Mediating post-Civil War Peace: Third Parties in the Design and Implementation of Civil War Peace Settlements[*]

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Abstract

The durability of peace following civil wars, particularly when mediated peace agreements are involved, remains a contentious topic in existing scholarship. This article develops an integrative framework that engages both the agreement design and implementation stages in the civil war peace process. Especially, it examines the effect of third-party mediation on the durability of peace agreement through these two stages. We argue that the presence of third-party mediation in both stages helps to resolve future uncertainty and fear resulting from the "commitment problem" among war combatants, and thus making peace agreements more durable. Leveraging compiled data that capture mediation dynamics in both agreement design and implementation stages and a case study of Free Aceh Movement in Indonesian, we find that peace agreements both designed and implemented by international mediator(s) are more likely to sustain durable peace after civil wars. Our study demonstrates the importance of the continuity of third-party conflict management in civil war peace processes.

Key words: peace agreement; mediation; civil war; post-conflict peace

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1. Introduction

The widespread occurrence of civil wars in Afghanistan, Iraq, Libya, and Syria, and the difficulties surrounding their resolution have made the adoption of more effective policies an important concern for the international community. Unlike interstate wars, however, civil wars are more likely to experience a recurrence of conflict (Mason, Gurses, Brandt et al. 2011; Quinn, Mason, and Gurses 2007), posing enormous challenges to civilian protection and sustainable peace. Peace agreements serve as an important instrument to break "conflict traps" (Collier et al. 2003). Although the number of peace agreements designed to end civil wars in the post-Cold War era has increased exponentially compared to the entire Cold War period (Badran 2014)[1], almost a third of them have failed to secure peace in the aftermath of war (Walter 2009, 256). For example, in Rwanda, Sierra Leone, Sri Lanka, and twice in Angola, the failure to get warring parties to live up to their peace agreements not only restarted armed conflict, it also escalated the violence. Specifically, the breakdown of the 1994 Arusha Accords in Rwanda led to a genocide of some 800,000 people, approximately fifty times more deaths than had occurred in the 1990-1993 civil war. By contrast, the peace agreements in 1992 ending the civil war in El Salvador, and the agreement in 2005 ending the civil war between Indonesia government and the Aceh-Sumatra National Liberation Front (ASNLF, also called the Free Aceh movement) still endure. *Why do some civil war settlements break down within months whereas others produce a lasting peace?*

While existing studies have pointed out that the breakdown of negotiated settlements may result from flawed design, or incomplete implementation, or a combination of the two, or other factors such as lack of public support (Badran 2014; Findley 2013; Jarstad and Nilsson 2008; Karreth, Tir, Quinn et al. 2024; Loizides, Psaltis, Morgan-Jones et al. 2022; Tellez 2019), most of them have rarely addressed the connections between the *design* and the *implementation* of civil war settlements and the durability of postwar peace. One particular obstacle, as noted

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[1] Throughout this paper, we use the "agreement" and "settlement" interchangeably, though there are differences between them. Generally, settlement and agreement essentially refer to a similar war outcome which involves negotiation and cooperative relationship. Settlement is broader term than agreement in the civil war literature. However, since we use the UCDP agreement dataset in this project, there is only minimal difference between them for empirical analysis.

by Clayton and Dorussen (2022, 163), is that "mediation that continues post-conflict is only rarely recorded and often remains largely informal." In this paper, we develop an integrative analytical framework that combines agreement design in wartime periods with its implementation in postwar periods to explain variations in postwar peace durability. We focus on the design-implementation nexus to investigate how the "commitment problem" can be resolved and peace can be sustained in the presence of third-party mediation. Generally, by providing a reliable channel of information between disputants, mediation can mitigate these commitment problems (Beardsley, Cunningham, and White 2019; Prorok and Cil 2022). Because the rebels are usually vulnerable in a negotiated settlement, they must ponder the state's willingness and ability to provide adequate security upon demobilization. After all, the state was not able to fend off the rebellion in the first place. However, once demobilization has begun, the rebels lose their ability to fight against the state. If the signed agreement cannot be put into practice once war recurred, the rebels have lost some ability to fight. This concern of the rebels influences their commitment to the peace process in the peace agreement design stage of the process (Joshi and Mason 2011; Mattes and Savun 2009; Walter 2009). We further show that the presence of mediation can allay suspicion and mistrust that comes in the implementation stage (McCulloch and McEvoy 2018).

To test this argument, we compile data that encompass every peace agreement signed after the cessation of a civil war in the years between 1989 and 2011 from a set of sources including the UCDP Peace Agreement Dataset (Harbom, Högbladh, and Wallensteen 2006), the Civil War Mediation (CWM) dataset (DeRouen, Bercovitch, and Pospieszna 2011), and the Power-Sharing Event Dataset (PSED) (Ottmann and Vüllers 2015).[2] Using a series of Cox Proportional models, we find that the effect of mediation on postwar peace durability is conditional upon the stages of the peace process. More specifically, mediated designed peace agreements with mediated implementation are more likely to sustain lasting peace. The results also indicate that not all implementation of power-sharing pacts, as promised in the design stage, can produce

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[2]While there are other alternative datasets on the implementation of peace agreements following civil wars such as Implementation of Peace Agreements Dataset (IPAD) by Prorok and Cil (2022) and the Peace Accords Matrix Implementation Data Set by Joshi, Quinn, and Regan (2015), the PSED recorded more number of peace agreements in terms of their implementation. Other datasets such as the Peace Negotiations in Civil Conflicts (PNCC)(Arı 2023) and PA-X (Bell and Badanjak 2019) neither record information on implementation nor mediation, making them less favorable for our analysis.

pacifying effects given the fact that implementing certain types of power-sharing pacts may disrupt peace settlements. We also offer a case study of Free Aceh Movement in Indonesian that helps illustrate the key logic of our argument. Together, our study contributes to the recent scholarship that treats postwar peace as a dynamic social process in which wartime and postwar third-party involvement can shape the prospect of peace process (Bakaki and Mehrl 2021; Chen and Beardsley 2021; Joshi, Melander, and Quinn 2017; Shesterinina 2022).

This article proceeds as follows: in the next section we briefly review previous research on how peace settlements and mediation influence the durability of peace in the aftermath of civil wars. We also lay out our explanatory framework by integrating settlement design and implementation as two interdependent stages of a peace process and state our major hypotheses. We then introduce our research design and methodology employed to test our hypotheses. Lastly, we report our statistical results and conclude the article.

2.   Civil War Peace Settlements and Durability of Peace

The growing body of scholarly work on civil war settlements has explored obstacles to postwar peace, such as security problems (Hartzell, Hoddie, and Rothchild 2001), asymmetric information (Mattes and Savun 2009), distributional problems (Fearon 1998), and governance problems (Lake and Rothchild 2005). In general, each of these approaches addresses the central issue in the recurrence of civil wars—-the "commitment problem." As a result, most research is essentially about the types of peace provisions should be included in the settlements during the design stage and how to implement those provisions once peace settlements take effective.

The dominant approach, the "constitutive school" (Arnault 2006), relates the duration of peace in the aftermath of civil wars to the substance and design quality of the peace agreement. According to the "constitutive school" perspective, a "well designed" settlement that successfully resolves the commitment problem will produce durable peace whereas a "badly designed" settlement will result in delays, setbacks, or even the collapse of the peace process (Arnault 2006; Mattes and Savun 2010; Williams, Gustafson, Gent et al. 2021). Proponents of the "constitutive school" argue that certain dimensions of power-sharing provisions designed in negotiated set-

tlements create stronger incentives for protagonists to sustain the peace rather than to resume armed conflict. For example, Badran (2014) found that agreements carefully designed to deal with all obstacles to cooperation have the strongest pacifying effects to institutionalize and legalize peace. However, these studies are more concerned with which kind of peace agreement design is better than the other; they overlook the extent to which these power-sharing provisions were implemented. It is not possible to assess whether it is the design quality of a settlement that makes peace more likely to prevail, or whether the implementation of such a settlement increases the peace duration. As Findley (2013) argued, peace emerges out of a process that was comprised of battle, negotiation, agreement and implementation. Consequently, another approach, the "instrumental school," urges the shift from a focus on the design of peace agreement to its implementation (Jarstad and Nilsson 2008).

