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Power Sharing in Postconflict Societies: Implications for Peace and Governance

Melani Cammett¹ and Edmund Malesky²

Abstract

Which components of power sharing contribute to the duration of peace and what explains the linkages between institutional design and stability? The authors argue that certain types of political power sharing are associated with more durable peace than others, primarily through their positive effects on governance and public service delivery. In particular, closed-list proportional representation (PR) electoral systems stand out among power-sharing arrangements, due to their ability to deliver superior governance outcomes which, in turn, can promote stability by undercutting the initial motivations for conflict or by reducing the feasibility of rebellion. The authors argue that these positive outcomes result from closed-list PR's ability to increase party discipline and checks on executive power, while reducing incentives for personalistic voting. The introduction of political institutions in postconflict negotiated settlements allows us to test the independent effects of institutions on governance and stability using survival analysis and a case study.

Keywords

power sharing, peace, postconflict stability, governance, institutional design, closed-list proportional representation

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As Iraq prepared for its March 2010 parliamentary elections, the country was racked by a bitter dispute over the banning of 511 candidates from running due to alleged ties to the former Baathist regime of Saddam Hussein. The decision largely affected prominent Sunni candidates as well as individuals from large secular coalitions, which were expected to undercut support for Shi'i parties (Human Rights Watch 2010). As we argue in this article, the dispute and the threat it posed to stability and democracy in Iraq were exacerbated by a seemingly innocuous technocratic decision to switch from closed-list proportional representation (PR), which was established under the Coalition Provisional Authority in Iraq in 2003, to open-list PR in the November 2009 Election Law (Carnegie Endowment 2009). In fact, many of the Iraqi candidates on the banned list had held important roles in the government without incident prior to the dispute. The current Shi'i leadership, however, felt particularly threatened by having their individual names appear on the ballot.

The official explanation for the shift was to reduce corruption, but a wealth of political science literature has established that closed-list PR, in which voters must cast ballots for entire party lists, is more likely to foster stability and even governmental effectiveness (Lijphart 1990) and reduce incentives for personalistic and patronage-based campaigning (Carey and Shugart 1995), yielding stronger parties and coalitions within assemblies across a range of countries.

Multiple political factors are at play in the current Iraqi political system, so it is difficult to establish definitively the impact of the change in the electoral system on the crisis. Nevertheless, the dispute sheds light on a weakness in the current literature on power sharing in postconflict environments, which has tended to analyze the impact of power sharing using broad aggregations. While a useful first cut, such combined measures obscure the importance of specific, highly nuanced institutional arrangements for preserving the peace and improving governance. More detailed analyses on the success of specific power-sharing arrangements can offer important insights for scholars of civil war and practitioners charged with restoring order in postconflict societies.

Power sharing is a popular policy prescription for postconflict societies such as Burundi, Kenya, Lebanon, Liberia, Madagascar, Nigeria, and Sierra Leone, and in many countries beyond Africa and the Middle East, including Northern Ireland and Bosnia-Herzegovina. The basic rationale is clear: if all of the main warring parties are incorporated in the political system, then they are more likely to develop vested interests in its stability and proper functioning. Yet power sharing remains controversial. For decades, scholars have pointed to the potential flaws of power sharing based on elite pacts, which do not necessarily forge genuine intergroup reconciliation (Horowitz 1985). Recent research contends that power sharing in any guise—even arrangements premised on moderating intergroup tensions—at best is ineffective and at worst exacerbates and even perpetuates conflict (Roeder and Rothchild 2005b).

Under what conditions does power sharing contribute to durable peace? Based on a disaggregated view of power sharing, we argue that certain components of political power sharing are associated with significantly lower probabilities of conflict resumption. Furthermore, we move beyond the predominant focus on democratic stability in the power-sharing literature (Lijphart 1977, 1990, 1992; Roeder and Rothchild 2005a). While this is unquestionably an important outcome, we argue that the emphasis on democracy (and, particularly, procedural democracy) misses something more fundamental and, indeed, distinct from regime type and durability—notably, whether the system actually *delivers* for citizens by providing effective governance. Again, through a disaggregated analysis, we show that different institutions are more conducive to effective governance, which we posit mediates between power-sharing institutions and the duration of peace. The nature of civil war is complex and often involves deep-seated historical and cultural grievances; however, good governance can play an important role in reducing violence in even the most intransigent settings. Improved governance can promote postconflict stability through multiple channels and in diverse types of conflicts, whether motivated by “greed” or “grievances,” and may undercut the “feasibility” of the outbreak of civil conflict (Collier and Hoeffler 2004; Collier, Hoeffler, and Rohner 2009). At the most basic level, improved governance, especially public service delivery, helps the state to satisfy the fundamental human needs of its citizenry and ward off the desperation that can trigger violence. Even in less bleak scenarios, good governance can encourage development and cross-cleavage economic interactions that restore confidence in the state and alleviate the need for or reduce the viability of violence.

We find that countries that adopt closed-list PR electoral systems tend to have superior governance outcomes and, as a result, experience more enduring periods of postconflict peace and stability. Specific characteristics of closed-list PR systems such as tight party discipline, which tends to provide more checks on executive power, and reduced incentives for personalistic voting, which has been shown to enhance opportunities for corruption in the political system, may account for the positive relationship between this type of electoral system and superior governance and, ultimately, more enduring peace.

The article presents statistical analyses of all countries that have adopted power-sharing agreements following civil conflicts. Web Appendix 7 supplements these analyses with a carefully selected case study of Croatia, which experienced a relatively durable peace following two episodes of conflict after the progressive reform of the electoral system and improved governance in the 1990s. The next section reviews existing theoretical and empirical studies of power sharing and elaborates the distinct components of political power sharing, highlighting their expected effects on the durability of peace and governance. In the three subsequent sections, we describe the data, methods, and results of the analyses of the relationships between electoral system design, peace duration, and governance. The final part of the article summarizes the main arguments and identifies areas for further research.

