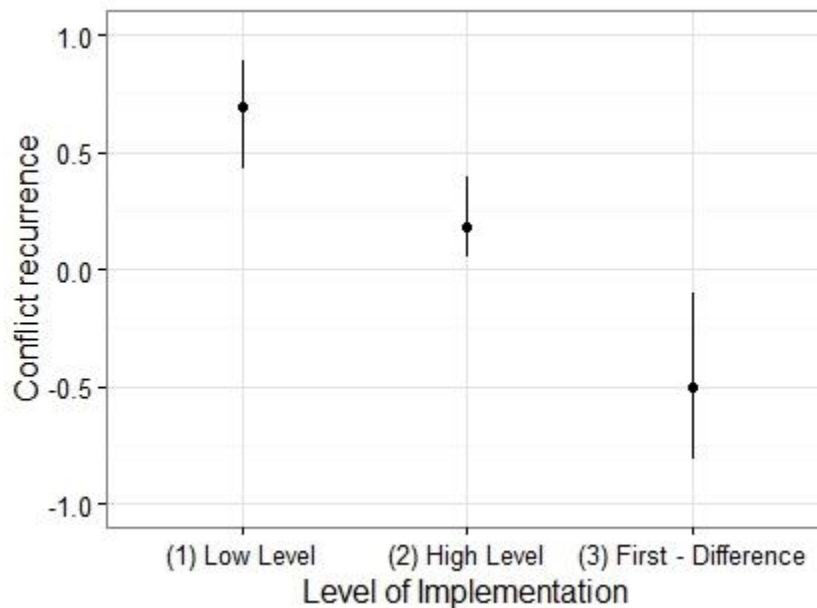
Conflict Recurrence (1)	Conflict Recurrence (2)	Conflict Recurrence (partial) (3)

Main Variables			
Active Commission	0.149 (-0.357, 0.656)		
Level of Implementation	-2.871** (-5.145, -0.598)		
Rebel (DD)		-0.348** (-0.625, -0.071)	-0.274** (-0.527, -0.020)
Agreement Characteristics			
Agreement (comprehensive)	0.598 (-0.551, 1.746)	0.850 (-0.381, 2.082)	0.701 (-0.491, 1.892)
Controls			
Total peacekeepers (mean, ln)	0.014 (-0.135, 0.162)	0.018 (-0.144, 0.181)	0.011 (-0.154, 0.176)
Polity Score (mean)	-0.039 (-0.180, 0.103)	-0.021 (-0.185, 0.143)	-0.022 (-0.182, 0.139)
Infant Mortality R. (mean, ln)	0.822 (-0.302, 1.945)	0.855 (-0.409, 2.119)	1.032 (-0.412, 2.475)
Implementation (excl. DD)		-0.987 (-2.993, 1.018)	
(Intercept)	-3.029 (-8.423, 2.366)	-3.325 (-9.290, 2.640)	-4.440 (-11.116, 2.237)
N	72	72	60
AIC	94.968	91.526	85.013
Adj R2	0.177	0.212	0.122
Significance Level (95% CI is in parentheses): * p < .1, ** p < .05, *** p < .01.			

The predicted probability of conflict recurrence is 73% lower when the level of implementation is 0.95 (the 90th percentile) compared to the probability of conflict recurrence when the level of implementation is 0.09 (the 10th percentile). This finding provides further evidence in support of an established finding in the literature that higher levels of implementation lead to more durable peace. While the previous studies focus on the implementation of guaranteed power sharing provisions, this finding shows that this relationship is not limited to guaranteed power sharing provisions and is true more broadly for the implementation of all types of provisions. Figure 10 shows

the predicted probability of conflict given two different levels of implementation as well as the first difference.

Figure 10 – Level of Implementation and Conflict Recurrence



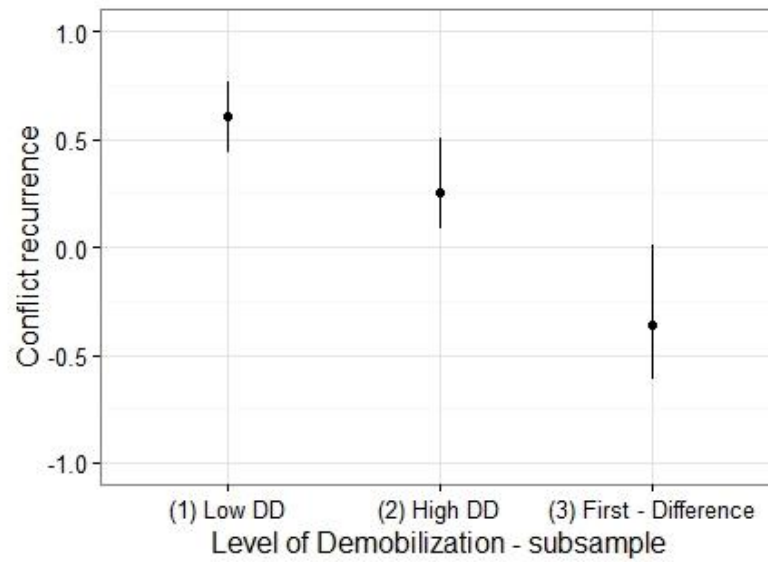
Contrary to expectations, the presence of *Active Commissions* does not lower the likelihood of conflict recurrence. While the coefficient is positive, it is not statistically significant (p value < 0.56), failing to provide support for *Hypothesis 8*.

Model (2) and Model (3) look at the effect of rebel demobilization and disarmament on the likelihood of conflict recurrence. *Rebel (DD)*, which measures the level of rebel demobilization and disarmament, is negatively associated with the likelihood of conflict recurrence in both models. The likelihood of conflict recurrence decreases by 70%, when *Rebel (DD)* is at the highest level “6” compared to the likelihood of conflict recurrence when *Rebel (DD)* is at the lowest value “0.” This difference is statistically significant at the 95% level.

Model (2) also includes the aggregate level of implementation that excludes demobilization and disarmament provisions since this is already captured in the *Rebel (DD)* variable. In terms of impact, this variable is in the expected direction but is not statistically significant at conventional levels.

Model (3) reruns the same model on a subsample of peace process where the level of implementation is recorded as “partial.” In other words, this subsample excludes cases where the peace process is successfully completed. The mean predicted probability of conflict recurrence is slightly higher in the subsample than in full sample (0.47 vs. 0.43, respectively). As expected, *Rebel (DD)*, is negative and statistically significant. Figure 11 shows the predicted probability of conflict recurrence and the first difference between the highest and lowest levels of *Rebel (DD)*. All other variables in Model (3) are held at their observed values. Taken together, these results provide strong support for *Hypothesis 7*, the more the rebel demobilizes the lower the likelihood that conflict will recur.

Figure 11 – Rebel Demobilization/Disarmament and Conflict Recurrence



Chapter 7: Conclusion

The main question asked in this dissertation is: Why are some peace agreements implemented successfully, while others fail? I introduce a general theory of implementation that takes into account both pre- and post-agreement factors. Specifically, I identify two important factors: the duration of negotiations in the pre-agreement stage and the cost of non-compliance in the post-agreement stage. I argue that bargaining between the parties does not stop once an agreement is reached. In fact, the implementation of an agreement is a continuation of the bargaining process. As a result, expectations about the outcome of the implementation stage are likely to impact the way parties negotiate to achieve an agreement. If they expect that implementation will be successful, they will negotiate harder in order to secure the best possible agreement. While this prolongs the negotiation process—and thus may be viewed as “deadlock” when negotiations are ongoing—the level of implementation once an agreement is reached is expected to be higher.

