

# Information, Commitment, and Intra-War Bargaining: The Effect of Governmental Constraints on Civil War Duration<sup>1</sup>

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This article considers how governmental variations affect the duration of civil conflicts. Recent work suggests that war termination is likely when competing actors gain information about the power balance and are able to credibly commit to war-ending agreements. I focus on how the strength and stability of executives impact these factors. Regarding information, power consolidation within the government reduces the number of people who must agree on a settlement, which should shorten civil conflicts. Stable leadership should likewise shorten conflicts by making it harder for potential spoilers to derail war-ending agreements, helping minimize credibility problems. This argument is tested by examining how variations in institutional design (executive constitutional and legislative power), political strength (ideological fragmentation and polarization), and stability (leadership tenure) affect the duration of civil conflicts from 1946 to 2004. The results suggest that powerful and stable executives are indeed well equipped to end civil conflicts.

One of the most divisive and important issues debated in the most recent US presidential election was how to best bring an end to the war in Iraq. Having approved a constitution that instituted a parliamentary democracy in October 2005, the candidates focused on options for the duration of a US troop presence. Fortunately, the academic literature provides ample discussion to inform this debate, with a plethora of studies examining how external actors affect the duration of conflict through interventions and mediation (for example, Balch-Lindsay and Enterline 2000; Regan 2002; Regan and Aydin 2006). While this body of work provides a coherent set of policy recommendations to guide current US policies, perhaps the most important factor for Iraq's long-term security has already been decided: the structure of the Iraqi government. With the ultimate objective of establishing a government that can, in President Bush's terms, "govern itself, sustain itself, and defend itself," we would hope that the academic literature would have provided policymakers with a coherent set of policy recommendations to guide the construction of the Iraqi constitution.

As the senior advisor to the Coalition Provisional Authority in Iraq in 2004, Larry Diamond undoubtedly drew on his knowledge as a leading comparative

scholar to help guide the construction of the Iraqi constitution. Given that the constitution was designed and passed in the midst of massive internal violence, one would hope that a coherent set of recommendations coming from civil war scholars would have also played an important role in this process. Unlike the literature on third-party actions during civil conflicts, however, we can cull few consistent recommendations by looking at factors within the state. The few studies that examine the structure of the government focus on a simplistic definition of regime type, commonly using the Polity indicator. Even this approach fails to yield consistent empirical findings (for example, Collier, Hoeffler, and Soderbom 2004; Fearon 2004; Cunningham, Gleditsch, and Salehyan 2009). Studies looking at other domestic variables, such as ethnic fractionalization and population size, have demonstrated similarly inconsistent findings.<sup>2</sup> In short, we have yet to define a set of "usual suspects" to explain the duration of civil conflicts, which drastically hampers our ability to explain how to best secure peace in situations like Iraq.

The goal of this article is to begin clearing up this inconsistency by focusing on variations within governments. The theoretical approach draws on rationalist explanations for war termination, which yields two important implications for studies of

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<sup>2</sup> For instance, Regan (2002) finds that the severity of fighting leads to longer civil wars, Regan and Aydin (2006) and Balch-Lindsay and Enterline (2000) find the opposite, and Fearon (2004) presents an insignificant finding. Similarly inconsistent findings have been presented for ethnic fractionalization and population (Licklider 1995; Regan 2002; Collier et al. 2004; Fearon 2004; Akcinaroglu and Radziszewski 2005; Cunningham 2006).

civil war duration. First, private information and incentives to misrepresent capabilities make it difficult for the competing actors to see eye-to-eye about an acceptable agreement. As information is revealed through fighting, competing actors should be able to develop convergent expectations about future military victory, which should help bring an end to the conflict (Filson and Werner 2002; Smith and Stam 2002; Slantchev 2003). Second, the combatants may have difficulties credibly committing to post-war agreements because one side often has an incentive to renege once an agreement is signed. For example, scholars have examined commitment problems in the context of war-ending agreements (Cunningham 2007) and post-war peace (Walter 2002; Hartzell and Hoddie 2003; Fortna 2004). In the following pages, I draw on these literatures to explain how variations within the government explain the duration of civil conflicts. The central argument is that weak and unstable central executives should be ill-equipped to end civil conflicts because they have a difficult time overcoming information and commitment problems. While the die has perhaps already been cast in Iraq, we can hope that a better understanding of how domestic political and institutional structures influence civil war duration might help other states avoid drawn-out conflicts in the future.

### **Barriers to Civil War Settlements**

The central theoretical framework considers how information and commitment problems influence bargaining between the government and opposition, which should influence civil war duration. My focus is on variations within the government. This approach expands Cunningham (2006), who examines how similar variations within rebel organizations impact civil war duration. Cunningham draws on the “veto player” literature to argue that civil wars should be longer as the number of actors with divergent preferences that have to approve of a war-ending agreement increase. Cunningham’s empirical analyses indicate that the number of actors within the opposition dramatically impacts civil war duration. Cunningham (2007) also provides a close theoretical link to this article in her study of self-determination movements. This work considers how the number of veto players within the government impacts bargaining over autonomy.

This article seeks to extend this work on two main fronts. First, I attempt to explicitly link the veto player argument to the mechanisms that have been theorized to impact the duration of wars more generally, which include studies on information and commitment problems. As Cunningham (2006:876) notes, there is nothing about the veto player argument that directly contradicts arguments that focus on information and commitment. Thus, I seek to improve our understanding of how variations in the leader’s institutional and political power result in variations in the number of people that could spoil

a war-ending agreement, and how these variations manifest themselves through information and commitment problems. Second, I attempt to better capture the forward-thinking nature of rebel organizations that are considering negotiations with the government. While the information discussion largely relates to current estimations of veto players within the government, the commitment discussion considers how rebel groups respond not only to the current number of veto players, but also to expectations to veto players that may arise in the future. I begin with a general discussion of information and commitment problems during civil conflicts, and then focus on more specific indicators and testable hypotheses.

### *Information Problems*

A large body of rationalist work considers informational asymmetries as a key factor to explain conflicts (for example, Fearon 1995). The most recent rationalist work has effectively unified the onset and duration stages of conflict by allowing actors to update their pre-war bargaining positions based on information revealed through fighting. We should expect a termination of war through a negotiated settlement to become more likely as information is revealed. This expectation is known in the bargaining literature as the “Principle of Convergence” (Blainey 1988; Filson and Werner 2002; Smith and Stam 2002).<sup>3</sup>

While the bulk of the rationalist bargaining literature simplifies the discussion to two actors, in reality numerous actors must often develop convergent expectations for war to come to an end. The arrival of additional actors makes it increasingly difficult for each side of the conflict to develop a single expectation for future military victory. As noted above, Cunningham (2006) applies this discussion to “veto players” within rebel organization, arguing that the likelihood that one side becomes overly optimistic increases as actors are added to the negotiation process. We should similarly expect bargaining difficulties as the number of actors within the government increases. This is due to three reasons.

First, actors within the government often have an incentive to hold information private in order to sustain military advantages over opponents. Increases or decreases in levels of support from external actors, for example, are often channeled through covert communication between governments. Leaders have an incentive to keep other types of information private in order to improve their bargaining leverage, including relative capabilities, resolve, and war-fighting strategies. The information is best kept private by securing it within as small a circle as possible, even if

<sup>3</sup> Though these arguments were first introduced to the interstate war literature, many scholars have recognized that the same logic can be applied in the study of civil wars (for example, Wagner 1993; Cetinyan 2002; Walter 2002; Werner and Yuen 2005; Regan and Aydin 2006; Thyne 2006, 2009).

it means excluding other actors within the government.<sup>4</sup> As the number of relevant actors within the government decreases, it becomes easier for the leadership to identify its reservation point as information is revealed. Though secrecy from other governmental units adds efficiency to the government's ability to update based on new information, it may ultimately increase the war's duration if actors excluded from the information can impede war-ending agreements.

Second, actors within the government may differ in the way that they update their bargaining positions based on the revelation of new information. Gauging the impact of a victory or loss on the battlefield is a messy business, and there is no guarantee that actors within the government will update their positions in the same manner even if they receive identical pieces of information. Thus, we should expect slower updating as the number of actors increase.

Third, we might expect wars to continue even if relevant actors within the government have identical expectations about future military victory because the actors might have different preferred outcomes of the conflict. Stedman's (1997) discussion of "civil war spoilers" suggests that some leaders seeking a settlement may be conciliatory, others demanding, while others might reject anything short of a decisive victory. Even if actors within the government agree that peace is the most viable option, spoilers are likely to obstruct war-ending resolutions because they are apt to disagree over the terms of the peace. This is consistent with a basic component of the veto player argument, which expects the range of policy options that are preferable to the *status quo* to shrink as the number of actors increases, making agreements less likely (Tsebelis 2002).