Types of Power Sharing, Stability, and Governance

Power sharing is most famously associated with consociational democracy as developed by Lijphart (1969, 1977), whose own understanding of the concept has varied across time (Andeweg 2000; Bogaards 1998; Lustick 1997). At its core, consociational democracy refers to a set of nonmajoritarian, elite-level formal and informal arrangements that limit threats to democratic stability in societies where ethnic or other societal cleavages are politicized. Key features include a “grand coalition” of elites representing different societal groups, proportionality in the electoral system and administrative appointments, mutual veto or the right of minority veto over key governmental decisions, and group autonomy with respect to key aspects of social and cultural life (Lijphart 1992, 494-95). Power sharing encompasses both “hard guarantees,” including preassigned allocation of executive posts and legislative seats across ethnic lines and partitioned jurisdiction over aspects of decision making and legal codes, as well as “soft guarantees” that promote but do not provide ex ante guarantees for broad inclusiveness in decision-making processes, such as parliamentary government and list PR with low thresholds and supermajorities (Roeder 2005b, 31).

Power Sharing and Stability

Debates about power sharing focusing on democratic stability are well established. For example, proponents of consociationalism (Lijphart 1977) claim that the approach guarantees stability by giving all relevant groups a stake in the system. Cross-national, statistical analyses corroborate and expand on this logic by arguing that postconflict peace agreements with more multidimensional forms of power sharing are more likely to endure (Hartzell, Hoddie, and Rothchild 2001; Hartzell and Hoddie 2003a).

Others point to the potentially divisive effects of key institutions of consociationalism, particularly beyond Europe, contending that these arrangements contain the seeds of their own destruction. Electoral system design is at the center of these debates: By enabling relatively small parties to win seats, PR—a key component of Lijphart’s consociationalism—can facilitate the election of extremist candidates, thereby fostering fragmentation and hardened societal divisions and instead calling for “integrative” institutions that promote intergroup moderation (Horowitz 1985, 1993; Reilly 2002).

Recent studies reject both consociational and integrative power-sharing approaches on the grounds that they produce short-term ceasefires but do not lay the basis for long-term peace and democratization (Roeder and Rothschild 2005a). We find these critiques to be compelling but revisit the debate by exploring the distinct effects of power-sharing institutions on stability and by positing a distinct pathway through which these electoral institutions affect peace duration.

Power Sharing and Governance

Power-sharing debates have yet to empirically explore the effects of particular institutions on the quality of governance, which we suggest acts as an intervening factor, helping to explain why some peace agreements endure while others fail.¹ Arguably, ordinary people are concerned first and foremost about the predictability and stability of the rules governing social, political, and economic exchange as well as the quality of their material lives. Governance is particularly critical in postconflict societies, where the restoration of order and functioning public infrastructure are critical for reconstruction and stabilization. When governments operate effectively, citizens will be less inclined to resort to arms or support the resumption of conflict.

How might power-sharing arrangements affect governance in postconflict societies? The arguments for and against power sharing detailed above suggest distinct responses. On one hand, power-sharing arrangements of either the consociational (Lijphart 1977) or integrative (Horowitz 1985) variety might enhance governance. Consociationalism is premised on broad inclusion in the political system and elite consensus, which could foster and reinforce a cooperative atmosphere that facilitates the passage of laws and regulations on areas of mutual concern. Furthermore, consociationalism leaves key decisions affecting different ethnic groups in the hands of community leaders through ethno-corporatism or territorial autonomy. Local-level control over resources may promote governmental effectiveness, including improved public goods provision (Cheema and Rondinelli 2007). Relatively homogeneous communities with a more developed sense of collective identity—which are more likely to exist on the local level, given tendencies toward ethnic clustering—may provide public goods and cooperate more effectively (Alesina et al. 2003; Habyarimana et al. 2007).

The emphasis on elite cooperation in consociationalism, however, ignores the realities of postconflict politics, in which struggles over scarce state resources are intensely politicized, often along ethnic lines. As proponents of both integrative power-sharing and power-dividing³ approaches contend, the participation of multiple, competing ethnic groups and the heightened salience of ethnic identity under consociational systems is likely to produce legislative stalemate and deep disagreements about how the national pie should be divided. With so many in-built opportunities to veto governmental decisions, the system encourages inefficiency and rigidity, leading to poor governance and inferior public goods provision.

Horowitz's integrative power-sharing approach suggests distinct effects on governance and public goods provision. With its emphasis on intergroup moderation and the need for elites to gain the support of members of other ethnic groups, the approach is designed to encourage compromise and therefore could foster a broader, more durable consensus about national public goods priorities. In addition, to the extent that it promotes more extensive elite-citizen linkages, integrative power sharing could lead to enhanced accountability of politicians to their constituents and, hence, improved governance. Increased collaboration across groups may also

facilitate improved public goods provision, particularly because most public infrastructure projects are implemented on a national or at least supra-local scale, requiring commitments from multiple groups throughout the country.

But integrative power-sharing arrangements may not work as well in reality as they promise on paper. Interethnic electoral alliances can be used instrumentally by politicians to construct temporary, preelectoral agreements as opposed to permanent multiethnic, centrist coalitions that entail regularized cooperation (Salloukh 2006). When cooperation is shallow and ephemeral, the political will needed to implement large-scale projects or to govern effectively is absent. Furthermore, both consociational and integrative power-sharing approaches take ethnic divisions as the building blocks of political representation (Roeder and Rothchild 2005a), thereby reinforcing and further politicizing ethnic cleavages (Lieberman and Singh 2009). To the extent that politicized ethnic cleavages are associated with poor governance and occasionally even violent conflict (Fearon and Laitin 1996, 2003; Varshney 2001), power sharing is unlikely to promote effective governance and, hence, durable peace.

Disaggregating the Effects of Power Sharing on Governance and Stability

How do distinct components of power sharing affect governance and stability in postconflict societies? Cross-national, statistical analyses tend to treat political and other types of power sharing as aggregates (Hartzell and Hoddie 2003a, 2005).⁴ Yet different institutional arrangements within political power sharing may have distinct effects both on governance and public goods provision and the duration of peace agreements. We therefore disaggregate political power sharing, including separate measures for shared executives, legislative quotas, mutual vetoes, proportional appointment to administrative posts, and open and closed-list PR electoral systems.