I further argue that as long as the costs of non-compliance remain high during the implementation stage, parties will comply with the terms of the agreement. More specifically, I suggest that the level of implementation will be higher when the rebel retains its capability to enforce the terms of the agreement in the post-conflict period. Therefore, when higher levels of military guarantees are in place that prevent large shifts in the bargaining range, the level of implementation will be higher. In this situation, the rebel retains its capability to credibly threaten the state with renewed conflict if implementation fails. Additionally, I argue that the costs of non-compliance might change over time. If the rebel loses its military capability as a result of

demobilization or disarmament, the government will have reduced incentive to continue implementation. While this leads to a lower likelihood that the government will continue implementation, it also lowers the likelihood that conflict will recur. Together, these two factors—the presence of military guarantees and demobilization/disarmament—provide an explanation for why partial implementation only leads to conflict recurrence in select cases but not in others. When the rebel lacks the capability to return to conflict, even if they have an incentive to do so in cases of partial implementation, the likelihood of conflict recurrence is much smaller.

In order to test this theory and address the questions raised in this dissertation, I collected data on the implementation of peace agreements. The Implementation of Peace Agreement Dataset (IPAD) includes all final agreements signed between a state and a non-state actor between 1989 and 2009. Additionally, the implementation of all provisions in a given agreement are coded. Therefore, this dataset does not select on agreement or provision type, which is a shortcoming in existing datasets and is crucial for accurate statistical inference. It also records the implementation of peace agreements at various levels ranging from the aggregate-level to the disaggregated event-level and provides information on agreement and provision characteristics as well as the implementer.

I find support for the propositions using a variety of statistical models run at different levels of analysis. Specifically, across multiple model specifications that control for other confounding variables such as agreement design, regime type, presence of peacekeepers and state capacity, I find that longer duration of negotiations

preceeding peace agreements are associated with higher levels of implementation. I use three measures of negotiation duration—rounds of negotiations, total days of negotiations, and negotiation-days per provision—in order to address potential measurement problems. Overall, I find strong support for the first hypothesis. The level of implementation is 30-60% higher in cases when the duration of negotiations is at high values (the 90th percentile) compared to its low values (the 10th percentile).

I also find that that costs of non-compliance—rebel military power at the implementation stage—is a significant predictor of the aggregate level of implementation. When rebel military power is at high levels, measured as the level of military guarantees in the agreement and the extent to which these guaranteed are put in place, the level of implementation is 75-100% higher. Substantively this increase is important as it represents a change from low levels of implementation (30-40%) to high levels of implementation (60-80%). These results are robust to different model specifications and different measures of rebel military power at the implementation stage. I also show that the effect of rebel military power is unchanged when I disaggregate the level of implementation and look at the level of government implementation. This provides additional support for the main argument that a governments is more likely to implement peace agreements when the costs of non-compliance are high. Moreover, since peace agreements are not random and other unobservable factors might incentivize parties to both sign and implement a peace agreement, I ran a Heckman (1977) selection model to account for potential selection biases. The main results on the duration of negotiations and the role of rebel military power at the implementation stage remain unchanged.

In order to provide further support for the main argument, I also run several statistical models at the provision- and year-level. The provision-level analysis looks at the level of implementation for each provision while taking into account other confounding variables that might influence the implementation of any given provision. These variables include how detailed a given provision is, the type of provision (military, political, territorial or economic), whether or not the provision introduces larger reforms or guaranteed power sharing, the implementer, as well as a variety of agreement, conflict and country characteristics. I find that internal costs of non-compliance are also significant in explaining the level of implementation at the provision-level.

Finally, I find strong support for the hypotheses that the change in rebel capability and the government incentive to continue implementation over time. When the rebel completes the demobilization and disarmament process, the government is much less likely to make progress on implementation in the subsequent year—a 96% decrease. This provides additional evidence in favor of the mechanism of costly non-compliance. At the same time, conflict recurrence is also much less likely in a given year when the rebel completes its demobilization and disarmament in previous year—a 70% decrease. At the process level, conflict recurrence is also much less likely when the rebel demobilizes and disarms at higher levels compared to lower levels. The same relationship is present in the sub-sample of partial peace agreements. Conflict recurrence is less likely when a rebel demobilizes and disarms at high levels even among cases of partial implementation.

In addition, the results provide partial or mixed support for some of the other hypotheses. For example, I find that the level of implementation is 97% higher when implementation commissions actively function and when the rebel does not retain any military power at the implementation stage. When the rebel does retain some power at the implementation stage, however, the presence of implementation commissions does not have an impact on the level of implementation. Contrary to expectations, the effect of implementation commissions are greatest when the rebel does not retain any power. It is likely that domestic implementation commissions are established when they are most needed pointing to a potential selection bias. Further exploration of circumstances under which these commissions are established, as well as disaggregation of their composition and roles, is warranted in order to accurately estimate the impact of commissions on the level of implementation.

Similarly, the results provide initial evidence that the presence of third parties at the negotiation stage leads to lower levels of implementation. While this finding is in line with the literature on biased third party intervention, the identity of third parties (e.g., international organization vs. states), the type of involvement, and third party ties to the combatants should also be explored in order to identify the mechanisms through which third party involvement might have an adverse effect on the level of implementation.

Contributions to Existing Literature

This project addresses a gap in the academic literature on conflict termination and peace duration, and thus contributes to the field of political science by providing a

general theory of the implementation process, which is then tested using new data on peace agreement implementation. The literature on civil conflict termination shows that when the implementation of agreements is successful, peace is more likely to endure. Given this relationship between successful implantation and durable peace, explaining how to achieve successful implementation has important implications for post-conflict stability. Specifically, various studies present strong results linking successful implementation to more durable peace. This dissertation, in turn, takes a step back to explore the determinants of successful implementation.

In doing so, this dissertation also defines the peace process as whole, from the start of the negotiations until the end of the implementation stage. Previous studies rely on an arbitrary cut-off point, such as five or ten years following the agreement, as the end of a peace process. This new approach not only improves our understanding of peace processes, but also provides a more accurate measure of the level of implementation. It is highly likely that some provisions get implemented beyond five years. It is also likely that implementation may be over before ten years leaving no reason to include additional years in the analysis. Just like studies of conflict processes that rely on a set of theoretical and empirical rules to determine the start and end of an armed conflict, it is important to identify the start and end of a peace process in order to fully understand the dynamics in the post-conflict period.

Furthermore, this dissertation also tackles another puzzle about the implementation of peace agreements and conflict recurrence. It is highly likely that when implementation is successful there are fewer incentives to reinitiate the armed

conflict. Similarly, when implementation fails there are greater incentives to reinitiate the conflict, either to punish non-compliance or to secure a new deal. However, only half of the partial implementation cases historically have resulted in conflict recurrence. The general theoretical framework and empirical analysis in this dissertation helps provide answer to the puzzle of why only some partially implemented agreements lead to conflict recurrence.

Explaining why some peace agreement are successfully implemented while others fail also contributes to our understanding of successful transitions from war to peace. The majority of peace agreements include reforms that are designed to improve functioning of political institutions, increase representation of minorities in various state structures, introduce free and fair elections, ease bans on opposition parties, redistribute state resources equitably, improve practices of armed forces and civil servants, or establish autonomous regions. All of these reforms and similar ones not listed here are likely to contribute to the democratization and the development of a free, fair, and prosperous post-conflict society. These provisions will only contribute to positive peace, however, if they are implemented. Therefore, understating when and how peace agreements are successfully implemented has broad implications for understanding how countries not only escape “the conflict trap” but also move beyond it (Collier et al. 2003; Walter 2014).