Difficulties in bringing an end to the civil war in Sudan (1983–2005) highlight information problems during civil wars. The largest underlying difficulty in devising a peace plan was that factions within the Sudanese government firmly believed that the war could be won through military victory (Dagne 2003). This inhibited the government from presenting a unified viewpoint in negotiations with the rebels during Inter-Governmental Authority for Development (IGAD)-sponsored talks in the mid-1990s (United States Institute of Peace 1994). Over the next 3 years, the government faced a series of military defeats, which provided the necessary information for a convergence of government viewpoints. While the revelation of information eventually led to the acceptance of the IGAD's Declaration of Principles in 1997, the war continued until 2005 due to divergent preferences among leaders within the government. For example, first Vice President Osman Taha

preferred to continue fighting the southern rebels rather than weaken the Islamic Movement and lose his post to the Sudan People's Liberation Army (SPLA) in a power-sharing agreement. The divergence in preferences became particularly acute as oil revenues from the southern region increased in the late 1990s. While the eventual agreement outlined Southern rights to oil revenues, the war continued as leaders were unable to demarcate specific boundaries for the oil-rich lands (Dagne 2003; Muggah 2008). It is likely that the government would have been able to settle the oil issue more quickly and comprehensively if it had had a unified viewpoint during the war, and if fewer actors retained the power to veto the agreement.

This discussion yields the general expectation that information problems are ameliorated as power is consolidated within the government. We can derive more specific testable hypotheses about the information problem by focusing on two sources of leadership power. These include (i) institutional power derived from the rule of law and (ii) political power derived from the political process. Beginning with the former, we should expect long civil conflicts when institutions are designed to place extreme limits on the executive's power because the leader must rely on the support of other actors (for example, congress or parliament) to negotiate, sign, and implement a war-ending agreement. In contrast, executives with few institutional constraints should be well equipped to solve information problems because there are fewer actors that could disagree and hold up the peace process (Greenhill and Major 2007). This yields the first hypothesis: *Civil wars should be longer as institutional constraints on the executive increase (H1)*.

While institutional rules are an important component of leadership power, in reality we know that a leader's power to act unilaterally is also heavily influenced by the political mandate given to him by the selectorate. Of particular interest here is political power that the executive is forced to share with other political parties. A politically powerful executive is forced to share little of his power with political rivals, which should help overcome informational uncertainties.

We recall that the information problem is determined largely by the number of actors that must develop convergent assessments for an acceptable settlement point, and divergent preferences are likely to emerge as more actors must be appeased. Regardless of institutions, these numbers should decrease as the executive comes to hold a larger share of political power. A prime minister whose party holds a majority in the parliament has no need to reach out to other parties to form a governing coalition. This makes it very difficult for leaders in minority parties to influence the government's decision to accept a settlement with the opposition. Similarly, the executive must listen to fewer voices in presidential democracies when his party controls the legislature because an agreement can be forged

<sup>4</sup> Consolidation of information and power seems to be the rule rather than the exception during civil conflicts. Legislative access to information and oversight of the government's conduct of the war was seemingly nonexistent during the most recent conflicts in Liberia and Sri Lanka, for example (Jaye 2009; Amnesty International 2010).

without a single vote of support from the minority party(s). This discussion yields the following expectation: *Civil wars should be longer when the executive shares increasing levels of political power with rival parties (H2).*

While the degree to which political power is fragmented among rival political parties is a reasonable way to think about political constraints, it has problems. Most importantly, the dispersion of the vote throughout many parties may be more indicative of the ballot structure than a truly diffuse set of preferences. Because of the two-party system in the United States, for example, it may be unreasonable to say that President Bush had any more political power than the Prime Minister Berlusconi in Italy simply because the Republicans controlled a larger share of the seats in Congress than Berlusconi's People of Freedom party controlled in Parliament. A potentially better way to think about political constraints on the executive is to consider the ideological orientations of other parties in the government. Though they differ in name, it is quite possible for two parties to fall alongside each other in the Left/Right ideological spectrum.<sup>5</sup> Instead, we should consider the degree of ideological polarization between the executive and other potential rival parties. As before, problems with information should be easier to solve as the executive enjoys strong support from within the government. Though they may be dispersed into many parties, for example, a leftist executive should be better able to garner wide support for a war-ending resolution when the other powerful actors within the government share the same ideological orientation. Thus, *we should expect civil wars to be longer as the level of political polarization in the government increases (H3).*

#### Commitment Problems

Even if actors within the government have identical information and preferences, war might still continue if they are unable to devise an agreement to assure long-term post-war stability. The critical factors here are the actors' abilities to credibly commit to follow through with the negotiated agreement in the future. Governments have a difficult time convincing rebels that they will follow through with a war-ending agreement due to "time dependence." That is, because rebel armies will disband during peaceful periods, governments will naturally become stronger as peace takes hold. This gives governments an incentive to renege on an agreement *ex post* that was beneficial *ex ante* (Walter 2002; Collier et al. 2004; Fearon 2004). Previous scholars studying credible commitments have focused on several factors that help ameliorate the problems produced by time dependence. Walter (2002) explains that external

actors can play an important role in assuring each side that the other is complying with the agreement. Akin to the prisoner's dilemma, peace is likely to break down without these third-party security guarantees as each side is worried that its compliance will weaken its ability to withstand an attack if the other reneges on the agreement. Similarly, Hartzell and Hoddie (2003) argue that the duration of peace following a civil conflict should be longer if extensive power-sharing arrangements are included in the conflict-terminating agreement.<sup>6</sup>

Though these authors focus on post-war peace, the logic of their arguments has important implications for the intra-war bargaining process because the competing actors should develop expectations for post-war commitments prior to settling the conflict. War should be shorter for actors that are better able to convince their opponent that they will comply with the agreement after it is signed because each side develops expectations for post-war credibility in its decision to attempt negotiations in the first place. Combatants will prefer to continue fighting when they predict a high likelihood that their opponent will renege on a post-war agreement, and they will be apt to negotiate when they are facing an opponent who is likely to abide by an agreement. According to Walter (2002) and Hartzell and Hoddie (2003), for example, third-party security guarantees and extensive power-sharing agreements should help ensure the stability of post-war peace (which they test), while low expectations for post-war security guarantees and attempts to find agreement on a wide variety of issues should lengthen the duration of the conflict by making it harder for the combatants to credibly commit to an agreement (which they do not test). While an extended focus on external actors or war-ending agreements offers interesting avenues for future research in itself, I take an even simpler approach by considering how the stability of government actors over time affect the government's ability to credibly commit to a negotiated settlement.

The most critical factor in developing expectations about the government's credibility is the rebel's ability to estimate whether or not potential spoilers will change their preferences sometime after a settlement is reached. The potential for new actors to be added to the government's side will make it less likely that the rebels can be lured to the negotiating table. If a new actor replaces the leader who signed the original agreement, it is likely that the new leader will have preferences that diverge from the agreement. In fact, the leader may come to power because his or her preferences diverge from the agreement. In this case, a return to war is highly likely. Just as the number of potential spoilers can be predicted during fighting, so too can the likeli-

<sup>5</sup> For example, the Labor-Meimad party and Prime Minister Olmert's Kadima party in Israel are both considered centrist parties who are apt to agree on a wide range of issues. In contrast, the Israel Beiteinu is considered a far-right party. It would have been problematic to equate Olmert's power equally diffuse between the Labor-Meimad and Israel Beiteinu parties, though each belonged to the coalitional government in 2008.

<sup>6</sup> There is a growing literature that both questions and refines these findings, which highlights the importance of continued work to understand how civil wars terminate and reoccur (for example, Jarstad 2009; Mason and Joshi 2010).

hood that they will remain stable long into the future. Rebels will be less likely to settle a conflict when they are unsure of whom they will be dealing with in the future, and will be more likely to settle when they are facing a stable leader. In this sense, predictions of future governmental instability become “shadow” veto players that will make rebels less likely to agree to a war-ending settlement that might risk their future war-fighting capabilities.

The ongoing civil conflict in Turkey helps illustrate this expectation. Since 1984, the Kurdistan Workers’ Party (PKK) has battled the Turkish government, initially fighting for independence and later for substantial autonomy. Though this conflict has many facets, recent political developments help highlight difficulties unstable governments face in credibly negotiating with rebel organizations. The Turkish government has recently made several meaningful pro-democratic reforms to strengthen their bid for EU membership. Part of these reforms include Prime Minister Erdogan’s overtures to establish a permanent cease-fire with the PKK, which raised hopes for peace after the organization announced a unilateral cease-fire in 2009 (Sozen 2006). However, a backlash against negotiations quickly arose primarily among Islamist and Turkish nationalist communities, ultimately leading to the detention of dozens of pro-Kurdish politicians and activists, and the banning the Kurdish Democratic Society Party. This response, coupled with the near-banning of Erdogan’s AK Party by the Constitutional Court for supposed anti-secular policies, left the government with little political capital to credibly commit to a peace plan with either the PKK or even legally elected Kurdish politicians. The PKK’s response was unsurprising. As Marcus (2010) explains, the group had no choice but to plan for worst-case scenarios: “What if Erdogan did not stick to his promise of democratic reforms?... [What if] Turkey’s military simply ignored the cease-fire, insisting the ‘terrorists’ needed to disarm unconditionally and trust the justice of the state?” It is wholly unsurprising that the cease-fire lasted only 3 months and we see few signs of peace in the near future.