Power-Sharing Institutions, Poor Governance, and Instability

Drawing on the debates over consociationalism, we hypothesize that some political power-sharing institutions, notably closed-list PR, may promote improved governance and postconflict stability while others, such as quotas on civil service appointments and to a lesser extent shared executives, are associated with poor governance and the breakdown of peace agreements.

Shared executives, or executive power sharing, refer to formal or informal arrangements whereby members from competing ethnic, ideological, or party-based groups share executive positions such as appointments to ministerial and cabinet positions, rotating presidencies, and multiple positions within the executive branch. While proponents of consociationalism view this institution as a way to promote elite consensus, and therefore a guarantee of governmental stability,⁵ shared executives are likely to pose a major obstacle to governmental effectiveness as they

provide easy mechanisms for blocking all but the most innocuous government decisions (Roeder and Rothchild 2005a, 37-39). We therefore find compelling reasons to expect that shared executives are associated with inferior governance outcomes.

Proportional appointments guarantee or reserve posts in administrative bodies, such as the courts, police force, bureaucracy, diplomatic corps, or other commissions, for members of specific ethnic, ideological, or party-based groups. Although they are often related to cultural demography, reserve quotas for administrative appointments need not be directly proportional to the population sizes of relevant groups. This form of hard guarantee can promote administrative inefficiency and even ratchet up tensions as competing groups use their control over key ministries to block decisions that they view unfavorably.⁶

The mutual veto, which grants minority groups the right to block government decisions or legislation that they perceive to be threatening, entails either a legislative or executive mechanism by which a minority can block decisions made by the majority. In practice, the arrangement might include a minority veto or consensus voting and can be an informal, accepted practice or institutionalized in either peace agreements or constitutional documents. Like the shared executive, we expect that the mutual veto facilitates stalemate by fostering governmental ineffectiveness and even brinkmanship tactics, which block decision making and smooth governance (Roeder and Rothchild 2005b, 37).

PR, Good Governance, and Stability

PR electoral systems, or electoral formulas that aim to match party representation as closely as possible with the percentage of vote share received, are the only soft guarantee of political power sharing that we evaluate in our analyses. We distinguish between open and closed-list PR because we expect that they have varied effects on governance. Open-list PR, in which voters can choose candidates from different party lists, facilitates the broadest participation of parties in the government—including more extremist parties—which can lead to deadlock and instability, as the debates in Iraq over the participation of former Baathists illustrates. Closed-list PR, in which voters must cast ballots for entire party lists, is more likely to foster stability and even governmental effectiveness.⁷ As Carey and Shugart (1995) argue, closed PR reduces incentives for politicians to cultivate a personal vote, yielding stronger parties and coalitions within assemblies. Closed-list PR should also lead us to expect more programmatic party politics and consequently a higher likelihood of public goods expenditures over particularistic benefits. By providing a more institutionalized division of power, and therefore more checks and balances, this electoral system design may be a mid-range institutional solution between extreme power-sharing and power-dividing solutions.

Indeed, critics of power sharing hold that power-dividing solutions are superior precisely because they provide more checks and balances in the overall system, preventing the abuse of power and instability in government policies. But closed PR can

accomplish similar goals, as, executives in closed-list systems are more constrained than leaders in other postconflict environments in terms of the number of veto players they face (Tsebelis 2002). Political and economic decisions require the building of large coalitions to enact policies, which has been hypothesized to lead to less policy instability (Tsebelis 2002), greater public goods provision (Bueno de Mesquita et al. 2003), and more redistributive social policies (Haggard and Kaufman 2008).

In turn, governance may affect postconflict stability through multiple channels and in diverse types of civil conflicts, whether premised on greed or grievances, and may alter the feasibility of conflict in the first place (Collier and Hoeffler 2004; Collier, Hoeffler, and Rohner 2009). For example, central aspects of good governance such as reduced corruption, more effective bureaucracies and improved public service delivery can increase citizen satisfaction with the state, undercutting a key potential motivation for protest and perhaps even reducing greed-related motivations for inciting conflict. Greater state capacity may also reduce grievances based on real or perceived inequalities that can trigger unrest by facilitating redistribution across territories or different segments of the population. Improved governance can even undercut the feasibility of waging war by reducing the ability of armed factions to siphon off resources from the state and increasing the state's ability to repress potential challengers and fend off attempts to take over state institutions.

The institutional effects of different types of electoral systems in postconflict divided societies remain controversial⁸ and therefore deserve to be analyzed separately. The next section describes the data and methods used in the cross-national empirical analysis.

PR and Regime Survival: An Empirical Analysis

We begin our test of the effects of political power sharing on regime stability with a survival analysis, similar to that used by Hartzell and Hoddie (2003a, 2005). Survival analysis is appropriate because it helps us understand not only if particular institutions are prone to failure but also provides a nuanced picture of their durability (Box-Steffensmeier and Zorn 2001). It is too simplistic to code a particular state as a peace failure, when in fact an entire generation came of age during the peace agreement's lifetime.

Following Hartzell and Hoddie (2003a), we restrict our analysis to cases where (1) the conflict ended in a negotiated settlement, rather than an absolute victory by one of the parties, (2) the conflict produced at least 1,000 battle deaths, (3) the central government was one of the parties to the conflict, (4) there was effective resistance on the part of both the national government and its adversaries during the course of the conflict, and (5) the conflict occurred within a defined political unit. While restrictive in terms of the number of observations (we identify only fifty-three cases), these parameters allow for a unique setting, where the institutional arrangements are newly created and we can therefore follow their progression from their initiation onward.