Moreover, the original data collected for this project is likely to contribute to future research on the implementation of peace agreements and post-conflict processes. Most importantly, this dataset provides the most comprehensive coverage of peace

agreements and their content signed between 1989 and 2009 following civil wars. It includes all final agreements and all provisions in a given agreement, not just power sharing pacts. Additionally, this data records implementation events by both actors at the most disaggregated event-level while also providing more aggregate measures of implementation at the process and provision level. Several additional questions regarding the sequence of implementation, the implementer, and the implementation of certain parts of the agreement can be answered using the new Implementation of Peace Agreements Dataset (IPAD).

Policy Implications

In addition to the theoretical and empirical contributions to academic research laid out above, the findings of this dissertation has several policy implications. At face value, a negotiation process might look unsuccessful because parties fail, round after round, to agree on important issues to end the conflict and reach an agreement. The argument and results presented here, however, suggest that the end result—the level of implementation—is actually more likely to be positive. In many cases the incentive of third parties involved in the negotiation process is to reach a settlement as soon as possible to end the conflict and prevent further suffering. It may be beneficial to reconsider some of these strategies and focus instead on reaching higher quality agreements. This is especially true when the parties engage in serious talks and continue making substantive progress. This is not to say that continued fighting is desirable, however. One course of action for third parties is to prevent continued

violence using peace keepers or ceasefire monitoring, while allowing negotiation teams to continue talks and take the necessary time to reach an enforceable agreement.

Additionally, the results show that the costs of non-compliance are an important determinant of successful implementation. Since the end of the Cold War, greater attention was given to demobilization and disarmament (DDR) programs in the hopes of ending protracted conflicts. Major financial and human resources such as peacekeepers, observers or monitors were invested in order to facilitate successful demobilization (Humphreys & Weinstein 2007). While much attention is given to designing careful DDR programs, the integration of ex-combatants is usually left to the domestic actors. As Glassmyer and Sambanis (2008) point out in their study of military integration, this was not a very effective strategy for peace building—mainly due to poor implementation of these provisions. Strategies and programs built into the agreements that facilitate the implementation of military integration are likely to improve the implementation of other provision in an agreement and thus increase the overall level of implementation.

Avenues for Future Work

Given the findings on high level military guarantees and successful implementation, future work should also focus on the determinants of these guarantees and identify strategies that ensure that they will be carried out. The theoretical discussion and original data presented in this dissertation provide a starting point to further explore why some groups, regardless of their size, secure high levels of military

guarantees, while others do not. In addition, this work also provides a foundation for studying the conditions under which these guarantees were carried out.

Additionally, while it is conceptually helpful to think of the government as the side who has to make concessions, it should be noted that agreements lay down obligations for both parties. As the other examples in this dissertation show, even though “power-sharing” means the concessions made by the government in general, usually both sides have implementation obligations. Some agreements require the withdrawal of government forces to peacetime locations, whereas others require the cessation of hostilities by the rebel group, the grouping of rebel forces in predetermined cantonments such as the El Geneina Agreement (Chad), the release of prisoners held by the rebels such as the National Pact (Mali), or removing any ethnic references from a group’s name in order to register as a political party such as the Declaration of the Summit of the Heads of State and Government of the Great Lakes region on the Burundi Peace Process (Burundi). Future work should focus on how the costs associated with rebel non-compliance, as well as agreement design and third party involvement, can help explain rebel compliance with an agreement.

Finally, future work should also look at other potential factors such as foreign aid or sanctions, which may alter the costs of non-compliance and the incentives to implement the agreement. While this dissertation mainly focuses on the internal costs of non-compliance, it is equally likely that the parties would respond to the external costs of non-compliance in a similar way. More specifically, the government might have an incentive to continue implementation of an agreement if the provision of

development aid and other foreign assistance is conditional on the success in the peace process. Similarly, rebel groups might have incentives to comply when they aspire further recognition in the international system or when they are under pressure due to sanctions or the involvement of their war-time backers. While some development aid is delivered through government-to-government channels, others are directly delivered to areas of need by non-governmental organizations. Just like governments, rebels may be concerned about the disruption of aid flows to their areas of control, which produces an incentive continue implementation in cases where aid is conditional on progress in the peace process.

Appendices

Appendix I - Implementation of Peace Agreements Dataset (IPAD) codebook v.1.

This appendix provides information on coding rules for IPAD that includes information on 21 types of provisions. Across the 68 final agreements (as well as the process and follow-up agreements that are linked to the same process) IPAD records a total 662 provisions.

p_id: unique peace process id.

A peace process is defined as continuous talks that lead to a final agreement signed between one state and one non-state actor, in which the final agreement at least partially addresses the incompatibility in the conflict, and lasts for at least one month.

Each peace process includes a unique dyad-agreement pair although some dyads sign multiple agreements, such as the Government of Angola-UNITA dyad, which signed three agreements during the time frame of this dataset. In addition, some agreements include multiple dyads, such as the Arusha Peace and Reconciliation Agreement for Burundi that included three dyads: The Government of Burundi vs. Palipehutu, CNDD, and Frolina. This leads to a total of 80 peace processes across 65 unique dyads.

paid: unique peace agreement id.

dyad_id: Unique dyad id from UCDP dyadic dataset.

conflict_id: Unique conflict id from UCDP dyadic dataset.

SideB: Name of the rebel group as specified in UCDP.

SideB_id: The actor id for Side B identified in UCDP actor dataset.

pa_name: Peace agreement name as identified in UCDP peace agreement dataset.

Provision Level Data

provision_type: A string variable that records the type of provision as defined below.

provision_total: Total number of provisions in a given agreement.

detail: A categorical variable that ranges from 1 to 3 and records how detailed/specify a given provision is as defined below. This variable is coded when the original text of an agreement is available.

implementer: A categorical variable that records the implementer of a given provision.

1- Government is the implementer.

2- Rebel is the implementer.

3- Both the government and the rebel is the implementer. Provision such as demobilization, disarmament, and prisoner release occasionally require both actors to take action. The implementer is recorded as both for these types of provisions.

4- Third parties are the implementer.

5- Not applicable. Some regulatory provisions such as timeline does not directly require one or both parties to take action, therefore, no implementer is recorded for these cases.

type_general: A string variable that records the general category of a given provision, i.e., political, military, territorial, economic, judicial, or regulatory.

type_general2: A string variable that records whether a given provision introduces general reforms or guaranteed power sharing in one the five main issue areas, i.e., political, territorial, military, economic, and judicial.

Process Level Data

pa_month: Peace agreement month

pa_year: Peace agreement year

inc_terr: A binary variable that records whether or not the main incompatibility in armed conflict was over territory as defined by UCDP.

intensity: A binary variable measuring the intensity of conflict, which is coded as “0” for minor conflicts in which 25-999 battle related deaths occurred and “1” for major wars in which 1000 or more battle occurred drawn from the UCDP dyadic dataset.

comprehensive: A binary variable measuring whether or not a given agreement is comprehensive as recorded by UCDP peace agreement dataset. Comprehensive agreements are agreements in which all the dyads in a conflict are included. By contrast, dyadic agreements exclude at least one of the warring parties in the conflict.

numberof_dyads: Number of dyads that are signatories to a given agreement.

processagg_count: Number of process agreements signed by the dyad preceding the final agreement

reaffrimagg_count: Number of reaffirming agreement signed by the dyad following the final agreement.

pp_start_month: Peace process start month

pp_start_year: Peace process start year

pp_end_month: Peace process end month

pp_end_year: Peace process end year.

