Post-Conflict Democracy for Durable Peace?

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Abstract

Elections have been found to increase the risk of conflict recurrence. In this thesis I investigate how institutions that constrain election winners mitigate the destabilizing effects of elections. I propose that post-conflict elections will only increase the chances of conflict recurrences in cases where institutional constraints on elected governments are weak. In these cases the post-conflict commitment problem makes it difficult for election winners to reassure elections losers that the settlement of the conflict will be respected. This makes it less likely that the losing side will be willing to hand over power to an elected government. Where the broader institutional framework is strong enough to constrain election winners after they assume office, elections may help pave the way for durable peace.

I employ a set of Cox regression models on a dataset of all peace spells in the 1972-2005 period to test this proposition empirically. The analysis finds robust support for the interaction between post-conflict elections and institutional constraints on elected governments. Where no such constraints are in place, post-conflict elections significantly increase the risk of conflict recurrence. If these institutions are strong, post-conflict elections are related to durable peace. Thus, whereas existing studies have found either a negative or no effect of post-conflict elections, I demonstrate that the effect of post-conflict elections is conditioned by the broader institutional context. This finding is robust to various model specifications, suggesting that a post-conflict democracy where competitive elections are combined with institutions of checks and balances may make peace more durable.

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The thesis has also been written in conjunction with the project *Conceptualization and Measurement of Democracy* (RCN project 204454/V10, see `http://www.sv.uio.no/isv/english/research/projects/conceptualization-and-measurement/index.html`) and I would like to thank Carl Henrik Knutsen, Håvard M. Nygård, Håvard Hegre and Tore Wig for organizing the Monday seminars and for always offering excellent feedback.

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I alone am responsible for the content of this thesis.

The dataset and R-script used for the analysis are made available to the public.[1]

Øyvind Stiansen

Word count: 33601

[1] See https://dl.dropboxusercontent.com/u/76270280/Stiansen%20Master%20thesis%20Replication%20code/StiansenData.csv for the dataset and https://dl.dropboxusercontent.com/u/76270280/Stiansen%20Master%20thesis%20Replication%20code/replicationCode.r for the replication code.

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Chapter 1

Introduction

Is democracy the solution to civil conflict? If so, why do post-conflict elections sometimes lead to recurrent conflict while elections in other settings provide an arena for peaceful settlements of disputes? Are post-conflict elections more likely to produce conflict recurrences where other democratic institutions are not yet in place? These are the broad questions this thesis grapples with. While previous quantitative research has found what is at best mixed evidence for any peace building potential of post-conflict democracy, policy makers typically present democracy as crucial for lasting peace. US President George Bush (2003) did for instance put his faith in "the global expansion of democracy and the hope and progress it brings as the alternative to instability and hatred and terror" and posited that "[l]asting peace is gained as justice and democracy advance".

I argue that variation in the institutional makeup of post-conflict democracies may be important. More specifically, the effect of holding elections in the post-conflict setting may largely be determined by which other democratic institutions are in place. Electoral democracy can only serve as a mechanism for peace if there are institutions that constrain the power of elected governments.

1.1 The Puzzle

Democratic elections have come to be seen as important milestones for countries emerging from armed conflict (Sisk 2008, Collier 2009). One important reason has been the international community's faith in the peace building potential of liberal democracy. This belief in the necessity of post-conflict democracy is reflected in the 1998 UN Secretary General report to the Security Council stating that without democratization "lasting peace will

not be possible" (Annan 2004: 32). In accordance with a broader liberal tradition it is assumed that "[t]o the extent that democratic institutions and processes allow groups to pursue their interests through peaceful means, governments have an electoral incentive to refrain from repressing their opponents, and opposition movements have an incentive to refrain from oppositional violence" (Joshi 2010: 6).

The expectation that democracy will make for more peaceful post-conflict development should not be surprising given the broad range of studies in which democracy is found to be important for the provision of public goods (Morrow, Smith, Bueno de Mesquita and Siverson 2001), for economic development (Knutsen 2011: Chapter 6) and for a domestic order in which leaders can be removed without the use of violence (Popper 1959: 12). These are all factors that should be important for rebuilding countries after civil war and thus provide ways of avoiding recurrent conflict (Walter 2004). Elections are also thought to be critical for providing post-conflict governments legitimacy needed for sustainable peace (Kumar 1998: 6).

Yet studies investigating the impact of post-conflict democracy have found only inconsistent evidence for any peace building potential of post-conflict democracy (Hegre and Fjelde 2010). Figure 1.1 shows country level variation in whether elections have been held within the first decade after the end of a conflict and whether the conflict recurred.[1] The map reveals that having democratic elections is not enough to avoid recurrent conflict. This finding is in line with much of the literature which has argued that elections might in fact be a cause of conflict recurrence (Collier, Hoeffler and Söderbom 2008, Collier 2009, Flores and Nooruddin 2012, Brancati and Snyder 2012).

Even as these studies portray post-conflict elections as a source of instability, the map in Figure 1.1 fails to convey any clear negative relationship between holding elections and avoiding conflict recurrence. In many countries, exemplified by cases such as Nicaragua, Mozambique and Papua New Guinea, democracy and peace seem to have gone hand in hand (Jarstad 2009, Bjornlund, Cowan and Gallery 2007: 108). That elections may even have had a positive impact in laying the ground for a civil peace is suggested by some cases, such as Nicaragua following the 1990 end of conflict. Despite the fact that the *Sandinistas* lost both the 1990 and the 1996 elections and the political system remained polarized, they chose loyal opposition rather than recurrent conflict. López-Pintor (1998)

[1] Important variation about individual peace spells is lost by aggregating the data to the country level. Nevertheless, this map illustrates the general patterns in the data.

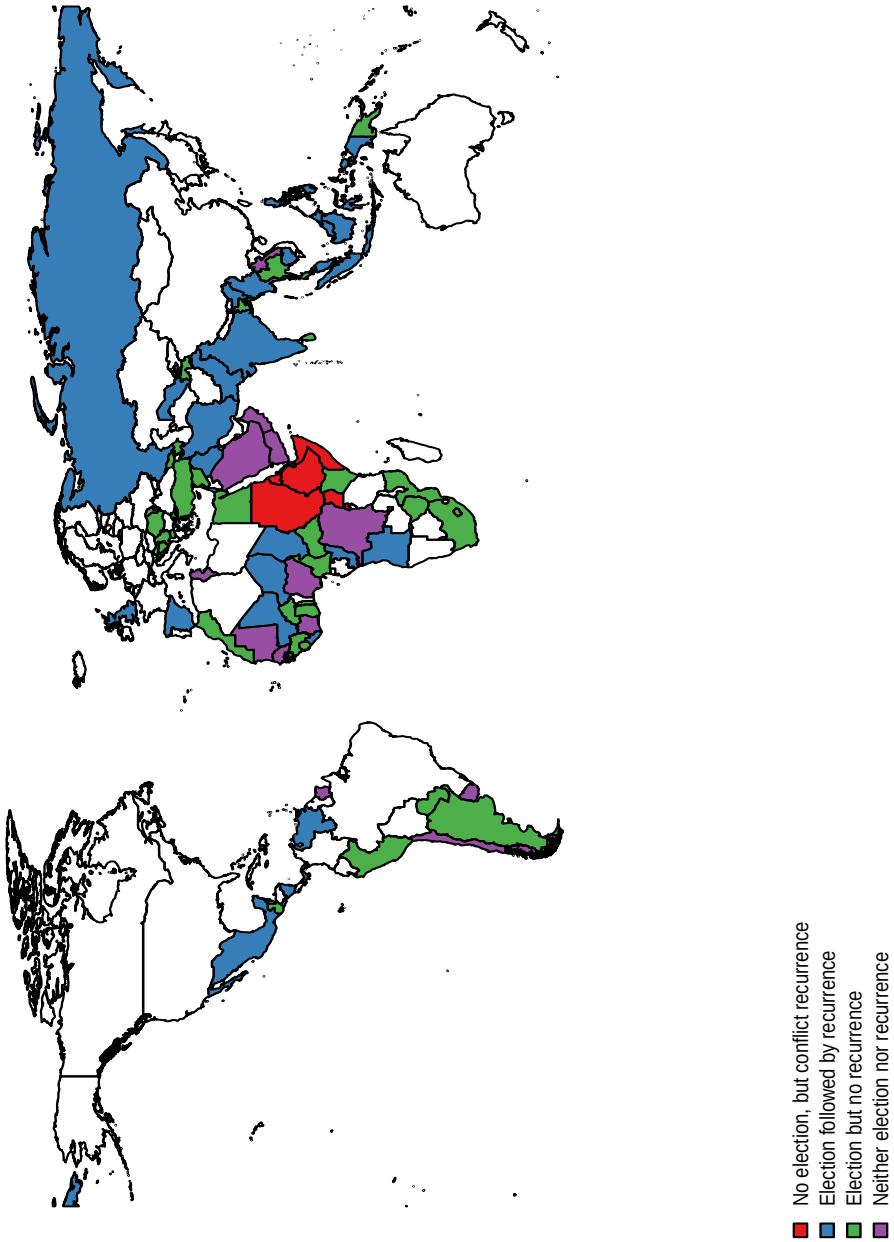


Figure 1.1: Post-conflict elections and conflict recurrence, aggregated to country-level

describes how the 1990 elections opened up for reconciliation and development, and that in accordance with the constitution this was repeated with success six years later:

> Although losing candidate Daniel Ortega denounced the elections as fraudulent in the weeks following the vote, he would come to accept the results after electoral observers concluded that the irregularities observed at the polls, while numerous, did not imply ballot tampering or organized fraud. Once again, with the international community's assistance, the second general elections helped drive autocracy and civil war further into Nicaragua's past. The elections should be considered a further step toward the consolidation of democracy (López-Pintor 1998: 49-50).

Democratic elections did not prove to be the same potent force for peace in Angola, which held elections in 1992 following the 1991 negotiated termination of conflict. In contrast to Nicaragua, democracy was never allowed to take root in Angola, as the losing side of this first election, UNITA and the leader Jonas Savimba, decided to go back to conflict rather than assuming the role of a loyal opposition and hope for stronger electoral support the next time around (Ottaway 1998). As the rebel movement had retained its military capabilities and had little to gain by submitting to the elected government it chose to reinitiate the conflict (Lyons 2002: 20). Thus, according to Hartzell and Hoddie (2007: 124) one of the main reasons for the collapse of the peace process was

> the decision as part of the elections agreement, to hold winner-take-all elections. Not only did this particular institutional arrangement give those failing to achieve a plurality in the electoral contest little incentive to comply with the outcome, but it likely also proved threatening to those in minority, because it gave the winner an important element of state control.

It thus appears that the impact of elections on the durability of post-conflict peace varies according to case. The question why this is so is important given the destruction and loss of life caused by recurrent conflict (Hegre, Nygård, Strand, Gates and Flaten 2011) and with the increased frequency elections are held in post-conflict settings (Collier 2009). As demonstrated by Elbadawi, Hegre and Milante (2008), conflict recurrence is by now the main reason for the persistent threat internal conflicts pose to human security.

Patterson (1997: 383) suggests one reason for why the *Sandinistas* of Nicaragua were willing to accept electoral defeat, namely that strong institutions of checks and balances meant that the legislature could be used to make sure that the consequences of not controlling the executive would not be disastrous. Even if both the 1990 and the 1996 elections were lost, important reforms would not be reversed and the power of the state could not easily be turned against them. The opposite was the case for Angola, where little had been done to limit the power of those who would succeed in the first election after the end of conflict (Strasheim and Fjelde 2012:12, Ottaway 1998:146). Hence whereas the elections in Nicaragua were able to function as part of a transition towards a stable democracy, the election in Angola was seen as a zero-sum game that the opposition could not afford to lose.

Thus, part of the story behind the different effects of post-conflict elections may be variation in the extent to which strong institutions of checks and balances that limit what an elected government can do, are in place prior to holding elections. This agrees with the scholarship that has described how emerging democracies have failed to developed the institutional constraints which has guarded against abuse and built the foundations for durable domestic peace in established democracies (Huntington 1968, Zakaria 1997). Such institutional inconsistency has been shown to be related to the onset of civil war (Hegre, Ellingsen, Gates and Gleditsch 2001) and to short-lived regimes (Gates, Hegre, Jones and Strand 2006).

1.1.1 Research Question

Existing research provides some indirect evidence for a possible interaction between institutions of checks and balances and post-conflict elections. Such an interaction could explain why elections in the immediate aftermath of conflict when strong institutions are not yet in place (Brancati and Snyder 2012: 8) and in countries without previous democratic experience (Flores and Nooruddin 2012) are more likely to lead to recurrence. What characterizes such settings is that institutions of checks and balances are less likely to be in place. The greatest progress towards studying such an effect systematically is perhaps made by Strand (2007: Chapter 8) who investigates the effect of the second election after the establishment of a new regime. He finds that the impact of such second elections on the risk of civil war onset is conditioned by the level of constraints placed

on executive power (Strand 2007: 332-333). The existing literature on post-conflict stability has, however, not tested this proposition directly by looking explicitly at whether the level of institutional constraints prior to post-conflict election condition their impact on the chances of conflict recurrence. Moreover, many contributions have doubted that elections can ever be a force for peace in deeply divided post-conflict societies. Thus, important contributions to the literature see the question of democracy and peace as a difficult dilemma (Jarstad 2008). Even if previous scholarship has come up with some suggestions, more research is needed before any firm conclusions can be reached. This provides the motivation for the following research question:

Research Question *Does the impact of democratic elections on the durability of post-conflict peace depend on institutional constraints on elected governments?*

Referring back to Figure 1.1 it should be clear that this research question satisfies both the demands King, Keohane and Verba (1994: 15) have of a good research question: The prevalence of both conflict-recurrence and post-conflict elections makes this an issue deserving of the attention of social science. Furthermore, the lack of a correlation between having democratic elections and being able to preserve the civil peace presents a puzzle for existing social science theory.

1.2 Findings

The main finding of this thesis is that the effect of competitive elections on the risk of conflict recurrence is conditioned by the presence of horizontal constraints on elected governments. Democratic elections make peace more durable when held in a context of strong institutions of checks and balances in the executive-legislative relationship. When such institutions are not in place, elections may be a source of recurrent conflict. This finding holds whether looking at de jure provisions letting the legislative and executive branch of government veto each other's decisions or when looking at whether such constraints are operative in the political system in question. This increases the confidence in the validity of the central proposition made in this thesis: Political institutions are important in determining the impact of competitive elections on post-conflict peace and the

effect of these institutions depends on whether they are able to impose strong constraints on the power of elected governments.

Even if support is found for the reported interaction, there are two important caveats to be made. Firstly, there is considerable uncertainty attached to the effect of elections at any given level of constraining institutions. This is to be expected given a relatively limited sample size and given high correlation between the independent variables and some of the control variables. It does, however, mean that caution should be advised when making predictions about what impact elections will have in any specific post-conflict setting. Secondly, a few observations may have considerable leverage over the reported results. This is also to be expected given the limited sample. The observations with the most leverage are the few which contradicts the main findings, thus the reported results would be stronger if the most influential cases had been removed. This notwithstanding, the sensitivity of the reported results to single observations is an additional reason to be cautious when judging the strengths of the estimated effects.

Relatively strong support is, however, found in favor of the proposition that the effect of elections on the durability of post-conflict peace depends on the level of institutional constraints placed on elected governments. The above caveats aside, the interaction between elections and constraints on the executive remains robust in a wide range of model specifications. Moving beyond mere statistical significance, the interaction effect is also shown to be strong enough to make it substantively interesting.

1.3 Organization

The thesis is organized as follows. In Chapter 2 I develop the formal theoretical argument and a testable hypothesis is derived. In Chapter 3 I proceed to develop a quantitative research design tailored to test this hypothesis empirically. Results are reported in Chapter 4, before I in Chapter 5 investigate the robustness of the reported results. A final chapter concludes.

Chapter 2

Theory

This chapter develops the theoretical argument on the relationship between elections and institutions that constrain elected governments and post-conflict stability. It is argued that the impact of different democratic institutions must be understood in light of how they affect the post-conflict security dilemma. Democracy, if understood primarily as a system letting a popular majority decide policies, does not necessarily build the foundations for lasting peace. This is because elections by themselves do not solve commitment problems. If election losers fear the consequences of submitting to peaceful opposition, they can be expected to return to armed conflict. The potential for peace should, on the other hand, increase with the introduction of institutions aimed at constraining what a majority can do when it assumes power. This should help make the opposition confident that its interests will be respected as the costs of majoritarian abuse are increased. Hence, what effect holding elections will have on the risk of conflict recurrence is hypothesized to depend on the strength of constraining institutions.

After briefly reviewing existing findings in the literature, this chapter proceeds by presenting commitment problems as the main threat to durable peace after internal conflicts. The third section points to mechanisms proposed in the literature through which democratic institutions may affect the severity of the commitment problem. It is argued that dynamics that more generally make democracy self-enforcing are harder to achieve after internal conflicts. However, new insights can be gained by disaggregating the concept of "democratic institutions" into its sub-components. This is done in the fourth section. Competitive elections may lead to either conflict recurrence or durable peace depending on the whether effective institutional constraints are in place.

2.1 What We Know about Post-Conflict Elections

Existing studies have generally found that elections increase the risk of conflict recurrence (though see Jarstad 2009 and Cheibub, Hays and Savun 2012). Paris (2004), Flores and Nooruddin (2012) and Brancati and Snyder (2012) find that elections are more likely to produce recurrent conflict the sooner they are held after the end of hostilities, while Collier (2009) posits that holding elections in conflict-ridden countries is an important source of violence and renewed conflict. Collier, Hoeffler and Söderbom (2008) find that peace is more likely to collapse in the year following a competitive election. Also more generally, transitionary elections have been found to be related to civil war (Cederman, Gleditsch and Hug 2012, Strand 2007: Chapter 8). Even the prospect of elections is found to be potentially destabilizing, as the chances of election victory are related to rebel leaders' willingness of accepting post-conflict democratization (Metternich 2011). Moreover, Linebarger and Salehyan (2012) find that periods leading up to executive elections in Africa are related to increased social conflict.

In short, systematic investigations of the impact of elections have found these to be potentially destabilizing events. Elections may raise the level of polarization and contestation and this may lead back to conflict. Election losers may be tempted to contest results violently. What is found to be particularly dangerous in the post-conflict setting is that

> former enemies will find it difficult to commit to postconflict peace. Elections exacerbate this dilemma, since election winners can break their commitment to respect peace and democratic norms and instead use their newfound power to punish their enemies (Flores and Nooruddin 2012: 558-559).

Even if elections in some cases are found to be related to conflict recurrence, they may also be important milestones in transitions towards durable peace (Reilly 2002). Stable democracy has been found to a be strong force for civil peace (Hegre et al. 2001). However, transitions to democracy do of course require that elections are held at some point and this may increase the risk of conflict (Cederman, Hug and Krebs 2010).

This makes it interesting to investigate the factors that mitigate the effect of elections. While Strand (2007: Chapter 8) shows that executive constraints may be important in this respect for the second election following a regime change, the existing literature on post-

conflict recurrence has not provided any clear answer to how other political institutions impact the relationship between elections and a civil peace.

Jarstad (2009) presents evidence that the introduction of power-sharing institutions do not necessarily increase the chances of peace following post-conflict elections. Flores and Nooruddin (2012), on the other hand find that the effect of early post-conflict elections depends on previous democratic experience and conclude that this has to do with the maturity of other political institutions. This is in line with Huntington's (1968) notion of conflict being the results of opening up for political participation without strong institutions or a democratic tradition (see also Mansfield and Snyder 2007). To my awareness this proposition has, however, not been subjected to much scrutiny neither theoretically nor empirically within the literature on post-conflict elections. Whether other political institutions may mitigate the impact of post-conflict elections is thus still an unanswered question. An important motivation for this thesis is thus to fill this gap in the existing literature.

2.2 Post-Conflict Commitment Problems

When investigating the impact of democratic institutions on the durability of post-conflict peace a good first step may be to identify which mechanisms may explain the phenomenon of recurring conflict. Understanding the challenges of the post-conflict setting is crucial for understanding the effects of different aspects of post-conflict democracy. Previous scholarship has pointed to the existence of a post-conflict commitment problem as an important explanation both for why civil conflicts are difficult to end and why they so often recur (Walter 2002, Joshi 2010, Metternich and Wucherpfennig 2011, Thyne 2012, Powell 2012, Wig and Hegre 2013). The actors' inability to trust each other makes it more difficult to keep the political process going, as both actors will fear that compliance will be taken advantage of. This can make the political process inherently unstable. This has lead existing scholarship to conclude that power-sharing institutions may hold more promise than democratic competition (Walter 2002, Hartzell and Hoddie 2007). Also scholars who assume that some form of democracy will be necessary have put emphasis of strengthening the elements of power-sharing within the political system (Lijphart 2004, Binningsbø 2006). These institutions replace the ex ante uncertainty of democracy with institutions that secure influence for all relevant groups.

Establishing certainty and security is thus suggested to be crucial for stable peace (Berdal 2009: 95-96). Even if both actors have an interest in long-term peace, it may be hard to achieve if each actor fears that the other will take advantage of any acts of goodwill. This aspect of post-conflict politics may be captured in a simple dynamic game of incomplete information. The game takes place between two actors, the former belligerents of a civil war. There are of course often more than two actors involved in civil wars and post-war processes. Yet the important logic of post-conflict politics with insecurity and commitment problems as important mechanisms can be illustrated in the simplified two-actor setting. While recognizing that multiple actors may be important, it is fruitful to simplify post-conflict politics as a two-actor game.

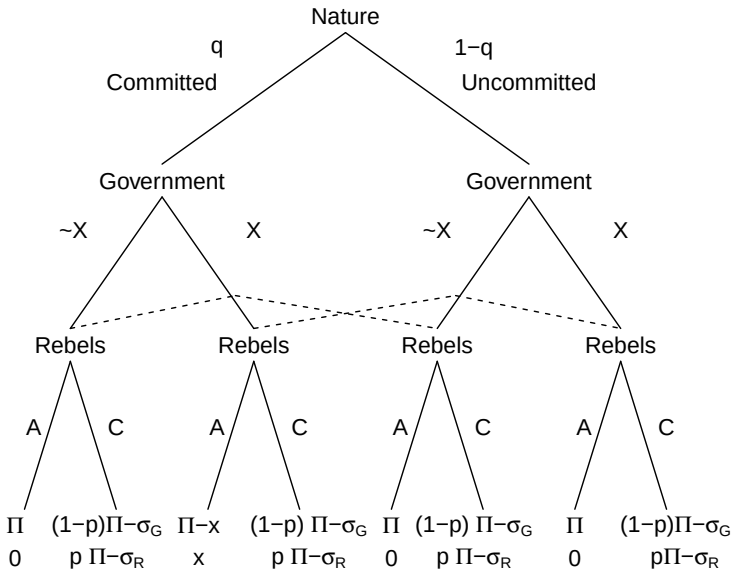
At the outset of this game the conflict is assumed to have ended, and I therefore assume that some sort of agreement exists, either explicitly or as an informal agreement reached on the battlefield. In the further political process both actors will have to make choices as to whether to respect this outcome or to try to improve their position vis-a-vis the other. Even if both sides have a vested interest in peace, insecurity over what will happen after the weapons are layed down may make durable peace difficult to achieve (Walter 2002).

I thus assume two actors, $i \in \{G, R\}$. One of these actors controls the government (G) while the other actor is the former rebel actor (R) that would have to demobilize for there to be lasting peace.[1] To facilitate demobilization it seems reasonable that the government would offer the former rebels concessions. The available strategies for the government are thus to offer or not to offer a concession. The rebels may accept or contest any government policy. A contestation is assumed to lead back to conflict. The rebels derive a utility of $p\Pi - \sigma_R$ from conflict where Π denotes the contested political pie and p denotes the rebel strength (e.g. Powell 2012). p may therefore be interpreted as the share of the contested good the rebels would secure through armed conflict or alternatively the rebel probability

[1]Some research suggests that this situation may be somewhat different in the case of a decisive rebel victory. Toft (2009) posits that recurrences are less likely following rebel victories. This is because the former government apparatus easily can be identified and dealt with. If this proposition holds, the peace following rebel victories could perhaps be expected to be less fragile. In those cases, the game that is developed here may be a less accurate description of the post-conflict dynamics. However, rebel victories are rare and, as Quinn and Joshi (2013) point out, rarely decisive. Even if being the "victorious" side, rebels are typically less in control, and the former government may be able to relaunch military resistance, as the Khmer Rouge did after being ousted from power in Cambodia (Kreutz 2012: 19). Thus, the situation following most rebel victories should at least not be entirely different from the game developed here. This is also indicated by a simple Cox regression reported in Appendix A. Whereas government victories significantly lead to a smaller risk of recurrence, rebel victories do not.

of victory. σ_i denotes actor i's cost of conflict. Thus, the government's utility of conflict is $(1-p)\Pi - \sigma_G$. Because of the inefficiency of war, captured by σ_i, there should always exist a division of the contested good Π, $\{\Pi, \Pi - x\}$ that both sides prefer to conflict (Fearon 1995: 383-384). The problem is that the rebels that have to demobilize cannot be confident that the government will remain committed to such a distribution after they have demobilized. This can be modeled by having two possible types of governments, one committed (C) and one uncommitted (U), where the committed type is unable to renege on its promise. The possible government types are thus denoted $\theta \in \{C, U\}$. Where this kind of commitment may come from will be investigated in later sections. For now what is important is how this element of uncertainty affects the chances of durable peace. The uncertainty is incorporated in the model by letting the fictitious player Nature draw the type of government. Nature draws a committed government with a known probability q, but the draw is not revealed to the rebels prior to demobilization. This game is illustrated in extensive form in Figure 2.1.

Figure 2.1: Post-conflict politics, one-sided incomplete information



Consider first the situation where there is not offered any concession, x. In this case, the former rebels will refuse to demobilize and go back to conflict as long as $p\Pi - \sigma_R \geq 0$, which means that there will be renewed conflict as long as the rebels are not so weak as to make the costs of conflict prohibitive. This fits well with the notion that conflicts that have ended in an overwhelming victory are less likely to recur (Luttwak 1999, Quinn, Mason and Gurses 2007, Toft 2009, Kreutz 2010*a*). A defeated side may find it impossible to return to conflict regardless of how it is treated following the conflict. A recent example is the strict military rule in Tamil provinces on Sri Lanka following the defeat of *The Liberation Tigers of Tamil Eelam*. In many cases, however, we should expect rebels to prefer going back to conflict rather than surrendering to an abusive government. Provided that there are not some external costs on making concessions, for instance related to the signal this may send to other groups (Wucherpfennig 2011), both types of government will always make an offer x, where x will never be so large as to make the government better off in conflict.

Whether the rebels will accept an offer, x, and demobilize depends on their belief about the government type, $b(\theta)$. As both types of Governments would make an offer (at least under the conditions that make the game interesting), there exists no separating equilibrium, and Bayesian learning based on observing an offer does not help the rebels in making a decision. Stated formally, $b(\theta = C|x) = q$. This makes it interesting to find the critical q necessary for the rebels to accept an offer from the government and demobilize. This is found by setting

$$q(p\Pi - \sigma_R) + (1 - q)(p\Pi - \sigma_R) \leq q(x) + (1 - q)0. \tag{2.1}$$

Simplifying and solving for q yields

$$q \geq \frac{p\Pi - \sigma_R}{x}. \tag{2.2}$$

Hence, the faith in the government's commitment to its promises needed to facilitate demobilization increases with the rebels expected utility of conflict and decreases with what potentially could be gained from peace. This is perhaps unsurprising and fits well

with the previous theoretical and empirical literature. It does, however, not answer the question of whether democracy will help build the foundations for lasting peace. Whether political institutions and institutional change can contribute to solving the post-conflict commitment problems will be the topic of the rest of this chapter. What should already be clear is two aspects of importance. Firstly, as the level of q is important for equilibrium behavior, some sort of guarantees about future policy must be provided. Traditionally, this is seen as one important function of political institutions (Acemoglu and Robinson 2006). Political institutions are the focus of the rest of this chapter. Secondly, such possible guarantees must be tailored towards limiting the commitment problem. Hence, there is already something to be said about what democratic institutions must be able to do in order to facilitate durable peace.

2.3 Is Democracy the Solution?

A strong correlation between democracy and durable peace has generally not been identified. Research on the effect of the level of democracy or democratization on post-conflict peace has typically not found any positive impact on the durability of post-conflict peace (Walter 2002; 2004, Collier, Hoeffler and Söderbom 2008, Hegre and Fjelde 2010). As discussed in Section 2.1, studies looking at the effect of post-conflict elections have also found these to be potentially dangerous (Reilly 2002, Flores and Nooruddin 2012), especially when they take place early in the post-conflict periods (Brancati and Snyder 2012). This section expands on how different aspects of post-conflict democracy may be theorized to have an effect on peace duration and shows that a disaggregation of the concept of post-conflict democracy is necessary.

Recognizing the strategic concerns facing post-conflict political actors, parts of the literature have come to optimistic conclusions concerning the potential of creating stable post-conflict democracy. Such conclusions have been derived from two different lines of thought on how democracy works, related in turn to two different theoretical frameworks on the emergence of stable democratic rule. The first line of thought is related to Acemoglu and Robinson's (2006) conception of democracy as a way for the elite to commit to future redistribution in favor of the majority. Extending this logic to the post-conflict setting, Metternich and Wucherpfennig (2011) argue that post-conflict democratization makes political bargains between former belligerents credible, and thus removes the risk

of conflict recurrence.

One problem with this perspective is that it remains unclear exactly how democratic institutions can solve the commitment problems specific to the post-conflict setting. Democratic elections may be enough to guarantee future redistributional policies and thus quell the threat of revolution in the case of elite-majority bargaining (Acemoglu and Robinson 2006). It is, however, not obvious how majority rule through elections will solve commitment problems where the actor with de facto power to disrupt the peace is not likely to win popular support in democratic elections. One plausible hypothesis is that the type of democratization associated with credible commitments takes on a different institutional character than the strict majoritarian conception of competitive elections (Metternich 2011: 913). Some research suggests that political institutions of consociational democracy are effective in preventing conflict recurrences (Binningsbø 2006; 2011). This may be because these institutions can more credibly signal a post-conflict order where former belligerents get a share of their political power. Looking at changes in de facto access to executive power for groups linked to the previous insurgency, Wucherpfennig (2011) finds that such changes decrease the chances of recurrence once endogeneity is accounted for.