This discussion generates the following general expectation: due to commitment problems, civil conflicts should be longer as the instability of powerful actors within the government increases. As with information, we can draw more specific testable hypotheses by focusing on institutional power and political power as mechanisms to capture governmental stability.

One way to capture this stability is to move beyond the simple focus on institutional constraints by considering how variations within institutions might affect the duration of civil wars. While conflict scholars frequently lump all types of democracies together, comparative scholars commonly break democratic systems into two categories: presidential and parliamentary. In presidential systems, the executive is elected for a fixed time span, is not dismissible with a vote of the legislature (except in rare cases of impeachment),

and does not share executive authority with a second figure. In contrast, the executive in parliamentary systems is appointed, supported, and dismissed by parliamentary vote (Sartori 1997:101–102). Among democracies, there is little reason to think that the two types of government should vary in their abilities to solve information problems because multiple actors within each must agree on how information revealed during the conflict should affect the terms of the settlement.<sup>7</sup> Likewise, each system allows multiple actors to potentially spoil an agreement if it fails to address their particular preferences. The most crucial difference between presidential and parliamentary systems is the manner in which the leadership changes power, which has important implications for the leadership’s ability to credibly commit to abide by an agreement.

Civil wars should be shorter in a presidential system because the tenure of the executive is fixed.<sup>8</sup> This makes it easier for the opposition to predict the likelihood that the government will have an incentive to renege on the agreement in the future. As noted above, the people are apt to change their support for a war-ending agreement as the former rebels are re-integrated into the population. The people must gain overwhelming support to oust the executive through impeachment in presidential systems, while a smaller proportion of the population in parliamentary systems can force a change in leadership by urging their district representatives to support a vote of no confidence. Thus, the likelihood that the government will renege on an agreement is higher in parliamentary governments because the future preferences of the leadership are less predictable.<sup>9</sup> This should make the opposition less likely to agree to end the war through a negotiated settlement. Sri Lankan President Jayawardene made precisely this argument in promoting a strong presidency in the 1978 constitution, suggesting that a powerful president would provide stability and continuity of policy during his entire term in office because he would be free from dependence on unstable parliamentary majorities or coalitions in the legislature (Shastri 2005:38). Thus, *we should expect*

<sup>7</sup> In reality, one could develop expectations for solving the information problem based on how constrained the executive is by other relevant actors in the government. However, we have few and inconsistent guidelines to develop these expectations (for example, Maoz and Russett 1993:626; Leblang and Chan 2003:389). Thus, I assume that solving information issues varies little among types of democracies, focusing instead on how their stability impacts credibility.

<sup>8</sup> This argument takes a simplistic view of presidential systems, ignoring variations in the electoral cycle and the potential for reelection that would be relevant to actors seeking to predict potential executive turnovers. Due to space concerns, a comprehensive discussion of these variations remains beyond the scope of this paper.

<sup>9</sup> There is a lengthy debate in regard to the stability of preferences within presidential versus parliamentary governments (see Cheibub and Limongi 2002 for a summary). Descriptive statistics within the DPI data used in the empirical tests support the presidential stability argument made here (Beck, Clarke, Groff, Keefer, and Walsh 2001; Keefer 2005). The mean duration that the chief executive remains in office is higher in presidential systems (8.7) versus parliamentary systems (4.5), as is the mean duration that the president’s party remains in office (11.7 for presidential, 7.6, for parliamentary).

*civil wars to be longer in parliamentary democracies vis-à-vis presidential democracies (H4).*

The final focus is on the longevity of the executive's tenure in office. While institutions and representation largely define the likelihood that a leader will remain in power, savvy leaders are often able to circumvent rules and manipulate elites to remain in power indefinitely. After taking power in 1981, for example, President Mubarak declared a state of emergency in Egypt that remained in place until his ouster. Both internal and international pressure forced Mubarak to embark upon a series of political reforms in 2004 to open the political process. Fearing a loss of political power to opposition groups such as the Muslim Brotherhood, Mubarak's government retained his grip on power by extending emergency rule, suppressing dissent, and restricting candidate eligibility to parties licensed by the government (Freedomhouse 2007). Thus, while the essence of Mubarak's reforms in Egypt pointed toward a higher likelihood of future leadership turnover, Mubarak's manipulation of the process suggested that his rule would continue.

Leaders who are able to manipulate the political process to remain in power indefinitely should be better equipped to end civil conflicts because the opposition should be better able to predict who they will be dealing with in the future. Empirical evidence suggests that leaders become increasingly able to retain power the longer they remain in office (Bienen and van de Walle 1992). Thus, leadership longevity becomes an excellent predictor of future leadership preferences, which should ameliorate the commitment problem. In sum, *we should expect civil wars to be shorter as the executive's tenure in office increases (H5).*

The final concept is a simple extension of the leadership longevity argument. It may be problematic to solely consider the tenure of the executive as an indicator of future preferences because preferences are often quite stable despite leadership turnover (Gates, Hegre, Jones, and Strand 2006:895). The turnover of presidential leadership in Russia from Vladimir Putin to Dmitry Medvedev in 2008, for example, is unlikely to cause any changes in Russia's stance on the Chechen conflict given that Putin hand-selected Medvedev as his replacement. Thus, it may be more important to look at the longevity of the ruling party rather than the leader himself. Continuing with the previous argument, we should expect rebels to be more accepting of a negotiated settlement when they foresee a high likelihood that the government's preferences will remain stable long into the future. This leads to the final expectation: *civil wars should be shorter as the ruling party's tenure in office increases (H6).*

### Alternative Explanations

The theory developed above focuses on information and commitment problems to yield testable hypotheses about the impact of governmental variation on civil war duration. Before proceeding to the empirical tests, it is worthwhile to consider a handful of

alternative approaches to explain how variations in the government might impact civil war duration, and explain how these can be reconciled empirically. Three arguments stand out in particular.

First, the discussion on executive constraints contrasts somewhat with work on democratic reliability. Consistent with my information argument, most scholars agree that the large number of actors within democracies often makes it difficult to establish agreements (for example, Cowhey 1993). However, many argue that these same institutional constraints force leaders to be transparent, which binds citizens to promises and makes leaders better able to credibly commit to follow through with an agreement once it is signed (for example, Fearon 1994, 1998). From this viewpoint, higher levels of executive constraints should exacerbate information problems, but help solve commitment problems. Recent developments in this line of literature cast doubt upon the democratic reliability argument, however, which provides a consistent link to my theory. Most notably, Gartzke and Gleditsch (2004:780) draw on work from Almond (1950) and Morgenthau (1956) in explaining that institutions should make democracies less able to make credible commitments due to the cycling of leadership and the rise and fall of special interest groups. The veracity of each argument largely comes down to an empirical question. If information problems are counterbalanced by more reliable commitments for constrained executives, we should expect to see null findings for the impact of institutional constraints on civil war duration. If constrained leaders are at a disadvantage on both fronts, we should expect to see civil wars with longer durations as institutional constraints increase.

Second, the discussion ignores war-fighting strategies, which may be closely related to the strength and stability of the government. An unconstrained leader may be able to shorten a civil war by using scorched-earth strategies to annihilate the rebels. A stable leader might follow the same policy, having little to fear from alienating a sector of the population. The shortened civil wars in these scenarios would have little to do with intrastate bargaining, though they would yield the same expectations. Given that short civil wars resulting from harsh government tactics should result in government victories, this alternative explanation can be addressed in the empirical analyses by analyzing the duration of civil wars ending in government victories versus those ending otherwise.

Third, the argument implicitly assumes that government demands are independent of power and stability. This is likely not the case. Power dispersed among many government actors is likely to lead to policy moderation, making it more likely that the government will appease rebel demands. Likewise, an unstable leader is likely to recognize his tenuous grip on power, making him work to moderate the government's demands to bring the war to an end. While the relationship between power, stability, and demands is an interesting subject, it would be

exceedingly difficult to capture demands, particularly because actors have an incentive to keep reservation points private to maintain bargaining leverage. Fortunately, the demand-moderating impact of power dispersion and instability should work against finding empirical support for my hypotheses because I expect power dispersion to lengthen the duration of civil conflicts.

### Research Design

This study examines the duration of civil conflicts from 1946 to 2004 using the Uppsala/PRIO Armed Conflict Dataset (ACD), which defines an armed conflict as a “contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths” (Gleditsch, Wallensteen, Eriksson, Sollenberg, and Strand 2002). Conflicts defined as internal and internationalized internal are included in the analyses. A new civil war is coded if a conflict restarts after at least a 2-year break in fighting (Gates and Strand 2006). The unit of analysis is the duration of each of the 275 conflicts coded monthly. This yields 17,330 potential conflict-months for analysis with durations ranging from 1 to 672 months.<sup>10</sup>

The duration of each conflict is examined by observing whether or not the conflict ended in each month using a hazard model. Hazard analyses allow us to predict the likelihood that an event (civil war in this case) has ended in each time period, given that it has survived to that time period. Past scholars have generally used either the Cox or Weibull models to test the factors explaining the duration of civil wars. Past research has consistently found that civil wars are more likely to end after they have lasted for many years, which is likely due to war weariness (for example, Regan 2002; Fearon 2004). This provides a basis for using the Weibull model, which I take here. The results presented in Table 1 are for an accelerated time failure metric, which identifies the effect of each independent variable on the expected duration of the civil war when controlling for all other variables in the model. Positive values indicate that the variable increases the duration of the war, while negative values indicate a shortened duration.