Provisions on Military Issues

Guaranteed Military Power Sharing

Military Integration (integration_mil): Integration of rebel ex-combatants into existing armed forces (army, navy and air force) or formation of a new armed force with the integration of government and rebel forces.

Detailed: 1- Provision includes general statements about the integration of rebel and/or government troops without any details about the number of troops to be integrated and the modalities of integration.

2- Provision provides details about the integration process (timing and/or coordination) however does not specify the number of combatants to be integrated, only states that the qualified troops will be integrated.

3- Provision states the number of troops and officers to be integrated, and provides details on the modalities of implementation (stages, training etc.) and the establishment of command structure

Police Integration (integration_police): Integration of rebel forces into the existing national/local police structures or formation of a new police force with the integration of government and rebel forces

Detailed: 1- Provision states that the members of the rebel group will be integrated in to the police force without providing details about the number of troops to be integrated or modalities of integration.

2- Provision provides details about the modalities (i.e. general principles of integration) but does not provide the exact number of troops to be integrated into police force.

3- Provision provides the number of troops to be integrated and the details about the integration process.

Demobilization and Disarmament

Demobilization (demobilize): Provisions regarding demobilization of government and rebel forces. Examples include movement of troops back to peace time positions and/or military barracks, or cantonment camps.

Detailed: 1- Provision states that government and/or rebel troops will be demobilized but do not provide details as to the process and/or states that the identification of positions will be determined at a later time.

2- Provision provides details about the modalities such as the stages of demobilization or responsibility of each party OR the location of camps and barracks.

3- Provision cover each aspect of demobilization, modalities such as the stages/sequence of events, procedures to follow when there are violations, as well as a detailed plan of movement of forces and the locations of camps/barracks.

Disarmament (disarm): Provisions regarding the collection and storage of arms and ammunition that belongs to the parties.

Detailed: 1- Provision does not provide any detail about the procedure of collecting and storing arms. Provision only mentions a "total disarmament of all combatants" is required or states that the location of disposal will be determined later.

2- Provision establishes a procedure to surrender arms (at camp sites, and/or sequence of events OR surveillance of storage areas).

3- Provision includes both components, i.e., procedures of surrender and surveillance of storage areas, as well as provides further guidelines for handling / storing / categorizing arms and ammunition.

Provisions on Economic Issues

Guaranteed Economic Power Sharing

Economic Power Sharing (share_econ): Provisions regarding sharing natural resource revenues, and/or incorporation of rebel members as administrators of public corporations and/or direct transfer of budget for rebel-held areas or autonomous areas.

This provision captures direct sharing of economic resources, whereas “Economic Reform” provisions are about establishing funds for recovery and/or changing land tenure laws or other economic practices where there is not any direct transfer of economic resources to the rebel group members.

Detailed: 1- Provision states that budget transfer will be made without providing details on how budget/public enterprises will be shared, and/or provision states that revenues from natural resources will be shared without determining the modalities and/or the amount

2- Provision provides details about the allocation of budget/public corporations but does not specify exact amount of budget transfer and/or the names of public corporations to be shared/transferred.

3- Provision provides the exact details and the amount of budget transfer and/or lists the name of public corporations to be managed by the members of the rebel group and/or the details about how the revenue from natural resources will be shared.

Economic Reform

Economic Reform (reform_econ): Provisions regulating the land tenure systems, management of natural resources in general, and public corporations and/or provisions establishing specific domestic funds for post-conflict recovery, reconstruction and rehabilitation.

Detailed: 1- Provision states in general terms that there will be specific funds available, and/or bring certain reforms without providing modalities

2 - Provision states specific funds and the modalities for the use of the funds (eligibility, sectors). Provisions calling for a change in specific land tenure laws without providing details to the changes are also included in this category.

3- Provisions that call for a change in land reform and list the changes to be carried out, OR further provide details as to use of special funds.

Provisions on Political Issues

Guaranteed Political Power Sharing

Integration into government (integration_gov): Provisions regarding the integration of rebel group members into government and/or allocation of seats in the parliament.

Detailed: 1- Provision includes general statements about the integration of rebel group members without any details about the number of positions to be allocated or the modalities of the integration into the government

2- Provision provides details about the integration process, specify the number of number of rebel group members to be integrated, however, it does not provide details about which posts will be allocated.

3 - Provision state the number of rebel group members to be integrated, specify which posts will be allocated to the rebel groups, and provide details on the modalities of implementation.

Integration into civil administration (integration_civil): Integration of rebel group members into civilian administration structures as governors, administrators at sub-national units, ambassadors etc.

Detailed: 1- Provision includes general statements about the integration of rebel group members into civil service without any details about the number of positions to be allocated or the modalities of integration.

2- Provision provides details about the integration process, specify the number of number of rebel group members to be integrated into civil service, however, it does not provide details about which posts will be allocated.

3 - Provision states the number of rebel group members to be integrated, specify which posts will be allocated to the rebel groups, and provide details on the modalities of implementation.

Political Reforms

Political Party Reform (reform_party): Reform in regards to the legalization of political parties and/or arrangements for the legalization of rebel group as a political party

Detailed: 1- Provision states in general terms that reforms will be carried out to ease restrictions on political parties, or that the rebel group will be legalized as a political party without providing details about the modalities.

2 - Provision provides details about the modalities of the registration of rebel groups and other parties as political parties.

3- Provisions provides details about the modalities of the registration of rebel groups and other parties as political parties and includes details on the political party reform in general (registration, eligibility, financing etc.)

Electoral Reform (reform_electoral): Provisions introducing new electoral rules, or changes to eligibility to be elected as high ranking officials, or changes to rules for voter registration.

Detailed: 1- Provision states in general terms that reforms will be carried out to improve the electoral system and to introduce free and fair elections without any details about the modalities OR leaves the determination of the modalities to future.

2 - Provision provides details about the electoral reform at the national level, yet leaves some other issues, such as voter registration, sub-national election etc. to be determined later by a new commission or by transitional institutions.

3- Provisions provides details about the electoral reform at national, sub-nation and communal levels, includes details about voter registration, timetable for elections and eligibility rules.

Political Reform (reform_pol): General political reforms and/or constitutional amendments, introducing fundamental rights and freedoms, changing political system and structure etc.

Detailed: 1- Provision states in general terms that reforms will be carried out OR that discussions will be held to draft a new constitution, without providing any details about the modalities of implementing reforms.

2 - Provision provides details about the specific reforms to be carried out, such as improving the representation of minorities in state structures or more inclusive citizenship laws, yet leaves the determination of the modalities for other political reforms to a commission or to transitional institutions

3- Provision provides further details about political reforms, includes details of the new constitution or list the specific changes to the existing constitution.

Civil Reform (reform_civil): Provisions regarding new arrangements and/or improvement of civil administration, such as anti-corruption laws, and/or professionalization of civil administration, transparency measures, equal opportunity for employment etc.

Detailed: 1- Provision states in general terms that reforms will be carried out to improve civil administration without providing further details.

2 - Provision provides some details about the civil administration or establishes a commission to review and determine necessary reforms.