The argument that elections alone do not work as a mechanism for credible commitment after civil wars finds support in the outcome of the 1991 election process in post-conflict Angola. When the UNITA leader Jonas Savimbi realized that elections would not provide sufficient political influence, he rejected the transition process and went back to war (Reilly 2002: 120). That elections not always secure a civil peace was also seen in Algeria the same year. In December 1991, *The National Liberation Front* cancelled the elections after the first round, as it became clear that the opposition party *The Islamic Salvation Front* was about to win the election (Bouandel 1993). According to Blaydes and Lo (2012: 129-130) this can be explained by the uncertainty regarding whether the Islamists were committed to a continued democracy or would establish an Islamist dictatorship. As Kalyvas (2000: 385) puts it, *The Islamic Salvation Front* failed to "signal credibly that it would not subvert the institutions once it won." Some further indication of why majoritarian elections may fail to build a road towards lasting peace was provided by the dominating Sinhalese parties in Sri Lanka, which used their democratic power to secure Sinhalese interests on a wide range of issues in the 1972 constitution (Joshi 2012: 6).

In a direct extension of Acemoglu and Robinson's (2006) logic, as is attempted by Metternich and Wucherpfennig (2011), the ability of democratic elections to solve commitment problems should depend on the relationship between de facto power as observed during the internal conflict and electoral strength. This means that democracy must work to secure the long-term interests of those capable of disrupting it. Arguably, the ability of electoral democracy to facilitate credible commitments does not to the same extent apply to peripheral conflicts in which the former rebel movements have smaller chances of winning support for their demand through participation in the national political system. This may help explain the existence of peripheral insurgencies in India (see Section 4.1), despite the relatively well-functioning democratic system. Indeed, one could expect that when the rebel movement only represents marginal groups, elections in which power is left to the majority make it harder to satisfy rebel demands (Metternich 2011). In fact, the commitment problems may become more severe as elections may only serve to provide the other side with legitimacy. Because opening up for majority influence on politics does not necessarily solve post-conflict commitment problems, it remains unclear how democratization could make post-conflict peace more durable.

There are, however, other aspects of democracy that more generally should help solve commitment problems. These are institutions that regulate the political process and provide opportunities for former rebels to react against reneged promises, without having to go back to conflict. The expected utility of accepting peace under competetitive democracy even without realistic chances of gaining power through the electoral channel should be higher if there are institutions that protect the rule of law and constrain those in power. One of the few scholars that have investigated the impact of these types of institutions is Walter (2010). She finds that having a formal constitution decreases the chances of conflict recurrence, while measures of repression increase these risks. What is common for the type of institutions Walter (2010) finds to be important is that they put limitations on what a legitimate government may do. Similarly, Flores and Nooruddin (2012) find that early post-conflict elections are less risk-inducing for countries with a previous democratic experience, and argue that this is because the constraints on the executive are stronger in these countries. Lijphart (2004) posits that a stable post-conflict democracy requires that all relevant groups are guaranteed influence and protection.

Another view of post-conflict democracy is related not to democracy as providing solutions to the post-conflict commitment problem, but to Przeworski's (1991) theory of

the role of uncertainty in establishing self-enforcing democracy. According to Wantchekon and Neeman (2002), former belligerents should be able to agree to let the people arbitrate the dispute if both sides face a decent chance at succeeding in the post-conflict electoral competition. Previous research has found electoral strength to be important for whether rebel leaders will accept democratization. Metternich (2011) does for instance find that the success of democratizing interventions by international organizations in ending African conflicts is related to the potential electoral strength of rebel movements.

If the latter view is correct then it might, however, also suggest a potential troublesome impact of post-conflict democracy. If civil war actors are able to agree to democracy because they think they face a decent chance of electoral success, one should perhaps expect a sore loser effect when some groups lose the competition for ballots. Such electoral losses may make it tempting to return to the guns. This effect is what leads Durant and Weintraub (2010) to believe that majoritarian democracy cannot be self-enforcing after civil war. Losing an election is expected to lead to the type of exclusion from state power and competition over the spoils of government that is seen as one important source of conflict (Wimmer, Cederman and Min 2009: 317). In other words, elections may yield results that armed actors consider worse than renewed conflict and this may make conflicts more likely to recur. In some cases, this danger can be recognized by the voters, as when Charles Taylor was elected president of Liberia under the slogan "He killed my Ma, he killed my Pa, but I will vote for him anyHa" (Outram 1999: 167).

In other cases, the prospect of loss in elections may lead to electoral fraud and attempts by some parties to distort the election process, which might cause a spiral of violence and renewed conflict. Hence, elections may be important trigger events for new violence (Sisk 2008, Brancati and Snyder 2012). Thus, whereas elections in stable democracies may offer the citizens an opportunity to assess whether elites are respecting the rules of the game and rebel if they are not (Fearon 2011), post-conflict elections may reveal to some armed actors that their interests will be better served by conflict. Przeworski's (1991) framework does of course offer a possible solution to this problem. If the losing faction views the chances of future electoral success as sufficiently good, the expected utility of respecting election outcomes may be higher than that of renewed fighting (Strand 2007: 299). Such a mechanism probably exists, but there are aspects of the post-conflict setting that makes it less plausible here than in other contexts. Firstly, emerging from armed conflict the political actors already have the relevant experience and organizational

capacity for conflict which is likely to increase the expected utility of conflict. Secondly, this explanation rests on the assumption that the commitment problems highlighted in the literature as obstacles for democratic settlements (Walter 2002) have already been solved. Hence, this mechanism can only be part of a broader explanation of peace-strengthening effect of democracy. This motivates the disaggregation of post-conflict democracy embarked on in the next section.

Such a broad explanation may for example include the type of institutions Lijphart (2004) proscribes for divided societies. Recognizing the dangerous aspects of post-conflict majoritarian elections, post-conflict actors may introduce institutions to limit the zero-sum aspects of competitive elections (Mukherjee 2006) and facilitate credible commitments (Hartzell and Hoddie 2003; 2007, Wig and Hegre 2013). Such institutions may work in conjunction with democratic competition in producing a peaceful equilibrium. That the quality of other democratic institutions are important for the effect of post-conflict elections is also suggested by Flores and Nooruddin's (2012) finding that the effect of early post-conflict elections depends on whether the country has previous democratic experience.

In conclusion, previous research has not found any clear link between democracy or democratization and durable peace. Furthermore, some authors argue that democracy may help solve post-conflict commitment problems while other contributions point to potential dangers of post-conflict democracy. One plausible explanation for this is that different types of institutions associated with democracy may have different effects on the chances of conflict recurrence. This motivates the disaggregation of post-conflict democracy embarked on in the next section.

2.4 Disaggregating Post-Conflict Democracy

In this section I discuss ways of disaggregating post-conflict democracy. Formally, this is done by letting elections be the mechanism that decides which actor will be allowed to decide the distribution of the political pie, Π, as well as letting institutions that constrain the majority be the mechanism that determines a majority's ability to abuse its power. As was discussed in the last section, opening up for majority access to power and imposing constraints on the government may have very different effects in the post-conflict setting. Variation in whether elections are combined with institutions that limit the power of the

winner of the election has been suggested by previous research to be related both to onset of civil war (Hegre et al. 2001, Hegre and Fjelde 2010) and more generally to the stability of democratic regimes (Gates et al. 2006). Collier (2009: 15) argue that the introduction of elections without institutions that punish abuse may not have any positive impact in post-conflict settings. The model developed in section 2.4.1 incorporates this institutional variation. The equilibrium outcome is to a great extent a reflection of the strength of the constraining institutions. The exact nature of these are discussed in more detail in section 2.4.2.

2.4.1 A Model of Post-Conflict Democracy

As before I assume two actors. For simplicity, these are still denoted $i \in \{G, R\}$. As should be clear from Section 2.2, it should be possible to build mutually beneficial peace by offering the rebels a sufficient piece, x of the political pie, Π. x still denotes the share of Π allocated to R. However, instead of basing the peace on government concessions, a democratic order is adopted where there exists a range of possible values of x, so that $x \in [x_{min}, x_{max}]$. Moreover, both actors may now get control over the executive as this is decided according to democratic rules. An election determines which actor is to set the level of x, thus introducing ex ante uncertainty. This is modeled as Nature drawing the rebels as the election winners with a probability, ϵ. ϵ is thus the propability of the rebels gaining power through the first election.

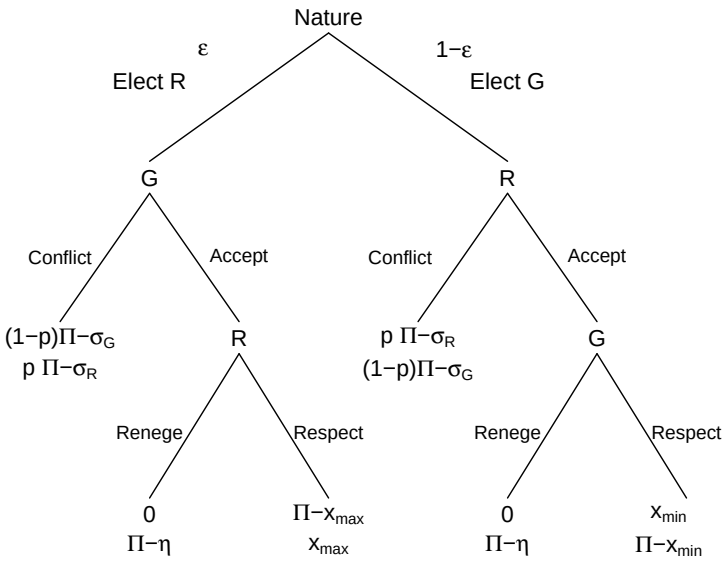
As in the model developed in Section 2.2, one source of concern is that the party in power will eventually take advantage of its control of the state. As argued by Flores and Nooruddin (2012: 558), the problem of elections is that election winners may use their power to punish their enemies. Thus, the election victor may choose to allocate the entire Π to itself. Annan (2004: 12) points out that this is often a concern after civil wars, and particularly in Africa, where the state is more susceptible to the capture by for instance ethnic groups. This may make post-conflict elections a zero-sum game with all the riches of the state at stake.

To avoid this problem, institutions other than elections may be introduced. These may include checks and balances, the rule of law and other institutions that introduce limits on the feasibility of abusing power. This may be introduced in the model as a parameter, η, that is subtracted from the Π that is realized from deviating from legitimate

distributions of x. This may seem like an artificial modification of the model, but has the straightforward interpretation that a move away from the political order involves a non-zero cost. In more substantive terms, η can be seen as a parameter capturing the extent to which other political institutions are able to make sure that democratic rules are upheld following an election (Strand 2007: 293). The strength of these institutional constraints is one important source of variation between self-proclaimed democracies that may be important in explaining internal conflicts (Strand 2007: 312).

Prior to the election winner's decision on x, the election loser decides whether to accept the election result or to go back to conflict. If conflict is the outcome then the former rebels are assumed to get a payoff of $p\Pi - \sigma_R$, whereas the government gets $(1-p)\Pi - \sigma_G$. As before, p denotes R's probability of victory and σ_i denotes actor i's cost of conflict. This model of post-conflict democracy is shown in extensive form in Figure 2.2.

Figure 2.2: Post-conflict democracy



Solving the model reveals an important aspect of the impact of post-conflict democracy. Whether there is conflict in equilibrium is first and foremost a function of the

strength of the constraining institutions, η. The ability to observe which institutions are in place prior to making a decision to demobilize, makes this a complete information game. Thus, whereas equilibria in the more general model of post-conflict politics could be seen as a function of belief in how committed the other side is, equilibria in this model depend on expectations about future outcomes as determined by political institutions that may be observed directly. It is thus straightforward to solve the game using backwards induction.

If the election results in a rebel victory, solving the game must begin by looking at the decision node where the rebels implement their policies after having gained control over the state. Whether they diverge from the legitimate divisions of Π will depend on whether $\Pi - \eta > x_{max}$, in which case the domestic institutions are not strong enough to avoid the election becoming an opportunity for seizing the state. Predicting this, the "Government", G, will choose to contest the election result as long as $(1-p)\Pi - \sigma_G > 0$. An empirical example is the Algerian government's decision to initiate an armed conflict in the prospect of an opposition victory in the 1991 elections. As expressed by the US Assistant Secretary of State, Edward Djerejian, the reason was the fear that the election would end up as "one person, one vote, one time" (Djerejian 2008: 23). If on the other hand the institutions are strong enough to constrain the rebels once in government, the former government, G, would be able to give up its power as long as $\Pi - x_{max} \geq (1-p)\Pi - \sigma_G$. The equilibrium chance of conflict will thus depend both on whether the losing side prefers submitting to democracy to recurrent conflict and whether election winners are constrained by other political institutions so that they are not tempted to abuse the power gained through the electoral channel. The condition under which there will be peace following a rebel election victory is therefore

$$\eta \geq \Pi - x_{max} \geq p\Pi + \sigma_G. \tag{2.3}$$

By symmetry, the condition under which there will be peace following government election victory is given by

$$\eta \geq x_{min} \geq p\Pi - \sigma_R, \tag{2.4}$$

The cost involved in defecting from legitimate distributions of Π once in power must thus be greater or equal to the difference between the total Π and the electoral winner's

maximum share of the political pie. Furthermore, this difference between what is legitimately allocated to political winners and the total political pie cannot be so small as to make conflict more beneficial than loyal opposition to the losers of the election. In other words, the cost of peace has to be lower than the cost of conflict for those left in opposition.

Substantially, this means that elections by themselves do not solve the commitment problem facing the post-conflict political actors. What matters for the durability of peace are the other institutions that makes it safe for the losing side to hand over power to the electoral winners. In other words, *there will be peace in equilibrium following an election as long as the loser has more to gain from peaceful opposition than from returning to conflict.* The chances of this being the case depends largely on the ability of other institutions to constrain the winners of the election following a demobilization of the other side. "Indeed, institutional constraints on executive power such as a parliament or independent courts reduce the ability for the potential winner of an election to forever exclude political rivals, ethnic minorities, and leaders of insurgent groups from power" (Mukherjee 2006: 409).

One implication of this is that parties committed to peace could be expected to try to build this kind of constraining institutions. As Wucherpfennig (2011) points out, this introduces an endogeneity problem, where the effects of such institutions are hard to isolate from what lead to their adoption. As theorized by Elster (2000), adopting strong institutions may be one way for an actor to make sure that they will be constrained in the future and thus escape the commitment problem. The empirical difficulties this introduces are discussed in Section 3.4.1. At this point it should, however, be noted that the willingness to introduce constraining institutions may be related to the commitment to peace. It may for instance be that conflicts ending in mutually hurting stalemates both are less likely to recur and more likely to experience post-conflict democratization than other conflicts (Joshi 2010: 23). On the other hand, Joshi (2010: 37) may be right that the cases most likely to democratize are also those cases that previous research has found to be most at risk, such as stalemates. As was suggested in Section 2.2, peace may be stable regardless of political institutions when one side has a prohibitive high cost of recurrent conflict. Joshi (2010) argues that there in these cases are only small incentives to democratize. Thus on one hand, more committed actors may build stronger institutions, on the other hand these more committed actors may face a less stable peace. The general

point is, however, that institutions should not be seen as something completely exogenous to the outcomes they produce. Recognizing the potential selection issues, it is still possible to look further into what institutional makeups are more likely to facilitate durable peace.

The discussion thus far allows for a preliminary conclusion. Elections are by themselves not likely to provide the foundation for lasting peace. However, institutions designed to constrain and regulate the post-demobilization political process should be important in making post-conflict elections be a force for peace. The next section will elaborate on what these institutions are, and how this prediction can be tested.

2.4.2 The Conditional Effect of Post-Conflict Elections

This section investigates the prediction of the theoretical model further. A key implication of the model is that the impact of post-conflict elections depends on the presence of institutions that limit the authority of elected governments. Such institutions serve as guarantees against majoritarian abuse in consolidated democracies, but are typically less developed in new democracies (Kapstein and Converse 2008*b*: 26-27). The reason why they are important is that they provide a way of restraining governments from abusing their power. As is seen in the model in section 2.4.1, this may shift the equilibrium outcome from renewed conflict to stable peace.

Dahl (2006: 36) points out that even if some sort of constraints on majority power will be needed, this does not necessarily imply a need for formal institutions. It is also possible to argue that individual ethics and social norms can play restraining roles. This may be part of the story in consolidated democracies. Yet, informal constraints cannot be expected to solve the post-conflict commitment problem, as informal constraints ultimately rest on trust (Lijphart 2008: 113-114). Precicely because of the commitment problem discussed in Section 2.2, such trust is likely to be in limited supply in post-conflict politics. This means that the institutionalization of constraints should be critical.

It may, however, not be clear whether such institutions can ever be expected to be strong enough to make respecting democratic rules more beneficial than abuse for a post-conflict majority. In other words, the condition that $\Pi - \eta$ provides less utility than the election winner's preferred level of x, may seem depressingly limiting. As noted by Persson, Roland and Tabellini (2000: 1122-1123), committing to policies after elections is difficult: "Elected political offices, whether executive or legislative, carry important

powers that are always partially – sometimes even greatly – unchecked".

For institutions to have a strong enough impact they must be based on something other than providing a disarmed opposition an arena for protest. Persson, Roland and Tabellini (1997) show formally how the introduction of checks and balances hinder elected governments from abusing their power by removing the option of enacting policies unilaterally. Institutions are only as strong as the effort needed to undermine them. A powerful way of avoiding such abuse is to make different political offices check the power of each other. Importantly, attempts to circumvent institutions of popular control may also alienate members of the majority side in a way abuse of the opposition would not. Abuse of power may thus require subverting a larger institutional structure which is likely to involve substantial costs (Wig and Hegre 2013).

Thus, such institutions may involve substantial extra costs on abuse. Besley and Persson (2011: 1430) argue that the institutional constraints on the executive are the best measure of the degree to which there is an institutionalized ability to make commitments not to expropriate the opposition. For the formal model in the Section 2.4.1, whether there is peace in equilibrium was shown to depend in part on the inability of electoral winners of expropriating all political power. The executive is likely to be the institution under which such power is expropriated. Constraints on the executive should be seen as an important determinant of the ability of expropriating the entire political pie.

Previous scholarship on the effect of executive constraints on civil war termination has argued that constrained executives may be less successful in negotiating an end to civil war because an empowered opposition puts limits on what kind of policies they can pursue (Thyne 2012). On the face of it, this may seem to be a powerful counterargument against the role of executive constraints hypothesized here. On closer examination the two claims are, however, not orthogonal. The same mechanisms that should limit the bargaining space of the executive during a negotiation, should limit the range of policies feasible to the executive after negotiations have ended. Although this might make it more difficult to reach agreements or grant what is perceived as unjust amnesties to small insurgent groups, it also makes it less likely that a government will be able to renege on a settlement already in place. What drives the argument is that executive constraints make it more difficult for a government to renege on decided policies. Within the context of negotiating an end to ongoing conflicts, this may be a problem as a government typically will have committed to defeating insurgents. However, once a settlement is in place, not

being able to renege on commitments should be a force of peace. Thus, where peace is already established, constraints should make peace more durable as the chances of abuse are smaller.

Examples on constraints on majority power playing such a role include the parliamentarian provisions in the interim constitution of post-conflict Nepal (Joshi 2012: 21). By providing the other political factions with the ability to constrain the Maoists, these provisions facilitated a process where election results have been respected and violence has been limited. Strasheim and Fjelde (2012: 12) link the aforementioned conflict recurrence in Angola following the 1992 elections to the absence of constraints placed on the executive branch under the 1991 Bicesse Agreement.

More broadly, it has been found that democratic stability in developing countries to a significant extent depends on the degree of executive constraints (Kapstein and Converse 2008*b*: 63-65). Here too, the hypothesized mechanism is the ability to avoid abuse of power secured through the electoral channel. Cross tabulations also suggest a relationship between constraints on the executive and a sustained post-conflict democratization (Strasheim and Fjelde 2012: 14). In accordance with the theoretical model of post-conflict politics developed here, constraints on the executive seem to be of great importance for the peace building potential of post-conflict democracy. Such institutions allow letting an elected government assume power, without raising concerns that the settlement of the conflict will not be respected.

To summarize, the model developed in section 2.4.1 incorporates two types of democratic institutions: elections and limitations on majority power. What the model shows is that the potential for elections to increase the risk of recurrence is highly dependent on how well regulated the post-conflict political system is. This suggests an interaction effect between elections and constraining institutions.

Hypothesis 1. *The effect of elections on the durability of post-conflict peace depends on the level of executive constraints. Holding elections will only make peace less durable where strong constraining institutions are not in place.*

2.5 Conclusion

In this chapter I have developed a theoretical framework for understanding the relationship between democracy and post-conflict peace. The key proposition is that the

threat the commitment problems pose makes regulation and effective constraints important for the peace building impact of post-conflict elections. A general conclusion is that competitive elections by themselves cannot be expected to make peace more enduring. This follows from the importance of the post-conflict commitment problems in laying the ground for durable peace. From this I derive the hypothesis that post-conflict elections are more likely to contribute to durable peace the stronger the constraints put on majority power are.

The next chapter proceeds to develop a research design for testing the proposition that constraints that solves the commitment problem makes post-conflict democracy more likely to contribute to durable peace. This allows evaluating whether the equilibria of the theoretical model are reflected in the empirical data.

Chapter 3

Research Design

In this chapter I develop a quantitative research design aimed at testing the proposition that the strength of the constraints put on post-conflict majorities determine the peace building potential of post-conflict elections. This chapter thus bridges the gap between the theoretical model which is developed in Chapter 2 and the empirical data which are analyzed in Chapter 4. Firstly, I outline how the dataset covering the 1972-2005 period is assembled. Secondly, I proceed to discuss the operationalization of key variables. Thirdly, I present survival analysis, and more specifically the Cox model, as the statistical approach to test the hypothesis. Fourthly, I outline important sources of bias and what is done to limit the bias that endogeneity, unobserved heterogeneity and missingness might introduce.

3.1 Dataset and Unit of Analysis

I use the information in the UCDP Termination Dataset (Kreutz 2010*a*) to construct a dataset of post-conflict peace spells. This is done by measuring the time between a termination date of a conflict episode and the start date of onset of a new conflict episode between the belligerents of the same conflict. Thus, this is the source of both the dependent variable, which is the durability of post-conflict peace and the unit of analysis which is the post-conflict peace spell.

In the UCDP Termination Dataset conflicts are coded as having ended if the total number of casualties in a year drops below the thresholds of 25 battle deaths. A low theshold limits the problem of conflicts being coded as terminated due to fluctations on the number of battle deaths (see e.g. Collier, Hoeffler and Söderbom 2008:466). Yet there

are some cases of low-intensity conflicts being coded as having ended because the number of battle deaths have dropped below 25. This may be problematic if these conflicts have never really ended (Rustad and Binningsbø 2012: 536). To avoid this problem I follow the approach in the existing literature in only considering as peace spells those cases where the peace lasted for at least two years (Gates and Strand 2004). Appendix B contains a list of all included peace spells.

As important determinants of conflict recurrence vary with time, I split each peace spell into "peace spell-years" to allow for time varying covariates. The reason for splitting the data in years even if the dependent variable is measured in number of days, is that the independent variables and most controls are only observed yearly. Thus, even if the duration of peace can be measured more precisely, the same is not the case for all the variables affecting the duration of the peace. I do, however, not expect this to affect results. As theory does not allow predictions about the exact dates of recurrences, little is lost from only observing yearly changes in important covariates.

The UCDP termination data set is dyadic in that conflict episodes are coded as being part of the same conflict only if both sides of the conflict remain the same. If a new conflict breaks out within the same country, this is not coded as a recurrence if the opposition side is different. How peace spells are defined is not trivial. Dahl and Høyland (2012) show how different definitions of what a peace spell is may lead to different results. The reason for looking at new conflict-episodes rather than new conflicts is that the data-generating process causing some countries to be more war-prone may be different from the processes that make some dyads return to conflict after some years of peace (Walter 2004). As the first type of process is of less interest to the research question of this thesis, I use a dyadic criterion to identify peace spells. Employing a dyadic dataset thus facilitates a closer link between the theoretical and empirical model.

3.2 Operationalizations

Testing the predictions made by the theoretical model empirically requires operationalization of the theoretical concepts. Constructing indicators that make it possible to capture the theoretical constructs empirically is hence an important part of the research process (Adcock and Collier 2001). Conclusions may plausibly be driven by the choices made when going from theoretical constructs to empirical indicators. This is especially a risk

when working with complex and elusive theoretical constructs such as "constraining institutions". Thus, in this section great care is taken to identify operationalizations of these concepts that fit well with the theoretical constructs of Chapter 2. In addition to the key independent variables of interests, a set of control variables are also identified. These include operationalization of the other parameters crucial for equilibria in the formal models and potential confounders, and alternative explanations provided by the existing literature.

3.2.1 Independent Variables

The research question and the hypothesis derived from the theoretical model are concerned with two independent variables. These are elections held in post-conflict settings and the level and quality of institutional constraints placed on majorities in the settings where such elections are held.

3.2.1.1 Post-Conflict Elections

The first independent variable that has to be operationalized is elections. It is only where elections are held that the formal model in Section 2.4.1 is valid and where the level of institutional constraints on majority power is hypothesized to be crucial for facilitating a durable peace.

When investigating the conditional effect of elections on the durability of post-conflict peace a difficult question is for how long elections can be expected to have an impact. It seems unrealistic to expect elections only to have an impact in the month or year in which they are held, as both the period leading up to and the aftermath of the election may be affected by expectations for and reactions to the election. At the same time it would be problematic to blame a recurrence that happened several years after the election on a post-conflict election.[1] To make sure that inferences do not rest on any arbitrary demarcation on when elections can be expected to have an effect, I employ two different measures to tease out the effect of post-conflict elections. The first is a binary indicator for whether there was an election in the year of observation. This allows investigating

[1]There are, however, studies indicating that the long-term impact of early post-conflict elections. Such early elections have for instance been found to lead to polarized party systems which again could lead to conflict recurrence (Jarstad 2008: 31-32). Such effects are, however, beyond the scope of this thesis.

whether the risk associated with being in a post-conflict election year is mediated by the level of constraining institutions.

Recognizing that this dummy is a rather crude indicator for the effect of elections, which probably does not only exist in the election year, I also use a variable that is a count of the years to the nearest post-conflict election in both directions of time. For peace spells where post-conflict elections were never held, I set the time distance to the maximum of 28. This may be problematic, but is in line with the existing literature. Strand (2007: 316) similarly employs a decay function measuring the proximity in time to the second election after a regime change, and assumes that if no second election is observed, time can be set to infinity.[2]

Because the effect of elections is expected to diminish over time, I take the natural logarithm of the distance (+0.1, to avoid taking the natural logarithm of 0). One alternative operationalization would be a decay function where the effect of elections are assumed to decline exponentially over time (Hegre et al. 2001, Strand 2007: 316). To make sure that assumptions regarding the functional form of this variable are not biasing the results I replicate one of the main models with Strand's (2007) decay function as a robustness test. This is reported in Appendix D. The results are robust to the choice of operationalization.

A more problematic assumption is perhaps the assumption of symmetry in the effect of election proximity. On the one hand one could assume, as do Collier, Hoeffler and Söderbom (2008: 470), that it is first and foremost the aftermath of an election that will be important. On the other hand many countries have rather long campaign periods prior to elections, while the dust settles quickly after the votes are counted. This would suggest the effect to stretch further into the time prior to the election. Linebarger and Salehyan (2012) find that the level of social conflict in African countries increases in periods leading up to elections but declines after the election has been held. The assumption of symmetry is tested in Appendix D. Although the results are slightly stronger for the aftermath of elections, they are not radically different. It can thus be concluded that the results are

[2]I have also experimented with setting the value for the cases which never had elections to the mean value of 18.6. This model is reported in Table D.1 in Appendix D. Setting these values to mean makes all the constituent terms of the hypothesized interaction stronger and more significant. The explanation for this is that some of the cases which never had elections also experienced recurrences. Thus, letting these cases have a higher value on the variable measuring the distance to the nearest election may introduce a downward bias for the effect of election proximity. Setting the time until election to the maximum for cases may be problematic but is not driving the results in favor of the hypothesized interaction.

not driven by the assumption of symmetry.

A second issue is which elections should be included. Here two questions are important. The first question is which type of elections should be included. What is of interest within the framework of this thesis are the elections that can allocate control over the political pie to one of the former belligerents. Depending on the political system of the country in question, this may be both legislative and presidential elections. Both of these election types are thus included. Some research has argued that presidential elections are more likely to take the form of zero-sum games (Linz 1990:55-58, Lijphart 2004:111). Whether the results are driven primarily presidential elections is a question that is investigated as a robustness test in Section 5.2. The effect is stronger for executive elections but more significant for elections to legislatures. Importantly, the same pattern is present regardless of the type of election. Grouping these elections together should thus not be seen as an important source of bias.

A second question is how democratic an election should have to be in order to be included. It may be problematic to employ a very restrictive coding rule. First of all this may lead to the selection of elections only in countries with other democratic institutions. More importantly, having a high threshold for competitiveness may lead to the exclusion of elections that were boycotted by an opposition that instead returned to conflict. However, some restriction seems appropriate to avoid the inclusion of mock elections in very authoritarian states, which may have stable peace spells for completely unrelated reasons. I thus only include elections where the winning side received less than 90 % of the total votes. This is not a very restrictive inclusion criterion, but it does exclude the most obvious mock elections. I use election data from the IAEP-dataset (Regan, Frank and Clark 2009) which includes all elections to executives and legislatures for the 1972-2005 period.

3.2.1.2 Institutional Constraints on Majority Power

The other independent variable that must be operationalized is institutional constraints on majority power. Here two issues are important: first the indicator should capture the type of constraining institutions argued to be important in Chapter 2 rather than adjacent concepts such as the level of inclusiveness. In existing empirical applications such subtleties are often lost (e.g. Joshi 2012). As discussed in sections 2.4.1 and 2.4.2, it is the horizontal constraints placed on the executive power that are likely to be most important within the framework developed in Chapter 2. If election-induced recurrences

are driven by the fear that election winner will seize control over the entire political state, it should be the institutions of checks and balances that are explicitly designed to avoid such abuses that will have the clearest effect.

Moreover, one is faced with a dilemma of capturing the de facto level of constraints that is imposed by political institutions or focusing on formal institutions that are thought to lead to high levels of constraints. What is important for the equilibria of the formal model in Section 2.4.1 are the costs involved in deviating form legitimate distributions of the political pie, Π. These costs were captured by the level of the parameter η. This suggests that it is the de facto levels of institutional constraints that matter. For these institutions to have an effect it must be well-known that they will produce costs for an election winner trying to back away from the legitimate post-conflict order. Yet a strong focus on realized levels of constraints may miss how specific formal institutions are the source of these constraints. "Indeed, transitionary 'constraints' would not necessarily bind, and may be changed by those who do not like them" (Glaeser, La Porta, de Silanes and Shleifer 2004: 275). There is thus a case to be made also for concentrating on specific formal institutions that should be expected to produce certain outcomes. The problem with this is of course that it may lead to the inclusion of sham institutions existing only as scraps of paper.