As Mukherjee (2006) argues, there is a selection bias (e.g., nonrandom censoring of the sample) inherent in this choice, as negotiated settlements generally imply that

neither side has completely revealed private information about its potential for victory. As a result, both sides are likely to overestimate their opportunities for victory and will try to continue the war at some point. Power-sharing arrangements created under these circumstances are more likely to fail than when one side wins a decisive victory. But it is exactly this selection bias that is most fruitful for our analysis. Institutions selected after a decisive victory are likely to have been chosen to reinforce the power of the stronger party at the time of the settlement. In these cases, we would not be able to ascertain whether peace prevailed because of the institution itself or because of the underlying power of the dominant party that shaped the institutions and remains in society. This endogenous selection would cause us to overestimate the effects of institutions favored under these circumstances, such as strong presidential systems. Frye (1997) has shown that just this selection prevailed in the creation of strong presidencies in post-Soviet Eastern Europe: stronger parties at the onset of reforms were more likely to select presidencies over parliamentary systems. Institutions arising from negotiated settlements by equal parties are less likely to result from such endogenous selection and we can feel more confident in the causal interpretation of our results. It is important to note that we do not intend our results to apply to the broader set of civil wars that includes imposed settlements; our findings are only relevant to the subset of civil wars where negotiated settlements are reached.

We follow Hartzell and Hoddie (2003a) in employing the Weibull distribution in our duration analysis due to the small sample size, but our results are robust to using a Cox-Proportional Hazards specification as well.

Dependent, Independent, and Control Variables

As with other duration models, our dependent variable is the length of time in months that endured following the signing of a settlement up to our censor date of June 30, 2010. Like Hartzell and Hoddie, we code a failure as a resumption of civil war between the parties. We update the Hartzell and Hoddie schema, from the thirty-eight original cases to fifty-three cases, increasing the number of failures from fifteen to twenty-five, including four updated failures from their original cases. The median peace duration in the sample is eighty-nine months.

Our key causal variables are the specific types of power-sharing institutions discussed earlier: (1) a forced coalition in the executive; (2) a forced legislative coalition, where specific seats are reserved in the country's parliament for members of one or more of the warring parties; (3) an electoral system characterized by open-list PR, where individual candidates are known to voters; (4) closed-list PR, where voters select only party titles; (5) proportional allotment of bureaucratic appointments; and (6) specialized minority vetoes on legislation or executive implementation on one of the warring parties that are independent of the seats they hold in parliament.⁹

We also code territorial power sharing (i.e., decentralization or local autonomy), military power sharing (i.e., proportional or systematic allocation of positions and leaderships roles in the armed forces (i.e. Hartzell and Hoddie

Table 1. Frequency of Power-Sharing Type in Fifty-Three Cases

Type	Total instances of usage	Proportion failed (percent)	Average life span (months)
1. Political	43	46.5	144
Closed-list proportional rep	25	28.0	208
Executive coalition	24	45.8	177
Specialized veto	12	41.7	173
Proportional civil service appt.	23	57.0	151
Open-list proportional rep.	8	50.0	135
Forced legislative coalition	20	50.0	119
2. Economic	24	38.7	229
3. Territorial	27	40.7	202
4. Military	31	41.6	198
No power-sharing	1	100	25
Average number (SD) of total types of power sharing utilized			2.38 (1.02)
Average number (SD) of political power sharing institutions utilized			2.04 (1.60)

2003b)), and economic power sharing (such as agreements over the distribution of oil revenue in Sudan; Hartzell and Hoddie 2005).

Table 1 shows the distribution of power-sharing arrangements in the fifty-three cases. We display the four types of general power sharing (economic, territorial, military, and political) originally discussed by Hartzell and Hoddie (2003a). Political power sharing is the most frequent, with some presence in forty-three cases, but is also the most unsuccessful with the highest failure rate and lowest average duration of peace. The twenty-four cases of economic power sharing demonstrate a lower failure rate of 38.75 and the longest-lasting average peace of 229 months.

Next, we disaggregate political power sharing into its six subcomponents. Here, we see a great deal of diversity under the general banner. While political power sharing as a whole is the most unsuccessful general form, some types are clearly better at maintaining peace than others. Among the cases in the data set, closed-list PR is the most frequently attempted power-sharing mechanism with twenty-five cases (followed closely by executive coalitions [twenty-four] and proportional appointments [twenty-three]), while its cousin, open-list PR is the most infrequent. Closed-list has the lowest rate of peace breakdowns (28 percent), about half the rate of its peers, and the longest average peace duration (208 months). Proportional appointments have the highest failure rate, breaking down 57 percent of the time, while forced legislative coalitions demonstrate the shortest average duration.

It is important to keep in mind that power-sharing institutions are rarely employed alone. Like the Lilliputians who entangled Gulliver with a myriad of tiny threads, a negotiated settlement usually includes multiple types of arrangements to bind the hands of adversaries. This helps explain why so many previous scholars

operationalize power sharing by the count of arrangements rather than their disaggregated elements. On average, a negotiated settlement includes 2.38 different forms of macro-power sharing (political, territorial, economic, and military) and 2.04 types of political power-sharing mechanisms. In eight negotiated settlements, five different power-sharing arrangements were employed simultaneously. We address this issue by controlling for the *total number of general power-sharing arrangements* included in a conflict's negotiated settlement.

There are only ten cases of states using just one of the four broad forms of power sharing, eight of which used political power sharing. Within the forty-three cases of political power sharing, only thirteen cases involve just a single arrangement.¹⁰ Seven of these thirteen cases involve the use of closed-list PR and two employ shared executive coalitions. Legislative coalitions, proportional administrations, and open-list PR are used by themselves only once, while one institution, the specialized minority veto, is only used in tandem with other arrangements.

In addition to the measures of power sharing, we employ a set of control variables derived from the extensive civil war literature. These include whether the *previous regime type* was a democracy, the *duration of the conflict* in months, the *intensity of conflict* proxied by the number of casualties, a measure of whether the conflict was an *ethnic war* or an ideological squabble (Fearon and Laitin 2003), the involvement of a *third-party enforcer* in settling and maintaining peace (Walter 1997, 2002), the prevalence of *mountainous terrain*, which provides a strategic information advantage to insurgents and thus has been shown to be positively associated with civil war (Fearon and Laitin 2003), and finally the presence of *lootable contraband* such as gemstones and narcotics, which can be used to finance an insurgency (Fearon 2005; Ross 2006). All of these variables are coded for the entire set of fifty-three cases.¹¹

In robustness tests, we also include a measure of *fractionalization* to capture the possibility that long-standing ethnic, linguistic, or religious grievances led to civil war resumption as well as a measure of *factions* involved in the original negotiated settlement, because a large number of actors with the ability to upset the status quo if not appropriately compensated or included in postwar political arrangements may destabilize peace arrangements (Cunningham 2006). Finally, we control for structural factors such as wealth, measured by gross domestic product (*GDP*) per capita and *population size* (Collier, Hoeffler, and Rohner 2009). Wealthier countries may be less prone to conflict because their higher resource endowments can buy off potentially disaffected groups and enable better a quality of life, leading to a satisfied population. The larger the population, the greater potential for factional break-offs, which can endanger peace. Because data on structural factors are missing for many cases, we supplement using the Gleditsch (2002) method of imputation based on regional cohorts.