3- Provision provides details about the civil administration reform, lists the modalities of implementation and/or establishes a commission to oversee reforms.

Provisions on Territorial Arrangements

Guaranteed Territorial Power Sharing

Territorial Power Sharing (share_terr): Provisions establishing autonomous region for the rebel group and/or for an ethnic/religious group to govern a part the country.

Detailed: 1- Provision states that the rebel group and/or ethnic/religious minority groups will be given autonomous status without providing details about the areas of autonomy or the modalities of the implementation

2- Provision provides details about the areas of autonomy OR the division of powers between the national government and the autonomous authorities OR the modalities of the implementation.

3- Provision provides details about the areas of autonomy, the division of powers between the national government and the autonomous authorities, and the modalities of implementation such as the required laws and regulations to be amended and/or put in place to grant autonomy, commission to be established to oversee the decentralization at various levels etc.

Territorial Reform

Territorial Reform (reform_terr): Provisions regarding the local governance structures, administration of provinces/communes and/or decentralization of central government. This category captures general territorial reforms.

Detailed: 1- Provision states in general terms that new arrangements for local governance and sub-national structures will be put in place without specifying the details as to how these new arrangements will be carried out and/or states that the modalities will be determined later.

2- Provision states the new arrangements for local governance and sub-national structures, and provides details about the functions OR structure/composition.

3- Provision states the new arrangements for local and/or sub-national structures and the details about the functions and structure/composition. Provisions that directly identify a specific law to be amended and list the amendments are also included in this category.

Provisions on Judicial Issues

Amnesty (amnesty): Amnesty for all and/or parts of the society in relation to the crimes committed during the armed conflict

Detailed: 1 – Provision states general amnesty and/or withdrawal of cases against rebels without specifying crimes to be included and/or time frame/scope of the amnesty law.

This category also include provisions which state that the government will consider amnesty without actual commitment to passing an amnesty law.

2- The amnesty clause specifies the crimes to be included and/or excluded in the amnesty law (i.e. for crimes that are political and/or crimes that do not constitute to crimes against humanity) OR only states the scope of the amnesty law (covers crimes committed after a certain date)

3- The amnesty clause includes crimes to be covered, the time frame (when the law will be enacted) and the scope of amnesty law (covers crimes committed after a certain time), and other specific references to laws that will be amended and/or incorporated.

Prisoner Release (prisoner_release): Provisions regarding the release of prisoners by one or both parties.

Detailed: 1- Provision states in general terms that one or both parties will release prisoners without specifying the coverage or providing details about procedures or states that the details will be determined later.

2- Provision provides details about the release procedures OR coverage and/or the monitoring of prisoner release.

3- Provision provides details about the release procedures, coverage and/or the list of prisoners to be released, and the monitoring of prisoner release.

Judicial Reform (reform_judical): Provisions regarding the changes and improvements to justice system, representation of various ethnic/religious groups in legal profession, and establishment of new national and local courts.

Detailed: 1- Provision states in general terms that the independence of judiciary will be improved, OR that new judges will be appointed to improve representation of minorities, OR that a new commission will be established to review the justice system and plan necessary reforms

2- Provision provide details about the improvement of the independence of judiciary (such as abolition of military and/or special courts) OR list other reforms that are required to improve justice system

3- Provision provides details about the improvement of the independence of judiciary (such as abolition of military courts, or establishment of new independent courts), about the representation of minority groups in legal profession and other reforms required to improve judiciary system such the structure of national and local level courts, judicial training etc.

Regulatory/Administrative Provisions

Transitional Government (transitional_inst): Interim government/state structures established for a limited period of time until the elections are held or permanent structures are put in place.

Detailed: 1- Provision states in general terms that an interim government will be established without providing any details such as the composition and the structure of transitional institution and states that the modalities will be determined later

2- Provision provides details about the composition OR the structure of the transitional institutions, OR the modalities of implementation.

3- Provision provides details about the composition and the structure of the transitional institutions, roles of individual components and the modalities of implementation.

Military Commission (commission_mil): Joint commissions that are formed by parties. These commissions might have third party observer states and/or international organizations or in some cases might be chaired by a third party, however parties to the agreement are members to the commission. Military commissions include commissions that are tasked to oversee the military provisions of the agreement, such as ceasefire, establishment of demobilization camps, disarmament programs, and coordination between militaries.

Detailed: 1- Provision states that there will be a joint commission but does not specify composition of the commission (i.e. number of members and distribution among members) and does not specify functions/mandate and modalities (i.e. how the decisions will be made etc.).

2 - Provision specifies one or two of these characteristics (composition OR functions OR modalities)

3 - Provision specifies all main characteristics (composition, number of members, functions, modalities -i.e. how decisions will be made, where and how often the commission will meet).

Political Commission (commission_pol): Joint commissions that are formed by parties. These commissions might have third party observer states and/or international organizations or in some cases might be chaired by a third party, however parties to the agreement are members to the commission. Political commissions include commissions that are tasked to oversee implementation of the agreement and the progress in the peace process.

Detailed: 1- Provision states that there will be a joint commission but does not specify composition of the commission (i.e. number of members and distribution among members) and does not specify functions/mandate and modalities/rules of engagement (i.e. how the decisions will be made).

2 - Provision specifies one or two of these characteristics (composition OR functions OR modalities)

3 – Provision specifies all main characteristics (composition, number of members, functions, modalities -i.e. how decisions will be made, where and how often the commission will meet).

Election Commission (commission_elect): Provisions establishing a new electoral commission in order to organize elections and/or reform electoral laws. Electoral commissions can be national or international as well as be composed of independent third parties or parties to the agreement.

Detailed: 1- Provision mentions an electoral commission without specifying the composition, and the modalities. Examples include provisions stating that the parties agreed to form an election commission, and/or decided to restructure/reform existing commission.

2- Provision states one or two of the following characteristics, composition, functions/mandate or modalities.

3- Provision provides a detailed explanation of the composition, functions and the mandate of the commission (responsible for national and/or local elections etc.

Appendix II - Coding procedures

For all of the pre- and post-agreement years, graduate student researchers were hired by NSF Dissertation Improvement Grant No. (1424033) and Smith Richardson Foundation World Politics and Strategy Fellowship funds conducted searches using the Factiva database in order to identify provision implementation. Information from news articles about implementation events constitute the basis of the event-level coding.

For each peace process, the rebel group name and its variations were used in the search term. While the use of some group names are consistent (e.g., UNITA in Angola, EPL in Colombia, RENAMO in Mozambique or RUF in Sierra Leone), usage of others varied widely across news sources. The following examples explain the strategies employed to remedy this problem and ensure that all relevant events were captured.

The Chittagong Hill Tracts Peace Accord, between the government of Bangladesh and Parbattya Chhattagram Jana Sanghati Samiti/Shanti Bahini, to end the conflict over Chittagong Hill Tracts (CHT) districts was signed in December 1997. The following terms are used to gather information about the implementation of this agreement:

- 1) “Parbattya Chhattagram Jana Samhati Samiti “
- 2) “Parbatya Chhattagram Jana Sanghati Samity” (alternative spelling)
- 3) “Jana Samhati Samiti/Shanti Bahini”
- 4) “People's Solidarity Association”
- 5) “People's Solidarity Association/Peace Force”

- 6) “Shanti Bahini (Peace Force) rebels”
- 7) “Chittagong Hill Tracts.” Since this is a territorial conflict over the autonomy of the Chittagong Hill Tracts region, news articles refer to the region that was contested.