It should be noted that these two strategies in many ways could compliment each other. One reason is that their biases are of opposite directions. Indicators of institutions based on de facto performance will tend to fluctuate more than the durable institutional characteristics they are supposed to measure (Glaeser et al. 2004: 277). De jure institutions, on the other hand, are coded irrespective of whether they have any influence on day-to-day politics. If the same results are found regardless of which measurement strategy is employed, it should provide increased confidence in the validity of Hypothesis 1. Another reason why these strategies may compliment each other is that they are not only different empirical strategies, but can also be seen as ways of testing different empirical evidence of the same theory, as is recommended by King, Keohane and Verba (1994). If Hypothesis 1 is right then both higher levels of observed de facto constraints and formal institutions aimed at checking and constraining the power of elected governments should increase the peace building potential of post-conflict elections. A third reason is that developing both empirical strategies opens up for convergent validation of each strategy (Adcock and Collier 2001: 540). Assuming that both measures capture the same

underlying concept of institutional constraints, they should be correlated.

As a measure of constraining institutions that is informed by institutions' de facto performance, I use the measure of the Polity-index measuring executive constrains, labeled XCONST (Marshall, Jaggers and Gurr 2004). This variable measures "the extent of institutionalized constraints on the decision making powers of chief executives, whether individuals or collectives" (Marshall, Jaggers and Gurr 2004: 24) on a seven-category scale ranging from unlimited authority to executive parity or subordination. As argued by Besley and Persson (2011: 1431) this measure is the empirical indicator most appropriate for capturing the stiffness of constraints placed on majority power.[3] A first sub-hypothesis derived from Hypothesis 1 is thus

Hypothesis 1.1. *The effect of elections on the durability of post-conflict peace depends on the level of executive constraints as captured by* XCONST.

One problem with using components of the Polity-index such as XCONST to study the composition of political institutions after conflict is that data on such institutions is missing in what the Polity-project defines as interruption, interregnum and transitional periods (Marshall, Jaggers and Gurr 2004: 19-20). The reason for this is that periods of political transition are thought to be orthogonal to the institutional makeups that may emerge from such transitions. As demonstrated by Plümper and Neumayer (2010), making assumptions about what goes on in these periods is a problematic exercise. Assuming a particular score for XCONST in all such cases could be an important threat to the validity of this variable and potentially bias regression results (Plümper and Neumayer 2010: 210). Instead of assuming some general level for these cases I thus treat them as missing and impute values through a multiple imputation model, as is discussed in Section 3.4.3. The observations affected and the imputed executive constraint scores are reported in Appendix C.

Another question concerning the XCONST-variable relates to the level of measurement. Technically the XCONST-variable may be regarded as ordinal as it is not clear that the differences between the levels reflect equal differences in the actual level of constraints imposed on an executive (Strand 2007: 318). Most contributions to the literature have, however, been willing to treat the executive constraints measure as continuous (Glaeser et al. 2004, Acemoglu and Johnson 2005, Thyne 2012). To the extent that this is vi-

[3]For an additional application within the study of conflict recurrence see Wucherpfennig (2011: 22).

able, treating the measure as continuous allows making use of more variation in the data and is thus the strategy that is pursued here. The seven category scale seems to capture relatively small and equivalent differences in the degree of constraints. Moreover, dichotomizing the executive constraints measure yields substantially very similar results. Hence, I do not consider the assumption of continuity to be an important source of bias.

As a measure of institutional constraints based only on which formal institutions are in place, I use a binary variable capturing whether the executive and the legislative power have the power to veto each other's decisions. This captures precisely the type of formal institutions that Persson, Roland and Tabellini (1997: 1166) consider to be most important for constraining elected governments, as it means that "no policy can be implemented unilaterally". Wig and Hegre (2013: 11-12) argue that the existence of a formal institution of mutual vetoes is highly indicative of the type of institutional balance of power which should make expropriation of the opposition more costly. Data on whether the formal institution of mutual veto power is present in a country is available from the *Institutions and Elections Project* (IAEP) (Regan, Frank and Clark 2009).

The dummy takes on the value of 1 if "the legislature have the constitutional power to stop executive action" and "the executive have constitutional veto power over laws passed by the legislature" (Regan and Clark 2010: 6). The coding is based on de jure characteristics rather than subjective assessments of how these institutions perform. The more precise criteria for exactly how the constitutions are imposing these constraints may lead to the exclusion of similar institutions filling much of the same purpose. This notwithstanding, in combination with testing sub-hypothesis 1.1, interaction the election measures with a dummy allows further testing of Hypothesis 1.

Hypothesis 1.2. *The effect of elections on the durability of post-conflict peace depends on whether the legislative and executive branch of government have the formal power to veto each other's decisions.*

Having two different indicators of the same underlying concept makes it interesting to investigate how well these two indicators converge empirically (Adcock and Collier 2001: 540-542). The correlation between these two variables is not particularly high even if they are positively correlated. The point-biseral correlation is only 0.255 for the sample of post-conflict peace spells.[4] One plausible explanation for the relatively low correlation is

[4]The point-biseral is the correlation coefficient that is used when correlating a dichotomous variable with a continuous variable.

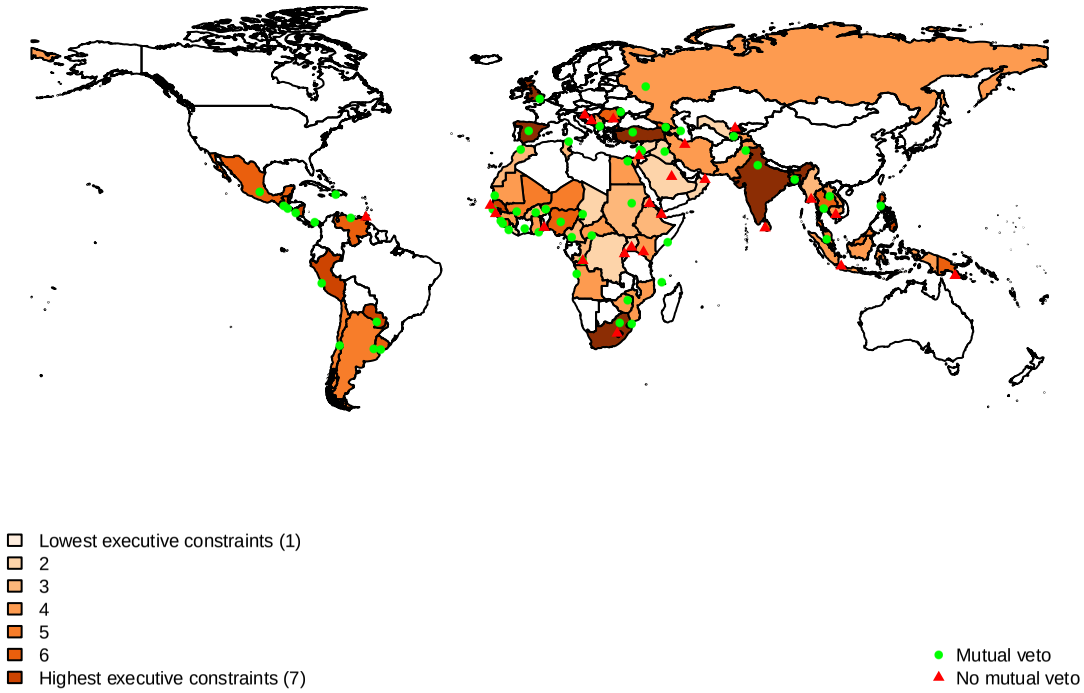
perhaps that there may be considerable variation in the performance of de jure institutions in the post-conflict setting. This would be in line with what has already been discussed. This interpretation is supported by the comparison of the percentage of observations with mutual veto at high and low levels of executive vetoes. Among the observations with XCONST-scores of 6 or 7, 82.3% have de jure institutions providing a mutual veto power. Thus most of the observations where the de facto executive constraints are high have some de jure institution providing for mutual vetoes in the decision making process. The percentage among the observations at the opposite end of the XCONST-scale (scores of 1 or 2) is 52.1%. Thus, the de jure institutions providing for a mutual veto is common also in the post-conflict countries where de facto constraints are non-existent. This can be seen from the map in Figure 3.1, which shows the mean XCONST-score for the countries with peace spells in my sample as well as the presence of de jure provisions for mutual vetoes as coded by IAEP. Although there is a tendency for mutual vetoes to go together with higher de facto executive constraints, they are found also in countries with low mean XCONST-scores.

An empirical example that will be discussed in chapters 4 and 5 is Haiti in the early 1990s. After the recurrence of conflict following the 1991 presidential election, Haiti's executive constraint score dropped from 6 to 1. This reflected how the elected president Aristede had been ousted and a military junta taken the de facto power (Nelson 1998: 72-736). Because the constitution was left unaltered, Haiti is, however, coded as having mutual vetoes for the entire period.

There are also examples of the opposite case where there are no formal institutions of mutual vetoes, but executive constraints are coded as high. Examples in this category include peace spells in some former British colonies such as Sri Lanka and Trinidad and Tobago, but also countries like Romania and Croatia. The general picture seems to be that constraints on majority power are in place in these settings, but that there are no constitutional arrangements for mutual vetoes. The only case in this category which experienced a recurrence was the Israeli-Palestinian conflict, which may be considered atypical as the two sides do not compete within the same domestic political system.

In general the two operationalizations of constraining institutions seem to capture the same underlying concepts of institutions limiting what an elected majority may do with its power. However – and as expected – there is an important difference in that de jure

Figure 3.1: Mean levels of XCONST and institutions for mutual vetoes for countries in the sample



institutions exist in a broader range of settings. That very few cases are coded as de facto constrained, even when this de jure indicator has a zero-score does, however, lend support to the notion that these indicators capture the same type of institutions.

To avoid problems of reverse causality related to how institutions may change as a result of recurrences, I lag both XCONST and the mutual veto dummy with one year. In other words, for each peace spell-year, t, I use the score in year $t-1$. Changes in scores on the institutional variables due to the recurrence of conflict should thus not bias results. An opposite bias may, however, be introduced. For example Argentina had a competitive election in 1983, six years after the end of conflict, and the executive constraints score was upgraded from a minimum to a maximum score. According to Uppsala Conflict Data Program (2013*a*) peace became "further stabilized" as a result of this democratization. Because of the lag in XCONST-variable, this election does, however, count as having occurred within an unconstrained political system. Thus, even if the Argentinian conflict never recur after this, this is not allowed to count in favor of sub-hypothesis 1.1. Thus, there may be a downward bias in the reported results. As it is generally considered better to fail to reject a false null hypothesis than to make the opposite mistake, I choose to lag the institutional constraints while knowing that this can make it harder to find support for the hypothesized relationships.

3.2.2 Control Variables

In addition to these explanatory variables, a set of central variables are included in the baseline statistical model. This is necessary to avoid omitted variable bias. Omitted variable bias occurs when a variable that is correlated with both the dependent and the independent variable(s) is excluded from the analysis. The estimated coefficient for the affected independent variable is then neither consistent nor unbiased (Stock and Watson 2007).

To avoid the problem of omitted variable bias I thus employ a set of control variables found to be important predictors of internal conflicts (Hegre and Sambanis 2006) as well as predictors of conflict recurrence more specifically (Kreutz 2010*a*). Important controls thus include the natural logarithms of population, GDP per capita and battle deaths in the previous conflict, as well as if the previous conflict ended in a one-sided victory.

Whether there was a one-sided victory is a particularly important control variable.

One-sided victories are consistently found to be related to more durable peace (Wagner 1993, Licklider 1995, Quinn, Mason and Gurses 2007, Kreutz 2010*a*, Mason, Gurses, Brandt and Quinn 2011), moreover the outcome of the conflict is also been found to be related to the institutional makeup after conflicts (Gurses and Mason 2008, Wig and Hegre 2013). This variable should also pick up other important variation related to how settled the previous conflict is, which should be expected to impact the effect post-conflict elections will have. In cases where the conflict has made it utterly clear which side is the stronger, elections may not have a particularly disruptive impact. Thus, including a dummy for one-sided victories is important to avoid omitted variable bias.

Including the logarithm of the number of battle deaths in the previous conflict should similarly pick up important variation related to the severity of conflict. Quinn, Mason and Gurses (2007: 177) argue in favor of using this as an indicator of the cost of conflict. Higher battle deaths of the previous conflict mean that also new conflicts are likely to be costly affairs. Another rational choice expectation may be that more severe conflicts, as reflected in the number of battle deaths, have revealed more private information and thus are associated with a lower risk of recurrence (Fearon 1995: 393). Alternatively, one may expect the bitterness created by more brutal conflicts to make a peaceful post-conflict order harder to achieve (Lacina 2006). In any event, this is an important control variable.

I also include a dummy indicating the presence of a peace keeping operation. Following much of the existing literature (Kreutz 2010*a*), I look at whether a peace keeping operation was present in the country of the peace spell. This may be somewhat problematic as the peace keepers' mandate may not in all cases be linked to that particular conflict episode. Empirically, this problem is, however, limited. I have excluded PKOs following inter-state conflicts as these missions will not have mandates linked to the internal conflicts.

Another important set of control variables are aspects of democracy other than elections and executive constraints. The much used Polity-index is for instance made up of three components, which in addition to the level of executive constraints include how the executive is recruited and the extent of political participation and opposition (Marshall, Jaggers and Gurr 2004). These aspects of democracy may also be related to a more durable peace after civil wars. Joshi and Mason (2011) do for instance find that increased openness and competetiveness of political participation is related to durable peace. There is a danger that the executive constraints variable is picking up some of the variation in these other components and that this could be driving results. The correlation between

executive constraints and executive recruitment in the sample of post-conflict peace spells is 0.844. The Polity-project's component measuring political participation and opposition may be endogenous to internal armed conflict as one of the indicators contributing to this components is whether political competition is "intense, hostile, and frequently violent. Extreme factionalism may be manifested in the establishment of rival governments and in civil war (Vreeland 2008: 401). Thus, Gates et al. (2006: 897) propose to replace this component with a measure based on Vanhanen's (2000) democracy index. What contributes to this variable is the extent the population participates in elections and whether these elections are competitive. The correlation with this measure and the executive constraints-component is 0.728, while the correlation with having elections is 0.226.

Table 3.1: Descriptive statistics

	Mean	SD	Min	Max	Missing
Executive constraints	3.841	2.043	1.000	7.000	301
log (election proximity)	1.617	2.214	-2.303	3.336	0
log (population)	16.627	1.531	12.922	20.813	191
log (battle deaths)	7.023	2.294	3.219	13.286	118
log (GDP per capita)	7.658	0.964	5.624	10.304	191
Executive recruitment	5.193	2.300	1.000	8.000	301
Political participation	1.977	1.650	0.000	4.174	190
Victory	0.344		0	1	0
Territorial conflict	0.443		0	1	0
PKO	0.068		0	1	0
Election year	0.162		0	1	0
Mutual veto	0.575		0	1	155

Including these variables in the models may increase problems of multicollinearity, which may lead to less efficient estimates (Greene 2002: 56-57). Estimating the model without these variables do indeed lead to more efficient estimates without there being any major changes in the reported coefficients. To make sure that no conclusions are driven by correlation between the independent variables and these other aspects of democracy, I leave the other components in the reported models as controls. Beyond making the reported results somewhat less significant, this should not have any devastating impacts.

It is indeed possible to think of other variables that may plausibly predict the recurrence of civil war. However, listing all possible variables on the right side of the equation may open up for specification errors and essentially meaningless results (Achen 2005). I

thus pursue a more minimalist approach in the main models, but include other variables in a range of robustness tests to guard against possible bias. The reported results are robust to a wide range of specifications, some of which are reported in Section 5.2.

Descriptive statistics for the independent and control variables are reported in Table 3.1.

3.3 Statistical Model

The dependent variable is the duration of post-conflict peace. There are generally two approaches to modelling this statistically. The first is to model the chances of a conflict episode recurring at any point in time as a function of known covariates (Walter 2004). In this approach, variation in how long it takes the peace to collapse is discarded. One only compares cases where the peace eventually collapsed with cases where it did not. This is problematic both for substantial and statistical reasons. Because the binary approach does not take time until the recurrence into account it is unable to deal with the right-censoring that occurs because peace spells are not observed after 2005. Survival analysis is able to deal with this issue by defining the likelihood function as

$$L = \prod_{i=1}^{n} \{f(t_i)\}^{\delta_i} \{S(t_i)\}^{1-\delta_i}, \tag{3.1}$$

where $f(t_i)$ is the density of failure times, $S(t_i)$ is the survival function and δ_i is the censoring indicator. Thus, both censored and uncensored peace spells are included in the model without biasing results (Box-Steffensmeier and Jones 2004: 18-19).

Survival analysis also has a more substantive advantage, as it is of inherent interest to study the time until recurrence rather than only whether recurrence happens. If one peace spell lasts twice as long as another, this provides clues to what makes peace more stable, even if they both eventually fail. Thus in the applied literature it is recognized that survival analysis is the statistical approach best suited to investigate "the distinctive structure of post-conflict risks" and how these "evolve as a result of policy choices" (Collier, Hoeffler and Söderbom 2008: 465).

The type of statistical model to be used here is thus that of event history analysis. This does, however, open a range of issues related to the type of event history model that is to be employed. One of the most important issues is how the baseline hazard

is to be treated (Golub 2008: 531). Related to this issue is the question of whether a parametric model should be estimated. Employing a parametric model requires making an assumption about the shape of the baseline hazard, which is the underlying effect the passage of time has on the chance of recurrence. Stated differently, it is the hazard function for those cases where all independent variables are set to zero (Golub 2008: 531). Theory does not suggest any clear expectation about the shape of the baseline hazard in the post-conflict scenario. Thus, I opt for a Cox proportional hazard model where no assumption has to be made about the underlying duration dependency (Box-Steffensmeier and Jones 2004: 48).

In the Cox model the hazard rate for the i^{th} case is given by

$$h_i(t) = h_0(t) \exp \beta' \mathbf{x} \tag{3.2}$$

where $h_0(t)$ is the baseline hazard and $\beta' \mathbf{x}$ is the covariates and their coefficients (Box-Steffensmeier and Jones 2004: 48). When the model is estimated the baseline hazard is left unspecified. This requires the model to be estimated through partial likelihood. The estimation requires assuming that the time intervals between failure times does not offer any information (Box-Steffensmeier and Jones 2004: 51). It is thus the ordering of recurrences rather than the time between recurrences that is important.

Beyond the flexibility that stems from not having to make any assumption about the shape of the baseline hazard, the Cox model also provides other advantages over its parametric counterparts. One such advantage is the Cox model's ability to deal with tied data. Ties occur where some spells are of equal length, and they a problem for all continuous duration models (Box-Steffensmeier and Jones 2004: 53). When survival times are tied it is not possible to determine precicely the risk set at each survival time, and as a consequence the partial likelihood must be approximated (Box-Steffensmeier and Jones 2004: 54). There are various ways of dealing with ties within the framework of a Cox model. A method considered relatively accurate and which is also computationally efficient is the Efron approximation (Box-Steffensmeier and Jones 2004: 54). This approximation accounts for how there are different possible sequences of the tied events and gives each possible sequence an equal weighting when calculating the partial likelihood. The Efron approximation thus produces results that are very similar to those obtained from using an exact method (Box-Steffensmeier and Jones 2004: 55-56). The Efron approximation

is thus the method that is used in this thesis.

Another advantage of the Cox model is its superior handling of the proportional hazards assumption (Golub 2008: 536-539). The proportional hazard assumption is the assumption that the hazard ratio between two observations is constant over time (Box-Steffensmeier and Jones 2004: 132). This assumption is shared by both the Cox model and several of the parametric models. Violations of this assumption can produce biased estimates but are hard to detect for the parametric models. By comparison the validity can easily be tested for through the Grambsch and Therneau (1994) test for the Cox model (Golub 2008: 537).

The Cox model is only semi-parametric, making it less efficient (Golub 2008: 540) and thus, the choice of a Cox model implies somewhat larger standard errors. Given the discussion above, this concern does, however, not seem strong enough to justify a parametric model. After all, the more precise parametric estimates might end up being seriously biased. Although a trade off between unbiasedness and efficiency exists, there is a strong case to be made in that the Cox model is the most appropriate model for this thesis.

Another important issue when specifying a survival model is the nature of the covariates (Golub 2008: 532). This is a question of whether covariates are fixed or time-varying and whether their effect is assumed to be the same at all survival times. Ignoring either time-varying or time-dependent covariates should be seen as a serious specification error (Golub 2008: 533). As should already be clear from sections 3.1 and 3.2, I allow covariates to vary with time. This should be fairly uncontroversial. Both the key independent variables undergo changes during peace spells. After all, every year is not an election year. The same holds for important controls such as GDP per capita. The Cox model is well suited for incorporating time-varying covariates as the partial likelihood function is determined only by the ordered failure times. Hence, the coefficient of a time-varying covariate has the straightforward interpretation of being the change in the log-hazard ratio related to a one-unit change in the covariate at time t (Box-Steffensmeier and Jones 2004: 103-104).

The question of time-dependent variables is a more difficult one. Not taking the time-dependence of covariates into account leads to violations of the proportional hazard assumption of the Cox model (Golub 2008: 537). Fortunately, such violations can be tested for through the Grambsch Therneau test. Individual violations of the assumptions

can be discovered by calculating Harrell's Rho (1986) , which is the correlation between the rank ordered Schoenfeld residuals and the rank ordered survival times. The global test uses the maximum of the cumulative sum of these residuals. The null hypothesis of the test is that the proportional hazard assumption holds (Grambsch and Therneau 1994: 522-523). Thus, following Mills (2011: 143) my approach is to first estimate the models without any interaction with time, and then test for the presence of such interactions. The models can then be modified as appropriate either through the introduction of interactions with time (Box-Steffensmeier and Jones 2004: 136) or through stratification for control variables of less interest to the analysis (Mills 2011: 157).

To evaluate the proportional hazard assumption I rely on the Grambsch and Therneau test. Testing of the models revealed that the proportional hazard assumption is violated both for PKOs and for the logarithm of battle deaths. This means that the effects of these variables are time dependent. I thus introduce an interaction between each of them and the natural logarithm of time (Mills 2011: 154).

The Grambsch and Therneau test for the model where PKOs and the logarithm of battle deaths are interacted with the logarithm of time is reported in Table 3.2. Here, the proportional hazard assumption is not violated for any of the covariates. The global test is far from being statistically significant, indicating that the proportional hazard assumption is not violated for the model at large. This holds also for the rest of the models reported in this thesis, although individual tests are not reported.

Table 3.2: Grambsch and Therneau test of proportional hazards

	Rho	Chi-square	p-value
log (election proximity)	0.04	0.46	0.50
Executive constraints	0.07	1.06	0.30
log (election proximity) * executive constraints	-0.05	0.70	0.40
Victory	-0.04	0.25	0.62
log (Population)	-0.01	0.00	0.94
log (GDP per capita)	0.01	0.02	0.88
log (Battle deaths)	-0.07	0.63	0.43
PKO	-0.08	1.65	0.20
Territorial conflict	-0.07	0.55	0.46
Executive recruitment	-0.07	1.02	0.31
Political participation	0.04	0.30	0.59
log (battledeaths)*log (time)	0.02	0.06	0.80
PKO*log (time)	0.08	1.65	0.20
Global test		6.32	0.93

3.4 Important Sources of Bias

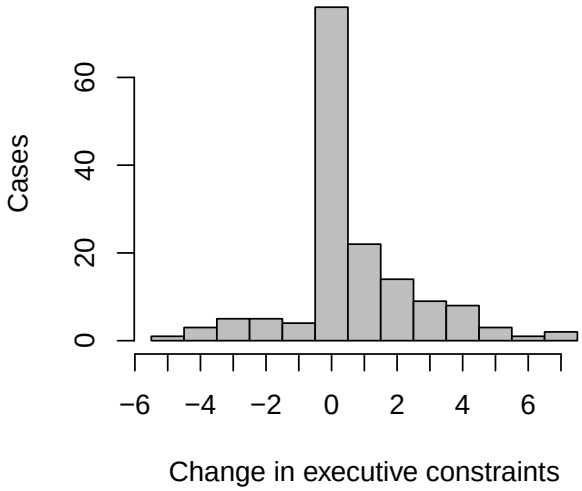
The research design developed so far is well suited for testing the hypothesis that horizontal constraints on majority power mitigate the impact elections have on post-conflict peace. The choice of a Cox model and the set of control variables should serve to limit possible bias. So should the strategy of investigating both formal institutions and de facto performance of constraining institutions. There are, however, some important remaining sources of bias, the most important of which are discussed in this section. These are the endogeneity of constraining institutions, the multi-level structure of the data and missing observations.

3.4.1 Endogeneity

Arguably, the variation in institutional design cannot be considered completely exogenous to the duration of post-conflict peace. As was suggested in Section 2.4.1, endogeneity arises because the prospects of peace may also determine what sorts of institutions are put in place to avoid a recurrence. If the endogeneity is very strong, institutions may have no independent effect (Przeworski 2004: 527). More plausibly, the endogeneity distorts the causal effect of institutions. If the best institutions are introduced only in the cases where peace is most likely to fail, then this will bias the estimates of the effect of these institutions. This could lead to biased estimates as "selection induces unrepresentative values of the dependent variable, even after controlling for values of the independent variables" (Boehmke, Morey and Shannon 2006: 193).

There are cases where it seems plausible that the conflict may have given rise to institutions which have helped avoid a conflict recurrence. One example may be post-conflict Nicaragua. Prior to conflict, Nicaragua had the lowest possible score on the XCONST-variable. After the end of the conflict there were considerable reforms which introduced institutions of checks and balances (McCoy 1998: 57-58). As a result, Nicaragua's XCONST-score increased to 5 in 1990 and to 7 in 1995, one year prior to the second peace-time election. As the conflict never recurred, it appears that the introduction of such institutions has been successful in making democracy a force for peace. As discussed, this is the interpretation offered in the case literature (McCoy 1998). Another interpretation is, however, that the introduction of these institutions were a results of a commitment to peace, and that it was this commitment rather than the institutions per

Figure 3.2: Changes in executive constraints after conflict



se that paved the way for a durable peace.

More generally it is the case that institutions change slowly, but that when there are reforms after internal conflicts they do tend to go in the direction of stronger institutional constraints. This is illustrated in Figure 3.2, which shows the distribution of changes in executive constraints-scores within the first decade after conflict compared to the average score in the decade prior to conflict. As can be seen from the Figure, most cases do not have any change in executive constraints after conflict. It is, however, more common with positive than negative changes, which lends some support to the notion that conflict may lead to the adoption of institutions which facilitate credible commitments (Wig and Hegre 2013).

There are different attempts at dealing with this problem in the existing literature. Wucherpfennig (2011) fits a strategic logistic model that takes the strategic nature of concessions into account. He thus avoids endogeneity issues when evaluating the effect of these concessions. This approach also has the benefit of allowing a close fit between the theoretical and the empirical model (Signorino and Yilmaz 2003). However, the range of strategic statistical models implemented in standard statistical packages is still limited (Kenkel and Signorino 2011). This makes the strategic approach less feasible in this setting.

The other alternative is using an instrumental variable estimator to isolate the exoge-

nous variation in the constraining institutions (Sovey and Green 2011). The logic behind employing instruments is to exploit variables that are related to the endogenous independent variable but not to the dependent variable to isolate the exogenous variation in the independent variable. The most common approach is that of a two-stage least squares regression in which the instrument is first used to estimate predicted values for the independent variable of interest. The dependent variable is then regressed on these predicted values in a second-stage regression (Greene 2002). This is the strategy of Gammet and Malesky (2012: 995-997) who exploit regional diffusion of political institutions and use proportion of states within a region with closed-list PR as an instrument for closed-list PR systems which is their independent variable of interest.

There are some possible instruments for executive constraints available. Within the field of political economy, an important literature has used differences in colonial experiences as instruments for executive constraints. Acemoglu, Johnson and Robinson (2001) have for instance exploited how the settlement of Europeans in some colonies led to stronger institutions, and used settler mortality rates during the colonial era as an instrument for executive constraints. A problem with this instrument in the context of this thesis is, however, the limited data coverage of this variable. Another set of possible instruments are also related to the history of colonialism. La Porta, Lopez-de Silanes, Shleifer and Vishny (1999) and North, Summerhill and Weingast (2000) argue that differences between a British and a Continental legal tradition may explain variation in contemporary constraints placed on executives. The experience of colonialism has spread these different legal traditions to other countries. At the same time, legal origin is not likely to have any independent effect on the propensity for recurrent conflict today.[5] This makes the origin of a country's legal system a possible instrument for executive constraints.

A major problem when employing an instrument variable within the context of a survival model is, however, that these methods are still not well developed for survival models (Box-Steffensmeier and Jones 2004: 112-114). This introduces two problems: Even if it might be possible to extend the logic of two-step least square to the context of a survival model, the methodological literature does not offer any guidance regarding the statistical properties of this estimator. Moreover, it is not implemented within standard

[5] Although one possible exception may be effects of being covered by the French security umbrella. See Collier, Hoeffler and Rohner (2009: 10).

statistical software. Estimating it "by hand" means that the standard errors cannot easily be corrected to account for the two-step estimation and are thus very likely to be biased. To avoid basing inferences on models with unknown properties, I thus choose not to pursue this strategy for the main models reported in Chapter 4. Even if it is not a perfect solution, the strategy of correcting for endogeneity in a two-step estimation should offer some indication of whether results are driven by endogeneity. It is thus pursued further in Section 5.3. In this section it is found that the presence of endogeneity does not appear to be driving the results in favor of the hypothesis.

3.4.2 Unobserved Heterogeneity

If there are unobserved variables that make some observations more prone to failure this may bias estimates of the coefficients and lead to violations of the proportional hazard assumption (Jenkins 2004: 81). One problem is the existence of several peace spells within the same country. This exacerbates the problems related to temporal dependence introduced by incorporating time-varying covariates (Box-Steffensmeier and Jones 2004: 146). These are hardly independent observations, and the problem may potentially become more severe as several peace spells take place within the same country-years. That some countries are more at risk of conflict may be considered a source of unobserved heterogeneity when modeling the durability of dyadic peace spells. In addition to controlling for various variables found to be related to the risk of civil war, I employ shared frailty models to account for unobserved country specific factors. The idea here is to introduce an additional parameter that picks up that some countries have a higher propensity for experiencing recurrences (Box-Steffensmeier and Jones 2004: 142). More specifically, each country is allowed its own random intercept (Therneau 2012: 1-2). Thus country-specific propensities for recurrence should not be driving the results.