In contrast, from the perspective of the "instrumental school," implementation is as much a peace-building process as a result of normalizing political relations among rival groups, resolving issues of commitment, and even addressing the root causes of internal conflict (Joshi and Quinn 2015, 2017; Joshi, Quinn, and Regan 2015). In other words, commitment and other problem will still exist during the implementation stages. The signing of negotiated settlements is only the first step toward peace and only after complete implementation of provisions can the commitment problem be completely resolved and peace be sustained. Related scholars stress issues that prevent the translation of the words of an agreement from being deeds in the implementation process, such as implementation costs, state capacity, postwar political and economic development, and so on (Arnault 2006; Jarstad and Nilsson 2008). It is even noted in Joshi and Quinn (2017)'s study that not only the implementation of the agreement itself but also the order in implementing different provisions within the agreement can shape postwar peace building.

However, the two approaches generally ignore this interdependent nature of peace agreement and implementation. As a result, we still know little about which stage of the peace process is the most influential than the other. Particularly, we still do not know whether the breakdown of peace is because of flawed designs or the incomplete implementations of such an agreement.

Sometimes, even a good quality peace agreement may not be implemented and thus leads to the breakdown of the peace agreement. Yet we have seen that some flawed agreements have been successfully implemented and, surprisingly, lasted for a long time. Therefore, the design and implementation of a peace agreement should not be treated separately, and the nexus between them is essential to understanding why some peace agreements have failed while others have succeeded. A complete picture of how peace agreements sustain peace in the post-conflict period should integrate both the agreement design and implementation stages. In light of this two approaches, recent studies tend to focus on how the presence of third-party conflict management can help better resolve the commitment problem both during and after civil wars (e.g., Beardsley, Cunningham, and White 2019; Doyle and Sambanis 2000; Findley 2013; Mattes and Savun 2009; Quinn, Mason, and Gurses 2007; Sambanis and Doyle 2007).

For example, some studies postulate that, in the absence of third-party guarantees, peace agreements are prone to failure, as participants themselves are unable to design an agreement that mitigates their security concerns (Chen and Beardsley 2021; Walter 2002, 2004). Matanock (2020) suggests that the incorporation of a third-party into the negotiation process enables effective monitoring and incentive structures. Moreover, the presence of a third-party as monitor during the implementation phase, such as a UN peacekeeping force, could potentially bolster the establishment of peace in the aftermath of civil wars (Beardsley, Cunningham, and White 2019; DeRouen Jr and Chowdhury 2018).[3]

Nevertheless, the role of third-party mediation in the peace process has often been obscured to a point where most studies ignore the distinctions between 1) self designed and mediated designed agreements in the design stage; as well as 2) self implementation and mediated implementation of peace agreements in the implementation stage. Furthermore, existing research often fails to account for the effects of the prior stage in the peace process on subsequent implementation (Joshi, Melander, and Quinn 2017). As a matter of fact, many peace agreements are witnessed by, or assisted with, mediator(s), yet existing research rarely brings the mediation

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[3]Mediation and peacekeeping can be complementary and reinforce each other in peace processes, although they are seen as distinct tools for conflict management (Clayton and Dorussen 2022).

literature into civil war agreement studies (Lounsbery and DeRouen Jr 2018). Thus, they fail to identify how different agreement designs by different actors (mediators or the war combatants) may have a significant influence on the implementation of peace agreements which in turn affects the durability of peace.

In summary, while existing studies have stressed the role of a third-party in the settlement enforcement process, most of them have not seen the nexus between settlement design and implementation advanced by third-party mediators. Moreover, the role of third-party mediation has been generally underestimated, if not completely ignored. On the other hand, civil war recurrence literature exclusively emphasizes the security guarantor role played by a third-party (mostly, UN peacekeeping forces) while ignoring the important role a mediator can play. Thus, it is quite clear that there is a disconnect between the intersecting roles of agreement design, implementation and mediation in the literature.

3. An Explanatory Framework of Peace Durability via Third-party Involvement

The "commitment problem" is essential to understanding civil war recurrence and the role of third-party mediation. During the disarming and demobilizing phase each side knows that it would be better off with a "sucker" outcome: induce your rival to disarm while you covertly retain enough military capability to annihilate them once they are disarmed. Since both sides have this incentive and both sides know, as Walter (2002, 34-37) points out, "their rival has the same incentive, neither can trust their rival's commitment to disarm and demobilize under the terms of the settlement." This dynamic can lead to the re-emergence of conflict, spurred by a variety of triggers, including unanticipated attacks to circumvent early warnings, preemptive strikes borne out of non-compliance concerns, or retributive assaults when there are perceived changes in the terms of the agreement (Fortna 2008, 82-85). The credible "commitment problem" is inherent in both the design and implementation of agreement stages and cannot be resolved completely by the combatants themselves in either stage. Instead, it can "arise or continue

into the implementation phase based on rebels' fear of government reneging and/or government apprehension to cede power" (DeRouen and Chowdhury 2013, 2).

In this paper, we argue that the presence of a third-party mediator can help to overcome this problem by providing "private information" about actor's strength, resolve, and preferences to the opponent, and thereby reducing fear and uncertainty in the subsequent implementation stage. Consequently, the active involvement of a third-party mediator in both design and implementation can be the most effective pathway to an enduring post-civil war peace. We contend that mediation can serve as the nexus between design and implementation and thus help combatants be more likely to resolve any commitment problems. A carefully designed agreement is not necessarily a sufficient condition for durable peace after a civil war ends. Instead, a complete implementation of such an agreement is also crucial. Our main argument is summarized in Table 1.

Table 1. A Typology of Peace Process and Peace Durability

| | | **Design** | |
		Self Design	Mediated Design
	Self Implementation	Recurrence	Suboptimal
Implementation			
	Mediated Implementation	Suboptimal	Enduring Peace

Firstly, a peace agreement can be designed either by combatants themselves (i.e., *self designed*) or by a third-party mediator (i.e., *mediated designed*). From the rationalist perspective, the quality of an agreement design depends on how the commitment problem is addressed. The involvement of a third-party mediation in the bargaining process is more likely to resolve the commitment problem (Beardsley, Cunningham, and White 2019; Karreth, Tir, Quinn et al. 2024). Since a "good" agreement is supposed to address the credible commitment problem facing

combatants that is thought to more likely result in the recurrence of civil wars, the presence of a third-party mediator can help mitigate this problem. For instance, the mediator can help signal the actor's strength, resolve, and preferences to the opponent and can help identify a mutually acceptable solution to their disagreement, and make a credible commitment to this position without post-conflict vulnerability (DeRouen and Chowdhury 2013). The mediator can also employ a formative strategy to transmit information on the preferences of adversaries, and thus increase the propensity for both sides to accept a negotiated outcome (Asal, Quinn, Wilkenfeld et al. 2007). As a result, that civil wars are more likely to end in peace agreements when third-party mediation involved (DeRouen Jr and Chowdhury 2018). On the other hand, mediation allows the parties to make credible commitments to peace so that each side can have confidence that the other side will live up to its promise during the implementation process (DeRouen and Chowdhury 2013). However, the signing of peace agreement with the help of third-party mediators does not necessarily transit into lasting post-war peace if mediator's influence started to wane and the combatants' demands changed (Beardsley 2008). Previous studies have indicated that mediation often suffers from the "time inconsistency" problem which means mediation can help end civil war effectively in the short run but cannot sustain enduring peace in the long run (Beardsley 2008; Quinn, Wilkenfeld, Eralp et al. 2013).

Therefore, it is crucial for mediators to continue their influence into the implementation phase. One avenue for mediators is to help design more acceptable political or military power-sharing provisions in the negotiation and convey information about the costs and benefits of the implementation of that kind of agreement. In doing so, as Mattes and Savun (2009) and Hoddie and Hartzell (2003) find, mediated settlements are expected to be more likely to sustain peace after a civil war ends. Chen and Beardsley (2021) argue that continuous third-party involvement (including peacekeeping and mediation) from wartime to post-conflict period is more likely to enhance the peace process because such continuous third parities tend to have better local information and can better signal their commitment to post-conflict peacebuilding to the international community. Thus, the traditional categorical approach to mediation effectiveness may

suffer from some shortcomings such as "capability leverage" (Karreth, Tir, Quinn et al. 2024). That is why many studies often produce inconclusive results regarding the role of mediation.