Another example is the General Framework Agreement for Peace in Bosnia and Herzegovina, which was signed in December 1995 between the government of Bosnia-Herzegovina and the Serbian Republic of Bosnia and Herzegovina. While the official name of the Serbian entity in Bosnia was “Republika Srpska” (the Serbian Republic) or alternatively “Serbian Republic of Bosnia,” as used in the UCDP Peace Agreement Dataset, these terms generate very few results since this name is not widely used in the media. Therefore, the following search terms were used.

- 1) “Bosnian Serbs”, filtered by the region of Bosnia and Herzegovina and source per year.
- 2) “Dayton Agreement”, filtered by the region Bosnia and Herzegovina and source per year.

Additionally, some conflicts attract a lot of media coverage, which generates an excessive amount of new articles to go through. For the widely covered conflicts, the news sources that returns the greatest number of articles was used. To give an example: A search for RENAMO returns 899 articles from all sources for 1993 in Factiva. In this case, the source with the most coverage (260 articles) was Reuters, thus the results were filtered to return the articles by Reuters only. This procedure is used one year at a time (different outlets may be used in different years over the course of a peace process). The reason for this is that one news agency might follow and report the conflict throughout the negotiation process but report less frequently once fighting has stopped. Therefore, for each year, the news agency reporting the developments in the country of

interest might change. To continue the same example, a search for RENAMO in Factiva for 1997 returns 238 articles from all sources, but only 63 of the articles are from Reuters, compared to 87 from the British Broadcasting Corporation (BBC). In this case, BBC articles served as the main source for the events in 1997. A comparison of the headlines from both sources for this example reveals that they tend to overlap in their coverage, which alleviates concerns of important events being missed.

While news articles yield disaggregated information at the event level, a valid concern still remains about media bias. There can be two types of biases that might affect the statistical analysis based on data generated by media-reporting. One is that the news agencies only cover important events that they deem news worthy but there might be a lot of progress being made in implementation that does not get media attention. The second is that the original local source used by the international news agencies might be biased. For some cases international news agencies rely on reports from a local source that may be state-owned news outlet, an independent radio, and/or local as well as regional agencies (e.g., the South African Press Association – SAPA). Some of these sources might have their own agenda and therefore might be biased in their reporting. State owned radio stations, for example, might try to put the blame on the rebel group for lack of progress or purposefully not cover progress made towards implementation by the rebel in order to cover up lack of progress on the government side. Alternatively, reports might exaggerate the progress made by the government. The data based on such reports, consequently, would systematically under or over report progress made one of the parties.

In order to address these biases two strategies were employed. First, I make use of United Nations Secretary General Reports presented to the Security Council. Secretary General submits reports to the Security Council on the issues raised in Security Council Resolutions. Some of these reports rely on the accounts of the Secretary General's Special Representative appointed as the head of a mediation team, peacekeeping, political and/or observer mission. These reports are often submitted 3 to 4 times each year. The reports present summaries of events on a range of issues from the implementation of agreements, the security situation, improvements in the situation of refugees, to a general overview of the mission's role and peace process. Initial screening of the UN Secretary General Reports for Cote d'Ivoire revealed that there is good overlap with the media coverage. Although these reports are only available for countries where there is a UN mission, the first-cut comparison between these reports and local media coverage suggests that concerns about the first type of bias might not be as severe as expected. Out of 35 countries in the dataset, 18 of them had a UN Mission deployed throughout the peace process. For the cases, where a UN report is not available, the following sources are being used to validate media-based event collection: Peace Accords Matrix Annual Summaries (<https://peaceaccords.nd.edu>), Conciliation Sources Accord Series (<http://www.c-r.org/accord>), International Crisis Group Reports, and Yearbook on Peace Processes by The School for a Culture of Peace. Cross-validation of events with these reports.

For the second type of bias, if a reference is made to a local source and/or state-owned media outlet, or when the news article cites a rebel group or the government as a source, multiple additional sources are tracked down to cross-check the event coding.

Appendix III - List of Agreements

Dyad Name	Peace Agreement Name	Date
Government of Angola - UNITA	The Bicesse Agreement	5/1991
Government of Angola - UNITA	The Lusaka Protocol	11/1994
Government of Angola - UNITA	Memorandum of Understanding or Memorandum of Intent	4/2002
Government of Burundi - Palipehutu	Arusha Peace and Reconciliation Agreement for Burundi	8/2000
Government of Burundi - CNDD	Arusha Peace and Reconciliation Agreement for Burundi	8/2000
Government of Burundi - Frolina	Arusha Peace and Reconciliation Agreement for Burundi	8/2000
Government of Burundi - CNDD–FDD	The Global Ceasefire agreement between Transitional Government and the Forces pour la defence de la democratie (CNDD-FDD) of Mr. Nkúrunziza	11/2003
Government of Burundi - Palipehutu–FNL	Comprehensive Ceasefire Agreement between the Government of Burundi and the Palipehutu-FNL	9/2006
Government of Burundi - Palipehutu–FNL	Declaration of the Summit of the Heads of State and Government of the Great Lakes region on the Burundi Peace Process	12/2008
Government of Chad - CSNPD	Bangui-2 Agreement	8/1994
Government of Chad - FNT	El Geneina agreement	10/1992
Government of Chad - FNT	National reconciliation agreement	10/1997
Government of Chad - MDD	The Dougia Accord	11/1995
Government of Chad - FARF	Donya agreement	5/1998
Government of Chad - MDJT	Tripoli 2 agreement	1/2002
Government of Chad - MDJT	Yebibou agreement 2005	8/2005
Government of the Comoros - MPA/Republic of Anjouan	The Famboni II Agreement	2/2001
Government of DR Congo (Zaire) - RCD	Inter-Congolese Political Negotiations - The Final Act	4/2003
Government of DR Congo (Zaire) - MLC	Inter-Congolese Political Negotiations - The Final Act	4/2003
Government of Djibouti - FRUD	Accord de paix et de la reconciliation nationale	12/1994
Government of Djibouti - FRUD – AD	Accord Cadre de Reforme et de Concorde Civile	2/2000
Government of Cote D'Ivoire - MPCJ	Linass-Marcoussis Peace Accords	1/2003
Government of Cote D'Ivoire - MPIGO	Linass-Marcoussis Peace Accords	1/2003
Government of Liberia - NPFL	Lomé Agreement	2/1991
Government of Liberia - NPFL	Cotonou Peace Agreement	7/1993