A related problem is that some conflicts recur multiple times. As is pointed out by Mills (2011: 167), it might be that experiencing one event impacts the chances of experiences further events. For instance, having had a recurrence once may make credible commitments even harder to achieve in the future. As is discussed by Hartzell and Hoddie (2007: 110-111), it seems beyond doubt that the history of repeated conflict is part of the reason for the many failures in settling the conflicts of Angola. There are several models for dealing with recurrent events proposed in the methodological literature. The

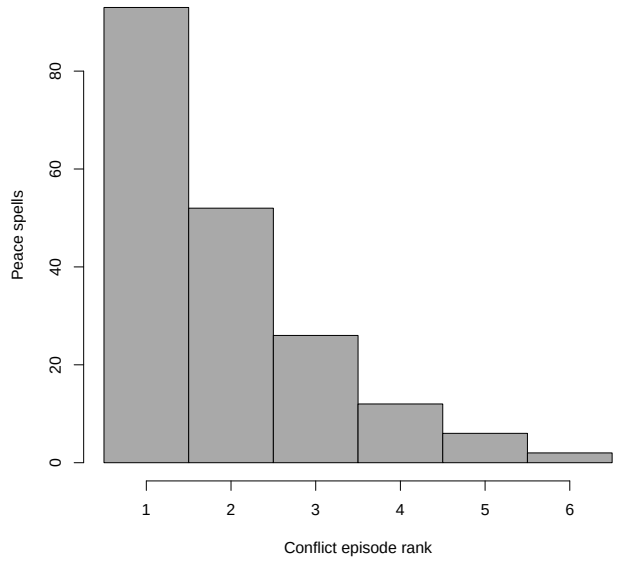
simplest approach is to cluster the standard errors, assuming conditional independence of events (Box-Steffensmeier and Zorn 2002: 1073-1074). This model is developed by Andersen and Gill (1982). As, the dependence within countries are taken into account either by clustering standard errors on country or by the inclusion of a frailty term, this dependence is already to a large extent taken into account. Clustering standard errors instead on conflicts have only very slight effects on the variance estimates. A greater problem is, however, that the assumption that events are conditionally independent may easily be violated (Box-Steffensmeier and Zorn 2002: 1075).

That events are not likely to be conditionally independent can be taken into account by stratifying the data according to which event rank each observation is at risk of (Prentice, Williams and Peterson 1981). This is arguably the most appropriate way of correcting for repeated recurrences of conflict. It is, however, not an entirely unproblematic solution. One problem is that very few observations have ever been at risk of a 4^{th} or a 5^{th} recurrence. This can be seen from Figure 3.3 which shows the distribution of event ranks. As is shown, there are relatively few peace spells that succeed multiple rounds of conflict, which is a problem as the risk set becomes very small for these observations with higher ranked events (Box-Steffensmeier and Zorn 2002: 1079). To not overwhelm the reader with different models, I do not estimate models with this specification in Chapter 4. To make sure that this is not driving the results, conditional models of the type proposed by Prentice, Williams and Peterson (1981) are, however, estimated as a robustness test in Section 5.4. In short, it does not appear that what assumptions are made concerning the multi-level structure of the data have any important impact on the results.

3.4.3 Missing Data

Missing data both on the independent variable and on some of the important control variables is a potential source of bias that has to be dealt with. As is shown in Table 3.1 there is some missing data on both the indicator of executive constraints and important controls such as population size and GDP per capita. This is regarded as a general problem for conflict research (Høyland and Nygård 2011). As data cannot be assumed to be missing completely at random, multiple imputation may be the best way of dealing with it (Honaker and King 2010: 564). For this I use the R-package *Amelia II* written by Honaker, King and Blackwell (2012).

Figure 3.3: Repeated events: distribution of episode ranks



The method of multiple imputation uses the available information in the data to make a predictive model for imputing empty cells. This is done repeatedly, producing a set of datasets where the observed values are the same, but the imputed values are different (Honaker and King 2010: 536). This allows using the mean of the imputed values as a "best guess" for the cell, and the variation across imputations as a measure of the uncertainty attached to this "best guess".

The imputation model in *Amelia II* assumes the complete data to be multivariate normal (Honaker, King and Blackwell 2012: 4). For some variables this assumption is problematic. As is well known the assumption of multivariate normality is typically not appropriate for demographic and economic variables where marginal relationships between two variables may decrease as these variables increase (Honaker, King and Blackwell 2012: 18-19). As for the survival models, this is solved by taking the natural logarithm of these variables. This is done for population, GDP per capita and battle deaths (see Section 3.2).

Additional information can be learned from observing time trends (Honaker and King 2010: 565-566). Examples are level of development and population, both variables that are highly autocorrelated. Even if linear interpolation is inappropriate, it is possible to make use of these trends to impute values more accurately on these variables. One way of doing this is to include leading and lagged values of these variable in the imputation

model. Because the imputation model is predictive and not causal, the introduction of leading values does not produce any bias (Honaker, King and Blackwell 2012: 22). I include "leads" and "lags" of both population and GDP per capita. Because these variables are measured at the country-level, I use country rather than conflict episode as the cross-sectional unit in the imputation model. Trends in time within countries are also likely to be important more generally. To exploit this, I include a third-level polynomial of time in the imputation model (Honaker and King 2010: 567-569). Hence, the imputation model is specified so as to make the best use of all available information to predict the values of the missing cells.

The imputation model rests on the assumption that data is missing at random, but not necessarily *completely* at random (Honaker and King 2010: 563-564). What this means is that even if there is a systematic component to the missingness such as governments in very poor or unstable countries failing to report certain data, there is no systematic component to the missingness after controlling for the observed elements of the data. This assumption cannot be tested but is obviously more credible if more variables are included in the imputation model (Honaker and King 2010: 563-564). Rubin (1996: 479) thus recommends including as many relevant variables as possible. On the other hand, imputing values for a very large dataset introduced computational difficulties. In the imputation model I have included all the variables used in the robustness tests of Chapter 5, in additional to other institutional variables from IAEP as well as other variables related to conflict, such as the logarithm of conflict duration. This should limit bias related to violations of the missing at random assumption.

Table 3.3: Descriptive statistics, after imputations

	Mean	SD	Min	Max	Missing
Executive Constraints	3.746	1.953	1.000	7.000	0
Log (election proximity)	1.586	2.215	-2.303	3.336	0
log (population)	16.658	1.478	12.922	20.813	0
log (battle deaths)	7.076	2.264	3.219	12.429	0
Log (GDP per capita)	7.614	0.973	5.624	10.022	0
Executive recruitment	5.042	2.219	1.000	8.000	0
Political participation	1.911	1.612	-0.083	4.174	0
Victory	0.353		0	1	0
Territorial conflict	0.439		0	1	0
PKO	0.068		0	1	0
Post-conflict election year	0.188		0	1	0
Mutual veto	0.580		0	1	0

High missingness and correlations between the variables with missing values may cause convergence problems for the imputation model (Honaker, King and Blackwell 2012: 22). I follow the recommendation of Honaker, King and Blackwell (2012: 23) of including a ridge prior that shrinks the covariance among the variables towards zero without changing means or variances. This produces a more stable imputation model, but can potentially introduce some bias. Following Høyland and Nygård (2011: 11), I set the ridge prior to 1 permille of the rows in the data. This is well below what is recommended by Honaker, King and Blackwell (2012: 23), and there is thus little reason to expect that any significant bias is introduced. Descriptive statistics for the imputed data are shown in Table 3.3. In general, the distributions on the variables before and after the imputations are very similar.

3.5 Conclusion

This chapter has developed a statistical research design tailored to test the hypothesis of Chapter 2. The key explanatory variables have been operationalized and important control variables have been identified. The Cox model is argued to be the most appropriate statistical approach for the questions posed in this thesis. Although able of handling several potential problems, the Cox model on its own does not steer clear of all possible sources of bias. It is argued that problems of endogeneity, unobserved heterogeneity and missingness remains. Endogeneity problems are argued to be an important source of bias for which there is no easy fix. A possible way of controlling for some of this endogeneity has however been suggested and is pursued further in Section 5.3.

Other issues are more easily dealt with. Unobserved heterogeneity is taken into account by letting observations within the same country have a shared frailty. Problems of missingness is dealt with through multiple imputation. That some countries for unobserved reasons have a higher propensity for recurrent conflict and that data are not missing at random should thus not be important sources of bias for the results presented in the next chapter.

Chapter 4

Results

In this chapter I present the results from the quantitative analysis. I begin with a simple descriptive analysis of the data before the rest of the chapter proceeds to cover the regression results and what these can tell about the effect of post-conflict democracy on the durability of peace. All results are reported as survival ratios, which are the proportionate changes in the survival rate given one-unit changes in the covariates, holding other covariates fixed (Jenkins 2004: 30). As the Cox model is a proportional hazard model, these ratios are independent of survival time. To further facilitate interpretation both of the estimated effects and the uncertainty attached to these, I simulate expected survival times for peace spells with post-conflict elections at different levels of institutional constraints. This allows comparing the chances of avoiding recurrence in substantively interesting scenarios based on the regression results.

I find support for the proposition that the effect of post-conflict elections depends on the strength of the institutions put in place to constrain post-election majorities. This holds both when investigating the post-conflict election years, and when broadening the scope to also investigate distance in time to the nearest post-conflict election. The results remain largely the same when looking at general de facto levels of executive constraints and when using a de jure indicator for whether the constitution gives the legislative and executive branch the power to veto each other's decisions. This increases confidence in the finding that the presence of institutions designed to constrain majority power are important for what effect holding elections will have in post-conflict settings. Simulating expected survival times for scenarios where elections are held based on the estimated models shows that having constraining institutions leads to substantially interesting changes

in the expected durability of post-conflict peace.

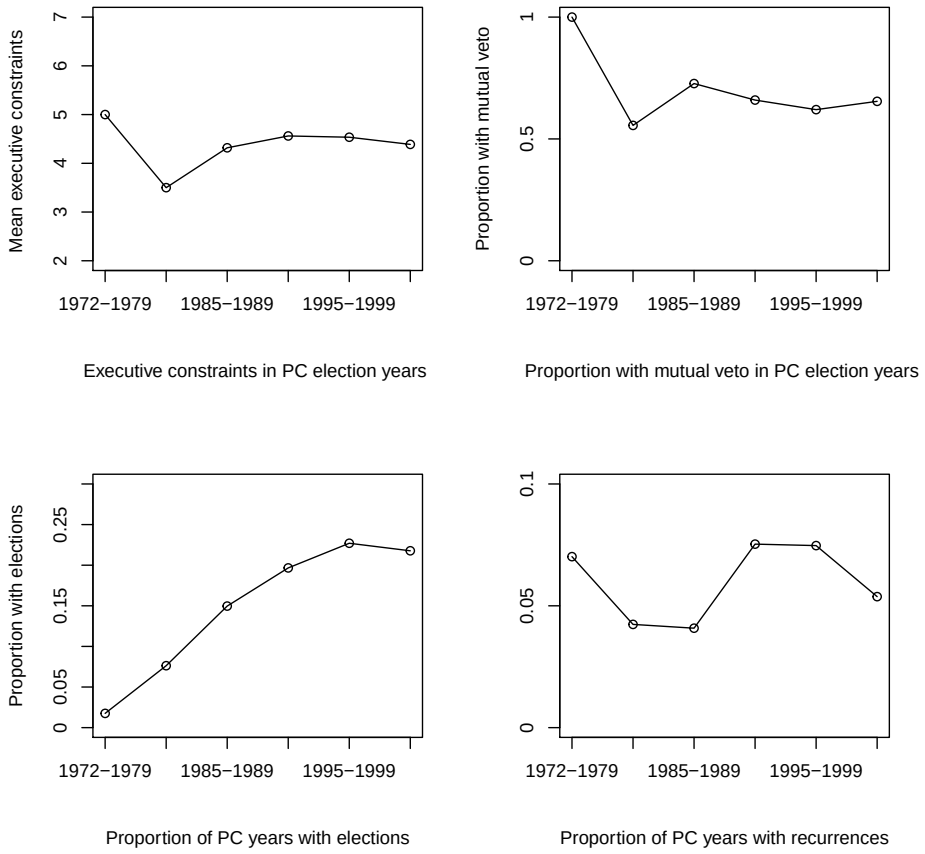
4.1 Descriptive Analysis

The formal model in Section 2.4.1 makes the prediction that the effect of elections for the risk of conflict recurrence will depend on whether strong institutions placing constraints on majority power are in place. The stronger the constraining institutions of the post-conflict democracy are, the less likely it is that elections will undermine the peace. This interaction was presented as Hypothesis 1. In Chapter 3 the measurement of the concept of constraining institutions was discussed. Both a de facto-informed and a more strictly de jure indicator was proposed, and these form the basis of sub-hypotheses 1.1 and 1.2, respectively. While sub-hypothesis 1.1 posits that higher levels of executive constraints as captured by the XCONST-component of the Polity-index make elections have a more positive impact on the durability of peace, sub-hypothesis 1.2 suggests the same interaction between formal institutions allowing the legislative and executive branch to veto each other's decisions. The question is now whether such an interaction is observed empirically.

Before proceeding to the more advanced statistical analysis, a basic descriptive analysis of the data can be useful. Even if more rigorous statistical analysis is needed for robust inferences, making simple plots and cross-tabulations is also necessary to get a good sense of the data and to avoid making inferential mistakes (Achen 2005: 338). Figure 4.1 shows variation across time for the most important variables in the analysis. These graphs are based on the first decade of each peace spell in order to better facilitate comparison across the time periods. This should be unproblematic as most recurrences happen during this first critical decade of peace (Collier and Hoeffler 2004: 1136). The upper panels show the mean level of executive constraints and proportion of observations with mutual veto post-conflict election years over time. For the executive constraints index that is more informed by de facto developments, the mean level of executive constraints in post-conflict election years has increased slightly since the early 1980s.

In the 1970s there was only one competitive election occurring in a post-conflict setting. This was the election in Malaysia that took place in 1978, three years after the end of conflict between the government and the Communist guerrilla. From the early 1980

Figure 4.1: Development over time for main variables in the first decade of post-conflict peace spells

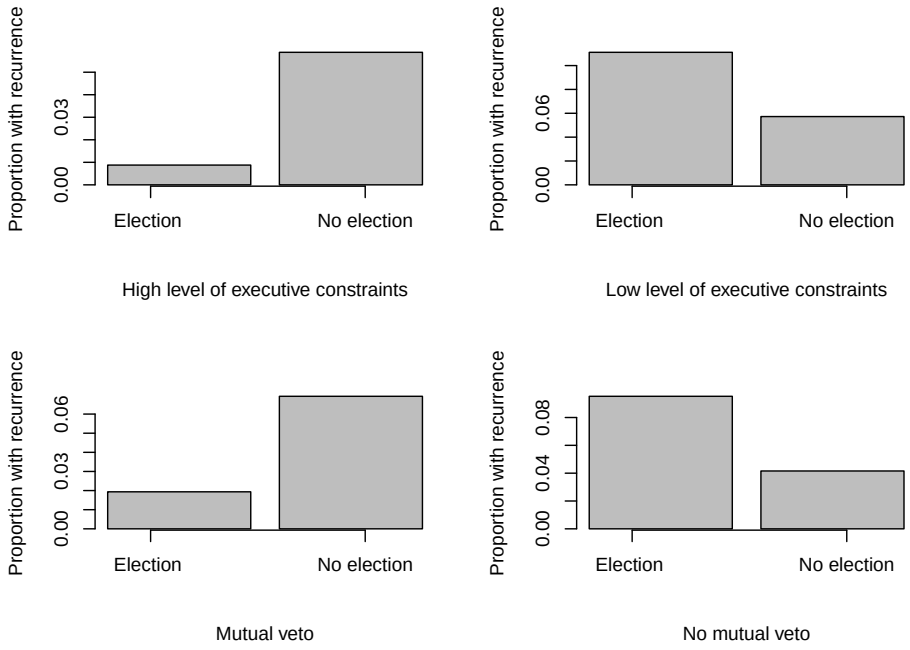


when post-conflict elections became more common, the development in the proportion of post-conflict election years with formal institutions allowing for mutual vetoes follows much of the same trend as the XCONST-variable. It is, however, worth noting that the proportion of post-conflict election years in which there are formal institutions providing mutual vetoes stays well above 50% for the entire period, indicating again that even if the de jure indicator is able to pick up much of the same, de jure institutions are much more common than effective constraints in post-conflict settings. This may also reflect how these formal institutions may exist only as scraps of paper, which may make it more difficult to find a general effect of them (see also Section 3.2.1.2).

The bottom panels show how the proportion of post-conflict years with elections and recurrences, respectively, has developed over time. As can be seen in the bottom left panel, there has been a marked increase in the proportion of post-conflict years in which elections are held. In the 1970s only 1.8% of the post-conflict years had an election. In the late 1990s this percentage was 22.7%. Elections had become as common in post-conflict settings as in stable democracies (see also Collier 2009). This may in part reflect how the international community to a greater extent has pushed for elections after conflicts (Collier, Hoeffler and Söderbom 2008), but also that democratic elections to a greater extent have been seen as the default way of organizing the political system by post-conflict actors after the end of the cold war (Jarstad 2009: 50). As pointed out by Cheibub, Hays and Savun (2012: 18), holding elections was associated with an alignment with the West during the Cold War, but has gained more wide-spread acceptance in the post-Cold War period.

It is, however, harder to judge whether this had any impact on the proportion of peace spells that failed. As can be seen from inspecting the lower right panel, there is less of a clear trend in the number of recurrences. There were relatively few recurrences in the 1980s, when the number of post-conflict elections started to rise, but the late 1990s' peak in post-conflict elections overlaps with a peak in the number of recurrences. It is, however, difficult to see any clear relationship here, and for recurrences it is hard to see any clear trend at all. In sum, it is hard to say just from looking at these trends whether elections have any impact on the recurrence rate. Thus, as in the map presented in Chapter 1, any clear correlation between elections and recurrences seems absent. This is in line with the main proposition of this thesis: post-conflict elections are expected to have conditional

Figure 4.2: Correlation between elections and recurrence in the first decade of peace at different levels of constraining institutions



rather than general effects on peace durability.

Hypothesis 1 proposes an interaction between elections and the level of constraining institutions. If the effect of elections vary with the level of constraining institutions, it should be possible to see this in a simple cross tabulation. In other words, the difference between the proportion of recurrences happening in election versus non-election years should depend on the level of constraints placed on majority power. This is illustrated in Figure 4.2, which shows the proportion of post-conflict election and non-election years in which there were recurrences at high and low levels of each of the indicators of constraining institutions. As can be seen from Figure 4.2, having elections seems to be associated with a lower risk of recurrence where the constraining institutions are well-developed. This provides some preliminary support for the hypothesized interaction between elections and the level of executive constraints.

This interaction seems particularly strong for the XCONST-indicator. At high levels of executive constraints only a very small proportion of post-conflict election years experience a conflict recurrence. In fact, there was only one recurrence in an election-year in this category. This was the recurrence of the 1989 conflict in Haiti in 1991 between factions within the military and the civil government (Uppsala Conflict Data Program 2013*d*). Most recurrences in which there are high levels of executive constraints do,

however, not happen in election years. Peripheral conflicts in India account for a large proportion (42.1%) of these recurrences. These are perhaps not easily explained within the framework developed in Chapter 2.

At lower levels of executive constraints election years experience more recurrences than non-election years. Thus, the relationship is the complete opposite of the one at higher levels of executive constraints, lending support to sub-hypothesis 1.1. An example of a conflict recurrence in this category is the 2002 renewal of hostilities in The Republic of Congo. UCDP reports the cause of the recurrence to be that the winner of the 2002 presidential election, Denis Sassou-Nguesso, had decided to renege on some of the concessions granted to the rebels in the 1999 peace accord (Uppsala Conflict Data Program 2013*b*). It is worth noting that the 1999 agreement that had ended the previous conflict-episode held provisions for democratic elections, but that there was no agreement on other rules that would govern the post-conflict democratic system. After a land slide victory for Sassou-Nguesso, fighting broke out between the government and the insurgents of the Pool region (Arriola and Johnson 2012: 19). What is interesting given the theoretical framework of this thesis is how democratic elections do not appear to have facilitated peaceful bargains in this case. Elections in the absence of effective controls on the executive appear to have given way to a zero-sum game between armed groups. According to Raleigh (2007: 178), opening up for democratic competition in the 1990s had not changed the neo-patrimonial character of the state and competition over the spoils of the state continued among different ethnic groups. What would have happened if strong constraints on majority power were in place is of course a contrafactual question that is hard to answer. The absence of security related to what a majority government could do seems, however, to have been a primary cause of the recurrence.

The relationship is very similar also when looking at formal institutions providing for mutual vetoes. Where de jure institutions provide for mutual vetoes, most recurrences happen in non-election years. The opposite relationship exists for cases without such mutual vetoes. As an example one may consider the 1997 recurrence of conflict in Chad where the election of a Muslim president led the Christian rebel groups of the South to reinitiate conflict. What appear to be important for the case of Chad is that both armed and electoral competition took the form of a zero-sum game over the control over the executive. Similar to what was experienced in The Republic of Congo, the competition for ballots did not allow for any peaceful bargain in what continued to be a zero-sum

game. In line with the theoretical expectations from Chapter 2, May and Massey (2000: 123-125) point to how it was clear that the faction of president Idriss Deby would not tolerate any challenges to its own rule from within the political system. Although, it cannot be said with certainty what effect formal institutions providing for mutual vetoes would have had, it seems clear that the incomplete nature of the Chadian democratization was an important source of renewed conflict (May and Massey 2000).

The descriptive analysis in this section has indicated that the effect of elections on the risk of conflict recurrence may be conditioned by whether strong constraining institutions are in place. Both when employing an indicator informed by de facto performance and when employing a strictly de jure indicator, the same pattern is found: Having institutions that constrain majority power appears to condition the relationship between post-conflict elections and recurrences. Next, I turn to the survival analysis to investigate whether this apparent relationship holds when controlling for possible confounding variables.

4.2 Cox Regression Results

Although suggestive, the correlation apparent in the descriptive analysis is not sufficient to reach any firm conclusion on whether the relationship between post-conflict elections and the durability of post-conflict peace is conditioned by the presence of institutions that put constraints on majority power. To see whether the proposed interaction holds when controlling for possible confounding variables and taking into account other problematic aspects of the data, I now turn to the research design developed in Chapter 3.

4.2.1 The Conditional Effect of Being in a Post-Conflict Election Year

I begin by testing sub-hypothesis 1.1, using only post-conflict election years as the indicator of elections. Thus, a binary variable indicating whether there was an election in a given post-conflict year is included in the models. As the effects of having elections are likely to be strong both in the run-up to the election and in the aftermath – effects that are not picked up when looking only at election years – this is arguably a tough test for the hypothesis. Some cases where having elections contributed to a recurrence of conflict will not be counted as such. For instance, this means ignoring the proximity between

for instance the 1991 election in Angola and the 1992 conflict recurrence, even as the election results are cited as an important source of the recurrence in the case literature (Reilly 2002, Ottaway 1998). Investigating further what happens in post-conflict election years is, however, a useful next step in extending the analysis of the correlation suggested by the descriptive analysis of Section 4.1. It allows investigating whether the apparent relationship between the level of executive constraints and the effect elections have on the chance of recurrence holds when controlling for possible confounding variables and when the duration and multi-level structure of the data is taken into account.

The stepwise development of the model with post-conflict election year and XCONST as the measure of constraining institutions is shown in Table 4.1. The first two models are based only on observed data and the multi-level structure of the data is not taken into account apart from correction of the standard errors. In Model 1 the interaction term is omitted, reflecting how elections are treated in the existing literature (though see Flores and Nooruddin (2012) for a partial exception). In this model, there is no significant relationship between post-conflict election years and conflict recurrence. Constraints on executive power have a positive impact, but this is not significant. All in all democratic institutions appear to be of limited importance when there is assumed not to be any interaction effects, thus reflecting previous findings in the literature. It should, however, be noted that when controlling for executive constraints there is no negative impact of elections on the durability of peace. Thus, the suggested lack of a correlation between election years and recurrences is confirmed also when controlling for possible confounding variables. This is in line with Jarstad (2009: 51) who in her sample of post-agreement periods finds a surprisingly limited impact of elections on the chance of recurrence, and Cheibub, Hays and Savun (2012) who find that elections in Africa do not raise the chances of internal conflict. According to Cheibub, Hays and Savun (2012: 15) their non-finding can be explained by how they to some extent manage to "hold institutional capacity constant" by limiting the analysis to Africa.

The interesting question is what happens when the interaction between post-conflict elections is introduced in Model 2. One interesting change is in the Akaike information criterion (AIC), which is a measure of the model's goodness of fit but which penalizes for additional parameters (Akaike 1974). That Model 2 has a lower AIC indicates that the model in which an interaction between competitive elections and executive constraints is

Table 4.1: Cox regressions 1972-2005. Interaction between post-conflict election year and levels of executive constraints

	(1) Cox	(2) Cox	(3) Cox, Imp.	(4) Frailty
Post-conflict election year	1.094	0.178**	0.193**	0.223**
	(0.439,2.729)	(0.036,0.871)	(0.043,0.874)	(0.064,0.774)
Executive constraints	1.244	1.112	1.167	1.235
	(0.953,1.622)	(0.805,1.535)	(0.862,1.58)	(0.947,1.61)
Post-conflict election year		1.677**	1.639**	1.589**
*executive constraints		(1.075,2.617)	(1.074,2.501)	(1.103,2.289)
Victory	2.882***	2.735***	3.096***	3.048***
	(1.353,6.139)	(1.297,5.765)	(1.576,6.083)	(1.445,6.426)
log (population)	0.729***	0.717***	0.742***	0.751***
	(0.579,0.919)	(0.568,0.904)	(0.607,0.909)	(0.61,0.925)
log (GDP per capita)	1.201	1.213	1.177	1.225
	(0.847,1.703)	(0.86,1.712)	(0.871,1.59)	(0.866,1.733)
log (battle deaths)	0.808	0.803	0.895	0.89
	(0.6,1.088)	(0.592,1.089)	(0.683,1.175)	(0.665,1.193)
PKO	45.895	43.376	13.913	15.965
	(0.198,10640.017)	(0.174,10812.912)	(0.058,3360.151)	(0.478,533.229)
Territorial Conflict	1.391	1.354	1.428	1.412
	(0.833,2.322)	(0.815,2.252)	(0.857,2.379)	(0.779,2.56)
Executive recruitment	0.975	0.972	0.907	0.982
	(0.74,1.284)	(0.744,1.271)	(0.697,1.179)	(0.745,1.293)
Political participation	0.898	0.935	0.995	0.884
	(0.672,1.199)	(0.707,1.237)	(0.75,1.319)	(0.689,1.135)
log (battle deaths)	1.172	1.182	1.089	1.087
*log(time)	(0.969,1.418)	(0.96,1.456)	(0.915,1.296)	(0.9,1.313)
PKO	0.109*	0.107	0.18	0.169*
*log (time)	(0.008,1.533)	(0.007,1.594)	(0.012,2.627)	(0.026,1.103)
log-likelihood null	-306.71	-306.71	-376.93	-376.93
log-likelihood	-289.95	-285.48	-354.78	-342.02
AIC	603.91	596.96	735.57	729.54
N	1454	1454	1854	1854
Number of events	67	67	79	79

Notes: ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$. Estimates in survival ratioes.

95 percent confidence intervals in parentheses.

Standard errors are clustered on country

introduced fit the data better beyond what can be ascribed to an additional irrelevant parameter. This is one indication that the proposed interaction is important.

Moreover, the interaction term is significant at the 95%-level and higher than 1. The interpretation of this is that post-conflict election years become less associated with conflict recurrences at higher levels of executive constrains. What is also interesting is that the constituent term of election years is less than 1 and significant at the 95%-level. This term has no substantial interpretation as the executive-constraints index never takes on the value of 0. Yet, it is one indication that election years are associated with conflict recurrence where executive constraints are weak. In fact the estimated survival ratio

remains significantly less than 1 also when executive constraints take on the value of 1.[1] There is, however, considerable uncertainty in this model, so that even if the interaction is statistically significant there may be more uncertainty attached to the effect of post-conflict elections at any given level of executive constraints.

In Model 3 the imputed data is also included, but this has only a slight impact on the results. This is perhaps not surprising. As discussed in Section 3.4.3, the imputations did not produce any major changes in the distribution of values for any of the variables.[2] That the results do not appear to be driven by missingness in the data should increase our confidence in the reported relationship. In addition to being based in part on imputed data, Model 4 is a shared frailty model with country as the second level unit and thus also accommodates the multi-level structure of the data. Comparing models 3 and 4 reveales only slight differences in the estimated survival ratios. There is a marginal decline in AIC when estimating a frailty model, indicating that this model may fit the data slightly better. The differences are not huge, but Model 4 seems to be the better model and thus provides the basis for the inferences in this section.

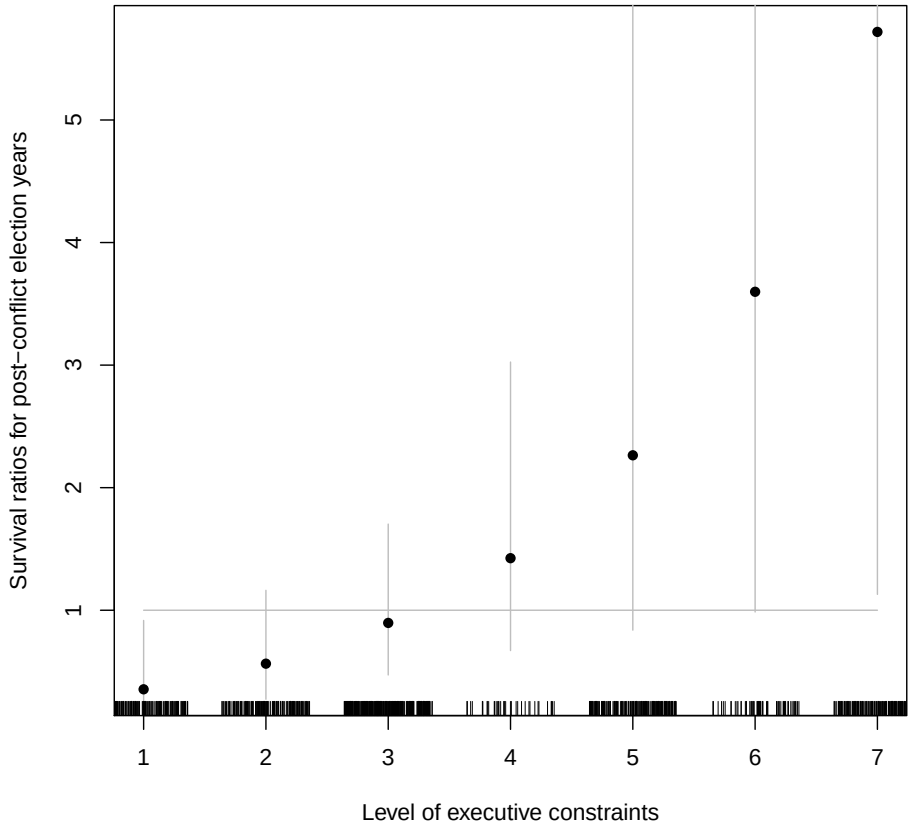
The survival ratios reported in Table 4.1 indicate that when executive constraints are low, being in an election year increases the chance of experiencing a recurrence, but that this effect changes with higher levels of executive constraints. This is in line with sub-hypothesis 1.1. Exactly what this effect looks like is, however, hard to see just from inspecting the regression table. As is demonstrated by Brambor, Clark and Golder (2006) interactions in generalized linear models can only be meaningfully interpreted by considering the joint effects of the interacted variables. What is needed to evaluate the interaction is a comparison of the marginal effect of election years across the different levels of executive constraints, and the uncertainty attached to these estimates (Brambor, Clark and Golder 2006: 73-74). These magnitudes are presented graphically in Figure 4.3.