### Information Variables

We begin with three measures meant to capture the government’s ability to solve informational problems. These measures capture increasing levels of power diffusion, which are predicted to increase the duration of civil conflicts. The first hypothesis

expects longer civil conflicts when institutions limit the executive’s ability to act unilaterally. This expectation is tested using a component of the Polity index called *executive constraints* (XCONST). Ranging from 1 (unlimited authority) to 7 (executive parity or subordination), this measure captures constraints on the chief executive’s ability to act unilaterally (Marshall, Jagers and Gurr 2011:23–24).

The second hypothesis predicts that civil wars will be longer when the executive shares power with other political actors. This expectation is tested using a variable called *political constraints*, which is the index of executive electoral competitiveness (EIEC) as defined in the Database of Political Institutions (DPI) (Beck et al. 2001:166; Keefer 2005). Ranging from 1 to 7, this measure increases as the executive is forced to share power with the legislature. Executives in states coded 1, for example, have no legislative body with which to share power (for example, Liberia in 1991), while executives in states coded 7 are forced to share power with a legislature in which the executive’s party controls fewer than 75% of the seats (for example, Israel 1949–2002).

The third hypothesis predicts that increased levels of political polarization within the ruling coalition will increase the duration of civil conflicts. Drawn from the DPI data set, *political polarization* captures the maximum level of polarization between the executive’s party and the four principle parties in the legislature. This measure equals 0 if the chief executive’s party has an absolute majority in the legislature or if elections are not competitive. If not, this measure takes on maximum values when the executive’s party is forced to share power with a party with a drastically different ideological orientation. For example, the United States receives a maximum value of 2 from 1995 to 2000 when the Democrats controlled the Presidency and the Republicans controlled Congress. The value dropped to 0 when George Bush assumed the presidency in 2001.

### Commitment Variables

The second set of independent variables is meant to capture the government’s ability to credibly commit to war-ending agreements. The fourth hypothesis predicts that civil conflicts within parliamentary governments should last longer than those in presidential governments. This expectation is captured with a dummy variable coded 1 for all parliamentary governments and 0 for all presidential governments as defined by the DPI (Beck et al. 2001:166; Keefer 2005). A system is defined as parliamentary if the government is led by a prime minister. In systems with both a prime minister and a president, the system is defined as presidential if the president has strong veto powers, or if he has power to appoint the prime minister and dissolve parliament. One concern with this dichotomy is that strongly authoritarian leaders are most often found in presidential systems. Focusing exclusively on the entire

<sup>10</sup> Wars within a single state can happen simultaneously where 2+ groups challenge the government over different issues and can repeat within the state if a new rebel group emerges or following 2+ years in fighting for the same rebel group. Attempts to examine how repeated wars impact civil war duration produced insignificant and inconsistent findings.

sample, therefore, is apt to conflate institutional constraints (H1) with presidentialism versus parliamentarism (H4). Thus, results are run both with the original data and after removing authoritarian regimes from the analyses.<sup>11</sup>

The final hypotheses predict that civil wars will be longer when the combatants foresee a high likelihood of government turnover in the future. Two measures from the DPI data set are used to test this expectation. The first, *executive longevity*, captures the total years that the chief executive has remained in office (H5). The largest values in this measure come from Castro's rule in Cuba (47 years) and Tito's rule in Yugoslavia (35 years). The second measure, *executive party's longevity*, captures the duration that the chief executive's party has been in office (H6). Largest values for this measure come from the PRI's dominance in Mexico until 2000 (71 years) and the True Whig Party's dominance over Liberian politics until Doe's successful coup in 1980 (102 years).<sup>12</sup>

#### Combined Indices

The theory begins by outlining general expectations for how variations in government constraints impact civil war duration, which are followed by hypothesis geared toward identifying the impact of specific variations in governments. The best way to capture general expectations is by examining indices that combine the above measures. Thus, I created indices that combine the information measures, the commitment measures, and an index that brings together both commitment and information variables. This was done by standardizing all measures to range from 0 to 1 with high values capturing high levels of governmental constraints. The values for *institutional constraints*, *political constraints*, and *political polarization* were added to create an *information index*, while the values for *parliamentary government*, *executive longevity*, and *executive party's longevity* were added to create a *commitment index*.<sup>13</sup> All six measures were summed to create the *combined index*.

#### Control Variables

Several measures are included to help isolate the effects of the primary independent variables. The most important control variable for this study, *opposition vetoes*, captures fragmentation within the rebel's side of the conflict (Cunningham 2006).

<sup>11</sup> A state is coded as a democracy if prime ministers are elected competitively as defined by the DPI database (Beck et al. 2001:166). More specifically, elections are competitive if the EIEC measure equals 6 (multiple parties won seats but the largest party received more than 75% of the seats) or 7 (largest party got <75% of the seats).

<sup>12</sup> It should be noted that variation among the primary independent variables is largely due to cross-sectional variation by war, rather than temporal variation. While the measures capturing longevity vary over time, a high percentage of the other measures are static from conflict to conflict.

<sup>13</sup> In building the indices, I reversed the sign and added one for the longevity variables, which are predicted to decrease the duration of civil wars.

Holding this measure constant allows us to isolate the effect of government variations on the duration of the conflict.<sup>14</sup> Next, *coups*, is a dummy variable from Powell and Thyne (2011). Controlling for coups is important for two reasons. First, the ACD data set includes many armed conflicts that are better described as coups than civil wars, which are expected to succeed or fail quickly (Fearon 2004). These conflicts are held constant with the coup measure. Second, coups may drastically alter the information and commitment problems during civil conflicts by altering the government in power or indicating major instability within the government. Past scholars have also considered how *battle deaths* affect the duration of civil conflicts (Balch-Lindsay and Enterline 2000; Regan 2002; Fearon 2004). As casualties mount, we might expect the combatants to be more apt to settle the war. This measure may also proxy resolve, presuming that only highly resolved groups will continue to fight in spite of high numbers of casualties. Yearly battle death data come from Lacina and Gleditsch (2005). Past research has also found poverty to lead to longer civil wars (Collier et al. 2004). I include a measure of *GDP/capita* from Gleditsch (2002) to capture this relationship. Next, scholars have argued that *fight for control of the government* should be shorter than ethnically based conflicts or wars of secession because secession is perceived as a non-divisible good, which makes negotiated settlements unlikely (Licklider 1995; Kaufmann 1996; Regan 2002; Fearon 2004). Finally, I include a control for *percent forest* with the expectation that conflicts should be longer when the government is forced to fight an opposition with ample places to hide and stage attacks (DeRouen and Sobek 2004; Fearon 2004; World Bank 2010).

#### Data Analysis

We begin by examining the indices in Table 1, which give us a basic understanding of how governmental constraints impact civil war duration. The positive and significant coefficients in Model 1 ( $p < .007$ ) and Model 2 ( $p < .003$ ) provide initial support for the general expectations for both information and commitment, respectively. While high correlation between the individual components tested in Models 4–10 makes a combined model difficult to run, the combined index in Model 3 helps understand the additive war-lengthening effect that

<sup>14</sup> Cunningham (2006:882) defines veto players as "actors who can block settlement and continue the war unilaterally, and if there are not at least two actors who meet that definition, the war will end." The measure is based on actors defined within the ACD, with self-coding to determine whether the actor had autonomous preferences, cohesiveness, and viability based on a number of sources. Though Cunningham includes governments in his measure of veto players, this value remains constant in representing a single component in his index. The primary variation in Cunningham's measure is derived from variations within the opposition. Variation is also derived from external interveners. Given this, I exclude variables for interventions from the analyses.



all constraints have on the duration of civil conflict.<sup>15</sup> As expected, high constraints significantly increase the duration of conflict ( $p < .008$ ).

Beyond statistical significance, we should consider whether or not the variables have a meaningful substantive impact on the duration of civil conflicts. One way to examine this is to consider how the predicted duration of civil conflicts changes when we allow the primary independent variables to fluctuate while holding all other variables constant. I used the *Clarify* program to estimate these values (King, Tomz, and Wittenberg 2000; Tomz, Wittenberg, and King 2003). To make the results easy to interpret, the findings are presented in graphical format in Figure 1. The results in this figure indicate how much longer or shorter we should expect the civil war to last compared to the average civil war when each variable ranges from one standard deviation below the mean to 1 SD above the mean for continuous variables, and from 0 to 1 for dichotomous variables.