Secondly and more importantly, mediation can also help address the three types of weakness in the implementation process as argued by the instrumental approach, though the role of a mediator in the implementation stages has been somewhat overlooked by recent quantitative studies (DeRouen and Chowdhury 2013). Often, negotiated settlements are discouraged before or during the implementation stage due to the lack of state capacity to sustain the agreement, leaving them just a "scrap of paper"(Arnault 2006; DeRouen, Ferguson, Norton et al. 2010; Fortna 2003). For instance, DeRouen, Ferguson, Norton et al. (2010) examined fourteen peace agreements in depth and found that the level of state capacity was highly related to the success of implementation as well as the durability of peace in the aftermath of civil wars. In the context of weak state capacity, mediation can assist in establishing more realistic benchmarks for implementation; and, usually, more detailed procedures to monitor compliance (Arnault 2006).

Moreover, mediation is often viewed as a kind of international support that is necessary for weak states to implement an agreement. As Kirschner and Von Stein (2009) find, implementation is more likely as international support increases. This is because international support, such as mediation, often helps mitigate commitment problems, generates audience costs, and provides the contingency of aid on implementation. Quinn, Mason, and Gurses (2007) also find that if agreements are supported by peacekeeping forces, they are more likely to foster peace after civil wars. With regard to pressures deriving from the political context, as Arnault (2006) argues, mediation will prod the combatants to reach a joint understanding of the overall political situation to recommit them to protecting the "middle ground" contained in the agreement and to chart a course that enables them to manage dissatisfied constituencies while maintaining the broad terms of the agreement. As for the unmet vital concerns, mediation requires engaging urgently the parties in full-fledged negotiations over potential remedies that can be found to satisfy these concerns. Finally, the continuous third-party mediation can signal a long-run involvement and

commitment that can increase the expectation of both warring parties about future investment and assistance in the aftermath of conflict from international community (Karreth, Tir, Quinn et al. 2024). This expectation due to the presence of mediators in the implementation stage is also crucial to resolve the commitment problem in post-conflict peace process (Chen and Beardsley 2021).

From the discussion above, we view mediation as a nexus between the agreement design and implementation stages. Mediators in civil wars can help combatants reach a mutually acceptable settlement by reducing the credible commitment problems, providing reliable information about both parties' resolve and strengths in designing of peace agreement. Moreover, they can also provide support in the implementation of a peace agreement. In doing so, mediators can better understand the demands and concerns of both combatants and thus design a specific agreement to address the barriers to enduring peace. In the implementation process, mediators are willing to provide international support to monitor the process due to large international and domestic audience costs. Similarly, compared to a self-designed agreement, mediation also involves international costs for all the actors that create costly commitments. Hence actors are more willing to implement the provisions. Thus, we propose the following hypothesis:

Hypothesis: Peace agreements with mediator(s) involved in the design and implementation stages are more likely to sustain peace in the aftermath of civil wars.

4. Research Design

4.1. Data and Dependent Variable

The dataset in this project is mainly drawn from the collection of datasets in the Uppsala Conflict Data Program (UCDP) (Gleditsch, Wallensteen, Eriksson et al. 2002). However, none of these datasets include comprehensive information about the content and implementation of peace agreements, as well as third-party mediation. To better design our research, we therefore use several supplemental data to compile our own observations. The main three data sources are

the UCDP Peace Agreement Dataset (Pettersson, Högbladh, and Öberg 2019), the Civil War Mediation (CWM) dataset (DeRouen, Bercovitch, and Pospieszna 2011), and the Power-Sharing Event Dataset (PSED) (Ottmann and Vüllers 2015). There are 79 peace agreements in the PSED signed between warring parties in civil wars in the post-Cold War era from 1989 to 2011. The PSED dataset provides two formats for analysis. One is the peace agreement in the post-conflict period as the unit of analysis and the other is the government-rebel dyad as the unit of analysis. We use the former in this project since we include a duration model. Since we employ a time-varying model where variables are measured from the date on which the peace agreement was signed until violence takes place, or the observation period ends, there are multiple observations for most of the 79 peace agreements which gives a total sample of 353 observations. Among the 79 peace agreement, 32 broke down in a five-year period.

A peace agreement is defined as an agreement that "should address the problem of the incompatibility, either by settling all or part of it, or by clearly outlining a process for how the warring parties plan to regulate the incompatibility. All peace agreements, which concern, manage or regulate, the stated incompatibility are brought into the list of peace agreements" (Harbom, Högbladh, and Wallensteen 2006). According to the UCDP, civil war is defined as a contested incompatibility over either government or territory between the government and (at least one) rebel group, where the use of armed force has resulted in 25 battle-related deaths or more, in at least one year (Harbom, Högbladh, and Wallensteen 2006).

The dependent variable is the *Durability of the Peace Agreement*, enabling us to examine the effect of negotiated settlement on the duration of peace after the civil war ends. It should be noted that the post-conflict peace duration ends when violence recurs, demonstrating that at least one party has walked away from the treaty or a new treaty has been signed (Walter 2002, 2004). Therefore, we equate the breakdown of a peace agreement with the recurrence of civil war, though in practice some peace agreements are replaced with new/supplemental agreements. In our dataset, we exclude these cases. We use the number of days the agreement was in effect

(or until its breakdown), or as of January 1, 2011.[4] In some cases, the exact day the agreement ended is unknown. In such cases, we use the last month of the year.

4.2. Independent Variables

In this research, we are especially interested in whether our 2×2 typology of the peace process can shed new light on the study of the durability of peace agreement in civil wars by linking mediation with the agreement design and implementation. The CWM adopts Bercovitch et al's definition of *mediation* as "a process of conflict management where disputants seek the assistance of, or accept an offer of help from, an individual, group, or state, or organization to settle their conflict or resolve their differences without resorting to physical force or invoking the authority of law" (Bercovitch, Kremenyuk, and Zartman 2008, 343). Following DeRouen, Bercovitch, and Pospieszna (2011), we create a dummy variable *Mediated design* to measure whether the agreement is reached with the help of third-party mediation and assigned value "1" if so; otherwise we code as "0 ," indicating a "self designed agreement". Likewise, the dummy variable *Mediated implementation* is measured as whether the peace agreement has been put into place assisted by a third-party mediator(s). We expect that peace agreements designed by mediation are more likely to be implemented and thus more durable. Thus, by interacting these two binary variables, we obtain four types of peace-processes in our models.

Although we argue that *the quality of mediation* is also essential for the postwar peace durability, there is not a satisfactory way to measure it. Given that the main role of mediation in the design and implementation stages is to help warring parties make credible commitment and honor it when putting the agreement into practice, an indirect way to examine the quality of mediation is to look at whether mediators help warring parties reach substantive power-sharing provisions and the extent to which they are implemented. We theorize the design and implementation stages as being interdependent in nature. Therefore, unlike existing research, we try to

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[4]Since a duration model is used in this research, January 1, 2011 is the cut-off for right-censored purpose. In addition, January 1, 2011 is also the release date of the Peace Agreement dataset. For those ongoing wars in 2006, this is also a five-year observation period. If the exact date is missing, we use the last day of the corresponding month or the last month of the corresponding year.

measure the mediated design-implementation nexus together rather than separately by examining whether a certain power-sharing provision is promised and whether it has been implemented. As such, we can overcome the shortcomings in previous studies that treat agreement design and implementation as two separate processes. We create four groups of dummy variables to measure whether certain power-sharing pacts promised in the design stage are implemented in the peace process.

First, the variable, *Promise of Political Power-sharing*, is coded as "1" when a rebel group was promised senior or non-senior cabinet positions; otherwise as "0." *Implementation of Political Power-sharing* takes the value of "1" when there was a change in the senior or non-senior cabinet of the national government involving rebels; otherwise as "0." Similarly, *Promise of Military Power-sharing* takes the value of "1" when a rebel group is promised integration into the national army command or a rebel group is promised integration of rebel fighters into the national army, police or a paramilitary force; otherwise as "0." Likewise, *Implementation of Military Power-sharing* is coded as "1" when a rebel representative had been integrated into the national army command or rebel fighters had been integrated the national army, police or a paramilitary force; otherwise as "0."

Likewise, the variable, *Promise of Economic Power-sharing*, measures whether a rebel group was promised state-owned companies or a rebel group was promised positions in a resource commission. *Implementation of Economic Power-sharing* is coded as "1" when rebel representatives had taken over state-owned companies or their representatives had taken up positions in a commission regulating certain resources or sectors of the country's economy. Otherwise, these two are coded as "0." Finally, *Promise of Territorial Power-sharing* measures whether a law or government decree was promised which introduced devolution or autonomy and it is coded "1" if so. Likewise, *Implementation of Territorial Power-sharing* is coded as "1" if a law or government decree introduced devolution or autonomy had been passed; otherwise as "0." Data on these variables are from PSED.