Government of Liberia - NPFL	Abuja Peace Agreement	8/1995
Government of Liberia - NPFL	Abuja II Peace Agreement	8/1996
Government of Liberia - INPFL	Lomé Agreement	2/1991
Government of Liberia - LURD	Accra Peace Agreement	8/2003
Government of Mali - MUFA	Pacte National	4/1992
Government of Mozambique - RENAMO	The Acordo Geral de Paz (AGP)	10/1992
Government of Niger - CRA	Accord e´tablissant une paix définitive entre le gouvernement de la republique du Niger et l’organisation de la résistance armée	4/1995
Government of Rwanda - FPR	Arusha Accords	8/1993
Government of Sierra Leone - RUF	Abidjan Peace Agreement	11/1996
Government of Sierra Leone - RUF	Lomé Peace Agreement	7/1999
Government of Sierra Leone - RUF	Supplement to the Lomé comprehensive peace agreement	11/2000
Government of Angola - FLEC–R	Memorandum of Understanding on Peace and National Reconciliation in Cabinda province	8/2006
Government of United Kingdom - IRA	The Good Friday Agreement	4/1998
Government of Bangladesh - JSS/SB	Chittagong Hill Tracts Peace Accord	12/1997
Government of El Salvador - FMLN	The Chapultepec Peace Agreement	1/1992
Government of Guatemala - URNG	The Agreement for a Firm and Lasting Peace	12/1996
Government of Cote D’Ivoire - MJP	Linas-Marcoussis Peace Accords	1/2003
Government of Philippines - MNLF	Mindanao Final Agreement	9/1996
Government of India - ATTF	Memorandum of Settlement - 23 August 1993	8/1993
Government of Bosnia-Herzegovina - Serbian Republic of Bosnia and Herzegovina	The General Framework Agreement for Peace in Bosnia and Herzegovina (the Dayton Agreement)	12/1995
Government of Croatia - Serbian Republic of Krajina	The Erdut Agreement	11/1995
Government of India - ABSU	Bodoland Autonomous Council Act, 1993	2/1993
Government of Papua New Guinea - BRA	Bougainville Peace Agreement	8/2001
Government of Macedonia (Former Yugoslav Republic of) - UCK	The Ohrid Agreement	8/2001
Government of Colombia - EPL	Acuerdo final Gobierno Nacional-Ejército Popular De Liberación	2/1991

Government of Indonesia - GAM	Memorandum of Understanding between the Government of the Republic of Indonesia and the Free Aceh Movement	8/2005
Government of Nepal - CPN-M	Comprehensive Peace Agreement, 2006	11/2006
Government of Liberia - MODEL	Accra Peace Agreement	8/2003
Government of Tajikistan - UTO	The Moscow Declaration - General agreement on the Establishment of Peace and National Accord in Tajikistan	6/1997
Government of Cambodia (Kampuchea) - KR	Agreement on a Comprehensive Political Settlement of the Cambodia Conflict "The Paris Agreement"	10/1991
Government of Cambodia (Kampuchea) - KPNLF	Agreement on a Comprehensive Political Settlement of the Cambodia Conflict "The Paris Agreement"	10/1991
Government of Cambodia (Kampuchea) - FUNCINPEC	Agreement on a Comprehensive Political Settlement of the Cambodia Conflict "The Paris Agreement"	10/1991
Government of Afghanistan - Hizb-i Islami-yi Afghanistan	Islamabad accord	3/1993
Government of Afghanistan - Hizb-i Wahdat	Islamabad accord	3/1993
Government of Uganda - UNRF II	Yumbe Peace Agreement	12/2002
Government of Cote D'Ivoire - FN	Ouagadougou Political Agreement	3/2007
Government of Chad - FUCD	Tripoli accord	12/2006
Government of South Africa - ANC	Interim Constitution	11/1993
Government of Sudan - SLM/A (MM)	Darfur Peace Agreement	5/2006
Government of Sudan - SPLM/A	Sudan Comprehensive Peace Agreement	1/2005
Government of Sudan - NDA	Agreement between the GoS and the NDA (Cairo Agreement)	6/2005
Government of DR Congo (Zaire) - CNDP	23 March 2009 Agreement	3/2009
Government of Philippines - MILF	Agreement on Peace between the government of the Republic of the Philippines and the Moro Islamic Liberation Front	6/2001
Government of Somalia - USC/SNA	Addis Ababa Agreement	3/1993
Government of Somalia - USC/SNA	Nairobi Declaration on National Reconciliation	3/1994
Government of Somalia - USC/SNA	The Cairo Declaration on Somalia	12/1997
Government of Somalia - ARS/UIC	Decision of the High Level Committee, Djibouti Agreement	11/2008

Government of Senegal - MFDC	Accord general de paix entre le gouvernement de la republique du Senegal el le Mouvement des forces democratique de la Casamace (MFDC)	12/2004
Government of Bosnia-Herzegovina - Croatian Republic of Bosnia and Herzegovina	The Washington Agreement	3/1994
Government of Congo - Ninjas	Accord de Cessez-le-Feu et de Cessation des Hostilités	12/1999
Government of Congo - Cocoyes	Accord de Cessez-le-Feu et de Cessation des Hostilités	12/1999
Government of Congo - Ntsiloulous	Accord de Cessez-le-Feu et de Cessation des Hostilités	12/1999
Government of Cote D'Ivoire - FN	Accra III	7/2004
Government of Cote D'Ivoire - FN	Pretoria Agreement on the Peace Process in Côte d'Ivoire	4/2005
Government of Afghanistan - Hizb-i Islami-yi Afghanistan	Mahipar agreement	5/1996

Appendix IV - Descriptive Statistics

Name	N	Mean	Std.Dev	Min.	Max.
Level of Implementation	74	0.529	0.313	0	1
Implementation (excl. Military Integration)	74	0.526	0.319	0	1
Implementation (excl. DD)	74	0.527	0.336	0	1
Military Power (30%)	74	1.527	2.4	0	9
Military Power (40%)	74	1.486	2.295	0	9
Military Power (50%)	74	1.432	2.178	0	9
Military Power (categorical)	74	0.541	0.725	0	2
Military Power (dummy)	74	0.405	0.494	0	1
Military Guarantees	74	0.932	1.038	0	3
Implementation of Military Guarantees	74	0.892	1.2	0	3
Active Commission	74	1.351	1.339	0	3
Negotiation (rounds)	74	6.824	7.39	1	36
Negotiation (total days)	74	50.514	75.563	1	468
Negotiation (days per provision)	74	4.585	5.399	0.133	27.529
Level of Demobilization/Disarmament	74	2.527	2.533	0	6
Pre-Agreement Aid (mean)*	74	880317094	1474000000	686252	7915000000
Post-Agreement Aid (mean)*	73	959320181	1538000000	48579649	7804000000
Total Aid Trend (ln)	73	0.207	0.588	-1.221	2.118
Third Party Presence - Pre-Agreement	74	0.669	0.389	0	1

Agreement (specificity - ratio)	65	0.649	0.146	0.222	1
Agreement (comprehensive)	74	0.541	0.502	0	1
Provision Count	74	9.135	4.377	2	17
Timeline	74	0.27	0.447	0	1
Guaranteed Power Sharing (ratio)	74	0.208	0.167	0	0.667
Total peacekeepers (mean)*	74	4988.677	8079.265	0	52582
Polity Score (mean)	72	1.299	4.407	-7	10
Infant Mortality Rate (mean)	74	87.755	39.631	5.33	170.75
Conflict (intensity)	74	0.27	0.447	0	1
Conflict (over territory)	74	0.203	0.405	0	1
Conflict (# of rebels)	74	1.838	0.907	1	4
Conflict (duration)	74	4.432	4.863	1	22
Country (GDP/per-capita, mean)	74	1135.64	3901.921	68.669	33466.024
Country (resource rents, mean)	74	20.692	20.765	0.635	82.091
Rebel Demobilization (continuing)	343	0.029	0.168	0	1
Rebel Demobilization (end)	343	0.254	0.436	0	1
Total peacekeepers*	343	4480.493	7204.449	0	52582
Infant Mortality Rate	343	74.817	38.359	4.9	171.2
Polity Score	329	2.082	4.697	-7	10
Country (resource rents)	343	18.58	19.624	0.063	83.432
Time	343	3.825	3.077	1	18
Rebel Military Integration (continuing)	343	0.248	0.721	0	3
Military Integration (continuing)	343	0.125	0.332	0	1
Rebel Military Integration (end)	343	0.23	0.594	0	3
Military Integration (ended)	343	0.155	0.362	0	1
Change in Aid (from Pre-Agg Level, ln)	337	-0.629	1.875	-13.439	2.185
Provision (specificity - categorical)	597	1.985	0.834	1	3
Provision (difficulty)	630	0.768	0.422	0	1
Provision (reform)	630	0.689	0.463	0	1
Implementer (Government)	630	0.738	0.44	0	1
*Natural log of these variables are used in the statistical analysis.					