Based on Model 4 in Table 4.1, Figure 4.3 shows how the estimated survival ratio associated with being in a post-conflict election year changes with the level of executive constraints. As is seen from the figure, being in an election year decreases the risk of

[1] For Model 4, this is illustrated in Figure 4.3.

[2] The extent of missingness for different variables is reported in Table 3.1 along with descriptive statistics prior to the imputations. For the data that includes imputed values, descriptive statistics are reported in Table 3.3.

Figure 4.3: Interaction between post-conflict election years and executive constraints
Estimated survival ratios for post-conflict election years at different levels of executive constraints. Survival ratios are based on Model 4 in Table 4.1. The rug shows the distribution of levels of executive constraints in post-conflict years.



recurrence when executive constraints are high, although this effect is only statistically significant for the highest level of executive constraints. The 95%-confidence interval barely overlaps with 1 when the executive constraint-score is 6, but the effect remains significant at the 90%-level. At the opposite extreme, post-conflict elections are significantly more likely to lead to recurrences when executive constraints are at the lowest level. The results are, however, not stronger than that there is considerable uncertainty attached to what effect an election will have at most levels of executive constraints.

It may be interesting to note how this relates to the finding that so-called inconsistent regimes are more likely to experience internal conflicts and more generally are less stable (Hegre et al. 2001, Fearon and Laitin 2003, Gates et al. 2006). In light of the findings of this literature, it may be somewhat surprising that there is no significant effect at mid-levels of executive constraints as these levels indicate inconsistent institutions, while

there is a significant negative impact of elections when constraints are at the lowest. As is argued by Strand (2007: 318), the theory of regime consistency predicts that "regimes with either full parity between the executive branch and other branches of government or no limitations on the executive should not experience a change of risk in conflict due to elections". In addition to showing that elections may in fact decrease the risk of conflict recurrence, Figure 4.3 shows that elections are most dangerous where constraints are lowest. That this is the case in the context of post-conflict settings may be explained by how the opposition is more likely to have capacity to violently contest the election results. This may make post-conflict settings different from elections in authoritarian regimes more generally.[3] On the other hand, the findings of this thesis confirms the more general proposition that elections will only have a positive impact where strong institutions are in place (Huntington 1968, Zakaria 1997). That opening up for elections is likely to cause conflict recurrence when executive constraints are weak is hence in line with some of the broader suggestions in the literature on inconsistent regimes (Hegre and Fjelde 2010).

There is considerable uncertainty attached to the effect of being in an election year at any given level of executive constraints. Only for the highest and lowest level of executive constraints is the estimated effect of being in an election year significantly different from 1. In part this may be explained by multicolinearity in the model, introduced by controlling for the other sub-components of the Polity/SIP indeces. Reestimating the model without these controls (not reported) yields very similar survival ratios, but with smaller standard errors, thus suggesting that while this would not introduce any omitted variable bias, it would yield somewhat more efficient estimates. The differences are, however, not huge, and these controls are thus left in the model so that readers can be confident that the results are not driven by other aspects of democracy than the ones suggested by the theory developed in Chapter 2.

Another reason for the uncertainty is, however, that there as already noted is less of a clear relationship for the mid-levels of executive constraints. In these cases there are some limitations on what the executive can do, but these limitations are "[s]light to [m]oderate" (Marshall, Jaggers and Gurr 2004: 24). An example is post-conflict Mozambique, which only had an executive constraints score of 3 in 1994, when the first competitive election was held two years after the end of the country's civil war. Yet the election did not

[3]For a review on the literature on elections in authoritation states, see Gandhi and Lust-Okar (2009).

produce a recurrence and Mozambique is held up in the qualitative literature as a prime example of a successful peace-to-democracy transition (Manning 2002). That the democratic system would help pave the way for durable peace was, however, far from given and Manning (2002: 5) describes post-conflict Mozambique as an important "least likely case" where democracy was conducive to lasting peace even in "the absence of any formal power-sharing agreements at the cabinet level, and with only limited concessions to proportionality in the allocation of political power." Cases such as Mozambique's transition serve as important reminders of the need for humility when making inferences concerning what can be achieved in specific post-conflict settings, as post-conflict politics are complicated processes in which the outcome may be difficult to predict. For the case of Mozambique it does also seem that the role of the international community has been important in facilitating a form of repeated elite-bargaining between Renamo and Frelimo which has helped overcoming the post-conflict commitment problem (Manning 2002: 8-9).

The same step-wise model development using the binary indicator for mutual vetoes is shown in Table 4.2. In substantive terms the results are very similar to the ones reported in Table 4.1. In Model 5 election years and formal institutions of mutual vetoes are included in the model but without any interaction term. Neither of these have significant effects on their own, indicating that neither being in an election year nor having formal institutions providing for mutual vetoes has any general effect on the risk of recurrence independent of each other. As for the executive constraints, this changes when an interaction term is introduced. In models 6-8 being in an election year in a setting where there are no formal institutions allowing the legislative and executive branch to veto each other's decisions is shown to significantly increase the risk of conflict recurrence. As for executive constraints, this interaction holds when data is imputed for models 7 and 8 and when the multi-level structure is taken into account in Model 8. For the models where election years are interacted with mutual vetoes, taking the possible unobserved heterogeneity at the country-level into account has a very slight impact on the estimated results.

That the reported survival ratios for the interaction terms are higher for the models in Table 4.2 than in Table 4.1 is because the mutual veto variable is binary while the XCONST-variable can take on seven different values. What this means is that a change

Table 4.2: Cox regressions 1972-2005. Interaction between post-conflict election year and institutions providing a mutual veto

	(5) Cox	(6) Cox	(7) Cox, Imp.	(8) Frailty
Post-conflict election year	1.085	0.333**	0.37**	0.401**
	(0.422,2.793)	(0.134,0.832)	(0.154,0.892)	(0.167,0.961)
Mutual veto	0.973	0.684	0.709	0.719
	(0.591,1.602)	(0.361,1.296)	(0.406,1.239)	(0.377,1.369)
Post-conflict election year		7.304**	6.062**	5.674***
*mutual veto		(1.59,33.541)	(1.476,24.903)	(1.568,20.534)
Victory	2.549**	2.353**	2.784***	2.774***
	(1.229,5.286)	(1.16,4.773)	(1.459,5.315)	(1.346,5.717)
log (population)	0.744***	0.726***	0.754***	0.764***
	(0.61,0.909)	(0.597,0.883)	(0.633,0.898)	(0.628,0.929)
log (GDP per capita)	1.24	1.277	1.231	1.285
	(0.883,1.741)	(0.929,1.756)	(0.914,1.658)	(0.926,1.784)
log (battle deaths)	0.806	0.827	0.899	0.9
	(0.595,1.094)	(0.604,1.132)	(0.679,1.191)	(0.672,1.204)
PKO	48.109	41.987	16.93	18.153*
	(0.212,10894.532)	(0.191,9224.599)	(0.081,3530.91)	(0.575,572.765)
Territorial conflict	1.443	1.36	1.518*	1.515
	(0.875,2.379)	(0.848,2.18)	(0.935,2.463)	(0.841,2.727)
Executive recruitment	1.136	1.09	1.037	1.042
	(0.917,1.407)	(0.888,1.339)	(0.844,1.276)	(0.855,1.27)
Political participation	0.905	0.959	1.034	1.032
	(0.674,1.216)	(0.713,1.29)	(0.765,1.397)	(0.778,1.369)
log (battle deaths)	1.166	1.158	1.085	1.082
*log (time)	(0.963,1.413)	(0.936,1.432)	(0.908,1.297)	(0.897,1.304)
PKO	0.113	0.122	0.176	0.17*
*log (time)	(0.008,1.61)	(0.008,1.818)	(0.013,2.474)	(0.027,1.082)
log-likelihood null	-306.68	-306.68	-376.93	-376.93
log-likelihood	-291.59	-286.94	-357.37	-349.4
AIC	607.17	599.89	740.74	737.56
N	1453	1453	1854	1854
Number of events	67	67	79	79

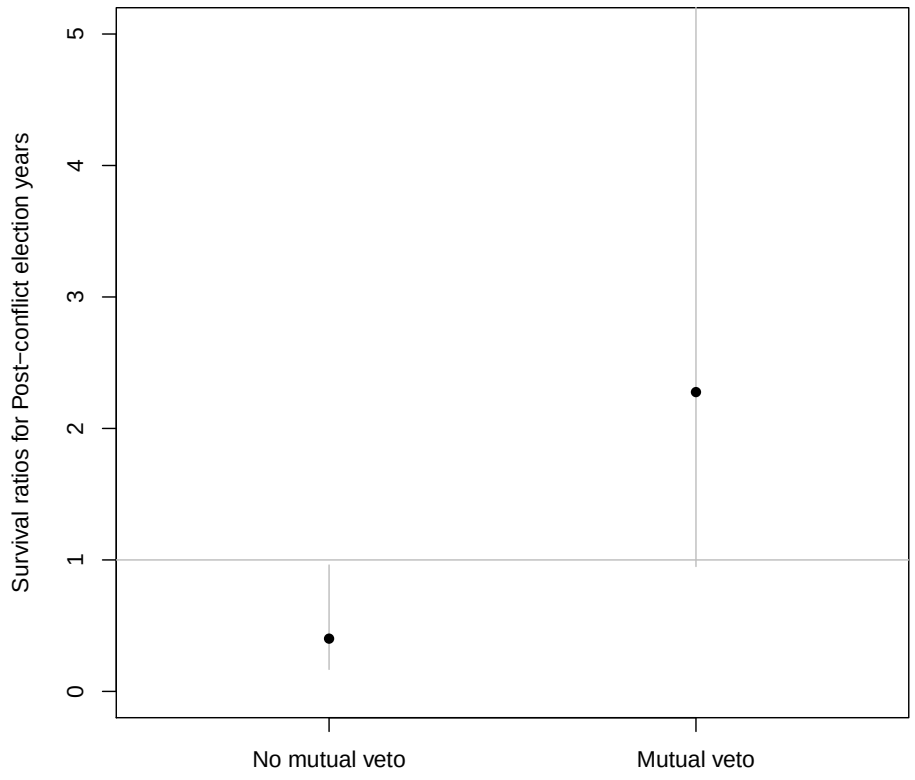
Notes: ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$. Estimates in survival ratioes.

95 percent confidence intervals in parentheses.

Standard errors are clustered on country

of one scale-unit on the mutual veto variable implies a move from no constraints to a fully constrained system, while a one unit change on XCONST-variable is a more limited difference. What is clear is however that when there is no formal institutions of mutual veto in place, election years are associated with a higher risk of conflict recurrence. The interaction is shown graphically in Figure 4.4. The survival ratio of being in an election year is significantly less than 1 in cases where no formal institution providing for a mutual veto was in place. An example of such a case is the 1999 recurrence of the conflict between the government of Djibouti and a splinter group of the former rebel movement FRUD (Ishiyama and Batta 2011: 437). In the absence of constraining institutions, having token representation of members of the rebel group in government does not seem to have

Figure 4.4: Interaction between post-conflict election years and formal institutions providing a mutual veto Estimated survival ratios for post-conflict election years with and without formal institutions providing a mutual veto. Survival ratios are based on Model 8 in Table 4.2.



convinced the broader rebel movement that their interests would be protected in the post-conflict democracy. As has been discussed was the case for the processes leading up to the 2002 recurrence in The Republic of Congo and the 1997 recurrence in Chad, elections without strong constraints seem to have given way to a zero-sum game where conflict was preferable to peaceful opposition rather than facilitating peaceful bargains.

Where such institutions at least formally existed, the survival ratio of being in an election year was higher than 1, indicating a positive impact on the durability of peace. The 95%-confidence interval for this effect does, however, overlap with 1. The effect remains significant at the 90%-level. One example of this is the period surrounding the 1996 election in Nicaragua. This election was lost by the *Sandinistas*, but this formerly armed faction decided to respect this outcome rather than return to conflict. The qualitative literature has viewed the 1996 election as an important milestone in Nicaragua's transition towards a peaceful democracy, and McCoy (1998: 57-58) points to the introduction of a

system of checks and balances as one of the important developments between the 1990 end of conflict and the 1996 elections. This represented something new in the political history of Nicaragua, and seems to have been important to a democratic post-conflict political process (McCoy 1998: 57). Thus, a closer look at this specific case seems to confirm the importance of constraining institutions for democratic elections to have a positive impact on the durability of peace. It is worth noting that Nicaragua in 1996 also had a maximum score on the executive constraints-measure indicating that the formal institutions also had a real impact on the political system. The peaceful development under the Nicaraguan post-conflict democracy does at least in part appear to have been facilitated by institutional configurations reassuring all groups that the other side would not turn the power of the state against them.

Included in all models is also a set of control variables. The justifications for these were discussed in Section 3.2.2. The direction and significance of the estimated survival ratios for these controls are of less interest. Moreover, as they only serve as controls, the model has not been specified in order to isolate their effects. Therefore, I do not offer substantive interpretation of these survival ratios. Their direction are, however, largely in accordance with what has more generally been found in studies of conflict recurrence (see Kreutz 2010*a*).

The results reported so far do perhaps show a surprisingly positive impact of elections. Being in a post-conflict election year only has a significantly negative impact on the durability of peace when the constraints on the executive are very low. One possible reason for this is that recurrences do not necessarily happen in the year of the election, even if the election contributed to the recurrence. The period running up to an election may be just as important and so may the aftermath. Thus, the next section digs deeper into the conditional effect of post-conflict elections by broadening the scope to investigating distance in time to the nearest post-conflict election rather than just the impact of being in an election year.

4.2.2 The Conditional Effect of Election Proximity

It is also interesting to take into account what happens in the periods building up to and in the aftermath of elections. The model presented in this section do this by investigating the impact of election proximity. Instead of including a dummy for being in an election

year, a variable measuring the proximity in time to the nearest post-conflict election is included in the models.[4] This variable thus takes on the value of 0 in election years and the distance to the nearest election after the end of conflict for other observations. Thus, in these models Angola, which as discussed had an election in 1991 is assigned a value of 1 on this variable in 1992 which is the year of recurrence. Hence, this variable is able to capture this proximity in time to the election in the year prior to Angola's recurrence. To avoid losing the peace spells where an election never took place, I set the value of this variable to the maximum observed time until an election, which is 28 years. This may be problematic, but it allows including all peace spells in the model.That results in these models are similar to the ones with dummies for election years should increase confidence in that how spells without an election are dealt with is not driving the results. Because the effect of elections is likely to decline with time, the variable has been log-transformed. Hence, as the proximity to the election diminishes, the effect of an additional year without elections is also allowed to decline. This is important as there is no reason to expect that going an extra year without an election will have the same effect in countries, such as Saudi-Arabia, which has not held a single competitive election since the end of conflict in 1979, as in El Salvador which has had very frequent elections throughout its post-conflict period.

Table 4.3 presents the models where the distance in time to the nearest election is interacted with either XCONST (models 9 and 10) or the mutual veto dummy (models 11 and 12). Models 9 and 11 are simple Cox models based only on observed data and with standard errors clustered on country. Models 10 and 12 are based also on imputed data, and the multi-level structure of the data has been taken into account by the inclusion of a frailty term.

Model 10 shows that for low executive constraints the effect of being further in time

[4]In the models reported in this chapter, the effect of proximity is assumed to be symmetric. What this means is that the effect of being one year prior to an election is assumed to be the same as being one year into the aftermath of one. As discussed in Section 3.2.1.1, there may be reasons to expect this assumption to be too heroic. On one hand, many countries have long and bitter campaigns prior to elections, while the dust settles rather quickly after the votes have been counted (Linebarger and Salehyan 2012). This would suggest the time prior to the election to be risk-prone. On the other hand, it may be that organizations focus on mustering electoral support prior to the elections and then may choose to go back to conflict if they do not get sufficient influence after the elections (Collier, Hoeffler and Söderbom 2008: 470). This would perhaps suggest that the risk associated with elections lasts longer after elections. The symmetry of election proximity is tested in the models reported in the table in Appendix D. As it turns out, the effects are somewhat stronger for time after elections, but the differences are not huge. It does not appear that the assumption of symmetry is an important source of bias.

Table 4.3: Cox regressions 1972-2005. Interaction between election proximity and executive constraints/mutual veto

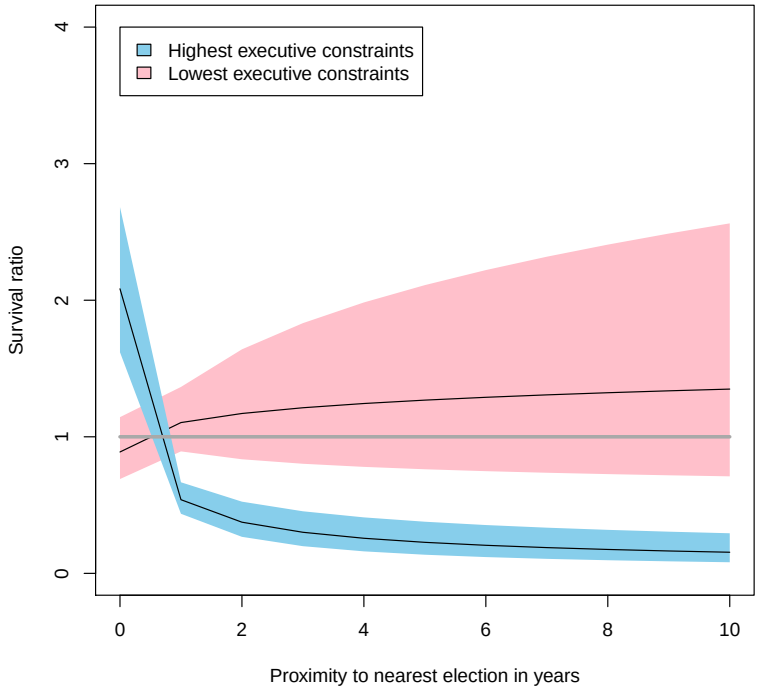
	(9) Cox	(10) Frailty	(11) Cox	(12) Frailty
log (election proximity)	1.277	1.221	1.11	1.086
	(0.901,1.811)	(0.945,1.577)	(0.886,1.391)	(0.914,1.292)
Executive constraints	1.664***	1.748***		
	(1.172,2.361)	(1.265,2.416)		
log (election proximity)	0.885**	0.897***		
*executive constraints	(0.802,0.976)	(0.829,0.97)		
Mutual veto			2.644**	2.573**
			(1.09,6.417)	(1.076,6.148)
log (election proximity)			0.623***	0.643***
* Mutual veto			(0.443,0.877)	(0.492,0.841)
Victory	2.677**	2.903***	2.251**	2.634***
	(1.223,5.859)	(1.373,6.142)	(1.105,4.589)	(1.269,5.465)
log (population)	0.757**	0.783**	0.741***	0.779**
	(0.607,0.943)	(0.634,0.968)	(0.621,0.885)	(0.637,0.953)
log (GDP per capita)	1.105	1.144	1.149	1.19
	(0.763,1.6)	(0.804,1.626)	(0.815,1.619)	(0.843,1.678)
log (battle deaths)	0.78	0.875	0.818	0.909
	(0.571,1.065)	(0.653,1.174)	(0.592,1.129)	(0.675,1.223)
PKO	80.659	25.31*	59.49	20.957*
	(0.194,33593.812)	(0.674,951.048)	(0.214,16573.62)	(0.631,696.399)
Territorial Conflict	1.38	1.427	1.399	1.526
	(0.815,2.335)	(0.786,2.589)	(0.868,2.256)	(0.843,2.762)
Executive recruitment	0.968	0.875	1.109	1.033
	(0.727,1.289)	(0.679,1.129)	(0.91,1.352)	(0.844,1.263)
Political participation	0.854	0.915	0.906	1
	(0.643,1.133)	(0.691,1.21)	(0.674,1.218)	(0.747,1.341)
log (battle deaths)	1.189	1.089	1.148	1.063
*log(time)	(0.964,1.467)	(0.901,1.316)	(0.923,1.429)	(0.877,1.287)
PKO	0.084*	0.139**	0.11	0.16*
*log (time)	(0.005,1.563)	(0.02,0.963)	(0.007,1.825)	(0.024,1.045)
log-likelihood null	-306.71	-376.93	-306.68	-376.93
log-likelihood	-280.82	-338.26	-281.92	-342.32
AIC	587.63	721.32	589.85	726.22
N	1454	1854	1453	1854
Number of events	67	79	67	79

Notes: ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$. Estimates in survival ratioes.

95 percent confidence intervals in parentheses. Standard errors are clustered on country

from an election year is to increase the survival ratios. In an election year, having institutions producing a one point higher executive constraints-score has a survival ratio of 1.75. Thus having stronger executive constraints has a strong effect on the chances of preserving the peace when elections are held. The interpretation of the interaction term of 0.9 is that the effect of having higher executive constraints declines as one moves away from the election year in time. In other words, the peace-inducing effect of executive constraints declines as the proximity to an election increases. It is the configurations of political institutions that are important. This effect is shown graphically in Figure 4.5,

Figure 4.5: Effect of proximity to the nearest election at the highest and lowest level of executive constraints



which shows the estimated survival ratio of being at different proximities to an election. Being close in time to an election increases the chances of avoiding a recurrence when executive constraints are high. As post-conflict societies with high executive constraints move further away from an election there is, however, an increased chance of experiencing a recurrence. For post-conflict political systems with unconstrained executives, the trend is the opposite. These systems are most at risk close to elections and become slightly less risk prone as the proximity to an election diminishes.

At no substantially interesting distance in time to an election does however the survival ratio for the least constrained systems become significantly greater than 1. In other words there is never a clear positive impact of not having elections, even when the level of the institutional constraints is very low. This could be seen as having an important policy-implication as it means that one cannot, based on these results be certain that postponing elections will make peace more durable, even when no executive constraints are in place. How postponing elections affect the durability of peace is a separate question that lies beyond the scope of this thesis. Flores and Nooruddin (2012) find that delaying elections with two years in post-conflict settings where the democratic experience is limited, may

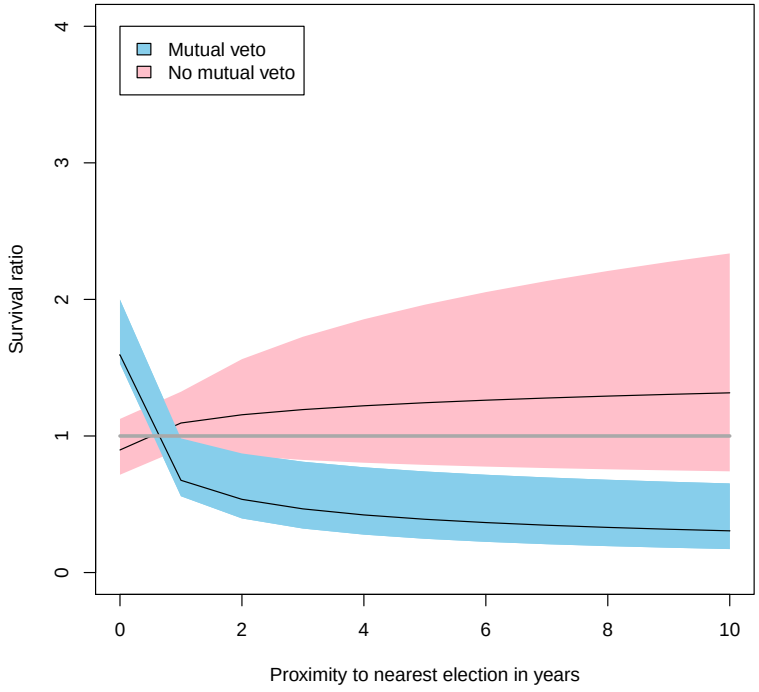
make recurrence less likely. As pointed out by the authors, this could be because some time is needed to establish institutions that constrain the winners of elections in these cases (Flores and Nooruddin 2012: 559). Two years is, however, a relatively limited delay, indicating that what is needed is time to establish constraining institutions rather than to avoid the election altogether. This agrees with the results presented in this thesis, as there is never a significantly positive impact of being further away from an election even when the executive constraints are very low. Thus, trying to avoid the dangers of post-conflict elections by postponing or eliminating them does not seem to be a strategy destined for success (for opposing arguments on whether transitional elections should be delayed to allow for the development of other institutions, see Carothers 2007 and Mansfield and Snyder 2007).

What does have a strong effect is the level of constraining institutions where elections are held. A better strategy than postponing elections may therefore be to make sure that strong constraints on majority power are introduced. Elections are significantly less dangerous when such constraints are in place. This provides strong support for Hypothesis 1.1. De facto levels of executive constraints have a strong impact on how holding elections affects the durability of post-conflict peace.

The results are similar for models 11 and 12, which evaluate sub-hypothesis 1.2. Hence these results hold also when focusing on a more specific and de jure institution. In model 12 the conditional effect of being further from an election year when there is no mutual veto is 1.09, which is a relatively limited and also statistically insignificant effect. The effect of having mutual vetoes when being in an election year is, however, the stronger and highly significant survival ratio of 2.57. This means that having mutual vetoes raises the expected chance of not experiencing a recurrence with 157% when being in an election year. The interaction term is also significant and less than 1, which means that the effect of this constraining institution declines with greater distance in time to the election.

This effect is summarized in Figure 4.6. This figure shows the estimated survival ratio for proximity to an election in cases with and without mutual vetoes. As can be seen from the figure, for the cases with formal institutions providing for mutual vetoes being close in time to an election is significantly related to an increased durability of the peace, while this changes as one moves away from the election in time. For the cases where no institutions of mutual veto exist, the effect of election proximity is the opposite, but the

Figure 4.6: Effect of proximity to the nearest election with and without institutions providing mutual veto



survival ratio is never significantly different from 1. This is in line with what was found when looking at levels of executive constraints: there is more uncertainty attached to what the effect of having an election is when constraining institutions are not in place, although elections do seem to be related to recurrences in these cases. For the cases where constraining are in place, it seems clear that having elections do have a positive impact on the durability of peace. Thus, there is a case to be made for a peace building potential of post-conflict democracy, but only when checks and balances are part of the institutional makeup of the democratic system.

4.3 What do These Results Mean?

So far what has been demonstrated is a statistically significant relationship between the effect that elections have on the durability of post-conflict peace and whether there are institutions placing constraints on majority power. Another question is whether this interaction produces substantially interesting differences in the chances of conflict recurrence. An appropriate question to ask of anyone claiming to know something about how

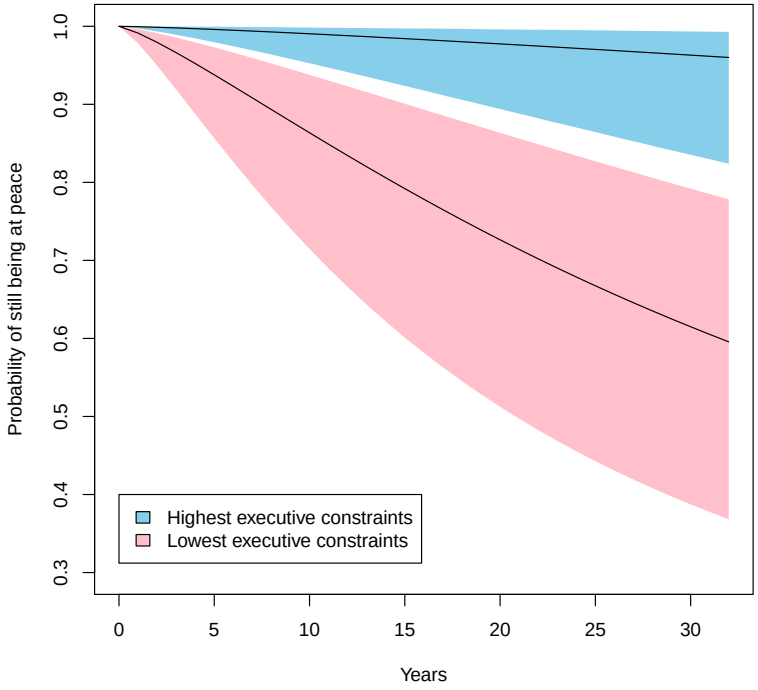
different political institutions can affect the durability of post-conflict peace is therefore whether this is an effect that is so strong that we should care about it. A second question is how much uncertainty is attached to the estimated effects. In other words, how sure can we be that holding elections really will lead to more stable post-conflict peace at higher levels of constraining institutions? These are the questions this section will deal with when analyzing what these results mean.

To clarify what the reported results actually mean, I follow King, Tomz and Wittenberg (2000) in simulating quantities of interests. The quantity of greatest interest given the research question of this thesis is arguably the number of years the peace can be expected to last if there is a post-conflict election at different levels of institutional constraints.

One difficulty in simulating the expected survival times from Cox regression models is that the baseline hazard – the underlying duration dependency – is not estimated in this model. As the unestimated baseline hazard is part of the survival function, expected survival times cannot be calculated directly. To circumvent this difficulty, I estimate a parametric model for the purpose of simulating quantities of interests. As discussed in Chapter 3, the main difficulty when estimating a parametric model is getting the underlying duration dependency right. Making the wrong assumption about the baseline hazard leads to biased results. Having estimated a semi-parametric model as the main model, it is, however, possible to estimate a series of parametric models and choose the one that yields results similar to the Cox model. Both the Weibull and the log-logistic models have results that are slightly weaker but otherwise similar to those in the Cox models. These two models are non-nested and one can thus not choose one over the other by comparing log-likelihoods. Following Box-Steffensmeier and Jones (2004: 44-45), I compare the models based on the Akaike information criterion (AIC). As the AIC for the log-logistic model is lower, this model is used in the simulations in this section. The model is reported in Appendix E.