However, not every peace agreement is the result of third-party mediation. Combatants

in civil wars can also reach agreements by themselves. Because mediation is costly, combatants may be reluctant to request third-party mediation if they can design some strategies to solve their dispute (Beardsley 2011, 2006). After all, the introduction of a third-party mediator may also weaken their autonomy and internationalize the conflict. Thus, many civil wars combatants, especially governments, are worried that rebel groups may take advantage of mediation to acquire international recognition. In this sense, mediators may be self-selected into mediation process, resulting in a nonrandom process of mediation design and implementation. We thus control for some additional covariates that are likely to affect both the mediation and conflict recurrence.

First, Quinn, Mason, and Gurses (2007) find that the duration of conflict will affect postwar stability. They argue that the longer the previous civil war lasted, the less likely civil war is to recur because both sides in the civil wars have known the opposition's resolve and the costs of continued fighting. In this sense, they are less likely to engage in war again. Thus, we create a continuous variable *Conflict Duration* to measure how long the war lasted in days. Following Ottmann and Vüllers (2015), we also include *Conflict Intensity* and assign the value of "1" when the civil conflict dyad between government forces and the rebel group includes at least one calendar year with more than 1000 battle-related deaths. We expect that more intense conflicts harden the frontlines between the conflict parties, resulting in more protracted post-conflict situations (Ottmann and Vüllers 2015). Furthermore, we create a dummy variable *Multiple Rebel Signatories* to measure whether a peace agreement was signed by more than one rebel group and take the value of "1" if so. Finally, we control for the *presence of UN peacekeepers* in the peace process to distinguish between the effects from mediation in both stages (Beardsley, Cunningham, and White 2019; Clayton and Dorussen 2022). The data for this variable are from the replication data of Ottmann and Vüllers (2015).[5]

We use the Cox proportional hazards (PH) model (Cox 1972) [6] to test the above hypothesis.[7] In case the assumptions are unmet, as Box-Steffensmeier and Zorn (2002) suggest, we

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[5]Table A1 summarizes these variables.

[6]Since there are no strong theoretical reasons for expecting the hazard rate to take on a specific function, we employ a Cox proportional hazard model instead of a parametric model such as the Weibull.

[7]For robustness check, we transformed our data into time-series-cross-sectional formate and conduced a binary Logit analysis when

include an interaction term of those time-varying covariates with the logarithm of time.[8] Given the nature of the repeated measurement in our data, we account for the dependence within correlated observations by clustering the standard errors on peace agreement (Box-Steffensmeier, De Boef, and Joyce 2007).

5. Results and Discussions

5.1. Main Findings

Coefficient estimates from the Cox proportional hazards model reveal information regarding the hazard rate. As such, positive coefficients imply the hazard is increasing, or "rising," with change in the covariate, and negatively signed coefficients imply the hazard is decreasing or "falling" with change in the covariate. Hence, positive coefficients imply shorter survival times while negative coefficients imply longer survival times. Or to put it differently, a ratio above one indicates an increase in the risk that peace fails, while a value below one decreases the risk that peace fails. Table 2 reports the Cox PH estimating results where we control for one of the four mediation design/implementation combinations. In Model 1, we only include *mediated design* while in Model 2, we only include *mediated implementation*. Model 3 examines the effect of *mediated design* when controlling for the effect of *mediated implementation*, and Model 4 examines the conditional effects of the *mediated design* and *mediated implementation*.[9]

In Table 2, neither *mediated design* nor *mediated implementation* shows significant influence on the postwar peace durability in Models 1-2, though their hazard ratios are below one, suggesting peace agreements whether designed or implemented under the help of mediators tend to sustain longer peace. Given statistical insignificance, however, this inference needs further closer scrutiny. In Model 3, when I control for *mediated design*, the effect of *mediated implementation* is still insignificant. Based upon the results of Models 1-3, it is reasonable to infer whether there is a *conditional effect* between *mediated design* and *mediated implementation*. Therefore, we in-

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controlling potential temporal and space dependence. The result on the interaction term is still holding up (see appendix Table A2).

[8]Note that the global test of the proportional hazards (PH) assumption and the Kaplan-Meier test on each variable suggest that the PH assumption is met.

[9]We plot the cumulative baseline hazards in Figure A1 in the appendix.

Table 2. Cox PH Results: Mediated-Design and Mediated-Implementation and the Durability of Peace

	Model 1	Model 2	Model 3	Model 4
Mediated Design	0.788		0.638	8.155***
	(0.352)		(0.736)	(4.938)
Mediated Implementation		0.886	1.272	4.020*
		(0.347)	(1.336)	(3.238)
Mediated Design × Mediated Implementation				0.020***
				(0.021)
Conflict Duration	0.999*	0.999*	0.999	0.999*
	(0.000)	(0.000)	(0.000)	(0.000)
Conflict Intensity	0.577	0.577	0.526	0.280
	(0.441)	(0.456)	(0.436)	(0.262)
UN Peacekeeping	1.824	1.723	1.824	2.302
	(1.423)	(1.285)	(1.397)	(1.991)
Multiple Rebel Signatories	2.356	2.283	2.497	3.093*
	(1.229)	(1.202)	(1.389)	(1.814)
Promise of Political Power-sharing	3.348	3.426	3.151	3.211
	(2.633)	(2.771)	(2.533)	(2.642)
Promise of Military Power-sharing	0.276***	0.270***	0.273***	0.248***
	(0.117)	(0.115)	(0.117)	(0.113)
Promise of Economic Power-sharing	0.117	0.105	0.123	0.150
	(0.216)	(0.202)	(0.233)	(0.275)
Promise of Territorial Power-sharing	0.171***	0.163***	0.173***	0.154***
	(0.110)	(0.106)	(0.110)	(0.095)
Implementation of Political Power-sharing	0.389	0.393	0.387	0.403
	(0.260)	(0.267)	(0.253)	(0.252)
Implementation of Military Power-sharing	5.677*	5.845*	5.641*	6.635**
	(5.094)	(5.341)	(5.122)	(5.424)
Implementation of Economic Power-sharing	0.211	0.198	0.194	0.137*
	(0.207)	(0.207)	(0.203)	(0.147)
Implementation of Territorial Power-sharing	0.000***	0.000***	0.000	0.000***
	(0.000)	(0.000)	(.)	(0.000)
N	353	353	353	353
No. of subjects	79	79	79	79
No. of failures	32	32	32	32
Log pseudolikelihood	-100.075	-100.166	-100.033	-95.917
Wald χ^2	1026.696	1737.877	49.717	1234.473
Prob > χ^2	0.0000	0.0000	0.0000	0.0000

Note:
***$p < 0.01$, **$p < 0.05$, *$p < 0.1$. Robust standard errors are clustered on peace agreements.

clude an interaction term with *mediated design* and *mediated implementation* in Model 4. As expected, all the three variables are statistically significant in Model 4. As a result, the following discussion is mainly based on Model 4.

As Braumoeller (2004) and Brambor, Clark, and Golder (2006) suggested, when the interaction item in a model is statistically significant, the interest of interpretation is no longer the main items because any inference based only on the main item is misleading. Instead, the interaction term should be always more interesting as it can reveal a more complicated mechanism behind the statistical result. More specifically, Model 4 suggests that the effect of *mediated design* on postwar peace durability depends on the effect of *mediated implementation*. In other words, either *mediated design* or *mediated implementation* alone cannot significantly influence the durability of post-civil war peace, but together they are able to produce more pacifying effects as Models 1-4 suggested. The hazard ratio for the interaction item, *Mediated Design × Mediated Implementation* is less than one and significant at the 99% confident level, suggesting that peace agreements designed and implemented by mediators are less likely to break down in five-year period. Therefore, this result confirms the logic presented in Table 1.

To understand our explanatory framework, Figure 1 plot the hazards and survival functions based on Model 4 in Table 2. Specifically, *mediated design* & *mediated implementation* can significantly decrease the hazard rate for peace agreement as shown in panel a of Figure 1. As further shown in panel b of Figure 1, though all four types of peace processes show a decreasing survival probability, the interaction term has the highest survival probability among them. Furthermore, Figure 1 also shows predicted survival probabilities for the 2×2 typology in Table 1 which is highly consistent with our theoretical expectations. Together, these plots suggest that peace agreement designed and implemented by mediators tends to have a higher survival probability and is therefore more likely to sustain a longer peace in the aftermath of civil wars.