Appendix V – Supplementary Analysis – External Costs of Non-Compliance

In this section I provide the results from a preliminary analysis looking at the external costs of non-compliance.

Hypothesis A1: The higher the levels of pre-agreement aid flows, the lower the level of implementation will be.

Hypothesis A2: The higher levels of post-agreement aid flows, the higher the level of implementation will be.

Data on the amount of aid flows comes from AidData (Tierney et al, 2011). I use the latest release of AidData, v.3.0, which includes over a 1.5 million development aid activities by 96 different donors (multilateral and bilateral) at the country-year level from 1947-2013. AidData includes OECD and non-OECD development aid and uses OECD Creditor Reporting System (CRS) sector codes to code sector information for non-OECD aid. The types of aid projects included in the dataset ranges from infrastructure, debt relief, health, education, and other social programs, as well as capacity building, humanitarian aid. Aid flows measure the total aid disbursements minus repayments for non-concessional loans and gives a better picture of total aid in a given year (Gutting and Steinward, 2015). The project level data records commitments, i.e. aid commitments made by donors. The actual disbursement data at the project level is argued to less reliable and that the researchers are generally advised to use dollar commitment values (Tierney et. al, 2011).

I create two variables, *Total Pre-Agreement Aid_i*, which is the mean value of total aid received during the negotiation stage. The second one is, *Total Post-Agreement Aid_i*, which is the mean value of total aid received during the implementation stage. I expect that the higher levels of pre-agreement aid to be negatively associated with the level of implementation, while the higher values of post-agreement aid to be positively related to the level of implementation. It should be noted that variance of inflation factor (vif) for Pre-Agreement and Post-Agreement aid variables are above

desired values (7.2 and 7.8 respectively) which points to multicollinearity problem. It is reasonable that the pre and post aid levels are correlated. Therefore, I also run a separate model with another variable that measure the difference between the pre-agreement and post-agreement levels, *Total Aid Trend*, i.e., *Total Post-Agreement Aid* minus *Total Pre-Agreement Aid*. Positive values represent an increase in the aid levels in the implementation stage, while negative values represent a decrease in total aid levels in the implementation stage. I expect that *Total Aid Trend* to be positively correlated with the aggregate level of implementation.

Appendix V Table 1

	Level of Implementation (1)	Level of Implementation (2)
Main Variables		
Military Power (30%)	0.050*** (0.030, 0.070)	0.051*** (0.031, 0.072)
Negotiation (total days, ln)	0.041** (0.001, 0.080)	0.046** (0.009, 0.083)
Pre-Agreement Aid (mean, ln)	-0.157** (-0.280, -0.033)	
Post-Agreement Aid (mean, ln)	0.183** (0.037, 0.329)	
Total Aid Trend (ln)		0.155** (0.031, 0.279)
Agreement Characteristics		
Agreement (comprehensive)	0.165*** (0.062, 0.268)	0.154*** (0.045, 0.262)
Controls		

Polity Score (mean)	0.018** (0.002, 0.035)	0.022*** (0.010, 0.034)
Country (GDP/per-capita, ln)	0.102*** (0.046, 0.159)	0.114*** (0.057, 0.171)
Country (resource rents, ln)	0.044 (-0.012, 0.100)	0.046 (-0.009, 0.101)
(Intercept)	-1.083* (-2.322, 0.155)	-0.654*** (-1.073, -0.236)
N	71	71
AIC	-3.964	-4.969
Adj R2	0.578	0.572
Significance Level (95% CI is in parentheses): * p < .1, ** p < .05, *** p < .01.		

Below table looks at the *Government Progress* and *Change in Aid Level* in a given year compared to the pre-agreement aid levels. The positive values of *Change in Aid* suggest that the level of aid in a given year was higher than the pre-agreement aid, and negative values suggest that the total aid received in a given year is less than the pre-agreement aid level. The expectation is that *Change in Aid* would be positively related to the level of implementation.

Appendix V Table 2

	Government Progress (main) (1)
Main Variables	
Negotiation (total days, ln)	0.039** (0.009, 0.070)
Change in Aid (from Pre-Agg. Level, ln)	0.017** (0.002, 0.033)

Controls	
Total peacekeepers (ln)	0.018*** (0.008, 0.028)
Polity Score	0.015*** (0.006, 0.023)
Infant Mortality Rate (ln)	-0.028 (-0.099, 0.042)
Country (resource rents, ln)	-0.013 (-0.057, 0.032)
Time	-0.049*** (-0.075, -0.023)
Time (squared)	0.002*** (0.001, 0.004)
(Intercept)	0.374** (0.065, 0.683)
N	314
AIC	66.722
Adj R2	0.236
Significance Level (95% CI is in parentheses): * p < .1, ** p < .05, *** p < .01.	

Above results provide preliminary support for hypothesized relation between external costs and level of implementation. However, further analysis is needed to account for alternative explanations, and selection issues regarding aid flows.

Donors are likely to use different types of aid for different purposes, ranging from developmental goals to buying political support or economic self- interest (Dreher, Nunnenkamp, & Thiele 2008, Gutting & Steinward 2015). A general distinction in the aid literature is program aid and project aid. Program aid includes “general budget support”, “development food aid”, “other commodity assistance” and “action related debt”. Several studies show that program aid is used to buy support (Dreher, Nunnenkamp, & Thiele 2008). This is the type of aid is delivered through government –to – government channels and mostly bilateral and political in nature. On

the other hand, project aid is aimed to improve social infrastructure such as education, health, water supply and sanitation, or economic infrastructure such as transportation, communications and banking systems. Project aid is likely to be driven by economic self-interest, i.e. Japanese aid provided to improve economic infrastructure, such as communication and energy systems, and production sectors in neighboring Asian countries with which Japan trades intensively (Dreher et. al. 2008) or by development goals. Donors with development goals when facing poorly governed recipient countries bypass government-to-government channels and deliver aid through NGOs and prefer project aid (Deithrich 2013).

The implementation process can also be financially demanding. Some provisions refer to restoration of full range of public services, such as water, electricity, telecommunications and roads and other services provided by the state, such as 1993 Arusha Accord or 1996 Chapultepec Peace Agreement. Some require mobilization of internal and external sources to meet the needs of post-war reconstruction especially most affected areas to improve quality of life, Abidjan Peace Agreement, Sierra Leone, 1996. Establishment of new electoral system, transfer of funds and electoral assistance for new political parties, training and integration of former combatants to the new army, establishment of cantonment camps, or new police and military structures are some examples that require substantial financial resources to implement.

Therefore development aid can influence implementation of peace agreements through increasing capabilities of the government and providing necessary funds to put these reforms in practice, as opposed to being a peace-dividend and making non-

compliance more costly. This alternative mechanism assumes that the government has the political will to implement the agreement, yet lacks the resources to do so. Therefore, increase in aid would lead to increased levels of implementation by improving state capabilities. In this sense, disaggregation of aid types might help to determine various mechanism through which aid can influence actor incentives in the post-conflict period and to account for alternative explanations

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