Disaggregated Results

Initial results are displayed in Table 2. Model 1 begins with a baseline set of control variables and a measure of total power-sharing arrangements from Hartzell and

Table 2. Regime Survival Duration after Negotiated Civil War Settlements (Weibull Regression Model Estimates)

Independent Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Total power-sharing arrangements	0.517** (0.139)	0.514** (0.141)	0.546** (0.148)	0.509** (0.136)	0.517** (0.139)	0.487*** (0.136)	0.494** (0.140)	0.487** (0.138)
Previous regime type	0.754 (0.374)	0.759 (0.377)	0.737 (0.357)	0.693 (0.353)	0.757 (0.377)	0.768 (0.384)	0.863 (0.443)	0.658 (0.335)
Third-party enforcer	0.432* (0.211)	0.439 (0.221)	0.412* (0.202)	0.501 (0.259)	0.434* (0.214)	0.452 (0.223)	0.352** (0.183)	0.430* (0.214)
Conflict deaths (ln)	1.244 (0.192)	1.247 (0.194)	1.179 (0.187)	1.226 (0.194)	1.250 (0.206)	1.342* (0.234)	1.238 (0.203)	1.258 (0.193)
Ethnic war	2.872*** (1.056)	2.893*** (1.080)	2.725*** (1.045)	3.026*** (1.123)	2.854*** (1.069)	2.945*** (1.100)	3.265*** (1.291)	2.665*** (0.980)
Mountainous terrain	1.006 (0.009)	1.005 (0.009)	1.002 (0.009)	1.008 (0.009)	1.006 (0.009)	1.004 (0.009)	1.005 (0.009)	1.008 (0.009)
Lootable goods	2.945* (1.893)	2.955* (1.906)	2.887 (1.921)	2.771 (1.773)	2.942* (1.891)	2.408 (1.611)	3.817* (2.624)	2.528 (1.664)
Any political power-sharing		0.927 (0.531)						
Closed-list			0.434* (0.204)					
proportional rep				0.611 (0.417)				
Open-list					0.959 (0.471)			
proportional rep. executive coalition						0.626 (0.302)		
Legislative coalition							1.757 (0.843)	
Proportional civil service appt.								
Specialized Veto								
Constant	0.009*** (0.012)	0.010*** (0.013)	0.015*** (0.019)	0.009*** (0.012)	0.009*** (0.012)	0.011*** (0.014)	0.006*** (0.008)	0.575 (0.314)
ρ	0.795 (0.136)	0.794 (0.136)	0.810 (0.137)	0.802 (0.137)	0.795 (0.136)	0.803 (0.137)	0.785 (0.135)	0.810 (0.139)
Conflicts	53	53	53	53	53	53	53	53
Months at risk	6985	6985	6985	6985	6985	6985	6985	6985
Cases of failure	25	25	25	25	25	25	25	25
χ^2	19.88	19.90	23.25	20.43	19.89	20.84	21.28	20.97
Prob > χ^2	0.00583	0.0107	0.00306	0.00884	0.0108	0.00759	0.00644	0.00723
Log likelihood	-65.25	-65.24	-63.57	-64.98	-65.25	-64.77	-64.55	-64.71

Note: Hazard ratios displayed with standard errors in parentheses. Model 1 presents a baseline analysis with each subsequent model testing a specific form of power sharing. Hazard ratio < 1: Contribution to regime survival; > 1: Contribution to regime failure. In implies natural log.

*** $p < .01$. ** $p < .05$. * $p < .1$.

Hoddie (2003a). Confirming previous findings, we show that a high number of total power-sharing arrangements tends to reduce conflict resumption (hazard ratios < 1), while ostensibly ethnic wars and the presence of lootable goods make peace more precarious (hazard ratios > 1). Mountainous terrain, the severity of conflict, and previous regime type, while not statistically significant, are in the predicted directions. Mountains and a higher number of deaths tend to increase the risk of civil war, while democratic experience reduces it. Model 2 adds a dummy for political power sharing, demonstrating that the aggregate coding does not have a statistically significant relationship with conflict resumption.

Models 3 through 8 disaggregate political power sharing into the six component parts discussed above. These models illustrate that the nonresult of political power sharing is derived from the disparate effects of the components of the aggregate measures. Only one form of political power sharing is statistically significant. Countries with closed-list PR are 57 percent less likely to resume conflict than those without such arrangements. Other types of political power sharing are not statistically significant, although the coefficient on proportional civil service appointments is just shy of traditional benchmarks. Interestingly, it has the opposite effect on peace: countries employing proportional civil service appointments are 76 percent more likely to resume conflict. These countervailing influences help us understand why political power sharing is not useful in aggregate.

The results for closed-list PR are enticing but require greater robustness testing. The small sample size of negotiated settlements, rough proxy variables, and limited data coverage on key control variables is worrisome. Consequently, we subject the closed-list finding to a series of robustness tests, which account for these potential problems, in Web Appendix 3.

Strategy for Causal Identification of Closed-List PR and Peace Duration

Endogeneity, specifically simultaneity and unobserved heterogeneity, may positively bias the coefficient on closed-list PR. It is possible that disputants most interested in preserving the peace, or otherwise more capable of effective governance, are more likely to select closed-list PR. Alternatively, the correlation may be caused by unobservable cultural or historical features of a particular country that lead to the selection of both closed-list PR and durable peace, although there may be no direct relationship between the two.