The first two indices presented in Figure 1 indicate that both commitment and informational constraints have a large substantive impact on the duration of fighting. We can expect civil conflicts to last around 170 and 160 months longer on average as informational and commitment constraints increase from 1 SD below to 1 SD above the mean, respectively. The combined index shows the largest impact of any variable in the model, with civil conflicts lasting almost 300 months longer on average as the measure moves from low to high values. This result allows us to see how civil war duration would vary based on best- versus worst-case scenarios. The diffusion of power within India has confounded efforts to deal with a number of insurgencies, for instance, while power consolidation in states like Mali have given governments greater latitude in dealing with the conflict (Humphreys and Ag Mohamed 2002; Horowitz and Sharma 2008).<sup>16</sup>

Having shown support for the general expectations, the next step is to disaggregate both the information and commitment indices in order to investigate the components of each that are having the largest impact on civil war duration. The first set of hypotheses considers how variations in institutional power, political power, and polarization impact

<sup>15</sup> The individual information and commitment variables are not combined in a single model due to high collinearity and losses in observations. Though we should be cautious in comparing the impact of variables across models, we can get some sense of the relative impact of these factors on the duration of civil war by considering the indices and the substantive results in Figure 1.

<sup>16</sup> During the conflict over Tripura (1992–2006), for example, India had the highest level of executive and political constraints, was a parliamentary government, had a short duration in office for both the executive and the executive’s party, and frequently had the highest polarization score. Each of these factors is theorized to confound efforts to end the conflict. In contrast, the government in Mali was able to negotiate an end to their conflict with the People’s Movement of Azawad (MPA) (1990) relatively quickly by consolidating power even after the agreement was signed. During this period, Mali had very low levels of constraints among each of the variables mentioned above.

TABLE 1. Impact of Information Variables on the Duration of Civil War

	1	2	3	4	5	6	7	8	9	10
	<i>Info.</i>	<i>Commit.</i>	<i>Comb.</i>							
Indices	0.568 (0.230)**	0.788 (0.284)**	0.472 (0.195)**	0.143 (0.056)**	0.096 (0.058)*	0.458 (0.254)*	0.800 (0.355)*	0.896 (0.521)*	-0.032 (0.013)**	-0.026 (0.008)**
Inst. constraints (H1)	0.382 (0.253)	0.616 (0.273)*	0.677 (0.374)*	0.539 (0.222)**	0.270 (0.237)	0.253 (0.246)	0.364 (0.301)	2.121 (0.813)**	0.242 (0.241)	0.481 (0.221)*
Pol. constraints (H2)	0.361 (0.086)**	0.249 (0.090)**	0.408 (0.123)**	0.188 (0.071)**	0.262 (0.074)**	0.291 (0.075)**	0.312 (0.083)**	0.210 (0.137)	0.246 (0.073)**	0.148 (0.081)*
Pol. polarization (H3)	-0.555 (0.179)**	-0.207 (0.185)	-0.528 (0.244)*	-0.285 (0.121)**	-0.380 (0.146)**	-0.343 (0.141)**	-0.214 (0.159)	-0.124 (0.237)	-0.303 (0.128)**	-0.315 (0.142)*
Parliamentary (H4)	-0.572 (0.328)*	-0.497 (0.356)	-0.631 (0.414)	-0.685 (0.289)**	-0.569 (0.287)*	-0.598 (0.295)*	-0.417 (0.323)	-0.783 (0.490)	-0.379 (0.288)*	-0.651 (0.310)*
Exec’s longevity (H5)	-3.266 (0.339)**	-2.878 (0.390)**	-2.762 (0.401)**	-3.058 (0.298)**	-3.197 (0.307)**	-3.261 (0.312)**	-2.938 (0.315)**	-2.181 (0.710)**	-3.147 (0.327)**	-3.021 (0.412)**
Exec party’s longevity (H6)	0.011 (0.104)	0.047 (0.113)	-0.040 (0.138)	-0.006 (0.092)	-0.009 (0.098)	0.008 (0.098)	0.048 (0.124)	0.152 (0.173)	-0.012 (0.095)	0.023 (0.087)
Opposition vetoes	5.194 (1.476)**	3.084 (1.658)*	4.384 (2.075)*	3.808 (1.103)**	4.797 (1.249)**	4.812 (1.322)**	3.063 (1.441)*	-1.107 (2.603)	5.031 (1.221)**	5.258 (1.335)**
Battle deaths (ln)	137	121	102	197	165	157	149	96	168	140
GDP/capita (ln)	104	90	67	165	140	128	121	67	143	110
Fight for gov	282.1***	180.4***	153.0***	378.7***	249.6***	270.5***	232.0***	43.91***	240.3***	151.2***
Coups	0.742	0.749	0.723	0.695	0.733	0.744	0.738	0.655	0.734	0.745
% Forest (ln)	9.283	7,371	6,287	12,936	10,954	10,484	9,343	5,399	11,029	9,028
Constant										
Wars ended										
Wald chi2										
<i>p</i>										
Observations										

(Notes: Robust standard errors clustered by conflict in parentheses. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$  (one-tailed).)

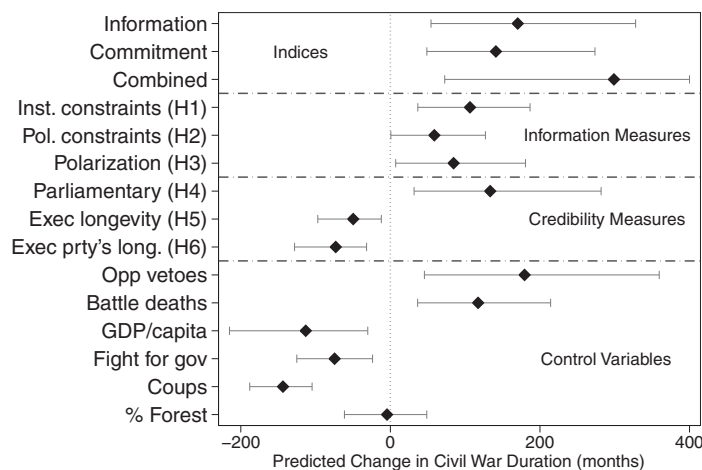


FIG 1. Predicted Change in Civil War Duration

(Notes. Black diamonds reveal the predicted change in civil war duration as the row variable ranges from 1 standard deviation (*SD*) below the mean to 1 *SD* above the mean for continuous variables and 0–1 for dichotomous variables while holding all other variables constant. Whiskers reveal the 95% confidence interval. Results for “parliamentary” come from Model 8. Results for control variables come from Model 1.)

the duration of civil conflict with the expectation that civil wars will be longer as the executive becomes increasingly constrained. In Table 1, we see the effect of each primary variable on the duration of civil conflict individually in Models 4–6. Regarding the first hypothesis, we see that higher levels of institutional constraints increase the duration of fighting ( $p < .006$ ). This suggests that executives indeed have difficult times overcoming information problems when they are constrained by other powerful actors within the government.<sup>17</sup> In substantive terms, civil conflicts should last about 105 months longer on average when the executive is highly constrained versus executives that can act unilaterally (as executive constraints vary from 1.6 to 6.4).

The next hypotheses predict that increased levels of diffusion of political power (H2) and ideological polarization (H3) should increase the duration of civil war. We find support for the first of these hypotheses with a positive and significant coefficient for political constraints in Model 5 ( $p < .050$ ) and political polarization in Model 6 ( $p < .036$ ). In Figure 1, we see that civil wars should last around 58 months longer on average when executives are forced to share high levels of political power with competing parties (when “political constraints” varies from 2.3 to 6.9). The level of ideological polarization within the president’s coalition is also found to increase the duration of civil war in Model 6. In substantive terms, we can expect the average civil war to last around 83 months longer as political polarization within the government increases (when “polarization” varies from  $-0.38$  to  $0.85$ ). Taken together, the analyses presented in Models 1 and 4–6 provide strong support for the information argument with institutional constraints seeming to have the largest substantive impact on war duration.

<sup>17</sup> This finding is consistent with Cunningham et al. (2009), who find that higher levels of democracy increase the duration of civil wars.

The second set of hypotheses is meant to capture the government’s ability to credibly commit to war-ending agreements, which are based on the rebel’s ability to predict potential changes in government preferences after the war terminates. As noted above, the commitment index provides general support for this expectation. The subsequent tests of the individual components of the model further clarify the mechanisms at work. We first see that parliamentary governments should face longer civil conflicts vis-à-vis presidential governments, which provides strong support for the fourth hypothesis. The dummy variable for parliamentary governments is examined versus all presidential governments in Model 7, and then against all *democratic* presidential governments in Model 8. We see positive and significant coefficients for each analysis ( $p < .012$  in Model 7;  $p < .043$  in Model 8). The substantive impact is also quite strong, with civil wars in parliamentary governments lasting around 134 months longer on average than those in presidential governments for the full sample (Model 7), and around 196 months longer after eliminating authoritarian regimes (Model 8).

The final set of hypotheses predicts that civil wars should be shorter as the executive’s tenure in office increases (H5) and as the ruling party’s tenure in office increases (H6). We find support for each hypothesis with negative coefficients for Executive Longevity in Model 9 ( $p < .008$ ) and Executive Party’s Longevity in Model 10 ( $p < .001$ ). In substantive terms, we should expect civil conflicts to be around 52 months shorter on average when the tenure of the executive ranges from 0.24 to 12 years, and 73 months shorter on average when the tenure of the executive party ranges from 0 to 18 years. This provides strong support for the argument that civil wars come to a quicker end when the government is predictable far into the future.