Regarding the "promise" and "implementation" of *peace agreement*, the results in Table 2 suggest that during the design stage only including *military power-sharing pacts* and *territorial*

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Figure 1. **Predicted Hazards and Survival Probability for 2×2 Typology Peace Process**
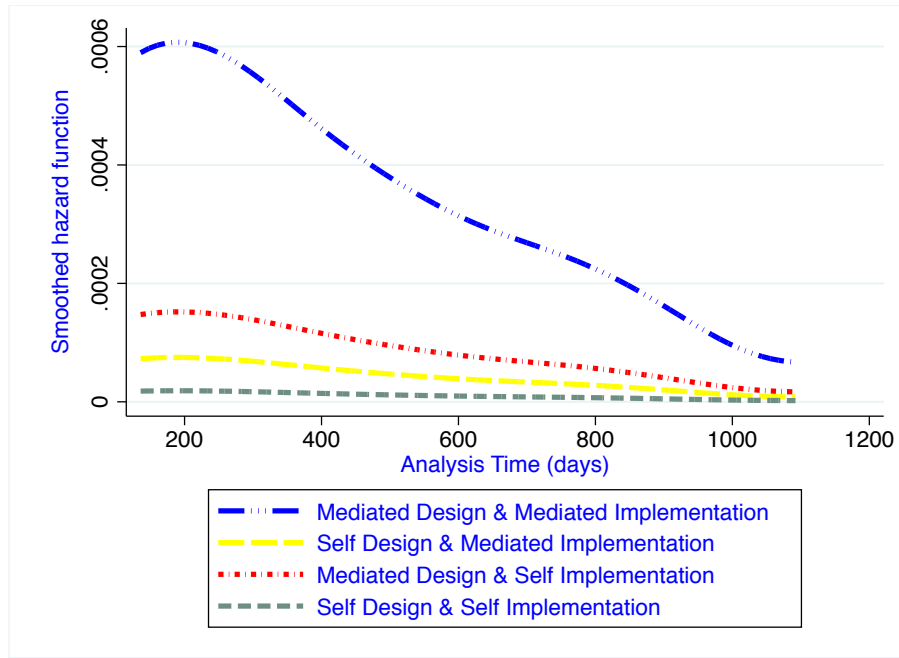
(a) Hazards Functions
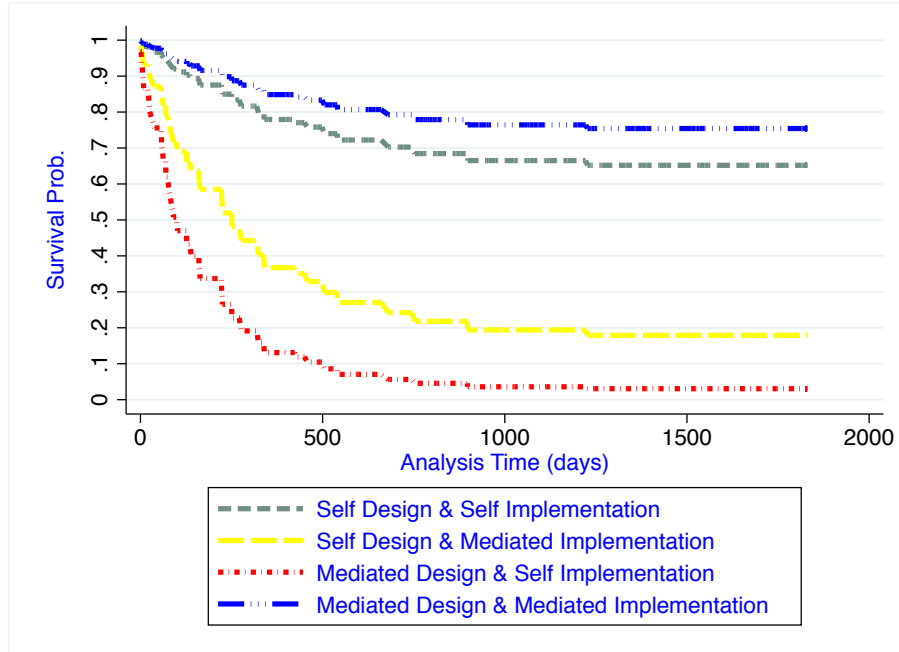
(b) Survivor Functions

Note: Panel a of Figure 1 shows the smoothed hazards at mean values of covariates for the 2 × 2 typology of peace process. Panel b of Figure 1 shows predicted survival probability for the 2 × 2 typology of peace process when holding other variable at their means. The plot is based on Model 4 in Table 2.

power-sharing pacts can significantly reduce the likelihood of the breakdown of peace agreement as their hazard ratios are below one and statistically significant. This result is consistent across the four models. However, as Jarstad and Nilsson (2008, 215) point out, the fact that a promised power-sharing pact was implemented does not necessarily mean implementation had a positive influence on the prospects of lasting peace. Implementing certain types of power-sharing pacts could even bring down the peace agreement. For example, *promise of military power-sharing* shows a significantly decreasing risk of peace failing across the four models in Table 2, while *implementation of military power-sharing* suggests a significant increase in the risk of peace failure across the four models in Table 2. Although there is no solid theory yet to explain why peace is more likely to be sustained when promising military power-sharing but is more likely to fail when promised military power-sharing is implemented, we could reasonably infer that certain positions could provide rebels with more resources or opportunities to strengthen themselves and thus to resume fighting against governments. This finding may also support the "supply model" of civil war outbreak as a function of the opportunity to organize rebellion (Collier and Hoeffler 2004; Fearon and Laitin 2003). Access to military resources is one of the deciding opportunities.

Moreover, *implementation of territorial power-sharing* is highly significant in Table 2, "suggesting that when these power-sharing pacts are being implemented there is virtually no risk at all that peace will fail" (Jarstad and Nilsson 2008, 218). Of these pacts that are promised and implemented, none is followed by armed conflict, which explains these rather extreme hazard rates values. About 49% of the total cases promised a law introducing territorial devolution or autonomy (i.e., *territorial power-sharing*). However, in only 2.55% of the total cases was the promise implemented. This also explain why the coefficient is close to zero. Based on these results, we can infer that *promising territorial power-sharing* is essential for sustaining postwar peace but putting the promise into practice is also extremely difficult. Once the promised territorial power-sharing is implemented, there is a greater chance that civil conflict will not recur. This is consistent to Fearon and Laitin (2011) that the "sons of the soil" thesis is holding up in the postwar peace process. Finally, while *economic power-sharing* is not statistically significant

in both the design and implementation stages in Models 1-3, *economic power-sharing* still tends to reduce the risk of peace failing as its hazard ratio indicates in Table 2. However, we find that when control for the effect of mediation in both stages, *implementing economic power-sharing* becomes statistically significant in Model 4.

As for the control variables, we only find that the variable *conflict duration* is statistically significant across the four models, which suggests that once an intensive civil war ended with a signed peace agreement, there is little chance that the peace agreement will break down since both warring parties have suffered from the fighting and the peace committee may sound more credible for them. While *UN peacekeeping* and *multiple rebels* are not statistically significant in all four models, their results tend to suggest that peace agreements are more likely to break down in cases where there are multiple actors (both domestic and international) involved.

5.2. Robustness Checks and Discussion

We conduct a series of robustness checks, ranging from using alternative modeling strategies to accounting for potential selection effects. Our main findings are robust and consistent, as summarized in the Appendix.

First, we consider alternative model strategies, such as using discrete-time logistic regression model. Following suggestion form (Box-Steffensmeier and Jones 2004) and Allison (1982), we convert out data to discrete-time format and include a function of time as a covariate. The discrete-time method is to break up each individual's event history into a set of discrete time units in which an event either occurred or not. We include the peace-spell length, its square and cube terms (Carter and Signorino 2010) to account for duration dependence. The results from discrete-time logistic regression models (See Table A2) provide evidence that civil wars are significantly less likely to recur if peace agreements following their terminations are both mediated designed and implemented by third parties (Model 4), whereas mediated design or mediated implementation alone are unlikely to sustain durable post-conflict peace.