To address this problem, we draw on the extensive findings in the diffusion literature that countries tend to borrow successful policies and institutions from one another, especially those in close geographical proximity (Elkins and Simmons 2004; Kopstein and Reilly 2000; Elkins 2010). Although extensive debate exists on the particular actors that carry institutional initiatives across borders (see Simmons, Dobbins, and Garrett 2006, 10), one might expect that parties seated at the negotiating table, arguing over the terms of peace and constitutional arrangements, may be prone to look at their neighbors for institutional models.

Alternatively, the driving force may be international mediators, such as powerful third parties and international organizations, which introduce successful political arrangements into the negotiation. Regional patterns in the selection of power-sharing arrangements offer tentative evidence: over 85 percent of the cases in Latin America and 80 percent in Southeast Asia selected closed-list PR, compared to 20 percent of the cases in the Middle East and none in South Asia, which were more likely to select executive coalitions. Area specialists have documented these changes. Carey (2009) describes the trend among Latin American states of choosing proportionally represented legislatures after witnessing its effect of safeguarding fragile new democracies, while Reilly (2009) shows the trend to and away from consociational power-sharing arrangements in Southeast Asia.

If the diffusion hypothesis is correct, it provides a plausible instrument for the selection of closed-list PR in a particular conflict case. The decision of a state's neighbors to alter their own electoral systems prior to the resumption of conflict in an observation can reasonably be considered exogenous to that state's selection of a power-sharing arrangement.

We test the diffusion hypothesis more systematically by coding the proportion of countries in each region that had closed-list PR at the time of a negotiated settlement, according to the World Bank's Database of Political Institutions (Beck et al., 2000).¹² The average regional proportion of closed-list usage overtime ranged from 89.6 percent of Latin American countries using closed-list PR in 1996 (as discussed by Carey 2009), compared to South Asia in 2001, when 0 percent of countries employed this electoral arrangement. The fact that the measure of regional neighbors with closed-list PR correlates positively and significantly with the selection of closed-list PR in a given case, but has a correlation with peace duration that is not significantly different from zero, provides tentative evidence that the exclusion criterion is met for this instrument.¹³ As a result, we can feel reasonably confident to employ the instrument in a two-stage approach.

In essence, the two-stage analysis offers a quasi-experimental setting where some proportion of warring parties in negotiated settlements chose closed-list PR for reasons that are exogenous to its implications for peace and governance. We exploit this opportunity provided by constitutional diffusion to identify the causal implications of this unique form of power sharing.

Using an instrumental variables approach, we run a first-stage probit model to predict the use of closed-list PR in the first stage (models 1 and 3). The two-stage analysis was performed twice. In models 1 through 3, we use all fifty-three cases of negotiated settlements but a limited set of control variables. Models 4 through 6 repeat the analysis using the fractionalization, factions, and population variables for which we lack complete data. Results change very little between the two specifications.

The results of this first stage analysis are graphically depicted in Figure 1. Panel 1 displays the predicted probability of closed-list selection by region over the proportion of countries in each region that already had the electoral system in a given year. We can observe visually that the probability of closed-list selection is highest in

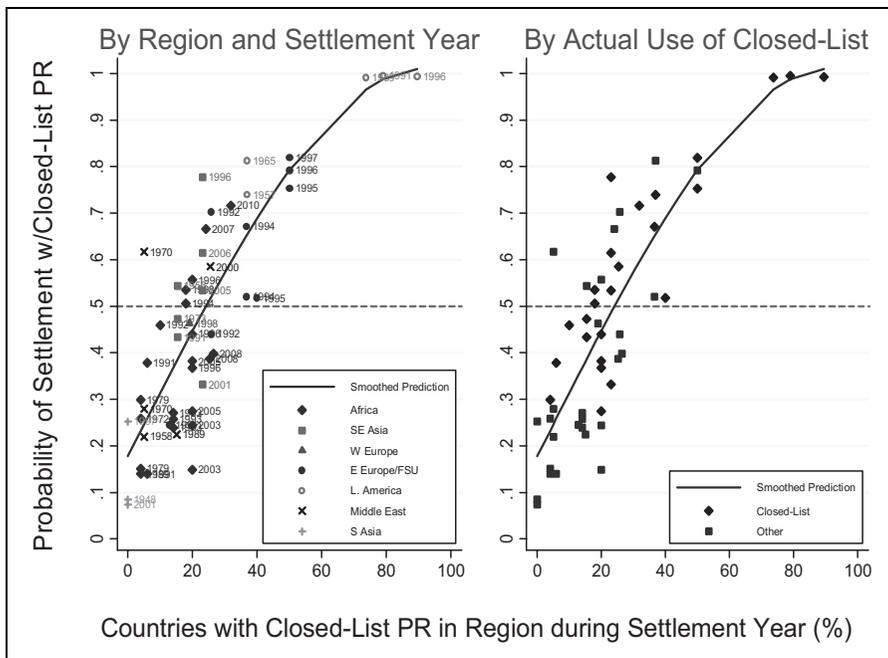


Figure 1. Predicted use of closed-list in negotiated settlement: This figure graphically portrays the results of the first stage selection of closed-list PR in Table 3 (model 1). Panel 1 displays the predicted probability of closed-list selection by region and year over the proportion of countries in each region which already had the electoral system in a given year. Panel 2 displays whether closed-list PR was actually employed in the particular postconflict case (indicated by the black diamonds). Squares represent instances of nonusage. Each 1 percent increase in the number of regional neighbors with closed-list proportional representation augmented the probability that a settlement also used the electoral mechanism by 1.4 percent in the restricted model and 2.3 percent in the fully specified analysis. The dotted line in Panel 2 indicates whether a case had a 50 percent or higher probability of being predicted as such in our first-stage model. Regional proportions of closed-list usage predicted 35/53 cases in the first specification (model 1) and 28/41 cases in the second specification (model 4).