Regarding the control variables, we generally see results supportive of prior expectations. Cunning-

ham’s (2006) measure for opposition veto players is positive in all models and generally significant. Combined with the primary findings explained above, this suggests that information and commitment problems can come from both governments and the opposition. In substantive terms, we see in Figure 1 that variations among the opposition organization(s) have a somewhat stronger impact on the duration of civil conflicts than similar variations within the government. Civil conflicts should be about 139 months longer on average when the number of opposition players ranges from around 1 to 3 groups.

We also see that the level of battle deaths is found to increase the duration of fighting, which suggests that this measure is acting as a proxy for resolve among the combatants. In substantive terms, we should expect civil conflicts to be around 118 months longer on average when battle deaths ranges from 72 to 3,105 deaths. The next three control variables are generally found to significantly shorten the duration of fighting. An increase in GDP/capita from 293 to 3,657 results in conflicts 115 months shorter on average. Fights for control of the government are found to be around 73 months shorter on average than wars of secession or territorial wars.<sup>18</sup> Taken together, these results help confirm similar findings from studies of civil war duration (for example, Regan 2002 for battle deaths; Collier et al. 2004 for GDP/capita; Regan and Aydin 2006 for secessionist wars). Finally, the coup measure is negative and significant as expected, which corroborates findings for similar variables from Cunningham (2006) and Cunningham et al. (2009). In substantive terms, civil wars are expected to last around 142 months shorter on average when they experience a coup during civil conflicts. Finally, the measure used to capture terrain, *percent forest*, is found to have little consistent impact on the duration of civil conflicts.

**Robustness and Extensions**

We should consider several issues to assure the robustness of the primary findings. These include the choice of estimator, the dependent variable, and the sample. Rather than presenting several new tables in the manuscript, I provide a summary of the robustness checks for the primary independent variables in Table 2. The first column indicates the expectation derived from the theory, while the second reports the direction and significance reported in Table 1. Subsequent columns report the summary results for alternative model specifications. Full tables are available in the Appendix S1. Below I provide a description and justification for the robustness

<sup>18</sup> Tests were also run to examine whether fights to control the government have a conditional impact on the primary variables of interest, perhaps confounding bargaining via the information or commitment mechanisms when the government’s control of the state is directly challenged. These tests reveal little evidence that war type influences bargaining through the primary independent variables.

TABLE 2. Summary Results for Robustness Checks

Variable	Expectation	Primary findings	Test 1a: Cox estimator	Test 1b: Logit estimator	Test 2a: Excluding gov victories	Test 2b: Settle/other termination	Test 3a: Excluding coups	Test 3b: Excluding short wars
Information index	+	***	+	***	+	+	+	+
Commitment index	+	***	***	***	***	***	***	***
Combined index	+	***	+	***	+	+	+	+
Inst. constraints (H1)	+	***	***	***	***	***	***	***
Pol. constraints (H2)	+	+	+	+	+	+	+	+
Pol. polarization (H3)	+	+	+	+	+	+	+	+
Parliamentary (H4)	+	+	+	+	+	+	+	+
Exec’s longevity (H5)	-	-	-	-	-	-	-	-
Exec party’s longevity (H5)	-	-	-	-	-	-	-	-

(Notes: Control variables not shown. +: Measure lengthened the conflict; -: Indicates shortening. \**p* < .05, \*\**p* < .01, \*\*\**p* < .001 (one-tailed). Full results are available in the Appendix S1.)

checks, and then discuss overall implications of the tests.

Regarding the estimator, I noted earlier that past scholars have generally used either the Cox or Weibull models to examine the duration of civil conflicts. The Weibull model allows us to test for the possibility of time dependence, but requires that the hazard function be specified correctly. In contrast, the Cox proportional hazards model does not assume that the event of interest is a function of time. Given the more restrictive assumptions of the Weibull model, it is worthwhile to examine the results using the Cox model as an alternative. Cunningham (2006:882) provides a second alternative in noting that event history analyses are identical to binary time-series cross-sectional analyses that control for duration when the unit of analysis is time. Following this approach, I also reran the analyses using logit while controlling for war years and cubic splines (Beck, Katz, and Tucker 1998). Results for each alternative estimator are presented in Table 2, Test 1a–b.

We should next consider the dependent variable. While the theory focuses on negotiating an end to civil conflicts, the primary empirical analyses examine the duration of all civil conflicts (regardless of outcome). This approach assumes that negotiated settlements and outright victories are inextricably related because each side in the conflict undoubtedly prefers a negotiated settlement to total defeat. When we see a total defeat, for instance, it is very likely that the combatants were unable to negotiate a settlement at some earlier period in the conflict. As with civil conflicts ending in negotiated settlements, therefore, studying the duration of civil conflicts ending in total victory should capture the primary theoretical mechanisms of interest. To be sure, I reran the analyses after censoring government victories and both government and rebel victories as a competing risk approach. Results are presented in Table 2, Test 2a–b.

The final concern is with the sample used to test the hypotheses. The primary analyses considered all civil conflict in the Uppsala/PRIO data, which include a variety of antistate activities that reach the 25 battle death threshold. Two issues arise. First, the data set includes many conflicts that are best described as coups, which are quite different from civil wars for a number of reasons that may complicate the analyses (Powell and Thyne 2011). For example, the goal of coups must be to overthrow the chief executive, which means that the war-shortening effect for “Fight for government” in the analyses may be overstated because all coups are attempts to overthrow the government, and these events are likely to be significantly shorter than wars fought for other aims. Similar issues may arise for any variables that are likely to be more associated with coups than full-blown civil wars. This is dealt with in the primary analyses by controlling for coups, which does not capture potential conditional effects. Thus, I reran the analyses after dropping all coups as defined by

Powell and Thyne (2011). This eliminated 48 conflicts from the data set. The second concern regarding the sample is that it includes many short wars that are not coups. While the theoretical argument focuses on bargaining between the government and opposition, it is not clear that very short wars offer the combatants adequate time to negotiate. This would be problematic for the analyses if wars are consistently shorter for some types of governments than for others. I reran the analyses after dropping civil wars that were shorter than the median duration of 21 months, eliminating roughly half of the wars from the analyses. Results after removing coups and short conflicts are reported in Table 2, Tests 3a–b.

Taken together, the robustness checks reveal three important clarifications to the results. First, the results for the three indices are quite consistent across all model specifications, which provides further support for the general expectations outlined in the theory. Second, among the information variables, constraints provided by the leader’s institutions (H1) clearly confound efforts to bring an end to civil conflicts. However, the findings for the other two information variables are more tenuous. While increasing levels of political constraints (H2) consistently lead to longer civil wars, this finding drops from significance when using the Cox estimator and when further probing the dependent variable and the sample. Likewise, higher levels of political polarization (H3) consistently lead to longer civil wars, but the effect is significant only in the original analyses and when excluding short wars. Combined with the robust finding for institutional constraints, the safest conclusion regarding information is that institutions that condense power to few individuals facilitate bringing an end to fighting, while the distribution of political power matters less for intra-war bargaining.

One potential explanation for the tenuous finding for political constraints and ideological polarization is that opposition parties can be marginalized by executives in power. For example, Sri Lankan President Mahinda Rajapakse has been widely criticized by members of the opposition United National Party (UNP) for his strong-arm tactics against the LTTE rebels since being elected in 2005. He was able to secure a parliamentary majority for his coalition by encouraging defections from the UNP in 2007, which allowed him to unilaterally pursue his agenda by ignoring his ideological foes in parliament (Freedomhouse 2008).

Third, the bulk of the hypotheses regarding the commitment variables continue to receive strong support throughout the various specifications. Wars are consistently shorter as the leader’s tenure in office increases (H5) and as the tenure of the leader’s party increases (H6). Among democracies, parliamentary regimes (H4) consistently have a more difficult time ending conflicts, though this effect becomes insignificant when short wars are removed from the analyses (Test 3b). Given the robustness of the parliamentary finding across the other model

specifications, it is likely that the smaller sample size is driving this insignificant finding. Alternatively, it is possible that the stability provided by presidential regimes has an advantage in settling conflict early in the war because the regular election cycle introduces uncertainty similar to parliamentary regimes as the war lengthens over time. Future research might further probe how the timing of elections impacts negotiation during a conflict.

### Conclusions and Implications

The primary purpose of this article was to explain how variations within the government impact the duration of civil wars. Extending the veto player argument, a discussion of problems due to informational uncertainties and credible commitments suggested that civil conflicts should be shorter as power is condensed into fewer actors, and as governmental stability increases. More specific expectations were then developed within this framework by focusing on the institutional and political power of executives. The empirical results provide broad support for the theory. We should expect civil conflicts to be shorter in presidential governments and when executives enjoy strong institutional powers. Credibility problems are also ameliorated by governmental stability, including the duration that the leader and the leader's party remain in office.