Second, we consider the potential selection bias and endogeneity from nonrandom deploy-

ment of mediators. Previous studies indicate that third-party mediators might "cherry-pick" civil conflicts that are expected to have higher chances of successful mediation, resulting in an endogenous process of mediation selection into "easy" conflicts (Beardsley 2008). To address this concern, we use two strategies to ensure our findings are robust and consistent. On the one hand, we use a seemingly unrelated bivariate Probit regression to account for the self-selection process (Beardsley 2008). The bivariate model estimates a mediation selection equation and an outcome/recurrence equation by accounting for the correlation in the error terms between the two simultaneous equations, which allows us to take endogenous process specifically into consideration. As shown in Table A3, accounting for the self-selection into mediation, the statistically insignificant ρ–which captures the correlation between the two equations—erases our concern for endogeneity bias. [10]

On the other hand, we use coarsened exact matching (CEM) method (Iacus, King, and Porro 2012) to mitigate the selection on observables that may result in the nonrandom mediation selection. CME can help to reduce potential imbalances in our observed data if conflicts that experienced mediated design and implementation are significantly different from those do not. Consequently, we match those covariates that may be related to our treatment variable ("Mediated Design $\times$ Mediated Implementation") while also excluding covariates that may be affected by the treatment assignment due to concerns over post-treatment bias. As shown in Model 4 of Table A4, the coefficient for "Mediated Design $\times$ Mediated Implementation" is negative and statistically significant at the 95% confidence interval, suggesting that conflicts are less likely to recur if their settlements are both mediated designed and implemented.

Lastly, we examine the direct and indirect effects of mediated design and implementation on the promise v.s. implementation of peace agreements using causal mediation analysis (Imai, Keele, Tingley et al. 2011; Tingley, Yamamoto, Hirose et al. 2014). As shown in Figure A2, there is little evidence of any causal mediation effects (indirect effect) for our treatment variable via the promise and implementation of peace agreements on civil war recurrence, the direct effects

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[10]For a similar approach, see Ruggeri, Dorussen, and Gizelis (2017) and Fjelde, Hultman, and Nilsson (2019).

are all statistically significant at the 95% confidence intervals. This finding also challenges the expectation that the promise and implementation act as a causal mechanism through which mediators in the design and implementation stages affect the risk of recurrence.

5.3. Case Illustration: Free Aceh Movement in Indonesian

To better understand the statistical results, we use the example of the Free Aceh Movement (GAM) in Indonesian for further illustration. The GAM emerged in the early 1970s with the primary objective of pursuing full independence for Aceh. Spanning over three decades, the intense confrontations between GAM and the Indonesian government resulted in prolonged violence and instability. In August 2005, the Helsinki Memorandum of Understanding (MoU) was signed, marking the culmination of rigorous peace negotiations between the Government of Indonesia (GoI) and the GAM. The accord effectively terminated the enduring civil war and laid the foundation for the prevailing peace we observe today.

The peace process in Aceh is hailed both internationally and domestically as a monumental success. Remarkably, under the third-party mediations, the warring entities accomplished feats many observers deemed nearly insurmountable - a sustained end to armed hostilities (Aspinall 2008). In a span of just over six months, the mediation led by the former Finnish President Martti Ahtisaari culminated in the comprehensive peace agreement represented by the MoU in 2015. This agreement was meticulously designed, addressing the crucial conditions for peace. It delineated the relationship between Indonesia's Central Government and Aceh's regional government, and emphasized security protocols, political participation, economic rejuvenation, and human rights promotion within Aceh.

During this designing phase, former Finnish President Martti Ahtisaari and the Crisis Management Initiative (CMI) played a vital mediating role. Additionally, behind-the-scenes financial and political backing was furnished by the Finnish government and the European Union. Prior to Finland's involvement, initial discussions between the two parties frequently reached impasses (Candelaria 2020; Schulze 2007). Yet, due to CMI and Ahtisaari's neutrality and

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expertise in mediation, they provided a confidential platform facilitating direct dialogues between the GoI and GAM. This neutral ground allowed both parties to reach consensus on various contested issues (Kingsbury 2005).

Subsequent to the ratification of the Helsinki peace agreement, the implementation phase witnessed the collaborative participation of various entities, encompassing the international community, non-governmental organizations, the United Nations, and its affiliated agencies. From September 2005 to December 2006, the Aceh Monitoring Mission (AMM), jointly spearheaded by the European Union and several ASEAN member states, played a pivotal role (Kingsbury 2005). It was endowed with the authority to oversee, monitor, and arbitrate various facets of the agreed-upon accord. The AMM also ensured both parties were acutely aware of the severe repercussions of contravening the agreement, such as economic sanctions and arms embargoes, thereby elevating their incentive to adhere to the pact.

Figure 2. Survivor Function for Indonesia and the Free Aceh Movement
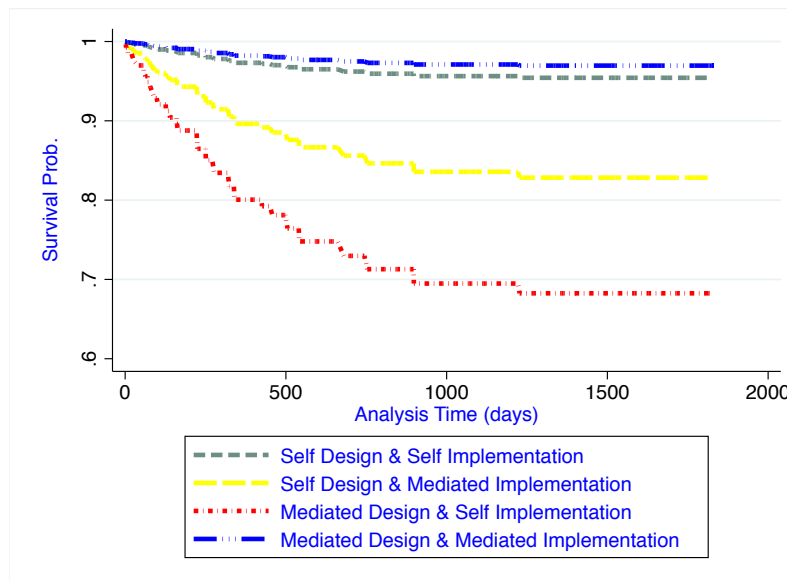
Note: Figure 2 shows predicted survival probability for the 2 × 2 typology of peace process in the case of Free Aceh Movement when holding other variable at their observed values. The plot is based on Model 4 in Table 2. *Mediated Design & Mediated Implementation* was the observed peace process. Based on the predicted survival probability, we can assume that the peace agreement should have sustained longer peace if it were also designed by mediators.

The third-parities' proactive involvement proffered strategic remedies to the prevalent com-

mitment problem. On one hand, continuous engagement with both factions during the agreement's design stage furnished open communication channels, fortifying mutual trust. Concurrently, the involvement of the third-party in the implementation stage amplified international scrutiny. Breaches in the agreement could potentially attract global condemnation, thereby affording both parties an augmented motivation to honor their commitments.

In essence, the third-party mediation ensured the successful design and implementation of the peace agreement, fostered lasting peace and stability in the region. Translating this case study into an analytical account, Figure 2 plots the survival function for four different types of peace process, holding other variables at the observed values. Mediated design and mediated implementation are the actual processes that happened in Indonesia and the other three are hypothetical scenarios. The predicted survival probability for the mediated-design and mediated-implementation is the highest, as opposed to the other three process when holding all other variables the same. This case is consistent with the statistical results in Table 2, which suggests that a peace agreement that has been designed by a mediator and implemented with the help of an international mediator tends to have the most pacifying effects on peace durability after civil wars.

6. Conclusion

Our analysis provides strong evidence that the two stages of agreement design and implementation in post-civil war settlements are interdependent, and that the durability of post-civil war peace is promoted by the presence of third-party mediation in both stages. Thus, design, implementation and the role of mediators should be integrated into the theoretical frameworks of post-civil war peace-building.

Several important findings need to be highlighted here. First, existing research on the role of mediation, whether in the agreement design stage or in the agreement implementation stage, only tells a part of the story. The "time inconsistency problems" (Beardsley 2008) will exist if we treat *agreement design* and *implementation* separately as most extant research has done. That said, neither *mediated design* nor *mediated implementation* alone can produce enduring peace in

the aftermath of civil wars. This is consistent with most existing research on the long-term effect of mediation as they rarely integrate them into an interdependent process.

Second, however, as our theoretical framework suggested, the effect of *mediated design* depends on the effect of *mediated implementation* as we found that there is a strong conditional effect between *mediated design* and *mediated implementation*. In other words, peace agreements designed and implemented by mediators can sustain longer peace. Consequently, considering the significant coefficients of *mediated design* and *mediated implementation*, the international community might be cautious when they participate in an agreement negotiation by carefully considering the real-world trade-off between the ability to reach an agreement and the sustainability of that agreement over time by offering additional mediation after the signing of peace agreements. Otherwise, mediation is unlikely to produce long-term pacifying effects after civil wars.