Latin America, Southeast Asia, and Eastern Europe in the mid-nineties, after a large proportion of neighbors had already begun to employ some element of the system. Panel 2 displays whether closed-list was actually employed in the particular postconflict case (indicated by the diamonds; squares represent instances of nonusage). Table 4 further reveals the strong effect of regional diffusion on closed-list selection. Each 1 percent addition in the number of regional neighbors with closed-list PR increases the probability that a settlement also used the electoral mechanism by 1.4 percent in the restricted model and 2.3 percent in the fully specified analysis. The dotted line in panel 2 indicates whether a case had a 50 percent or higher probability of being predicted as such in our first-stage model. If we assume that a higher than

50 percent probability of selection is a predicted case of usage, regional proportions of closed-list adoption predicted thirty-five of the fifty-three cases in the first specification and twenty-eight of the forty-one cases in the second specification.

We find that a 1 percent shift in the predicted probability of using closed-list PR leads to a 0.95 percent reduction in the probability of conflict resumption (0.996 percent in model 4).¹⁴

Because predicted probabilities are continuously distributed between 0 and 1, the coefficient in the hazard ratio is not directly comparable to the previous analysis, where a dichotomous variable was employed. To account for this problem, we also rerun the survival specification using a predicted closed-list measure, where 1 represents cases with a 50 percent probability of closed-list selection (those above the dashed line in the second panel of Figure 2) and 0 represents all other cases (those on or below the line). The results of this analysis are displayed in models 3 and 6. Here, we see that our results are very similar, albeit with slightly weaker statistical significance than in the previous analysis. Exogenously predicted cases of closed-list PR reduce the probability of conflict in both specifications, but the restricted model narrowly misses traditional standards of statistical significance. On the other hand, the fully specified analysis is statistically significant at the .01 level, where we learn that closed-list reduces the probability of conflict resumption by 79 percent.

The findings from this analysis give us great confidence that our findings are not an artifact of endogeneity bias. Using the regional popularity of closed-list systems as an instrument, we find that exogenously predicted use of closed-list PR has a very similar substantive effect on maintaining peace in negotiated settlements to the naïve models that did not address endogeneity.

Closed-List PR and Better Governance

While we demonstrate a remarkably robust correlation between PR and peace, we have yet to fully establish the logic behind this effect. In the next section, we explore a possible factor linking closed-list PR and the durability of peace, notably effective governance.

Dependent Variables: Measuring Governance

Characterizing the quality of governance is a difficult task, as the work of governments is multifaceted and the stakeholders of government policy are diverse. Economic theorists tend to employ a very basic notion of governance that traces back to the work of North (1991): the norms of limited government that protect private property from predation by the state (Acemoglu and Johnson 2005). A second group of scholars focus on the quality of the bureaucracy and its ability to adequately deliver public services (Evans and Rauch 1999; Kurtz and Schrank 2007b). Among comparativists and international relations theorists, good governance has also included the notion of state capacity, especially for revenue collection that allows for the

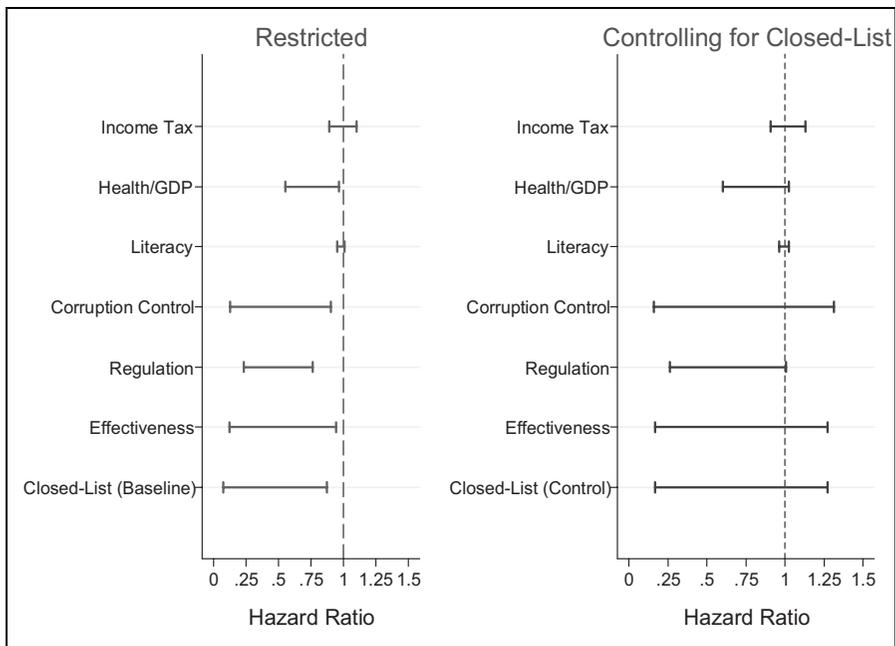


Figure 2. Marginal impact of governance on regime duration. This figure provides a graphical depiction of the 90 percent confidence intervals (CIs) for the hazard ratios derived in Table 5. The first panel depicts the restricted models without controlling for closed-list PR. Government effectiveness, regulation, corruption control, and health expenditures all have CIs that do not cross over the unit one benchmark, indicating that they are negatively associated with conflict resumption. At the bottom of panel I, we include the substantive effect of exogenously predicted closed-list PR from the baseline model as a reference category. In the second panel, after controlling for closed-list PR, we see that all CIs cross the unit one line, meaning we cannot tell whether the variable has a positive or negative impact on conflict resumption. Exogenously predicted closed-list PR is similarly insignificant. It demonstrates the same pattern, significant when not controlling for governance, but insignificant in the unrestricted model. The analysis provides strong support for the notion that the benefits of closed-list PR operate through governance.

establishment of law and order, protection of borders, and public goods delivery. For these scholars, state capacity is best operationalized by the state’s ability to collect tax revenue, especially direct taxes on income and corporations, as opposed to earning rents from natural resources and land (Levi 1989; Moore 2004). Given the proliferation of indicators and the wide-ranging definitional debates, we cannot possibly do justice to all conceptions of governance. Instead, we narrow our lens to four dimensions of governance outcomes that are commonly implied by government quality, including government effectiveness and control of corruption, public goods provision, official budgetary priorities, and state capacity operationalized by tax revenue collection.