This article provides important implications for researchers. First, it demonstrates the importance of disaggregating common indicators of regime types to better understand how variations within governments impact domestic instability. Similar efforts have recently found success in explaining regime stability (Gates et al. 2006), interstate dispute initiation (Lai and Slater 2006), and civil war onset (Vreeland 2008). It also extends these analyses by focusing on political power of the executive, which was found to have an important impact regardless of institutional design. Second, the article speaks to the lengthy debate on presidential versus parliamentary democracies. While a plethora of work has substantiated the benefits of parliamentary governments on a number of factors (for example, Linz 1990, 1994), these results indicate that presidentialism may be preferable during periods of internal violence. This argument suggests an interesting positive by-product of one of the largest critics of presidential systems: immobilism (Mainwaring 1993; Linz 1994). While immobilism may have a negative effect of prohibiting the government from altering the status quo when needed, it has a positive effect in making presidential systems more predictable.

Important implications for policymakers can also be culled from this article. This is especially true given that international actors are becoming increasingly involved in helping structure political institutions in war-torn societies to help stabilize long-term peace. At its simplest level, this article demonstrates the importance of thinking critically about how institutions should best be designed to promote long-

term stability.<sup>19</sup> Current literature suggests that the democratic components examined in this study are apt to help states avoid both the onset and recurrence of civil conflict (for example, Hegre, Ellingsen, Gates, and Gleditsch 2001; Walter 2004). A much different picture emerges when we focus on the intra-war period. Governments incorporating diffuse preferences and unpredictable turnover in leadership were found to experience longer civil conflicts. Therefore, consolidating the government's preferences into a coherent and stable policy position is critical to ending ongoing conflicts, even if it means delaying true democratic reforms until peace can be achieved.<sup>20</sup> The pressure to quickly institute democracy in the midst of insurgencies in both Iraq and Afghanistan provides unfortunate examples of how weak and unstable governance yields difficulties in bargaining with insurgents (for example, Bremmer 2006; Constonguay 2010).<sup>21</sup> Based on this study, it is likely that consolidation of power for the executive would have been preferable to democratization in order to first establish peace in these countries, which later would have hopefully been followed by democratic reforms. More broadly, delaying or even eliminating hope for democracy is likely the preferable option until domestic peace can be achieved. While this pill is undoubtedly bitter, it is the preferable option to bring an end to the horrors that accompany the numerous civil conflicts that are ongoing today.

### References

- AKCINAROGLU, SEEN, AND ELIZABETH RADZISZEWSKI. (2005) Expectations, Rivalries, and Civil War Duration. *International Interactions* 31 (4): 349–374.
- ALMOND, GABRIEL. (1950) *The American People and Foreign Policy*. New York: Harcourt, Brace.
- AMNESTY INTERNATIONAL. (2010) Sri Lanka's New Parliament Must Drop Emergency Laws, Says Amnesty International. April 19. Available at <http://www.amnestyusa.org>. (Accessed June 8, 2010.)
- BALGH-LINDSAY, DYLAN, AND ANDREW ENTERLINE. (2000) Killing Time: The World Politics of Civil War Duration, 1820–1992. *International Studies Quarterly* 44: 615–642.
- BARKAN, JOEL D., PAUL J. DENSHAM, AND GERARD RUSHTON. (2006) Space Matters: Designing Better Electoral Systems for Emerging Democracies. *American Journal of Political Science* 50 (4): 926–939.

<sup>19</sup> While this perhaps seems obvious, previous work suggests that it is rare for political leaders to consider alternative institutional structures (Norris 1995; Barkan, Densham, and Rushton 2006), and scholars have been unable to come to a consensus as to which electoral system is preferable in a given situation (Farrell 2001).

<sup>20</sup> This advice is consistent with Paris (2004) argument that international actors have mistakenly pushed too hard to quickly implement political and economic reforms in unstable states, often resulting in a continuation of conflicts or situations that are rarely better than those that preceded the conflict.

<sup>21</sup> As Constonguay (2010) explains, "Currently, government agents [in Afghanistan] lack *legitimacy* in the eyes of the locals, therefore giving rise to repeated accusations of corruption and injustices that erodes their capacity to operate and empowers the anti-Afghan forces. This lack of legitimacy and the weakness of the central government have created anarchy that has increasingly defined the country since 2002."

- BECK, NATHANIEL, JONATHAN N. KATZ, AND RICHARD TUCKER. (1998) Taking Time Seriously: Time-Series Cross-Section Analysis with a Binary Dependent Variable. *American Journal of Political Science* 42 (4): 1260–1288.
- BECK, THORSTEN, GEORGE CLARKE, ALBERTO GROFF, PHILIP KEEFER, AND PATRICK WALSH. (2001) New Tools in Comparative Political Economy: The Database of Political Institutions. *The World Bank Economic Review* 15 (1): 165–176.
- BIENEN, HENRY, AND NICOLAS VAN DE WALLE. (1992) A Proportional Hazard Model of Leadership Duration. *The Journal of Politics* 54: 685–717.
- BLAINEY, GEOFFREY. (1988) *The Causes of War*, 3rd edition. New York: The Free Press.
- BREMMER, IAN. (2006) Freedom from Fear Trumps the Freedom to Vote. Slate, November 22. Available at <http://www.slate.com/id/2154402>. (Accessed October 12, 2009.)
- CETINYAN, RUPEN. (2002) Ethnic Bargaining in the Shadow of Third-Party Intervention. *International Organization* 56 (3): 645–677.
- CHEIBUB, JOSÉ A., AND FERNANDO LIMONGI. (2002) Democratic Institutions and Regime Survival: Parliamentary and Presidential Democracies Reconsidered. *Annual Review of Political Science* 5: 151–179.
- COLLIER, PAUL, ANKE HOFFLER, AND MANS SODERBOM. (2004) On the Duration of Civil War. *Journal of Peace Research* 41 (3): 253–273.
- CONSTONGUAY, DAVID. (2010) In Praise of Warlords. *Foreign Policy in Focus*, February 17.
- COWHEY, PETER F. (1993) Domestic Institutions and the Credibility of International Commitments: Japan and the United States. *International Organization* 47 (2): 299–326.
- CUNNINGHAM, DAVID E. (2006) Veto Players and Civil War Duration. *American Journal of Political Science* 50 (4): 875–892.
- CUNNINGHAM, KATHLEEN G. (2007) *Divided and Conquered: Why States and Self-Determination Groups Fail in Bargaining Over Autonomy*. Unpublished Doctoral Dissertation, San Diego: University of California.
- CUNNINGHAM, DAVID E., KRISTIAN S. GLEDITSCH, AND IDEAN SALEHYAN. (2009) It Takes Two: A Dyadic Analysis of Civil War Duration and Outcome. *The Journal of Conflict Resolution* 53 (4): 570–597.
- DAGNE, TED. (2003) The Sudan Peace Process. Report for Congress, June 4. Available at <http://www.opencrs.com/document/RL31947/>. (Accessed June 4, 2010.)
- DEROUEN, KARL R., AND DAVID SOBEK. (2004) The Dynamics of Civil War Duration and Outcome. *Journal of Peace Research* 41 (3): 303–320.
- FARRELL, DAVID M. (2001) *Electoral Systems: A Comparative Introduction*. New York: Palgrave.
- FEARON, JAMES. (1994) Ethnic War as a Commitment Problem. Paper presented at the Annual Meetings of the American Political Science Association, New York, August 30–September 2.
- FEARON, JAMES D. (1995) Rationalist Explanations for War. *International Organization* 49 (3): 379–414.
- FEARON, JAMES D. (1998) Bargaining, Enforcement, and International Cooperation. *International Organization* 52 (2): 269–306.
- FEARON, JAMES D. (2004) Why Do Some Civil Wars Last So Much Longer than Others? *Journal of Peace Research* 41 (3): 275–301.
- FILSON, DARREN, AND SUZANNE WERNER. (2002) A Bargaining Model of War and Peace: Anticipating the Onset, Duration, and Outcome of War. *American Journal of Political Science* 46 (4): 819–838.
- FORTNA, VIRGINIA PAGE. (2004) Does Peacekeeping Keep Peace? International Intervention and the Duration of Peace after Civil War. *International Studies Quarterly* 48: 269–292.
- FREEDOMHOUSE. (2007) Egypt. Available at <http://www.freedomhouse.org>. (Accessed July 8, 2010.)
- FREEDOMHOUSE. (2008) Sri Lanka. Available at <http://www.freedomhouse.org>. (Accessed October 4, 2010.)
- GARTZKE, ERIK, AND KRISTIAN SKREDE GLEDITSCH. (2004) Why Democracies May Actually be Less Reliable Allies. *American Journal of Political Science* 48 (4): 775–795.
- GATES, SCOTT, AND HÅVARD STRAND. (2006) Modeling the Duration of Civil Wars: Measurement and Estimation Issues. Available at <http://www.prio.no/>. (Accessed April 4, 2009.)
- GATES, SCOTT, HÅVARD HEGRE, MARK P. JONES, AND HAVARD STRAND. (2006) Institutional Inconsistency and Political Instability: Polity Duration, 1800–2000. *American Journal of Political Science* 50 (4): 893–908.
- GLEDITSCH, KRISTIAN. (2002) Expanded Trade and GDP Data. *The Journal of Conflict Resolution* 46: 712–724.
- GLEDITSCH, NILS PETTER, PETER WALLENSTEEN, MIKAEL ERIKSSON, MARGARETA SOLLENBERG, AND HÅVARD STRAND. (2002) Armed Conflict 1946–2001: A New Dataset. *Journal of Peace Research* 39 (5): 615–637.
- GREENHILL, KELLY M., AND SOLOMON MAJOR. (2007) The Perils of Profiling Civil War Spoilers and the Collapse of Intrastate Peace Accords. *International Security* 31 (3): 7–40.
- HARTZELL, CAROLINE, AND MATTHEW HODDIE. (2003) Institutionalizing Peace: Power Sharing and Post-Civil War Conflict Management. *American Journal of Political Science* 47 (2): 318–332.
- HEGRE, HÅVARD, TANJA ELLINGSEN, SCOTT GATES, AND NILS PETTER GLEDITSCH. (2001) Toward a Democratic Civil Peace? Democracy, Political Change, and Civil War, 1816–1992. *The American Political Science Review* 95 (1): 33–48.
- HOROWITZ, SHALE, AND DEEPTI SHARMA. (2008) Democracies Fighting Ethnic Insurgencies: Evidence From India. *Studies in Conflict & Terrorism* 31 (4): 749–773.
- HUMPHREYS, MACARTAN, AND HABAYE AG MOHAMED. (2002) Senegal and Mali. Paper presented at the World Bank/Center for United Nations Studies Conference, Yale University, April 12–15.
- JARSTAD, ANNA. (2009) The Prevalence of Power Sharing: Exploring the Patterns of Post-Election Peace. *Africa Spectrum* 4 (3): 41–62.
- JAYE, THOMAS T. (2009) *Liberia: Parliamentary Oversight and Lessons Learned from Internationalized Security Sector Reform*. New York: Centre on International Cooperation.
- KAUFMANN, CHAIM. (1996) Possible and Impossible Solutions to Ethnic Civil Wars. *International Security* 20 (4): 136–175.
- KEEFER, PHILIP. (2005) Database of Political Institutions: Changes and Variable Definitions. The World Bank. Available at [http://siteresources.worldbank.org/INTRES/Resources/DPI\\_2004\\_variable-definitions.pdf](http://siteresources.worldbank.org/INTRES/Resources/DPI_2004_variable-definitions.pdf). (Accessed May 8, 2009.)
- KING, GARY, MICHAEL TOMZ, AND JASON WITTENBERG. (2000) Making the Most of Statistical Analyses: Improving Interpretation and Presentation. *American Journal of Political Science* 44 (2): 347.
- LACINA, BETHANY ANN, AND NILS PETTER GLEDITSCH. (2005) Monitoring Trends in Global Combat: A New Dataset of Battle Deaths. *European Journal of Population* 21 (23): 145–165.
- LAI, BRIAN, AND DAN SLATER. (2006) Institutions of the Offensive: Domestic Sources of Dispute Initiation in Authoritarian Regimes, 1950–1992. *American Journal of Political Science* 50 (1): 113–126.
- LEBLANG, DAVID, AND STEVE CHAN. (2003) Explaining Wars Fought by Established Democracies: Do Institutional Constraints Matter? *Political Research Quarterly* 56 (4): 385–400.
- LICKLIDER, ROY. (1995) The Consequences of Negotiated Settlements in Civil Wars, 1945–1993. *The American Political Science Review* 89: 681–690.