Third, by employing a newly collected data set on the promise and practice of power-sharing pacts in peace agreements, we find that not all implementations of power-sharing pacts are conducive to lasting peace. Specifically, *territorial power-sharing* pacts consistently show pacifying effects in contrast to the other three types of power-sharing pacts. Depending on opportunities provided for rebels, taking over certain key positions in national government or a key economic sector could increase the risk of fighting as rebel groups may have increased their opportunity and capacity to rebel. As a consequence, the international community should pay close attention to the content of peace agreements when helping to design them because certain types of power-sharing pacts that appear to overcome the "commitment problem" may actually facilitate the disruption of postwar peacebuilding.

In sum, our results suggest that there are strong benefits to the participation of third-party mediation in settling civil wars, and hence an imperative for the international community to show responsibility to ending them. However, such involvement should be undertaken with an awareness of how the specifics of peace agreements are crucial in creating an environment in which peace is likely to be durable, while certain arrangements could, unfortunately, establish a

new set of power relations that may be the seeds of future conflict.

Though our analysis leads to some conclusions, it also provides avenues for further study. First, the nexus between design and implementation may need more studies since our results show that these power-sharing provisions follow a different logic in both stages. We have not looked at the strategic interaction between the mediator and disputants in these two stages, and how the interaction may affect the durability of a peace agreement (Findley 2013). Second, in addition to mediation, many civil wars have experienced other forms of third-party intervention, such as economic sanction and military aid (Regan, Frank, and Aydin 2009; Regan and Meachum 2014), but we did not take them into consideration in this article. Unlike mediation, those kinds of interventions have more dampening effects, because foreign interventions are perceived to be essential to continue or end a civil war or prevent its recurrence. Further research should also focus on the relative capability change between the government and rebel groups over time. Sometimes peace agreements are only signed because either the government or rebels just want to buy time to increase their capability to resume the fighting (Richmond 1998), which might counter any pacifying efforts from third-party mediation. Thus, we might need more discussions on the timing of when a peace agreement breaks down and civil war recurs. In sum, while this study provides considerable new insight into the effect of mediation on post-civil war peacebuilding, this important topic remains fertile ground for future study.

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Mediating post-Civil War Peace: Third Parties in the Design and Implementation of Civil War Peace Settlements

Supplementary Materials

Table A1. Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Mediated Design	353	.544	.499	0	1
Mediated Implementation	353	.476	.5	0	1
Conflict Duration	353	2024.694	2722.743	99	9641
Conflict Intensity	353	.193	.395	0	1
UN Peacekeeping	353	.142	.349	0	1
Multiple rebel signatories	353	.139	.346	0	1
Promise of Political Power-sharing	353	.297	.458	0	1
Promise of Military Power-sharing	353	.606	.489	0	1
Promise of Economic Power-sharing	353	.173	.379	0	1
Promise of Territorial Power-sharing	353	.49	.501	0	1
Implementation of Political Power-sharing	353	.272	.446	0	1
Implementation of Military Power-sharing	353	.221	.415	0	1
Implementation of Economic Power-sharing	353	.02	.14	0	1
Implementation of Territorial Power-sharing	353	.025	.158	0	1

Table A2. Robustness Check: Logit Models of Conflict Recurrence

	DV: Recurrence			
	Model 1	Model 2	Model 3	Model 4
Mediated Design	2.303***		1.025	4.524***
	(0.565)		(0.882)	(1.607)
Mediated Implementation		2.367***	1.582*	2.803***
		(0.568)	(0.897)	(0.920)
Mediated Design × Mediated Implementation				−4.737**
				(1.844)
Conflict Duration	−0.000	−0.000	−0.000	−0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Conflict Intensity	0.410	0.529	0.473	0.335
	(0.466)	(0.454)	(0.461)	(0.480)
UN Peacekeeping	0.514	0.634	0.579	0.600
	(0.466)	(0.464)	(0.469)	(0.475)
Multiple Rebel Signatories	0.567	0.745*	0.664	0.765*
	(0.428)	(0.430)	(0.436)	(0.448)
Promise of Political Power-sharing	7.060***	7.127***	7.137***	7.157***
	(1.125)	(1.137)	(1.135)	(1.136)
Promise of Political Power-sharing	7.060***	7.127***	7.137***	7.157***
	(1.125)	(1.137)	(1.135)	(1.136)
Promise of Military Power-sharing	2.325***	1.982***	2.065***	1.662**
	(0.576)	(0.607)	(0.604)	(0.684)
Promise of Economic Power-sharing	−9.565***	−9.324***	−9.566***	−8.962***
	(1.737)	(1.730)	(1.740)	(1.770)
Implementation of Political Power-sharing	−0.624	−0.717	−0.730	−0.741
	(0.649)	(0.648)	(0.655)	(0.651)
Implementation of Military Power-sharing	−9.639***	−9.209***	−9.513***	−8.706***
	(1.817)	(1.821)	(1.827)	(1.847)
Implementation of Economic Power-sharing	−0.105	−0.226	−0.123	−0.187
	(1.276)	(1.273)	(1.283)	(1.310)
Implementation of Territorial Power-sharing	−22.469	−22.307	−22.472	−21.886
	(727.793)	(738.710)	(730.841)	(743.906)
Post-Conflict Months	−0.088	−0.115	−0.102	−0.109
	(0.098)	(0.098)	(0.099)	(0.100)
Post-Conflict Months Squared	−0.000	0.001	0.001	0.001
	(0.005)	(0.005)	(0.005)	(0.006)
Post-Conflict Months Cubed	−0.000	−0.000	−0.000	−0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Intercept	−3.873***	−3.880***	−3.886***	−3.972***
	(0.479)	(0.484)	(0.483)	(0.501)
AIC	308.260	306.895	307.479	303.089
BIC	414.480	413.115	419.947	421.806
Log Likelihood	−137.130	−136.447	−135.739	−132.544
Deviance	274.260	272.895	271.479	265.089
Num. obs.	3821	3821	3821	3821

***$p < 0.01$; **$p < 0.05$; *$p < 0.1$

Table A3. Robustness Check: Seemingly Unrelated Bivariate Probit Models

|	Model 1	Model 2
Mediation Selection Equation		
Conflict Duration	0.0000586	-0.0000674
	(0.0000378)	(0.0000525)
Conflict Intensity	0.0473	1.541***
	(0.264)	(0.375)
UN Peacekeeping	0.130	-1.273***
	(0.194)	(0.352)
Multiple Rebel Signatories	0.941***	-0.321
	(0.218)	(0.341)
Mediated Design		3.594***
		(0.348)
Constant	-0.330***	-1.193***
	(0.0949)	(0.152)
Outcome Equation		
Mediated Implementation	0.126	
	(0.363)	
Mediated Design	1.522***	
	(0.590)	
Mediated Design × Mediated Implementation	-2.050***	-0.749***
	(0.725)	(0.273)
Conflict Duration	-0.000204**	-0.000194**
	(0.000103)	(0.0000935)
Conflict Intensity	0.441	0.571
	(0.403)	(0.362)
UN Peacekeeping	0.0305	0.0819
	(0.331)	(0.314)
Multiple Rebel Signatories	0.756**	0.892***
	(0.313)	(0.283)
Constant	-1.172***	-1.054***
	(0.161)	(0.148)
athρ	-0.191**	-0.165
	(0.0845)	(0.186)
Observations	353	353

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A4. Robustness Check: Logit Models of Conflict Recurrence (Matched Sample)