To illustrate how much we can expect constraining institutions to impact the effect of having elections one may consider a hypothetical but typical case where elections are held every four years after the end of conflict and other variables are kept constant at their mean or median value. The question is then how long we can expect the peace to last in this scenario. This is illustrated in Figure 4.7. The black lines show the estimated

Figure 4.7: The chances of staying at peace with elections every four years. Other variables are kept at their mean or median value.



chance of still being at peace at each year for the highest and the lowest level of executive constraints. The blue and the pink areas show the 95%-confidence interval for each of these estimates.

The estimated chance of avoiding a conflict recurrence is rather different in the two scenarios. For the case where elections are held every 4 years but executive constraints are not present the chances of still being at peace after 15 years is only 80.6%, while the corresponding chance is 98.5% if strong executive constraints are in place. This is an important difference both from a theoretical and policy making perspective. It shows that having strong executive constraints makes a marked difference for the effect on expected durability of post-conflict peace spells in which elections are held regularly.

It is important to point out that there is considerably uncertainty attached to the estimated survival times. This uncertainty reflects both the estimation uncertainty always related to the analysis of what is a finite number of observations, and the fundamental uncertainty attached to the stochastic component of the data-generating process (King, Tomz and Wittenberg 2000: 348-349). The latter component is perhaps, intuitively important here. The recurrence of internal conflict may in part be a function of large

sum of unobserved events. These settings are inherently unstable and it is thus difficult to predict the chance of staying at peace for any specific observation. What can be said with some degree of confidence is, however, that the chance of preserving the peace will be different for cases with low and high executive constraints if elections are held regularly during the post-conflict period.

4.4 Conclusion

To summarize, the results of the survival analysis provide support for the hypothesized interaction between post-conflict elections and the level of institutional constraints placed on majority power. What this means is that the peace building potential of democracy after internal conflicts should not be judged primarily on the basis of the correlation between having elections and experiencing recurrence. Whether elections can contribute to a durable peace seems largely to be a function of how strong the constraints placed on the post-election majorities are.

This is in line with the prediction of the theoretical model developed in Section 2.4.1. In this model, holding competitive elections may support both conflict recurrence and durable peace in equilibrium, depending on the strength of institutions constraining majority power. What is observed empirically is that elections are related to more durable peace where such constraining institutions are in place, while there is a correlation between elections and conflict recurrence where such institutions are absent. The empirical findings are thus in line with the expectation based on the theoretical model.

As has been shown in this chapter, this finding is robust to looking both at formal institutions and to also use an indicator taking de facto performance of these institutions into account. Moreover, the finding is robust both to comparing election to non-election years and to looking at time proximity to elections. This increases confidence in the hypothesized interaction. The next chapter will evaluate the robustness further as well as analyze how well the models fit the data.

Chapter 5

Robustness and Model Diagnostics

The previous chapter presented the results of the empirical analysis. This chapter investigates the robustness of these results. This is an important additional step in testing the hypothesis that the effect of elections on the durability of post-conflict peace is mitigated by institutions that constrain the power of elected governments.

I begin this chapter by investigating how well the models presented in Section 4.2.2 fit the data. This is both a question of whether the estimated survival times correspond to observed survival times and of whether the models are driven by a few influential observations or reflect broader relationships. Both these questions are investigated through analysis of the models' residuals. Having confirmed that there is a reasonable fit between the models and the data, the chapter continues to investigate the robustness to slightly different model specifications. This interaction effect is shown to hold across different specifications of the independent variables and of what constitutes a post-conflict peace spell. It is also robust to the inclusion of additional control variables.

This chapter also offers an opportunity to address the issues of endogeneity and repeated events which were discussed in Chapter 3, but only to a limited extent taken into account in Chapter 4. To better account for how levels of constraints on majority power may be endogenous to conflict (Wig and Hegre 2013, Wucherpfennig 2011), I attempt to instrument for executive constraints using British legal origin as an instrument. The interaction effect holds when I in this way attempt to isolate the variation in executive constraints that is exogenous to conflict. The reported results are also robust to accounting for the multi-level structure of the data within a repeated events rather than a shared frailty framework.

5.1 Measures of Fit

One question that may be asked of the models that are presented is how well they fit the data. In the analysis in Chapter 4 this was less of a concern. What is of primary interest to this thesis is the effect of post-conflict democracy and more specifically whether the presence of constraining institutions mediate the impact of holding elections in post-conflict societies. Hence magnitudes, direction and precision of the covariates of interests are of greater interest than building a statistical model that accounts for all aspects of conflict recurrence. Whether the models estimated do at all fit the data is still an interesting question. After all, it is not clear what inferences could be made from a model that is not able to predict the patterns in the data. This section thus investigates both whether there is a correspondence between the predicted survival times and the survival times that are observed, and the extent to which the results are driven by a few influential observations. These are both questions that may be investigated by analyzing the models' residuals (Cox and Snell 1968: 248-249).

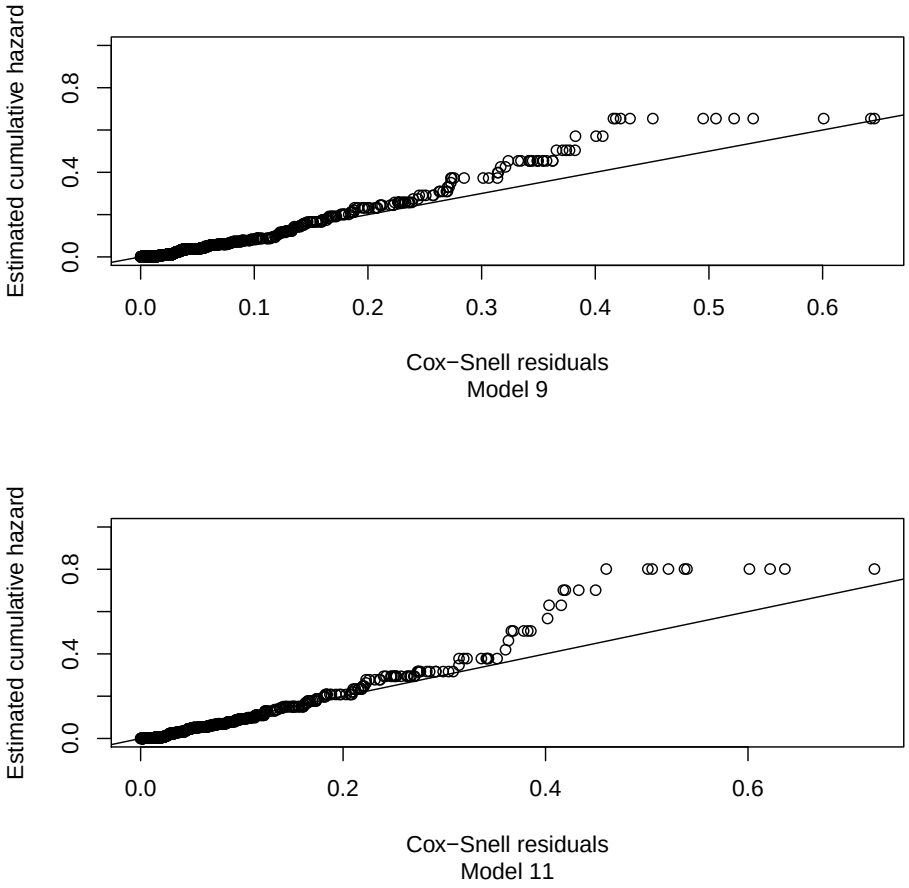
5.1.1 Adequacy of the Model

The first question regarding the fit of the models is thus whether the models are adequate in describing the data. This is a question of the correspondence between predicted and observed survival times, and can be evaluated by plotting the Cox-Snell residuals against the estimated integrated hazard function based on these same residuals (Mills 2011: 149-151). If the model is adequate in predicting the variation in the data, this plot should follow an exponential distribution with a hazard ratio of 1. This is the case if the plot follows a straight line through the origin (Box-Steffensmeier and Jones 2004: 120).[1]

The overall fit of models 7 and 9 can thus be assessed by examining Figure 5.1. Neither of these models fit the data perfectly. At the upper end of cumulative hazard rate, there are clear deviations from the 45° line, and these are particularly clear for Model 9. As noted by Box-Steffensmeier and Jones (2004: 124-125), this is typical as this is the tail where the estimation uncertainty will be greatest. This problem may be amplified by how the models are estimated on a relatively small sample. It may, however, be that the relative lack of fit suggests the omission of important covariates. To what extent this is

[1] As the imputation based models are less flexible, I have used the models based only on observed data to construct the Cox-Snell residuals. As the models are very similar, I do not expect this to affect the results.

Figure 5.1: Adequacy of the Models: Cox-Snell residuals against the cumulative hazard



biasing results will be investigated further in Section 5.2. For now, it may be concluded that both models appear to fit the data quite well at the lower end of the cumulative hazard rate but get progressively worse at higher levels. At least for the lower end of the cumulative hazard rate there is, however, a reasonable correspondence between the predicted survival times and the survival times as observed in the data.

5.1.2 Influential Observations

Another interesting question is whether the results are driven by some influential observations or if the model is successful in capturing what is a more general relationship. In other words; how much would the estimated coefficients change if one observation was removed from the data? This can be investigated by plotting the score residual for each observation (Therneau and Grambsch 2000: 154-156). For Model 10, which is the shared frailty model where executive constraints are interacted with the natural logarithm of

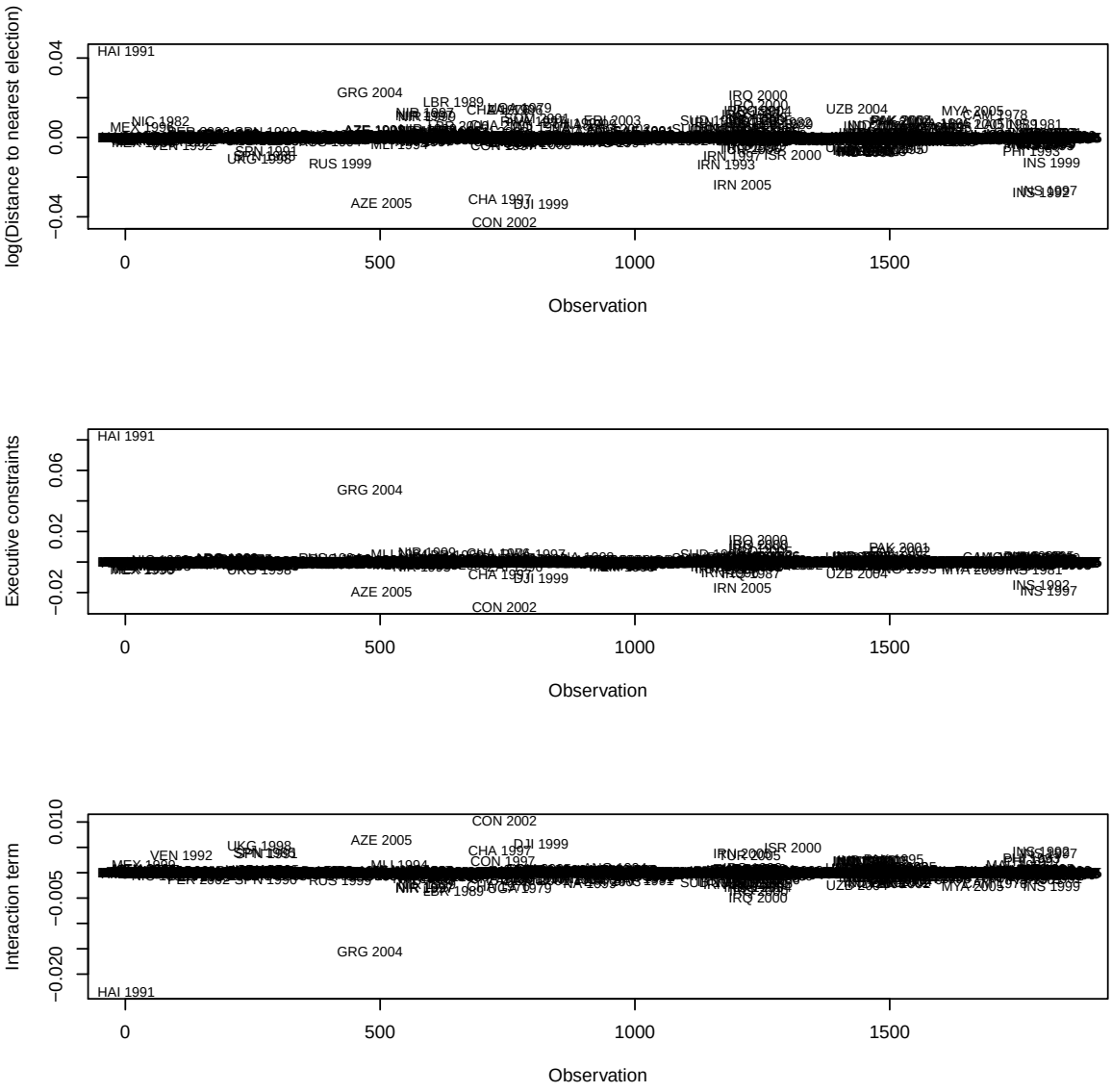
election proximity, this is shown in Figure 5.2. As this thesis is primarily concerned with the interaction between elections and constraining institutions, I only report score residual plots for the constituent terms of this interaction.

Although some observations have more leverage than others, it does not seem to be the case that the reported results are vulnerable to the removal of any single case. There are, however, some observations with moderate leverage particularly when it comes to pulling the coefficients in the opposite direction of what is hypothesized. Specifically the 1991 recurrence on Haiti, but also the 2004 recurrence of the conflict between the government of Georgia and South Ossetian separatists moderates the hypothesized interaction effect for Model 10. A larger group of observations provides support for Hypothesis 1.1 and the pull of each of these is more limited. For Model 12 which evaluates Hypothesis 1.2, there are more observations that exert a greater influence. Observations do, however, pull in opposite directions, and the reported results are not sensitive to any single observation. As for model 10, it is the few observations that do not fit with the theoretical expectations of this thesis that have the strongest leverage. This should be seen as an indication that some of the uncertainty in the models are caused by a limited set of observations that are not well accounted for.

As can be seen in Figure 5.2 the 1991 recurrence in Haiti is an observation that has some leverage on the results. Removing this observation would change all of the constituent terms of the interaction. The conditional effect of executive constraints given a one year distance in time to the nearest election[2] would change with 0.06 if this observation was removed, which is at least a moderate impact. As discussed in Section 4.1, this is one of few observations where executive constraints are high (6), but an election still produced a conflict recurrence. The case is thus not only influential but may also be considered as deviant. Estimating the model (not reported) after dropping the peace spell ending in this recurrence makes the results stronger and considerably more significant. Dropping the observation would however only be appropriate if the deviance was the result of a coding error. Before drawing inferences based on the model this should thus be investigated further (Seawright 2011: 63-65). What is clear is that Haiti's executive constraint score dropped to 1 in the year of the recurrence, but this appears to have been the result of the conflict rather than the other way around. It is, however, not obvious that the constraints

[2]This is when the logarithm of election proximity takes on the value of 0.

Figure 5.2: Influential observations? Changes in interaction between proximity to election and executive constraints with the removal of each observation



on majority power in Haiti prior to the 1991 recurrence were as strong as a executive-constraints score of 6 would suggest. President Aristede is reported to have shown little constraint when going after his political enemies both within the court system and when having his supporters harass members of parliament (Dupuy 2009: 166-168). Thus, even if the 1991 conflict recurrence in Haiti constitutes a deviant case in my analysis, it is not clear that it could be the foundation of an argument against Hypothesis 1. In any event, I do not exclude the peace spell from the analysis.

The other observation pulling the results in the opposite direction of what is hypothesized is the recurrence of the conflict over the independence of South Ossetia in 2004. The case is interesting as the recurrence followed the Rose Revolution in which the central government of Georgia was democratized. The new and elected leadership launched a campaign to "restore the country's territorial integrity" (Uppsala Conflict Data Program 2013*c*). This particular recurrence may thus offer some support for the notion that democratization may be a source of nationalist conflict (Zakaria 1997, Snyder 2000). Thus, even in the presence of relatively strong executive constraints, election winners may choose to resort to conflict. This is also in line with Kreutz (2010*b*: 2) who finds that government initiated recurrences sometimes are driven by factors other than those hypothesized to be important in Chapter 2. On such factor is the use of conflict to rally supporters for the government. It is, however, important that there was no process of demobilization and dismantling of the condition of dual sovereignty prior to the recurrence. The assumptions of the formal model in Section 2.4.1 upon which Hypothesis 1 is based are thus violated. It is thus not clear whether the case should have any bearing on how the predictions of this model is evaluated (Morton 1999). In any event, this case demonstrates that other dynamics may be valid for some cases of conflict recurrence.

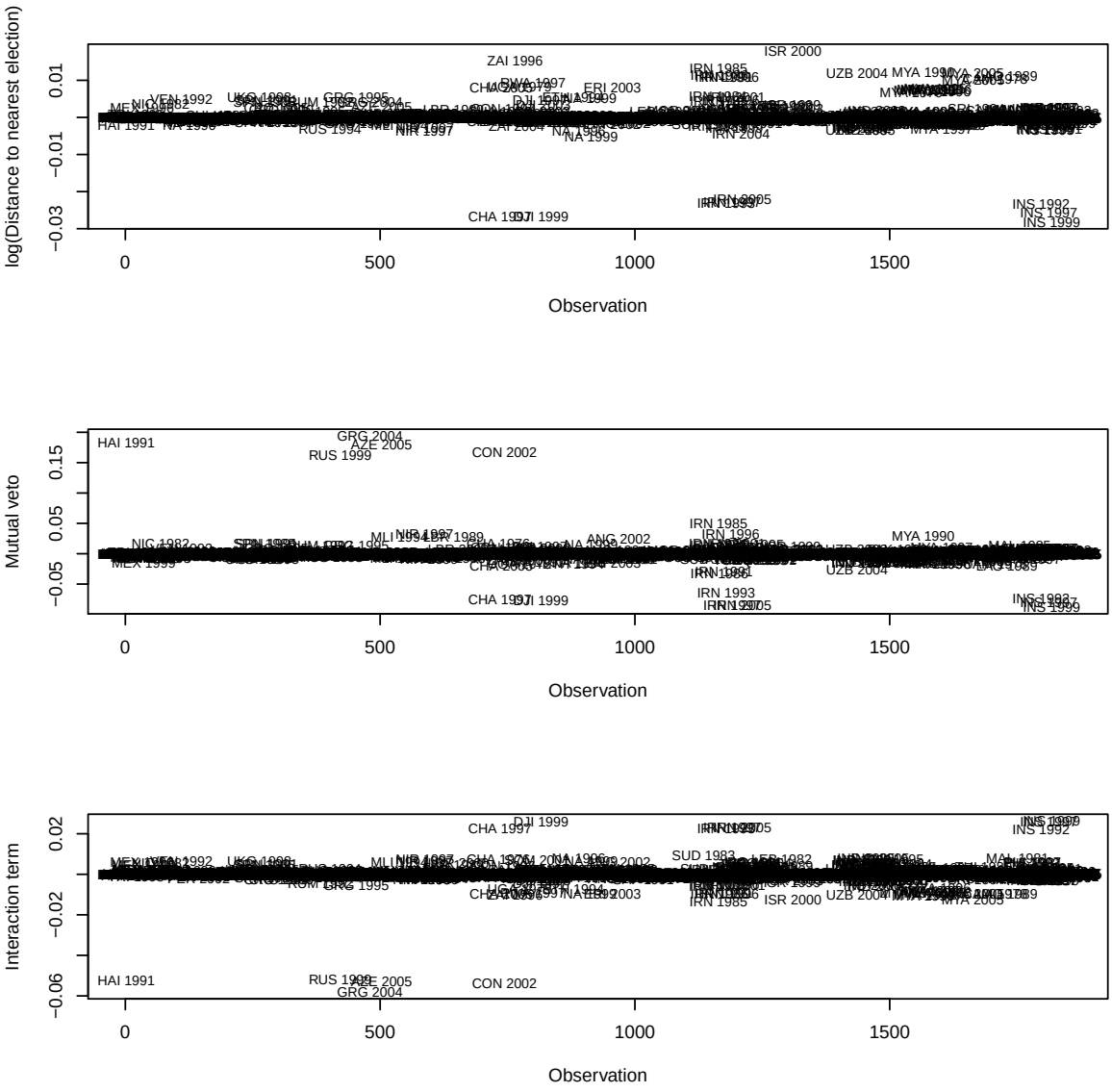
There are also cases with some leverage in the opposite direction, the one with the greatest being The Republic of Congo in 2002. Reestimating the model without the peace spell ending in this recurrence (not reported) leads to minor changes in the magnitude of the coefficients of interests but does not affect which inferences can be made based on the model. The 2002 recurrence of the conflict between the government and Ntsiloulous forces (Raleigh 2007: 77) happened in the year of a competitive election but in the absence of effective constraints on the executive. The reason for why this case is influential does not appear to be a coding error. As was discussed in Section 4.1, this seems instead to be a clear example of democratic competition in the absence of effective constraints on the

executive being unable to facilitate a peaceful development. There are also other cases in this category. As these are all clear cases of recurrences happening in settings with elections in the absence of strong executive constraints, it is unsurprising that they have some leverage over the results.

For Model 12 in which the logarithm of election proximity is interacted with the mutual veto dummy, the score residuals of the substantively most interesting coefficients are reported in Figure 5.3. Compared to Model 10, the score residuals are somewhat higher for all the constituent terms of the interaction for this model. This is explained by how thes coefficients have greater magnitudes in this model. As for Model 10, the recurrence in Haiti in 1991 is important for moderating the results of this model. In this model there are also some other observations with more leverage over the results. At most the coefficient for mutual vetoes at one year from an election would change by 0.15 by removing a single observation. This would mean a clear change in the magnitude of the reported survival ratios, but the inferences of the model would remain similar. Combined, the results are vulnerable to what happens within these more influential clusters of observations. As indicated by the cases that have been used as examples, these observations are cases where elections have lead to recurrences. Depending on the level of the constraining institutions, these observation will thus pull the results in one direction or the other.

One of the data points with the most leverage is the 1997 recurrence of the conflict between the government of Chad and the rebel groups. The recurrence happened one year after the election of Idriss Déby as president and in the year of the legislative elections (African Elections Database 2013). Chad did at the time only have one institution contributing to the mutual veto. It should also be noted that the country-year has a lagged executive constraints score of 2, establishing some equivalence in coding across these indicators, and indicating that a coding error does not explain the leverage of this observation. Rather it appears to be a case that fits the theoretical framework developed in Chapter 2, as election victory guaranteed president Déby full control of the riches of the state and the opportunity to use the apparatus of the state against his opponents (Gould and Winters 2012: 321-322). Even if it was not the results of a coding error, it would be problematic if this single observation to a large extent was driving the results. This is hardly the case. The term that would change the most if this observation was removed is the effect of changes in election proximity in the absence of constraining institutions,

Figure 5.3: Influential observations? Changes in interaction between proximity to election and mutual vetoes with the removal of each observation



which would only change by 0.06.

In conclusion the influential observations for models 10 and 12 do not appear to be coding errors, although Haiti perhaps had constraining institutions with a poorer de facto performance than the high executive constraints score would suggest. Neither would the inferences that are made based on these models have to be changed if any single observation was removed from these models.

The results, are however, driven by a cluster of observations in which there is a clear correlation between elections and conflict recurrence. It should not be considered problematic that these observations are influential, but it should be pointed out that there are relatively few of them. As the number of recurrences are also limited, they do make up a very low proportion of the events in the data. It would, however, be interesting to see whether the results hold if the time series was extended to include more recurrences and post-conflict elections. This may be a promising avenue for future research.

5.2 Robustness to Different Model Specifications

So far the analysis, has provided support for the interaction between constraining institutions and election proximity. One question one may still want to pose is how robust these results are to different specifications of both the independent variables and of what constitutes a post-conflict period. Moreover, there are some other variables that it might be interesting to control for. If the theory developed in Chapter 2 holds, the reported results should be robust also to other reasonable specifications of the main model. This section thus investigates whether there are specifications of the model in which Hypothesis 1 does not hold.

The analysis has so far not distinguished between presidential and legislative elections. This is because what is hypothesized to be important are the elections that determine which actors will receive control over political power. Whether elections to the legislative or to the executive are most important in this respect will depend on the rest of a country's political system. There may, however, be a case to be made that direct elections to the executive are more likely to have the winner-takes-all character assumed in Chapter 2 (Linz 1990, Lijphart 1999; 2008: Chapter 9). It is also not clear whether legislative elections in presidential systems with very low executive constraints would have an important effect, as it can be argued that less is at stake in such an election. To make sure

that grouping these two types of elections together is not biasing the results, model 10* in Table 5.1 disaggregates election proximity to proximity to a legislative election and proximity to an executive election.

As can be seen from inspecting Table 5.1, the proposed interaction does at least have the same direction for elections both to legislatures and to executives. Disaggregating elections does, however, increase the standard errors and thus leads to the loss of statistical significance. The interaction term for proximity to legislative elections and executive constraints remains weakly significant. The main reason for the loss of significance appears to be that effect of distance to either executive and legislative elections gets weaker when controlling for distance to the other type of elections. The somewhat more efficient estimates for legislative elections may be explained by the fact that not all democratic countries hold executive elections. Estimating the model separately for executive and legislative elections (not reported) leads to similar estimates but with smaller standard errors. The effect of proximity to executive elections remain stronger but somewhat less significant. In sum, there may be a difference between the election types, but this does not seem to be driving the results. A comparison of the AIC of models 10 and 10* indicates that disaggregating elections does not improve the fit of the model. Rather than suggesting a marked difference between different types of elections, this model may underline that the reported results are based on a relatively limited sample, which makes further disaggregation difficult.

Another possible problem is that results may be driven by how post-conflict peace is operationalized. Dahl and Høyland (2012) show that previous findings in the literature may not be consistent across different specifications of what constitutes a post-conflict peace spell. One such difference concerns how severe the conflict must have been for the period following it to be counted as a post-conflict peace spell. Collier, Hoeffler and Söderbom (2008: 466) do for instance employ a more restrictive criterion of a total of 1000 battle related deaths for the conflict to be included in their data. They furthermore censor the peace spells after the first decade of peace (Collier, Hoeffler and Söderbom 2008: 465). Model 10** investigates the effect of using this more restrictive criterion for the identification of peace spells. This increases both the magnitude and significance of the interaction between executive constraints and the effect of election proximity. It should, however, be noted that this model is based on a quite limited number of observations. That the proposed interaction becomes stronger and more significant even as

other important predictors such as victories and the logarithm of population are no longer significant should lend additional confidence to Hypothesis 1.

Table 5.1: Cox regressions 1972-2005. Robustness of the interaction between election proximity and level of executive constraints

	(10)	(10*)	(10**)	(10***)	(10****)
log (election proximity)	1.22		1.47*	1.25*	1.21
	(0.945,1.577)		(0.946,2.27)	(0.959,1.633)	(0.94,1.564)
Executive constraints	1.75***	2.38***	3.23***	1.94***	1.78***
	(1.265,2.416)	(1.377,4.099)	(1.565,6.665)	(1.368,2.745)	(1.298,2.444)
log (election proximity)	0.9***		0.79**	0.89***	0.9***
*executive constraints	(0.829,0.97)		(0.662,0.946)	(0.81,0.97)	(0.829,0.969)
log(executive election proximity)		1.3			
		(0.857,1.977)			
log(executive election proximity)		0.88			
*executive constraints		(0.754,1.035)			
log (legislative election proximity)		1.07			
		(0.788,1.465)			
log (legislative election proximity)		0.92*			
*executive constraints		(0.848,1.005)			
Victory	2.9***	2.9***	1.63	3.06***	3.31***
	(1.373,6.142)	(1.374,6.103)	(0.449,5.886)	(1.421,6.587)	(1.552,7.055)
log (population)	0.78**	0.78**	0.84	0.78**	0.81**
	(0.634,0.968)	(0.636,0.969)	(0.571,1.227)	(0.638,0.963)	(0.669,0.983)
log (GDP per capita)	1.14	1.15	1.03	1.07	1.13
	(0.804,1.626)	(0.812,1.636)	(0.56,1.876)	(0.758,1.522)	(0.806,1.582)
log (battle deaths)	0.88	0.88	0.76	0.91	0.94
	(0.653,1.174)	(0.678,1.148)	(0.407,1.421)	(0.701,1.187)	(0.723,1.23)
PKO	25.31*	26.57*	0.04	0.11**	0.13**
	(0.674,951.048)	(0.699,1009.776)	(0,22144.94)	(0.015,0.813)	(0.018,0.902)
Territorial conflict	1.43	1.45	0.87	1.29	1.36
	(0.786,2.589)	(0.803,2.618)	(0.294,2.592)	(0.716,2.317)	(0.768,2.419)
Executive recruitment	0.88	0.87	0.6**	0.87	0.88
	(0.679,1.129)	(0.674,1.118)	(0.388,0.935)	(0.675,1.127)	(0.69,1.124)
Political participation	0.91	0.91	0.91	0.86	0.89
	(0.691,1.21)	(0.689,1.201)	(0.574,1.457)	(0.651,1.144)	(0.68,1.154)
log(battle deaths)	1.09	1.08	1.16	1.06	1.05
*log (time)	(0.901,1.316)	(0.914,1.273)	(0.741,1.823)	(0.898,1.256)	(0.891,1.244)
PKO	0.14**	0.14**	49.42	1.22	1.28
*log (time)	(0.02,0.963)	(0.019,0.947)	(0,6503700.513)	(0.432,3.437)	(0.469,3.514)
New democracy				0.39	
				(0.066,2.251)	
New democracy				1.14	
*log (election proximity)				(0.641,2.043)	
Election during conflict					0.64
					(0.346,1.187)
log-likelihood null	-376.93	-376.93	-149.49	-369.63	-369.63
log-likelihood	-338.26	-338.13	-116	-332.19	-337.06
AIC	721.32	723.77	276.8	708.57	708.62
N	1854	1854	586	1854	1854
Number of events	79	79	36	79	79

Notes: ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$. Estimates in survival ratioes.

95 percent confidence intervals in parentheses.