- LINZ, JUAN J. (1990) The Perils of Presidentialism. *Journal of Democracy* 1 (1): 51–69.
- LINZ, JUAN J. (1994) Democracy, Presidential or Parliamentary: Does it Make a Difference? In *The Failure of Presidential Democracy: The Case of Latin America*, edited by Juan J. Linz and Arturo Valenzuela. Baltimore, MD: Johns Hopkins University Press.
- MAINWARING, SCOTT. (1993) Presidentialism, Multipartyism, and Democracy: The Difficult Combination. *Comparative Political Studies* 26: 198–228.
- MAOZ, ZEEV, AND BRUCE RUSSETT. (1993) Normative and Structural Causes of the Democratic Peace, 1946–1986. *The American Political Science Review* 87 (3): 624–638.
- MARCUS, ALIZA. (2010) Troubles in Turkey's Backyard. *Foreign Policy*, July 12.
- MARSHALL, MONTY G., KEITH JAGGERS, AND TED ROBERT GURR. (2011) *Polity IV Project: Dataset Users' Manual*. Arlington: Polity IV Project.
- MASON, DAVID, AND MADHAV JOSHI. (2010) Balance of Power, Size of Governing Coalition and Durability of Peace in the Post-Civil War States. Paper presented at the International Studies Association Annual Convention, New Orleans.
- MORGENTHAU, HANS J. (1956) *Politics Among Nations: The Struggle for Power and Peace*. New York: Alfred Knopf.
- MUGGAH, ROBERT. (2008) In Sudan, Stability or Civil War? *Christian Science Monitor*, July 24.
- NORRIS, PIPPA. (1995) Introduction: The Politics of Electoral Reform. *International Political Science Review* 16: 3–8.
- PARIS, ROLAND. (2004) *At War's End: Building Peace after Civil Conflict*. Cambridge, UK: Cambridge University Press.
- POWELL, JONATHAN, AND CLAYTON L. THYNE. (2011) Global Instances of Coups from 1950 to 2009: A New Dataset. *Journal of Peace Research* 48 (2): 249–259.
- REGAN, PATRICK M. (2002) Third-party Interventions and the Duration of Intrastate Conflicts. *The Journal of Conflict Resolution* 46 (1): 55–73.
- REGAN, PATRICK M., AND AYSEGUL AYDIN. (2006) Diplomacy and Other Forms of Intervention in Civil Wars. *The Journal of Conflict Resolution* 50 (5): 736–756.
- SARTORI, GIOVANNI. (1997) *Comparative Constitutional Engineering*, 2nd edition. London: MacMillan Press.
- SHASTRI, AMITA. (2005) Channeling Ethnicity through Electoral Reform in Sri Lanka. *Commonwealth & Comparative Politics* 43 (1): 34–60.
- SLANTCHEV, BRANISLAV. (2003) The Principle of Convergence in Wartime Negotiations. *The American Political Science Review* 47 (4): 621–632.
- SMITH, ALASTAIR, AND ALLAN C. STAM. (2002) Bargaining and the Nature of War. *The Journal of Conflict Resolution* 48 (6): 783–813.
- SOZEN, AHMET. (2006) Terrorism and the Politics of Anti-Terrorism in Turkey. In *National Counter-Terrorism Strategies—Legal, Institutional, and Public Policy Dimensions in the US, UK, France, Turkey and Russia*, edited by Robert W. Ortung and Andrey Makarychev. Washington, DC: IOS Press.
- STEDMAN, STEPHEN J. (1997) Spoiler Problems in Peace Processes. *International Security* 22 (2): 5–53.
- THYNE, CLAYTON L. (2006) Cheap Signals with Costly Consequences: The Effect of International Relations on Civil War Onset, 1945–1999. *The Journal of Conflict Resolution* 50 (6): 937–961.
- THYNE, CLAYTON L. (2009) *How International Relations Affect Civil Conflict: Cheap Signals, Costly Consequences*. Lanham, MD: Lexington Books.
- TOMZ, MICHAEL, JASON WITTENBERG, AND GARY KING. (2003) Clarify: Software for Interpreting and Presenting Statistical Results. *Journal of Statistical Software* 8: 1–29.
- TSEBELIS, GEORGE. (2002) *Veto Players: How Political Institutions Work*. Princeton, NJ: Princeton University Press.
- UNITED STATES INSTITUTE OF PEACE. (1994) Sudan: Ending the War, Moving Talks Forward. Special Report 7.
- VREELAND, JAMES R. (2008) The Effect of Political Regime on Civil War. *The Journal of Conflict Resolution* 52 (3): 401–425.
- WAGNER, HARRISON R. (1993) The Causes of Peace. In *Stopping the Killing: How Civil Wars End*, edited by Roy Licklider. New York: New York University Press.
- WALTER, BARBARA. (2002) *Committing to Peace: The Successful Settlement of Civil Wars*. Princeton, NJ: Princeton University Press.
- WALTER, BARBARA. (2004) Does Conflict Beget Conflict? Explaining Recurring Civil War. *Journal of Peace Research* 41: 371–388.
- WERNER, SUZANNE, AND AMY YUEN. (2005) Making and Keeping Peace. *International Organization* 59: 261–292.
- WORLD BANK. (2010) *World Development Indicators*. Washington, DC: World Bank.

### Supporting Information

Additional Supporting Information may be found in the online version of this article:

**Appendix S1.** Impact of Government Constraints and Stability on the Duration of Civil War.

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