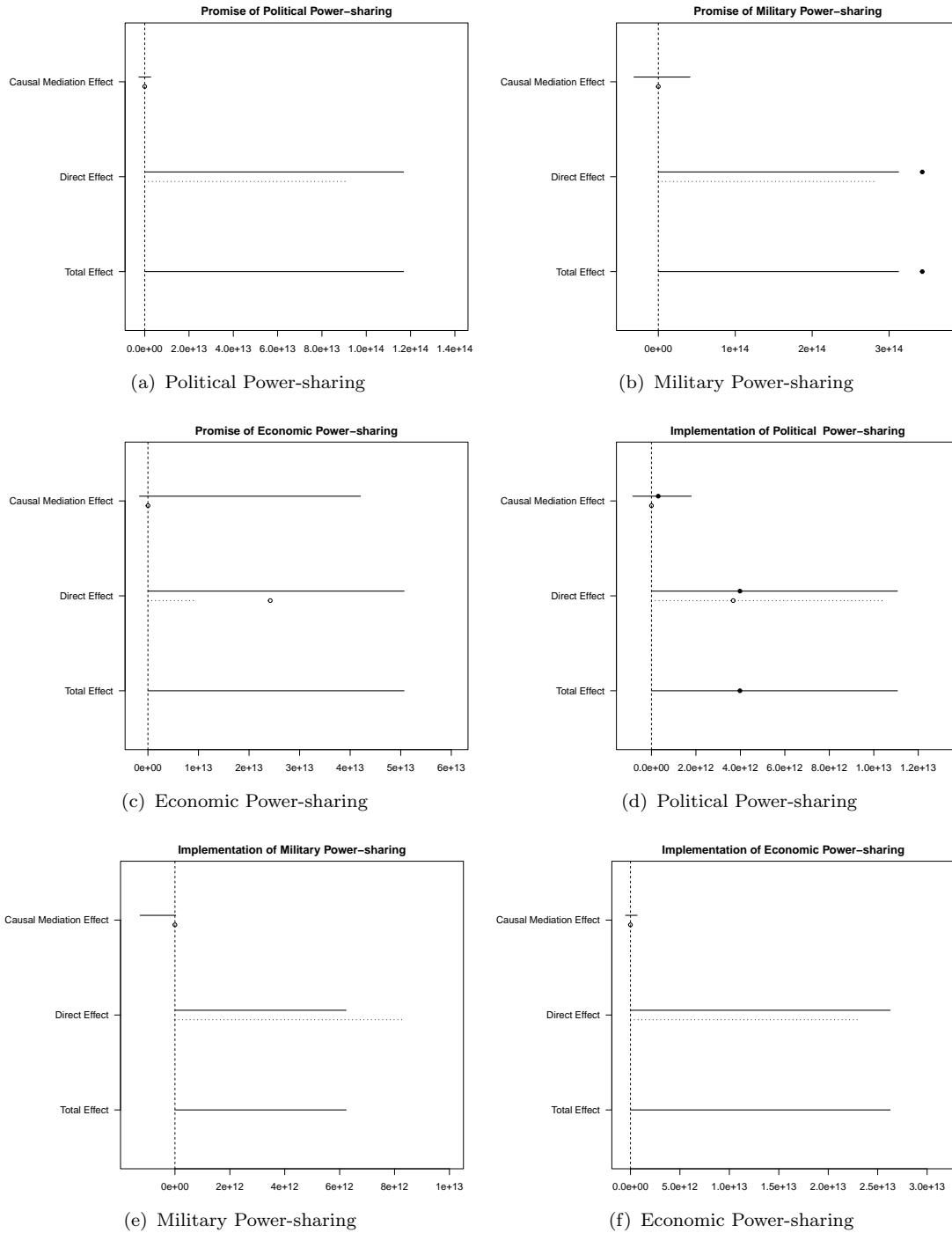|	DV: Recurrence			
	Model 1	Model 2	Model 3	Model 4
Mediated Design	3.104***		3.104***	8.249***
	(0.638)		(0.638)	(2.196)
Mediated Implementation		1.576**		0.933
		(0.680)		(1.842)
Mediated Design × Mediated Implementation				−6.564**
				(2.818)
Promise of Political Power-sharing	5.533***	5.376***	5.533***	5.791***
	(0.850)	(0.863)	(0.850)	(0.898)
Promise of Military Power-sharing	1.603**	2.370***	1.603**	1.639**
	(0.721)	(0.625)	(0.721)	(0.831)
Promise of Economic Power-sharing	−6.919***	−6.474***	−6.919***	−6.543***
	(1.750)	(1.699)	(1.750)	(1.859)
Promise of Territorial Power-sharing	−1.732	−0.704	−1.732	−3.588**
	(1.063)	(1.099)	(1.063)	(1.637)
Implementation of Political Power-sharing	−0.865	−0.572	−0.865	−0.566
	(0.652)	(0.641)	(0.652)	(0.665)
Implementation of Military Power-sharing	−5.418***	−5.682***	−5.418***	−3.650**
	(1.541)	(1.603)	(1.541)	(1.467)
Implementation of Economic Power-sharing	0.161	0.052	0.161	−0.246
	(1.458)	(1.342)	(1.458)	(1.582)
Implementation of Territorial Power-sharing	−19.141	−19.325	−19.141	−17.480
	(907.319)	(908.661)	(907.319)	(995.593)
Post-Conflict Months	−0.078	−0.152	−0.078	−0.087
	(0.126)	(0.129)	(0.126)	(0.125)
Post-Conflict Months Squared	0.001	0.006	0.001	0.002
	(0.009)	(0.010)	(0.009)	(0.008)
Post-Conflict Months Cubed	−0.000	−0.000	−0.000	−0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Intercept	−3.545***	−3.270***	−3.545***	−3.644***
	(0.434)	(0.402)	(0.434)	(0.451)
AIC	262.153	280.833	262.153	259.140
BIC	340.549	359.228	340.549	349.596
Log Likelihood	−118.077	−127.416	−118.077	−114.570
Deviance	217.726	234.398	217.726	206.960
Num. obs.	3073	3073	3073	3073

***$p < 0.01$; **$p < 0.05$; *$p < 0.1$

Figure A1. Cumulative Baseline Hazards Rates for 2×2 Typology Peace Process
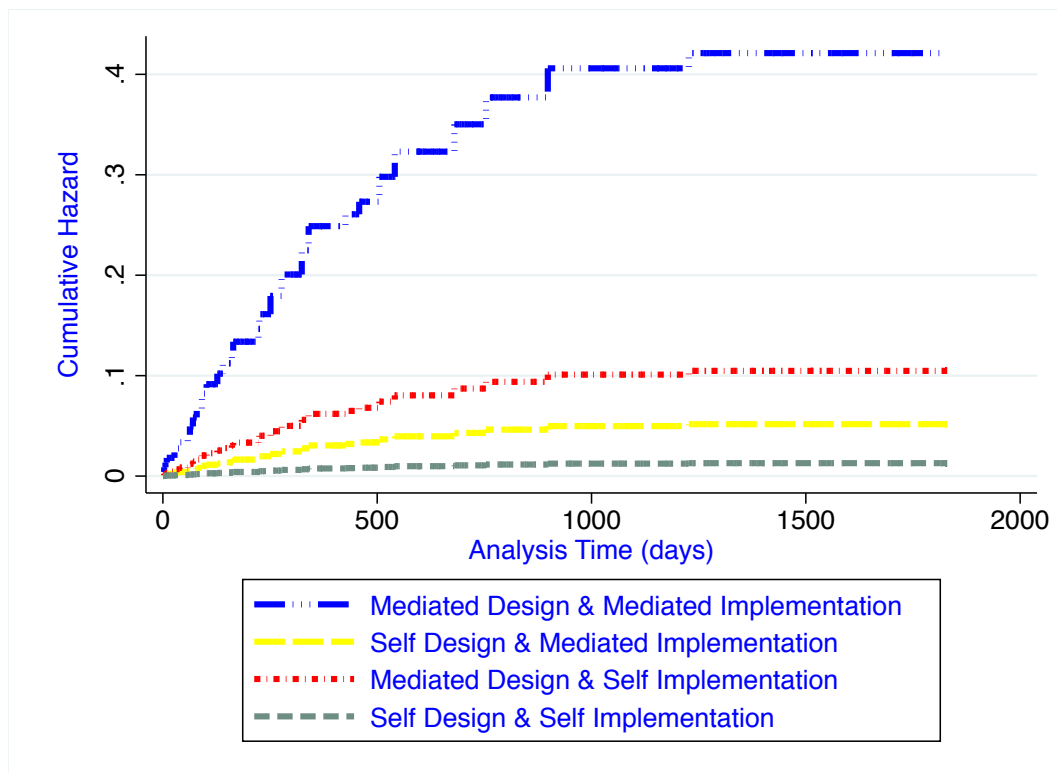
Note: Figure A1 shows the cumulative hazards at mean values of covariates for the 2 × 2 typology of peace process. The plot is based on Model 4 in Table 2.

Figure A2. Causal Mediation Analysis of Effects on Promise and Implementation Peace Agreements

(a) Political Power-sharing

(b) Military Power-sharing

(c) Economic Power-sharing

(d) Political Power-sharing

(e) Military Power-sharing

(f) Economic Power-sharing

Note: Figure A2 shows the average causal mediation effects (indirect effect), average direct effects, and total effect of mediated design and implementation on the promise and practice of peace agreements. Mediation effects are computed over 2,000 simulations where mediator models are logit models and outcome models are Cox PH models.