Flores and Nooruddin (2012) find previous democratic experience to be important for what effect post-conflict elections will have on the durability of post-conflict peace, and in line with this thesis argue that this may be explained by the institutional context under which elections take place. As such, interacting elections with a measure of executive constraints could be seen as a more precise test of the theoretical mechanism suggested by Flores and Nooruddin. It may, however, be interesting to see whether

sub-hypothesis 1.1 holds also when controlling for the interaction between elections and whether a post-conflict democracy has previous democratic experience. If the measure of executive constraints captures the relevant constraining institutions, it should be robust to controlling for the effect of being a new democracy and the interaction between this lack of democratic maturity and elections. This is investigated in Model 10***, which includes a dummy for whether the country of the peace spell was a new democracy and the interaction term for this dummy with the election proximity. Following Flores and Nooruddin (2012: 564), a country is coded as a new democracy if it had a polity score below 7 prior to the outbreak of the initial conflict and polity score higher than 7 in the post-conflict period. Controlling for the interaction between being a new democracy and elections does not affect the estimated interaction between proximity to elections and executive constraints. That Flores and Nooruddin's (2012) interaction is weak and insignificant in Model 10*** also suggests that the executive constraints-measure does a better job in picking up the institutional maturity central to their argument. This provides additional support for the key proposition of this thesis: it is the constraints placed on majority power rather than other aspects of institutional maturity that determine what impact elections will have in the post-conflict setting. That the interaction between election proximity and executive constraints are stronger in this model suggests that this effect may be somewhat stronger for settings with some prior democratic experience.

While Flores and Nooruddin (2012), as well as this thesis, focus on the quality of constraining institutions that mediate the impact of having elections, a competing explanation could be that it is not the level of such constraints that matter but the experience with elections. This may be some of the effect captured in Flores and Nooruddin's (2012) "new democracy"-dummy and what leads Bratton (1998), Strand (2007) and Cederman, Gleditsch and Hug (2012: 14-17) to find first and second elections to be particularly conflict inducing. One measure that may capture the extent to which the parties to the conflict have previous experience with democracy is whether elections were held during the armed conflict. This means moving beyond whether elections have previously been held in the country of interest, and instead investigating directly whether both antagonists have observed how elections previously have been organized and what the outcome has been. If elections during conflict were held, then both the population and the armed factions should be expected to have both some information about each other's electoral strength and trust in the mechanisms of elections. A dummy indicating whether there

was an election in the country during the previous conflict episode is included in Model 10****. Introducing this variable has no clear effect on the interaction between election proximity and executive constraints. The effect of having held elections during the conflict is not statistically significant and the direction of the effect is the opposite of what would have been expected.

In conclusion, the interaction between proximity to an election and the level of executive constraints holds across various specification of the model. This provides additional support for Hypothesis 1.1. One may also want to consider to what extent the support for Hypothesis 1.2 is driven by the choice of mutual vetoes as the formal institutions capturing the extent of constraints put on majority power. As this may not be the only plausible indicator of formal institutions aimed at providing such constraints, it is interesting to investigate how robust the reported results are to alternative indicators.

Regan, Frank and Clark (2009: 296-297) propose an index of executive power made up of the difference between formal institutions providing assets to the executive such as power to dismiss the legislature and formal institution imposing constraints on the executive. Not all of these indicators are suited for capturing constraints placed on majority power. Dictatorial rule, which counts as an asset for the executive in this index (Regan, Frank and Clark 2009: 296), would for instance be an awkward component. Some of the specific variables proposed by Regan, Frank and Clark (2009) could perhaps serve as alternatives to the mutual veto dummy. One such indicator could be whether the legislature has to approve budgets. The problem with this and other of the suggestions offered by Regan, Frank and Clark (2009) is that there is very limited variation within systems that hold competitive elections. Thus even if a model where mutual vetoes are replaced with legislative power to approve budgets produce coefficients and standard errors that appear to provide strong support for the hypothesized interaction, caution is appropriate as there are strong reasons to suspect that the models have not converged properly. I thus choose not to report these models.

Another index of formal political institutions imposing constraints on majority power and thus allowing for credible commitments is developed by Wig and Hegre (2013). This index is an attempt of capturing different political institutions of the type Lijphart (1977; 1999; 2004) argues that facilitate elite-level bargaining in divided societies. As such, this index does not only capture constraints placed directly on majority power such as mutual vetoes but also proportional election systems, federalism, judicial review, legisla-

tive quotas, balanced bicameralism and an independent central bank (Wig and Hegre 2013: 10-12). The relationship between having an independent central bank and credibly promising not to abuse power following elections is perhaps not obvious. Nor is the appropriateness of an additive index here. The assumption that having both judicial review and an independent central bank makes credible commitments twice as likely as only having mutual vetoes seems to be rather heroic. Still, these are all institutions captur-

Table 5.2: Robustness of interaction between de jure constraining institutions and election proximity

	(12)	(12*)	(12**)	(12***)	(12****)
log (election proximity)	1.09	1.12	1.09	1.07	1.09
	(0.914,1.292)	(0.841,1.486)	(0.921,1.299)	(0.903,1.278)	(0.913,1.292)
Mutual veto	2.57**		2.71**	2.57**	2.46**
	(1.076,6.148)		(1.143,6.411)	(1.067,6.169)	(1.002,6.035)
log (election proximity)	0.64***		0.64***	0.65***	0.64***
*mutual veto	(0.492,0.841)		(0.493,0.838)	(0.498,0.853)	(0.491,0.842)
Consociationalism index		1.2			
		(0.886,1.625)			
log (election proximity)		0.92*			
*Consociationalism index		(0.844,1.002)			
Victory	2.63***	2.84***	2.67***	2.63**	2.41**
	(1.269,5.465)	(1.353,5.949)	(1.304,5.461)	(1.258,5.481)	(1.132,5.139)
log (population	0.78**	0.79**	0.76***	0.78**	0.79**
	(0.637,0.953)	(0.637,0.986)	(0.631,0.925)	(0.632,0.952)	(0.636,0.969)
log (GDP per capita	1.19	1.21	1.13	1.17	1.17
	(0.843,1.678)	(0.849,1.719)	(0.814,1.573)	(0.823,1.653)	(0.821,1.673)
log (battle deaths)	0.91	0.88	0.95	0.9	0.91
	(0.675,1.223)	(0.656,1.184)	(0.705,1.272)	(0.665,1.205)	(0.677,1.223)
PKO	20.96*	18.8*	0.16**	19.77*	22.7*
	(0.631,696.399)	(0.582,607.123)	(0.026,0.969)	(0.611,640.386)	(0.672,766.476)
Territorial conflict	1.53	1.6	1.56	1.5	1.49
	(0.843,2.762)	(0.887,2.901)	(0.877,2.791)	(0.821,2.729)	(0.823,2.713)
Executive recruitment	1.03	1.06	1.04	1.03	1.03
	(0.844,1.263)	(0.869,1.285)	(0.859,1.27)	(0.842,1.268)	(0.841,1.272)
Political participation	1	0.98	0.96	0.99	1.02
	(0.747,1.341)	(0.733,1.32)	(0.716,1.277)	(0.735,1.332)	(0.752,1.374)
log (battle deaths)	1.06	1.08	1.03	1.07	1.06
*log (time)	(0.877,1.287)	(0.895,1.308)	(0.852,1.243)	(0.881,1.293)	(0.874,1.28)
PKO	0.16*	0.17*	1.07	0.16*	0.16*
*log (time)	(0.024,1.045)	(0.026,1.088)	(0.494,2.309)	(0.025,1.059)	(0.024,1.068)
PR electoral system			1.63		
			(0.784,3.378)		
Economic growth				6.02	
				(0.653,55.53)	
Excluded population					0.33
					(0.008,13.027)
(Excluded population)^2					3.15
					(0.026,375.268)
Cold War					1.27
					(0.668,2.431)
log-likelihood null	-376.93	-376.93	-376.93	-376.93	-376.93
log-likelihood	-342.32	-343.59	-346	-340.45	-339.44
AIC	726.22	733.17	728.49	725.97	728.66
N	1854	1854	1854	1854	1854
Number of events	79	79	79	79	79

Notes: ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$. Estimates in survival ratioes.
95 percent confidence intervals in parentheses.

ing how political power is divided in ways to limit majoritarian power (Lijphart 1999). Even if there is a less clear theoretical fit between some of the sub-components of this

index and the theoretical mechanism suggested in Section 2.4.1, the interaction between election proximity and de jure constraining institutions should perhaps be expected to hold also when employing this index as an indicator of formal constraining institutions. As can be seen from inspecting Model 12*, this expectation is only partially confirmed. The standard errors are somewhat larger, but the same interaction is found also when employing the index proposed by Wig and Hegre (2013). One important caveat is that the effects for the consociational index are much less signficant. Having an additional consociational observation does not have a significant effect on the recurrence risk when being one year from the closest election. As this operationalization does not capture the theoretical concept as clearly as the mutual veto dummy, I do however not consider this to be devastating.

An alternative way of looking at some of the other consociational institutions that make up Wig and Hegre's (2013) index is not as alternative operationalizations but as possible omitted variables. Even if it fails to facilitate credible commitments, a variable such as proportional elections still may make a post-conflict democratic system more likely to facilitate durable peace by increasing the inclusiveness of the system (Reynolds 2006, Joshi 2012). This may be seen as an alternative explanation for the finding of this thesis. It may thus be interesting to see whether the reported interaction between election proximity and executive constraints holds also when introducing proportional electoral systems as an additional control. In Model 12**, I thus include a dummy variable indicating proportional electoral systems taken from the IAEP-dataset. As can be seen from comparing models 12 and 12**, controlling for proportional electoral system has no important impact on the results.

There are also other possible candidates for omitted variable bias that have not been considered. One such variable is that of economic growth. Some studies show that economic growth may be important for avoiding conflict recurrence (Collier, Hoeffler and Söderbom 2008). This finding may, however, not be very robust (Dahl and Høyland 2012). Omitted variable bias may be introduced as executive constraints may also be an important predictor of economic growth, although the long term effects may be what is most important (Acemoglu and Johnson 2005). In Model 12*** economic growth is thus introduced as an additional control variable. This does not affect the estimated survival ratios for any of the constituent terms of the interaction, and this holds both for the mutual veto indicator as in Model 12*** and for the XCONST-variable (not reported).

The impact of ethnicity and changes related to the end of the Cold War are also factors that have not been included in the models reported so far. If ethnicity or changes in the international system are somehow related both to post-conflict institutions and to risk of conflict, then this would be problematic. Cederman, Gleditsch and Hug (2012: 12) find that ethnic differences may make elections more likely to lead to conflict, while Cheibub, Hays and Savun (2012) find the relationship between African elections and conflict to have changed after the end of the Cold War. More generally, both ethnicity and the end of the cold war are variables sometimes invoked to explain patterns of conflict (Kaldor 1999). According to Baloyra (1998: 32), this distinction may also be important for the impact of post-conflict elections: "elections following a civil war driven by ideological consideration may have greater efficacy than in those driven by ethnic hatred".

Kalyvas (2001) convincingly argues that the distinction between "new" and "old" civil wars is not valid. However, as post-conflict democratization is a phenomenon that has become more common after the end of the Cold War, differences between "new" and "old" wars could bias the results if this distinction was picking up important differences. I control for these possible differences in Model 12****, which includes a variables measuring the proportion of the population that is excluded from political power, taken from Cederman, Min and Wimmer (2009). I also include a quadratic term of the ethnic population variable to capture what could be expected to be a curvilinear relationship between the size of the excluded population and conflict (Cunningham and Weidmann 2010: 1043) and a dummy variable indicating whether the peace spell occurred after the end of the Cold War. The inclusion of these variables do not affect the interaction between mutual veto and election proximity. Hence, these are not sources of omitted variable bias.

An additional set of robustness tests evaluating different operationalizations of election proximity are reported in Appendix D. These tests are discussed in Section 3.2.1.1 and are thus not granted additional space in this chapter. It should however be noted that the reported results are not sensitive to different operationalizations of election proximity.

In conclusion, the results reported here do not appear to be driven by specific choices in the model specification or in operationalization of key variables. Also when using different operationalizations of elections and post-conflict peace spells and when introducing additional control variables does the reported interaction hold. One possible threat to the robustness is, however, that the results are weaker and less signficant when using Wig and Hegre's (2013) consociationalism index. It is not clear how this should be interpreted

as there is less of a clear fit between the theoretical concept and this operationalization.

5.3 Endogeneity Revisited

As was pointed out in sections 2.4.1 and 3.4.1, the level of executive constraints may not be completely exogenous to the severity of the post-conflict commitment problems. On one hand such constraints may be introduced precisely because post-conflict actors want to solve the commitment problem (Wucherpfennig 2011, Wig and Hegre 2013). On the other hand, such constraints may be more likely to be introduced in cases where the commitment problem is already solved (Gurses and Mason 2008). In any event, this may produce bias in the reported estimates. As the risk of recurrence itself may be a cause of institutional constraints, the effect of executive constraints cannot be estimated consistently (Greene 2002: 959).

As discussed in section 3.4.1, it is not straight forward how this problem should be dealt with. Box-Steffensmeier and Jones (2004: 112-114) note that the development of selection models within the context of survival analysis is still in its infancy. Even if some progress is made my Boehmke, Morey and Shannon (2006), solutions to endogeneity problems are still not implemented in standard software for survival analysis. Because of these problems, the models reported so far do not attempt to correct for endogeneity apart from the inclusion of control variables related to how the previous conflict ended.

As suggested in Section 3.4.1 it may, however, be possible to follow the logic of an instrumental variable regression to attempt to correct for how endogeneity is biasing the results. Important caveats include that the properties of the instrumental regression within survival analysis is unsettled and that standard errors will be biased as the available software does not allow any appropriate correction of the variance estimates. Still, using instruments to generate predicted values for executive constraints and substitute these into the survival model should at least give some indication of the presence and direction of the possible endogeneity. Future methodological work may improve the estimation procedure and thus the ability to isolate the exogenous effect of constraining institutions.

Thus, following the logic of a two-step ordinary least squares estimator (see Stock and Watson 2007: Chapter 12; Greene 2002: 396-403; Wooldridge 2002: 83-101), I attempt to isolate the exogenous variation in executive constraints by using an instrument to predict executive constraints score that are uncorrelated with the error term of the duration

model. This involves estimating an ordinary least squares regression with the endogenous variable, executive constrains, as the dependent variable. In this model I include all the other variables which appear in the survival model in addition to an instrument, which as a variable that is correlated with the executive constraints but not with the durability of post-conflict peace (Stock and Watson 2007: 474). The instrument thus allows isolating the effect of executive constraints that is exogenous to recurrence risk.

This strategy obviously requires the identification of an appropriate instrument. La Porta et al. (1999: 231-232) posit that the British legal tradition has been developed with the purpose of limiting the power of the monarch, and that this stands in stark contrast to other legal traditions which have been developed with the aim of expanding the power of the state. The constraints placed on executive power may thus be expected to be higher in countries with a British legal tradition. As this legal system was spread throughout the British Empire, having a British colonial history may be a predictor of executive constraints. It is for this reason that North, Summerhill and Weingast (2000) argue that differences in the colonial experience may explain differences in the economic performance of North and South America. To the extent that this correlation is strong enough, this makes British legal origin a relevant instrument. The relevance of British legal origin as an instrument for executive constraints can be tested by including it in the first-stage linear model, and testing the null-hypothesis that the coefficient is zero, using a simple F-test (Stock and Watson 2007: 481). The F-statistic of the coefficient for a British legal origin is 16.4, which is above the minimum of 10 suggested as a criterion for instrument relevance (Stock and Watson 2007: 506-507).

I have also considered other possible instruments, such as the age of a country's constitution and a French colonial heritage. Of these it is the age of a country's constitution that has the highest correlation with executive constraints, but the decline in the F-statistic to only 9.18 when this variable is included suggests that it is a weak instrument. Following the recommendation of Stock and Watson (2007: 480-481), I thus leave it out of the model. Dummies for having belonged to other colonial empires than the British do not predict executive constraint scores. This provides support for the notion that the British legal tradition are unique with respect to providing constraints on executive power (La Porta et al. 1999).

The other criterion for a variable to be used as an instrument is validity, which means

Table 5.3: Controlling for endogeneity: Two-step IV estimation

	Baseline Cox	1st stage OLS	2nd stage Cox
Intercept		-1.342***	
		(-2.093,-0.591)	
log (election proximity)	1.277	0.022*	1.379*
	(0.901,1.811)	(-0.004,0.048)	(0.963,1.975)
Executive constraints	1.664***		9.569*
	(1.172,2.361)		(0.936,97.809)
log (election proximity)	0.885**		0.871***
*Executive constraints	(0.802,0.976)		(0.791,0.958)
Victory	2.677**	-0.423***	5.559***
	(1.223,5.859)	(-0.564,-0.282)	(1.8,17.167)
log (population)	0.757**	-0.045**	0.789**
	(0.607,0.943)	(-0.087,-0.003)	(0.645,0.966)
log (GDP per capita)	1.105	0.3***	0.674
	(0.763,1.6)	(0.235,0.365)	(0.343,1.326)
log (battle deaths)	0.78	-0.036**	0.841
	(0.571,1.065)	(-0.069,-0.004)	(0.613,1.155)
PKO	80.659	0.237***	0.898
	(0.194,33593.812)	(0.098,0.377)	(0.446,1.81)
Territorial conflict	1.38	0.2	46.652
	(0.815,2.335)	(-0.264,0.665)	(0.131,16643.059)
Executive recruitment	0.968	0.634***	0.306
	(0.727,1.289)	(0.596,0.672)	(0.065,1.443)
Political participation	0.854	0.162***	0.725
	(0.643,1.133)	(0.104,0.22)	(0.492,1.07)
log (battle deaths)	1.189	0.012***	0.109
*log (time)	(0.964,1.467)	(0.003,0.021)	(0.006,1.934)
PKO	0.084*	-0.04	1.151
*log (time)	(0.005,1.563)	(-0.307,0.227)	(0.935,1.417)
British legal origin		0.249***	
		(0.128,0.369)	
log-likelihood null	-306.71		-306.71
log-likelihood	-280.82		-281.55
AIC	587.63		589.1
N	1454	1454	1454
Number of events	67		67
R^2		0.747	
Adjusted R^2		0.745	

Notes: ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$. OLS estimates in coeffcients. Cox estimates in survival ratioes.
95 percent confidence intervals in parentheses. Standard errors are clustered on country.

that the instrument must not be a predictor of the dependent variable after controlling for the other variables in the model. As I only have one instrument, the model is not over-identified and it is thus not possible to test the validity of the instrument formally (Stock and Watson 2007: 485). It does, however, not appear to be any clear reason to suspect a British legal origin to be related to conflict recurrence. Moreover, the point-biseral correlation between having a British legal origin and experiencing a conflict recurrence is only 0.01.

The first step OLS is reported in the second column of Table 5.3. It is perhaps worth noting that the sign of the victory coefficient is negative, which lends some weight to

the notion that constraining institutions are less likely to be established in those cases where the risk of recurrence is the lowest (Wucherpfennig 2011, Wig and Hegre 2013). A British legal origin is a highly significant predictor of executive constraints. In the Cox regression reported in the third column, the executive constraint scores are replaced by predicted executive constraints scores from the first stage OLS.

By comparing the second-stage Cox model to the baseline model reported in the first column, it is clear that the conditional survival ratios for election proximity and executive constraints get higher when substituting executive constraints with predicted executive constraints, while the survival ratio for the interaction term is somewhat lower. If these results are accurate it implies that endogeneity introduces a downward bias in the results reported in Chapter 4. Again, this is in line with the notion that political institutions that constrain elected governments are more likely to be adopted where they are most needed (Wucherpfennig 2011, Joshi 2010: 37). These cases will also tend to be the cases where the peace is most likely to fail. One reason may be that negotiated settlements often involve provisions for institutional reform (Jarstad and Nilsson 2008). Another reason may be that one actor decide to adopt constraining institutions in order to appease the other actor (Wucherpfennig 2011) and facilitate credible commitments (Wig and Hegre 2013).

The standard errors also change in the two-stage estimation. It is, however, important to point out that these variance estimates are very likely to be biased as I have not been able to correct for how this Cox regression is the second stage of a two-stage estimation. Again, it should be pointed out that the properties of instrumental variable regression within the framework of a survival model has not been tested and the survival ratios may thus also be biased. These results do, however, provide some evidence that the reported results are not driven by endogeneity. While clearly not an optimal solution, the two-step estimation attempted in this section is the best test for endogeneity that is possible within the framework of this thesis. Future methodological development may provide methods for coming closer to the "true" causal effect of executive constraints after conflict. However, the test undertaken in this section should provide some additional confidence that the support found for Hypothesis 1 is not primarily driven by an endogenous relationship between conflict and institutions.

5.4 Recurrent Events

As discussed in Section 3.4.2, having multiple peace spells of the same conflict episode is another possible source of bias. That repeated conflict recurrences within the same conflict-dyad are conditionally independent of each other, is an assumption that is likely to be violated. As pointed out by Box-Steffensmeier and Jones (2004: 155) ignoring correlation between events may produce biased variance estimates, and can also bias the coefficients. In this section I investigate to what extent this is biasing the results reported in Chapter 4. Because each event within one conflict cannot be assumed to be conditionally independent of previous events and a conflict cannot be at risk of experiencing a second recurrence before it has experienced a first, the Prentice, Williams and Peterson (1981) model (PWP) is the most appropriate way of dealing with repeated events in the context of this thesis (Box-Steffensmeier and Zorn 2002: 1075). This model stratifies the data by event rank so that the baseline hazard for different events are allowed to vary. What this means is that the baseline hazard of the peace spell following the 1995 termination of the conflict between the government of Ethiopia and the Oromiya rebel movement, OLP, is allowed to be affected by the fact that this was the 5^{th} termination of conflict between these two antagonists.

Table 5.4 compares models 10 and 12 to their PWP counterparts. As can be seen from comparing the models, this increases the standard errors somewhat and also has slight effects on the magnitudes of the survival ratios. That there are some differences in the results when the model is estimated as a PWP-model indicate that the fact that some conflicts recur repeatedly may have some important implications. The risk of recurrence is affected by the previous conflict history.

What is important within the framework of this thesis is, however, that the proposed interaction holds also when the model is modified to account for the repeated event structure of the data. Both hypothesis 1.1 and 1.2 are confirmed also when letting the baseline hazard vary according to event-rank. It is thus possible to conclude that the reported results are not driven by what assumptions are made concerning how dependency between some of the peace spells in the data is affecting the durability of post-conflict peace.

Table 5.4: Shared frailty models vs. PWP-models for repeated events

	(10) Frailty	(10b) PWP	(12) Frailty	(12b) PWP
log(election proximity)	1.221	1.22	1.086	1.07
	(0.945,1.577)	(0.889,1.675)	(0.914,1.292)	(0.868,1.318)
Executive constraints	1.748***	1.714***		
	(1.265,2.416)	(1.237,2.375)		
log(election proximity)	0.897***	0.893**		
* Executive constraints	(0.829,0.97)	(0.816,0.978)		
Mutual veto			2.573**	2.582*
			(1.076,6.148)	(0.997,6.684)
Log(election proximity)			0.643***	0.649***
* Mutual veto			(0.492,0.841)	(0.474,0.888)
Victory	2.903***	3.245***	2.634***	2.783***
	(1.373,6.142)	(1.562,6.74)	(1.269,5.465)	(1.433,5.403)
log(population)	0.783**	0.803**	0.779**	0.79***
	(0.634,0.968)	(0.667,0.966)	(0.637,0.953)	(0.662,0.944)
log(GDP per capita)	1.144	1.034	1.19	1.084
	(0.804,1.626)	(0.752,1.423)	(0.843,1.678)	(0.79,1.487)
log(Battle deaths)	0.875	0.771	0.909	0.808
	(0.653,1.174)	(0.554,1.072)	(0.675,1.223)	(0.575,1.135)
PKO	25.31*	29.54	20.957*	21.422
	(0.674,951.048)	(0.405,2155.81)	(0.631,696.399)	(0.446,1027.77)
Territorial Conflict	1.427	1.219	1.526	1.296
	(0.786,2.589)	(0.669,2.22)	(0.843,2.762)	(0.739,2.273)
Executive recruitment	0.875	0.876	1.033	1.022
	(0.679,1.129)	(0.68,1.13)	(0.844,1.263)	(0.843,1.24)
Political Participation	0.915	0.93	1	1.01
	(0.691,1.21)	(0.707,1.225)	(0.747,1.341)	(0.766,1.333)
log(Battle deaths)	1.089	1.227**	1.063	1.178
*log(Time)	(0.901,1.316)	(1.004,1.499)	(0.877,1.287)	(0.956,1.451)
PKO	0.139**	0.119**	0.16*	0.151*
*log(Time)	(0.02,0.963)	(0.015,0.96)	(0.024,1.045)	(0.021,1.066)
log-likelihood null	-376.93	-266.18	-376.93	-266.18
log-likelihood	-338.26	-241.07	-342.32	-243.1
AIC	721.32	508.15	726.22	512.2
N	1854	1854	1854	1854
Number of events	79	79	79	79

Notes: ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$. Estimates in survival ratioes.

95 percent confidence intervals in parentheses.

5.5 Conclusion

This chapter has extended the analysis of Chapter 4 by investigating Cox-Snell and score residuals to make sure that there is a correspondence between predicted and observed survival times, and to investigate the extent to which the results are driven by single influential observations. It has also been investigated how robust the reported models are to various specifications and to the inclusion of additional control variables, as well as to corrections for endogeneity and repeated events.

In general, the results of these diagnostics and robustness exercises should be seen as bolstering confidence in the proposed interaction effect between post-conflict elections

and institutions that impose constraints on majority power. Some caveats are, however, warranted. The results that are reported in this thesis are based on a relatively small number of events. Although support for the hypothesis is not driven by any single observation, this means that there is a relatively small number of cases that are crucial for the support found for the hypothesized relationship. One possible avenue for future research may thus be to extend the analysis to cover a longer time series and see if this has any impact on the reported results. As post-conflict elections are relatively new phenomena, it is not given that extending the time series backwards would be the most fruitful strategy, but incorporating data on institutions, elections and conflict recurrence from the period after 2005 may be important for assessing whether the interaction found in this thesis is generalizable to a broader set of cases.

Within the sample of post-conflict peace spells that are investigated in this thesis, it is, however, possible to conclude that the effect of elections on the risk of conflict recurrence depends on what other institutions are in place. This interaction effect is robust to different specifications both of the election variable and the indicators for constraining institutions. It does furthermore hold when employing a narrower definition of what constitutes a post-conflict peace spell, when controlling for the possible endogeneity of executive constraints and when estimating a model where repeated events are taken into account.

Chapter 6

Conclusion

In this thesis, I have investigated the question of why post-conflict elections in some settings seem to have facilitated durable peace while in other settings have been related to recurrent conflict. My main proposition has been that this may be explained by variation in the institutional constraints placed on elected governments. This follows from a theoretical framework that – in line with much of the existing literature on conflict recurrence – assumes the existence of post-conflict commitment problems to be the primary explanation for recurrent conflict. Because post-conflict governments are not able to credibly guarantee not to renege on past promises, the former rebels will be reluctant to demobilize. This may lead to recurrent conflict.

Within this framework, the effect of elections should depend on the extent to which election winners can credible promise to show restraint after assuming office. Where there are few constraints on what election winners can do once in power, the post-conflict commitment problem will not be solved. In these cases elections can be expected to lead to recurrence if the election losers do not face a prohibite cost of conflict.

Institutions of checks and balances may, however, keep election winners from reneging on the peace settlement. Such institutions makes it more difficult to expropriate power for the executive and provide ways of punishing attempts by a government to renege on concessions that have been made. Elections are thus less likely to become zero-sum games over control of the state, and consequently are less likely to lead to conflict recurrence. In these cases, losing an election will be less of a threat and post-conflict democracy may thus be related to durable peace. This reasoning is captured in the hypothesis that "The effect of elections on the durability of post-conflict peace depends on the level of

executive constraints. Holding elections will only make peace less durable where strong constraining institutions are not in place."

This hypothesis has been tested empirically for a dataset of all post-conflict peace spells in the 1972-2005 period. The empirical testing has relied on two different indicators for institutional constraints to capture both de facto performance and de jure provisions. The former is captured by the executive constraints-component of the Polity index, while the latter is captured by whether the executive and the legislature have de jure power to veto each other's decisions. The proposed interaction between constraining institutions and post-conflict election holds for both these indicators, and also regardless of looking at what happens in election years or investigating the effect of proximity in time to elections. Holding competitive elections significantly increases the risk of conflict recurrence when the constraining institutions are weak.

When institutional constraints on elected governments are strong, post-conflict elections are however related to durable peace. In these settings elections may even be a positive force for peace. This may suggest that once the commitment problem is solved, elections can have a stabilizing effect by providing legitimacy for elected governments and allowing for political participation through non-violent means. These are expectations for positive association between democracy and post-conflict peace proposed in the literature that has previously not received clear support in the literature (e.g. Walter 2004). The results thus provide strong support for the theoretical framework developed in this thesis and show that the destabilizing effect of elections that has been identified in the existing literature is indeed mitigated by the presence of institutions of executive constraints.

From a policy making perspective it is important that the main finding of this thesis may call for a modification of some of the recommendations previously made in the literature. For instance, Collier, Hoeffler and Söderbom (2008: 470) conclude their study of post-conflict risks with stating that "international pressure for democracy should be justified by criteria other than peace-strengthening. Democracy does not appear to be an instrument for enhancing the durability of post-conflict peace." What I show in this thesis is that policy makers may very well keep their faith in democracy as a tool for durable peace as long as elections and institutions that constraint election winners are introduced in conjunction. The best advice may thus not be to tone down the calls for elections in conflict-ridden countries but rather to focus more on strengthening the institutional checks on those that succeed in these elections. As argued by Carothers (2007), it is

not clear how holding off elections should be seen as a good strategy for building the institutions necessary for a functioning democracy. The main policy implication is that the strong executive constraints is a goal that should be pursued in conjunction with the goal of holding elections.

What may also be of interest to policymakers is that the type of institutional arrangements that are found to mitigate the impact of elections in this thesis are institutions that may be also have other positive effects. Kapstein and Converse (2008*b*;*a*) argue that the level of executive constraints are important for stability in young democracies more broadly and Acemoglu and Johnson (2005) find a positive relationship between executive constraints and economic growth. There appear to be few negative effects of having higher levels of executive constraints. This stands in contrast to some of the power-sharing mechanism that are recommended in the literature (Hartzell and Hoddie 2007), but that other contributions have found to have considerable negative influences (Roeder and Rotchild 2005). This thesis do not take side in the debate on the relative merits of power-sharing institutions, but it may still be interesting that institutions that are more generally accepted as having inherently good properties may also help solve the commitment problem related to post-conflict democracy.

The findings of this thesis are also important for the scholarly understanding of the relationship between political institutions and armed conflict. While most previous studies have found what is at best mixed evidence for the unconditional effects of different types of institutions, this thesis demonstrates that political institutions work in conjunction. The effect of democratic elections can thus not be assessed irrespective of the broader institutional context. To the best of my knowledge this thesis is the first study to show a positive conditional effect of post-conflict elections on the durability of post-conflict peace. In the context of strong institutional constraints, elections are found to have the opposite effect of what has previously been found in the literature.

This is important also for the vein of research that investigates the effects of democracy and democratization using aggregate measures such as the Polity-index (e.g. Metternich and Wucherpfennig 2011). As interactions between different democratic institutions are important, differences or changes in aggregated measures of democracy may not be able to capture important variation in post-conflict institutions. As is demonstrated in this thesis, disaggregating these indeces may be a fruitful approach for enchancing the scholarly understanding of how democracy and democratization relates to conflict and conflict

recurrence.

One important contribution made in thesis has thus been measuring directly how institutions condition the effect of elections. As noted by Cheibub, Hays and Savun (2012: 13-14), the lack of direct measurement of constraining institutions has been one important omission in existing studies. There are, however, still important ways to improve measurement. It would for instance have been interesting to investigate data on election participation for conflict antagonists, as well as the outcome of these elections. This would allow even more precice testing of the implications from the theoretical model developed in Chapter 2. Some initial steps in this direction are taken by for instance Metternich (2011) who uses the size of rebel leaders' ethnic group as a proxy for electoral strength. Clearly, it would be useful to also link these actors more directly to parties involved in post-conflict politics. This would allow more precise testing of the mechanisms hypothesized to be important for the link between elections and conflict recurrence.

Two important caveats are warranted. Firstly, there is considerable uncertainty attached to the effect of elections at most levels of institutional constraints. Thus, even if the interaction between constraining institutions and elections is statistically significant, the results do not allow for very strong predictions about what effect elections will have for individual peace spells. To some extent, this may be an artifact of the relatively small sample size. Future research may thus want to extend the time-series.

Secondly, the support found for the hypothesized relationship is driven by a relatively limited number of observations. This is also not surprising given the relatively few observations in the dataset, but it remains one important caveat. The observation with the most leverage is the recurrence of conflict on Haiti in 1991, which is one of the few cases that count against the hypothesized interaction. A larger cluster of observations provides support for the hypothesized relationship. The leverage of each of these observations is more limited. Nevertheless, it remains one cause for concern that the reported results are at least somewhat vulnerable to the removal of a few observations. These caveats notwithstanding, the available data provides relatively strong support for the proposition that the effect of post-conflict elections depends on the level of constraints placed on elected governments.

In conclusion, this thesis has shown that the effect of post-conflict elections on the durability of peace is mitigated by the strength of institutions constraining elected governments. Where such institutions are weak, the conditional effect of elections is to increase

the chances of conflict recurrence. In a context of strong institutional constraints, elections are related to durable peace.

Chapter 7

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Appendix A

Rebel vs. Government Victories

Table A.1: Government vs. rebel victories

	Cox model
Government victory	3.818***
	(1.577,9.243)
Rebel victory	1.205
	(0.427,3.403)
log (population)	0.722***
	(0.589,0.884)
log (GDP per capita)	1.101
	(0.779,1.557)
log (battle deaths)	1.017
	(0.894,1.155)
PKO	1.067
	(0.375,3.041)
Territorial conflict	1.357
	(0.853,2.158)
Sip-2	2.056*
	(0.967,4.369)
log-likelihood null	-306.71
log-likelihood	-292.56
AIC	601.13
N	1454
Number of events	67

Notes: ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$. Estimates in survival ratioes.

Standard errors clustered on country.

Appendix B

Post-conflict Peace Spells Included in the Analysis

Table B.1: List of post-conflict peace spells

Conflict ID	Country	Side A	Side B	End of conflict	Recurrence year	Years of peace
6	Iran	KDPI	KDPI	1988	1990	2
6	Iran	KDPI	KDPI	1990	1993	3
6	Iran	KDPI	KDPI	1993	1996	3
6	Iran	KDPI	KDPI	1996		9
10	Philippines	CPP, Militar	CPP, Militar	1995	1997	2
10	Philippines	CPP	CPP	1997	1999	2
22	Paraguay	Military Fac	Military Fac	1989		16
23	Myanmar	KNUP, KNU	KNUP, KNU	1992	1995	3
23	Myanmar	KNU	KNU	1995	1997	2
23	Myanmar	KNU	KNU	1998	2000	2
23	Myanmar	God's Army,	God's Army,	2003	2005	2
24	Myanmar	CPB-RF, CPB,	CPB-RF, CPB,	1988	1990	2
24	Myanmar	ABSDF	ABSDF	1992	1994	2
24	Myanmar	ABSDF	ABSDF	1994		11
25	Myanmar	ANLP, CPA, R	ANLP, CPA, R	1978	1991	13
25	Myanmar	ARIF, RSO	ARIF, RSO	1992	1994	2
25	Myanmar	RSO	RSO	1994		11
26	Myanmar	NMSP	NMSP	1990	1996	6
26	Myanmar	BMA	BMA	1996		9
29	India	PWG, MCC	PWG, MCC	1994	1996	2
33	Yemen Arab Republic	National Dem	National Dem	1982		23
34	Myanmar	KIO	KIO	1992		13
36	Guatemala	FAR I, FAR I	FAR I, FAR I	1995		10
37	Israel	Palestinian	Palestinian	1996	2000	4
43	Thailand	CPT	CPT	1982		23
50	Argentina	ERP, Montene	ERP, Montene	1977		28
54	India	NSCN - IM	NSCN - IM	1997	2000	3
54	India	NSCN - IM	NSCN - IM	2000	2005	5
56	Myanmar	KNPP	KNPP	1987	1992	5
56	Myanmar	KNPP	KNPP	1992	1996	4
56	Myanmar	KNPP	KNPP	1996	2005	9
62	Iraq	SCIRI	SCIRI	1984	1987	3
62	Iraq	SCIRI	SCIRI	1987	1991	4
62	Iraq	SCIRI	SCIRI	1996	2004	8
63	Lebanon	LNM, LAA	LNM, LAA	1976	1982	6
63	Lebanon	LNM, Amal, N	LNM, Amal, N	1986	1989	3
63	Lebanon	Lebanese Arm	Lebanese Arm	1990		15
64	Malaysia	CPM	CPM	1975	1981	6
64	Malaysia	CPM	CPM	1981		24
65	Laos	Pathet Lao	Pathet Lao	1973	1989	16
65	Laos	LRM	LRM	1990		15
67	Myanmar	SSA	SSA	1973	1976	3
67	Myanmar	SURA, SSRA,	SURA, SSRA,	1988	1993	5
67	Myanmar	MTA, SSA-S	MTA, SSA-S	2002	2005	3
70	Ethiopia	TPLF, EPRP,	TPLF, EPRP,	1991		14
74	Iraq	KDP, PUK, KD	KDP, PUK, KD	1992	1995	3
74	Iraq	PUK	PUK	1996		9
78	Ethiopia	ELF, EPLF, E	ELF, EPLF, E	1991		14
80	Venezuela	Bandera Roja	Bandera Roja	1982	1992	10
80	Venezuela	Military fac	Military fac	1992		13
85	Sudan	Anya Nya/SSL	Anya Nya/SSL	1972		33
86	DRC	FLNC	FLNC	1978	1996	18
86	DRC	AFDL, RCD, R	AFDL, RCD, R	2001		4
90	Burundi	Palipehutu	Palipehutu	1992	1994	2
91	Chad	Frolinat, Fi	Frolinat, Fi	1972	1976	4
91	Chad	FAN, FAP, FA	FAN, FAP, FA	1984	1986	2
91	Chad	GUNT, CDR	GUNT, CDR	1987	1989	2
91	Chad	MOSANAT, Rev	MOSANAT, Rev	1994	1997	3
91	Chad	FARF, MDD, M	FARF, MDD, M	2002	2005	3
94	Indonesia	OPM	OPM	1978	1981	3
94	Indonesia	OPM	OPM	1981		24
95	Peru	Sendero Lumi	Sendero Lumi	1999		6
98	Ghana	Military fac	Military fac	1981	1983	2
98	Ghana	Military fac	Military fac	1983		22
101	South Africa	SWAPO	SWAPO	1988		17
102	Syria	Muslim Broth	Muslim Broth	1982		23

103	Cambodia	Khmer Rouge/	Khmer Rouge/	1975	1978	3
103	Cambodia	KNUFNS, Khme	KNUFNS, Khme	1998		7
111	Guinea	RFDG	RFDG	2001		4
112	Philippines	MIM, MNLF, M	MIM, MNLF, M	1990	1993	3
113	Sudan	Islamic Char	Islamic Char	1976	1983	7
117	Sri Lanka	JVP	JVP	1990		15
118	Uganda	Military fac	Military fac	1972	1974	2
118	Uganda	Military fac	Military fac	1974	1979	5
118	Uganda	Kikosi Maalu	Kikosi Maalu	1992	1994	2
119	United Kingdom	PIRA	PIRA	1991	1998	7
119	United Kingdom	RIRA	RIRA	1998		7
120	El Salvador	ERP, FPL, FM	ERP, FPL, FM	1991		14
121	Oman	PFLO	PFLO	1975		30
122	Zimbabwe	ZANU, ZAPU,	ZANU, ZAPU,	1979		26
123	Uruguay	MLN/Tupamaro	MLN/Tupamaro	1972		33
125	Chile	Military fac	Military fac	1973		32
126	Bangladesh	JSS/SB	JSS/SB	1992		13
129	Pakistan	Baluchi sepa	Baluchi sepa	1977	2004	27
130	Eritrea	EIJM - AS	EIJM - AS	1997	1999	2
130	Eritrea	EIJM - AS	EIJM - AS	1999	2003	4
130	Eritrea	EIJM - AS	EIJM - AS	2003		2
131	Angola	FNLA, UNITA	FNLA, UNITA	1995	1998	3
131	Angola	UNITA	UNITA	2002		3
133	Ethiopia	WSLF	WSLF	1983	1994	11
133	Ethiopia	ONLF	ONLF	1994	1996	2
133	Ethiopia	ONLF	ONLF	1996	1999	3
133	Ethiopia	ONLF	ONLF	2002	2004	2
134	Indonesia	Fretilin	Fretilin	1989	1992	3
134	Indonesia	Fretilin	Fretilin	1992	1997	5
134	Indonesia	Fretilin	Fretilin	1998		7
135	Morocco	POLISARIO	POLISARIO	1989		16
136	Mozambique	Renamo	Renamo	1992		13
137	Afghanistan	Taleban	Taleban	2001	2003	2
139	India	TNV	TNV	1988	1992	4
139	India	ATTF	ATTF	1993	1995	2
139	India	NLFT	NLFT	1995	1997	2
139	India	NLFT, ATTF	NLFT, ATTF	2004		1
140	Nicaragua	FSLN	FSLN	1979	1982	3
140	Nicaragua	Contras/FDN	Contras/FDN	1990		15
141	Somalia	SSDF, SNM	SSDF, SNM	1984	1986	2
141	Somalia	SNM, SPM, US	SNM, SPM, US	1996	2001	5
141	Somalia	SRRC	SRRC	2002		3
143	Iran	MEK	MEK	1982	1986	4
143	Iran	MEK	MEK	1988	1991	3
143	Iran	MEK	MEK	1993	1997	4
143	Iran	MEK	MEK	1997	1999	2
143	Iran	MEK	MEK	2001	2005	4
144	Iran	APCO	APCO	1980		25
145	Saudi Arabia	JSM	JSM	1979		26
146	Liberia	Military fac	Military fac	1980	1989	9
146	Liberia	NPFL, INPFL	NPFL, INPFL	1990	2000	10
146	Liberia	LURD, MODEL	LURD, MODEL	2003		2
147	Spain	ETA	ETA	1982	1985	3
147	Spain	ETA	ETA	1987	1991	4
147	Spain	ETA	ETA	1992		13
148	Tunisia	Rstance A	Rstance A	1980		25
149	Gambia	NRC	NRC	1981		24
150	South Africa	ANC	ANC	1983	1985	2
150	South Africa	ANC	ANC	1988		17
152	India	PLA	PLA	1988	1992	4
152	India	PLA, UNLF	PLA, UNLF	2000	2003	3
153	Kenya	Military fac	Military fac	1982		23
156	India	Sikh insurge	Sikh insurge	1993		12
157	Sri Lanka	LTTE, TELO,	LTTE, TELO,	2001	2003	2
157	Sri Lanka	LTTE	LTTE	2003	2005	2
158	Cameroon	Military fac	Military fac	1984		21
162	Suriname	SLA	SLA	1987		18
163	Togo	MTD	MTD	1986		19
164	Yemen People's Republic	Yemenite Soc	Yemenite Soc	1986		19
165	Burkina Faso	Popular Fron	Popular Fron	1987		18
167	Comoros	Presidential	Presidential	1989		16
168	Ethiopia	ALF	ALF	1976	1996	20
168	Ethiopia	ARDUF	ARDUF	1996		9
170	India	ULFA	ULFA	1991	1994	3
171	Indonesia	GAM	GAM	1991	1999	8
172	Panama	Military fac	Military fac	1989		16
174	Papua New Guinea	BRA	BRA	1990		15
174	Papua New Guinea	BRA	BRA	1996		9
175	Romania	NSF	NSF	1989		16
177	Mali	MPA	MPA	1990	1994	4
177	Mali	FIAA	FIAA	1994		11
178	Niger	CRA	CRA	1994		11
179	Rwanda	FPR	FPR	1994	1997	3
179	Rwanda	FDLR	FDLR	2002		3
180	Senegal	MFDC	MFDC	1990	1992	2
180	Senegal	MFDC	MFDC	1993	1995	2
180	Senegal	MFDC	MFDC	1995	1997	2
180	Senegal	MFDC	MFDC	1998	2000	2
180	Senegal	MFDC	MFDC	2001	2003	2
180	Senegal	MFDC	MFDC	2003		2
181	Russia	Republic of	Republic of	1991		14
182	Russia	APF	APF	1990		15
183	Trinidad and Tobago	Jamaat al-Mu	Jamaat al-Mu	1990		15
184	Djibouti	FRUD	FRUD	1994	1999	5
184	Djibouti	FRUD AD	FRUD AD	1999		6
185	Georgia	National Gua	National Gua	1993		12
186	Haiti	Military fac	Military fac	1989	1991	2
186	Haiti	Military fac	Military fac	1991	2004	13
186	Haiti	FLRN, OP Lav	FLRN, OP Lav	2004		1
187	Sierra Leone	RUF, AFRC, K	RUF, AFRC, K	2000		5

188	Turkey	Devrimci Sol	Devrimci Sol	1992	2005	13
189	Yugoslavia	Republic of	Republic of	1991	1991	0
190	Yugoslavia	Republic of	Republic of	1991		14
192	Angola	FLEC-R	FLEC-R	1991	1994	3
192	Angola	FLEC-R, FLEC	FLEC-R, FLEC	1994	1996	2
192	Angola	FLEC-FAC, FL	FLEC-FAC, FL	1998	2002	4
192	Angola	FLEC-R, FLEC	FLEC-R, FLEC	2002	2004	2
192	Angola	FLEC-FAC	FLEC-FAC	2004		1
193	Azerbaijan	Republic of	Republic of	1994	2005	11
194	Bosnia and Herzegovina	Serbian Repu	Serbian Repu	1995		10
195	Croatia	Serbian Repu	Serbian Repu	1993		12
195	Croatia	Serbian Repu	Serbian Repu	1995		10
196	Egypt	al-Gamaa al-	al-Gamaa al-	1998		7
197	Georgia	Republic of	Republic of	1993		12
198	Georgia	Republic of	Republic of	1992	2004	12
198	Georgia	Republic of	Republic of	2004		1
199	Moldova	PMR	PMR	1992		13
200	Tajikistan	UTO	UTO	1996	1998	2
200	Tajikistan	UTO, Movemen	UTO, Movemen	1998		7
201	Azerbaijan	Military fac	Military fac	1993	1995	2
201	Azerbaijan	OPON forces	OPON forces	1995		10
202	Bosnia and Herzegovina	Autonomous P	Autonomous P	1995		10
203	Bosnia and Herzegovina	Croatian Rep	Croatian Rep	1994		11
204	Russia	Parliamentar	Parliamentar	1993		12
205	Mexico	EZLN	EZLN	1994	1996	2
205	Mexico	EPR	EPR	1996		9
206	Russia	Republic of	Republic of	1996	1999	3
207	Yemen Arab Republic	Democratic R	Democratic R	1994		11
209	Pakistan	MQM	MQM	1990	1995	5
209	Pakistan	MQM	MQM	1996		9
211	Ethiopia	al-Itahad al	al-Itahad al	1996	1999	3
211	Ethiopia	al-Itahad al	al-Itahad al	1999		6
212	Niger	FDR	FDR	1995	1997	2
212	Niger	FARS	FARS	1997		8
213	Comoros	MPA/Republic	MPA/Republic	1997		8
214	Congo	Ninjas	Ninjas	1994	1997	3
214	Congo	Cobras, Coco	Cobras, Coco	1999	2002	3
214	Congo	Ntsiloulous	Ntsiloulous	2002		3
216	Guinea-Bissau	Military Jun	Military Jun	1999		6
217	Lesotho	Military fac	Military fac	1998		7
218	Yugoslavia	UCK	UCK	1999		6
219	Ethiopia	OLF	OLF	1978	1980	2
219	Ethiopia	OLF	OLF	1981	1983	2
219	Ethiopia	OLF	OLF	1985	1987	2
219	Ethiopia	OLF	OLF	1992	1994	2
219	Ethiopia	OLF	OLF	1995	1998	3
220	Russia	Wahhabi move	Wahhabi move	1999		6
221	Uzbekistan	IMU	IMU	2000	2004	4
221	Uzbekistan	JIG	JIG	2004		1
222	Central African Republic	Military fac	Military fac	2002		3
223	Macedonia	UCK	UCK	2001		4
224	USA	al-Qaida (Th	al-Qaida (Th	2002	2004	2
225	Ivory Coast	MPCI, MPIGO,	MPCI, MPIGO,	2004		1
227	India	ABSU	ABSU	1990	1993	3
227	India	NDFB	NDFB	2004		1
228	Myanmar	UWSA	UWSA	1997		8
249	Nigeria	Ahlul Sunnah	Ahlul Sunnah	2004		1
250	Nigeria	NDPVF	NDPVF	2004		1
251	Israel	Hezbollah	Hezbollah	1999		6
253	Mauritania	POLISARIO	POLISARIO	1978		27
255	Niger	FLAA	FLAA	1992	1997	5
255	Niger	UFRA	UFRA	1997		8
261	Ethiopia	SALF	SALF	1980		25
262	Ethiopia	SLM	SLM	1983		22
263	India	KNF	KNF	1997		8
265	Myanmar	LNUP	LNUP	1981		24

Appendix C

Transitionary Periods

Table C.1: List of Transitionary Periods

Conflict ID	Country	End of conflict	Trans. year	Recurrence	Imputed XCONST
62	Iraq	1996	2004	2004	2.226
63	Lebanon	1976	1977	1982	2.748
63	Lebanon	1976	1978	1982	2.864
63	Lebanon	1976	1979	1982	2.510
63	Lebanon	1976	1980	1982	2.539
63	Lebanon	1976	1981	1982	2.033
63	Lebanon	1976	1982	1982	1.598
63	Lebanon	1986	1987	1989	2.362
63	Lebanon	1986	1988	1989	3.215
63	Lebanon	1986	1989	1989	2.275
63	Lebanon	1990	1991		2.023
63	Lebanon	1990	1992		1.435
63	Lebanon	1990	1993		5.634
63	Lebanon	1990	1994		5.205
63	Lebanon	1990	1995		2.954
63	Lebanon	1990	1996		4.356
63	Lebanon	1990	1997		4.956
63	Lebanon	1990	1998		4.213
63	Lebanon	1990	1999		4.372
63	Lebanon	1990	2000		5.760
63	Lebanon	1990	2001		5.383
63	Lebanon	1990	2002		4.235
63	Lebanon	1990	2003		5.568
63	Lebanon	1990	2004		5.682
63	Lebanon	1990	2005		4.855
65	Laos	1973	1974	1989	2.438
65	Laos	1973	1975	1989	2.183
70	Ethiopia	1991	1992		3.197
70	Ethiopia	1991	1993		2.263
70	Ethiopia	1991	1994		2.355
74	Iraq	1996	2004		2.732
74	Iraq	1996	2005		1.838
78	Ethiopia	1991	1992		2.062
78	Ethiopia	1991	1993		2.080
78	Ethiopia	1991	1994		2.258
85	Sudan	1972	1986		1.281
86	Democratic Republic of the Congo	1978	1993	1996	2.367
86	Democratic Republic of the Congo	1978	1994	1996	1.551
86	Democratic Republic of the Congo	1978	1995	1996	1.686
86	Democratic Republic of the Congo	1978	1996	1996	1.400
86	Democratic Republic of the Congo	2001	2002	2006	1.462
86	Democratic Republic of the Congo	2001	2003	2006	1.283
86	Democratic Republic of the Congo	2001	2004	2006	1.358
86	Democratic Republic of the Congo	2001	2005	2006	1.092
95	Peru	1999	2001	2007	5.252
98	Ghana	1983	1992		1.787
101	South Africa	1988	1993		3.330
101	South Africa	1988	1994		6.223
103	Cambodia	1975	1976	1978	1.583
122	Zimbabwe	1979	1980		4.472
123	Uruguay	1972	1973		5.983

131	Angola	1995	1996	1998	4.276
131	Angola	1995	1997	1998	2.970
133	Ethiopia	1983	1992	1994	1.946
133	Ethiopia	1983	1993	1994	1.645
133	Ethiopia	1983	1994	1994	1.196
140	Nicaragua	1979	1980	1982	3.505
140	Nicaragua	1979	1981	1982	2.452
141	Somalia	1996	1997	2001	1.722
141	Somalia	1996	1998	2001	1.019
141	Somalia	1996	1999	2001	1.706
141	Somalia	1996	2000	2001	1.744
141	Somalia	1996	2001	2001	1.233
141	Somalia	2002	2003	2006	1.214
141	Somalia	2002	2004	2006	1.021
141	Somalia	2002	2005	2006	2.309
144	Iran	1980	1981		3.491
144	Iran	1980	1982		4.241
146	Liberia	1990	1991	2000	1.728
146	Liberia	1990	1992	2000	1.673
146	Liberia	1990	1993	2000	2.153
146	Liberia	1990	1994	2000	1.260
146	Liberia	1990	1995	2000	1.091
146	Liberia	1990	1996	2000	1.717
146	Liberia	1990	1997	2000	2.374
146	Liberia	2003	2004		1.303
146	Liberia	2003	2005		1.000
150	South Africa	1988	1993		4.768
150	South Africa	1988	1994		6.671
163	Togo	1986	1992		1.416
163	Togo	1986	1993		1.211
167	Comoros	1989	1996		4.518
168	Ethiopia	1976	1992	1996	2.237
168	Ethiopia	1976	1993	1996	2.821
168	Ethiopia	1976	1994	1996	3.905
175	Romania	1989	1990		4.121
177	Mali	1990	1992	1994	1.537
186	Haiti	1991	2000	2004	2.853
186	Haiti	2004	2005		1.437
187	Sierra Leone	2000	2001		3.190
187	Sierra Leone	2000	2002		3.078
192	Angola	1991	1992	1994	2.520
192	Angola	1991	1993	1994	3.399
192	Angola	1991	1994	1994	3.483
194	Bosnia and Herzegovina	1995	1996		1.149
194	Bosnia and Herzegovina	1995	1997		4.063
194	Bosnia and Herzegovina	1995	1998		2.241
194	Bosnia and Herzegovina	1995	1999		4.014
194	Bosnia and Herzegovina	1995	2000		5.098
194	Bosnia and Herzegovina	1995	2001		3.301
194	Bosnia and Herzegovina	1995	2002		4.665
194	Bosnia and Herzegovina	1995	2003		4.638
194	Bosnia and Herzegovina	1995	2004		5.656
194	Bosnia and Herzegovina	1995	2005		5.014
195	Croatia	1993	2000		3.473
195	Croatia	1995	2000		3.394
202	Bosnia and Herzegovina	1995	1996		1.406
202	Bosnia and Herzegovina	1995	1997		2.821
202	Bosnia and Herzegovina	1995	1998		4.523
202	Bosnia and Herzegovina	1995	1999		3.753
202	Bosnia and Herzegovina	1995	2000		5.484
202	Bosnia and Herzegovina	1995	2001		3.743
202	Bosnia and Herzegovina	1995	2002		3.793
202	Bosnia and Herzegovina	1995	2003		5.484
202	Bosnia and Herzegovina	1995	2004		6.214
202	Bosnia and Herzegovina	1995	2005		5.123
203	Bosnia and Herzegovina	1994	1995		1.144
203	Bosnia and Herzegovina	1994	1996		1.082
203	Bosnia and Herzegovina	1994	1997		3.287
203	Bosnia and Herzegovina	1994	1998		3.755
203	Bosnia and Herzegovina	1994	1999		4.079
203	Bosnia and Herzegovina	1994	2000		4.857
203	Bosnia and Herzegovina	1994	2001		3.946
203	Bosnia and Herzegovina	1994	2002		4.817
203	Bosnia and Herzegovina	1994	2003		5.913

203	Bosnia and Herzegovina	1994	2004	5.226
203	Bosnia and Herzegovina	1994	2005	5.048
216	Guinea-Bissau	1999	2000	4.614
217	Lesotho	1998	1999	6.569
217	Lesotho	1998	2000	5.529
217	Lesotho	1998	2001	6.754
217	Lesotho	1998	2002	6.533
225	Ivory Coast	2004	2005	1.243
261	Ethiopia	1980	1992	1.749
261	Ethiopia	1980	1993	2.623
261	Ethiopia	1980	1994	2.485
262	Ethiopia	1983	1992	2.126
262	Ethiopia	1983	1993	3.478
262	Ethiopia	1983	1994	2.824

Appendix D

Alternative Operationalizations of Election Proximity

Table D.1: Alternative Operationalizations of election proximity

	Baseline	After Election	Until Election	Missing set to mean	Half-life
log (election proximity)	1.28			1.77**	
	(0.901,1.811)			(1.057,2.964)	
Executive constraints	1.66***	1.42**	1.66***	1.33*	1.77**
	(1.172,2.361)	(1.083,1.867)	(1.165,2.365)	(0.998,1.771)	(1.057,2.964)
log (election proximity)	0.89**			0.82**	
*executive constraints	(0.802,0.976)			(0.697,0.962)	
log (time after election)		1.45**			
		(1.019,2.071)			
log (time after election)		0.88**			
*executive constraints		(0.796,0.972)			
log (time prior to election)			1.29		
			(0.906,1.825)		
log (time prior to election)			0.89**		
*executive constraints			(0.801,0.979)		
Election proximity, half-life					1.33*
					(0.998,1.771)
Election proximity, half-life					0.82**
*executive constraints					(0.697,0.962)
Victory	2.68**	2.73***	2.69**	2.65**	2.65**
	(1.223,5.859)	(1.282,5.799)	(1.237,5.863)	(1.254,5.588)	(1.254,5.588)
log (population)	0.76**	0.74***	0.75**	0.73***	0.73***
	(0.607,0.943)	(0.604,0.911)	(0.604,0.939)	(0.584,0.906)	(0.584,0.906)
log (gdp per capita)	1.1	1.13	1.11	1.16	1.16
	(0.763,1.6)	(0.784,1.627)	(0.767,1.605)	(0.815,1.645)	(0.815,1.645)
log (battle deaths)	0.78	0.79	0.78	0.8	0.8
	(0.571,1.065)	(0.578,1.076)	(0.573,1.066)	(0.591,1.087)	(0.591,1.087)
PKO	80.66	47.76	77.11	50.58	50.58
	(0.194,33593.812)	(0.153,14883.937)	(0.193,30731.027)	(0.175,14577.973)	(0.175,14577.973)
Territorial conflict	1.38	1.35	1.37	1.34	1.34
	(0.815,2.335)	(0.792,2.285)	(0.813,2.321)	(0.801,2.242)	(0.801,2.242)
Executive recruitment	0.97	0.97	0.97	0.97	0.97
	(0.727,1.289)	(0.741,1.265)	(0.73,1.29)	(0.737,1.268)	(0.737,1.268)
Political participation	0.85	0.93	0.86	0.92	0.92
	(0.643,1.133)	(0.701,1.221)	(0.648,1.139)	(0.695,1.226)	(0.695,1.226)
log (battle deaths)	1.19	1.19	1.19	1.18	1.18
*log (time)	(0.964,1.467)	(0.964,1.472)	(0.965,1.467)	(0.96,1.458)	(0.96,1.458)
PKO	0.08*	0.11	0.09*	0.1*	0.1*
*log (time)	(0.005,1.563)	(0.007,1.712)	(0.005,1.552)	(0.006,1.557)	(0.006,1.557)
log-likelihood null	-306.71	-306.71	-306.71	-306.71	-306.71
log-likelihood	-280.82	-284.29	-281.4	-283.75	-283.75
AIC	587.63	594.59	588.79	593.49	593.49
N	1454	1454	1454	1454	1454
Number of events	67	67	67	67	67

Notes: ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$. Estimates in survival ratioes.
95 percent confidence intervals in parentheses.

Appendix E

Log-logistic model

Table E.1: Log-logistic regression 1972-2005. Interaction between time to nearest post-conflict election and levels of executive constraints

	Log-logistic model
(Intercept)	392.066***
	(10601.305,14.5)
log(election proximity)	1.153
	(1.444,0.921)
Executive constraints	1.408***
	(1.813,1.094)
log(election proximity)	0.919**
*Executive constraints	(0.982,0.86)
Victory	4.033***
	(7.882,2.064)
log(population)	0.693***
	(0.829,0.579)
log(GDP per capita)	1.376**
	(1.805,1.049)
log(Battle deaths)	1.149***
	(1.274,1.036)
PKO	0.592
	(1.69,0.207)
Territorial Conflict	1.706**
	(2.878,1.011)
Executive recruitment	0.975
	(1.184,0.803)
Political Participation	0.982
	(1.234,0.781)
log-likelihood null	-415.2
log-likelihood	-375.53
AIC	777.06
N	1454
Number of events	67

Notes: ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$. Estimates in survival ratioes.

95 percent confidence intervals in parentheses.