We chose to study the level of governance five years after the end of conflict to provide a sense of how well the institutions have functioned in the aftermath of war. Than five years may be influenced by the difficulty of transition to a new government and the damage done by civil war. There are a few limitations to this approach that are worth noting. First, we measure absolute levels of governance at five years, rather than changes in governance since the onset of the settlement. While change rates would be ideal, comparable data on the quality of governance are very sparse in the year after a conflict, as one might imagine, given the chaotic nature of civil war and the difficulty of establishing or maintaining facilities to gather reliable statistics in such environments. To give a few examples, World Bank governance perceptions data are missing for thirty cases, electricity data are missing for twenty-two cases, and literacy is missing for twenty-nine cases in the first year of the new government.¹⁵ While later years still have missing data, we do have sufficient coverage to perform regression analysis at five years after most conflicts, necessitating that we rely on absolutes rather than levels of change. To the extent that some countries may inherit better governance quality from the pre-civil war regime and better initial governance may be associated with the selection of closed-list PR, there is strong potential for reverse causality in a naïve regression of governance on closed-list PR. We address this problem in the same way we dealt with endogeneity in the survival models—by instrumenting for closed-list PR by the percentage of regional neighbors with this electoral system at the time the conflict was resolved using a two-stage least squares regression (IV-2SLS). This step ensures that the selection of closed-list is exogenous to inherited governance quality.

Second, twenty-two of the cases in our data set resumed conflict prior to the five-year threshold. For these cases, poor governance may result from the devastation of war and may not be related to the type of power sharing in a direct way. If closed-list PR is related to peace duration through an alternative channel than good governance, this might lead to an artificially high correlation between the electoral system and indicators of governance, even within the IV-2SLS framework. Unfortunately, we have too few observations to drop these cases. As a second best solution, we retain the control variables that have been shown to lead to civil war (mountainous terrain, lootable goods, and ethnic fractionalization) to imperfectly hold constant the propensity to resume conflict. Thus, control variables remain roughly the same as in the survival models above.¹⁶

We begin with the three variables drawn from the World Bank's governance index created by Kauffman, Kray, and Mastruzzi (KKM; 2009). Government Effectiveness is used as a proxy for the quality of the bureaucracy (see Kurtz and Schrank 2007b), while Regulatory Quality and Control of Corruption are used to track property rights protection. KKM use a scaling procedure to combine the views of a large number of enterprise, citizen, and expert survey respondents in industrial and developing countries. The individual data sources underlying the aggregate indicators are drawn from a diverse variety of survey institutes, think tanks, nongovernmental organizations, and international

organizations.¹⁷ We focus on three that are most relevant to our theory of the role played by power sharing institutions:

- *Government effectiveness* captures the perceptions of the quality of public service delivery, the quality and efficiency of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. Across the entire sample of countries measured, scores range from -2.5 to 2.5. Scores among postconflict countries are generally clustered in the lower portion of the distribution. Of our fifty cases, scores range from -1.89 (Congo) to 0.86 (Malaysia), five years after the end of the conflict.¹⁸
- *Control of corruption* includes perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests (KKM 2009, 6). This variable is meant to serve as a tracer of the property rights mode of governance discussed above. Once again, scores range from -2.5 to 2.5, but our cases are clustered in the bottom portion of the distribution, ranging from -1.73 (Liberia) to 0.59 (South Africa), five years after the conflict.¹⁹
- *Regulatory quality* tracks the level of legal protection provided to citizens but also measures the burden that compliance with regulations imposes on businesses and individuals. The overall scale for this variable is -3 to 3.4, but our data range from -2.95 (Iraq) to .68 (Malaysia).
- The KKM indicators have been criticized for relying too heavily on survey data, especially business surveys, which are often prone to perception biases and halo effects, in which businesses reward good economic performance with higher survey scores, regardless of underlying governance quality (Kurtz and Schrank 2007a). Moreover, anchoring bias affects perceptions, as it is not always clear that respondents understand key governance concepts in exactly the same way (King et al. 2003).

To ensure that our analysis is not affected by such concerns and to capture additional conceptualizations of governance, we move beyond the World Bank's perception data and focus on several hard measures of government performance. Drawing upon the World Development Indicators database, we use two indicators of public service delivery in terms of infrastructure and human capital development, five years after the war:

- *Energy consumption* is used to measure the state's ability to develop an energy grid that allows its population access to energy for cooking, heating and cooling, and other basic household activities. Among our sample, five years after the conflict, consumption varied from 17 KW in Cambodia to 4,521 KW per capita in South Africa.²⁰

- *Literacy rates* are a common proxy for the quality of public education and have relatively high coverage across the states in our data set. They range from below 40 percent in sub-Saharan Africa (Ethiopia, Sierra Leone, and Chad) to close to 100 percent in the former Soviet Union and Eastern Europe (Tajikistan, Azerbaijan, and Croatia).
- *The percentage of roads paved with asphalt* ranges from less than 1 percent in Liberia in 2003 to 95 percent in Lebanon in 1989.

These three hard measures are useful proxies but are outcome variables and may conflate endowments and historical and sociocultural factors with good governance. We can address this problem somewhat with control variables and regional fixed effects but, to the extent that the underlying determinant of public service outcomes is unobserved and correlated with political institutions, it may bias our findings.

To avoid conflating governance with other determinants of public service delivery, we need a measure of how governments prioritize their activities. The best measure of government priorities is budget data, as it gives a lucid picture of the hierarchy of government budget goals. We focus on two measures.

- *Health expenditures as a percentage of GDP* proxies for a government's commitment to invest in the health of its citizenry.

Military expenditures as a percentage of GDP could indicate interest in public safety, but can also have negative connotations. Postconflict governments that spend disproportionately on their military may be preparing for the next conflict and dismantling the power-sharing regime.

Expenditures may be a function of state capacity. States can only expend resources on public service delivery if they have the ability to collect revenue in the first place, and states with low bureaucratic capacity will find it difficult to raise resources to spend on their populations. To measure government revenue collection capacity, we follow the literature on taxation and state capacity using

- *Direct taxes* (from income and corporate taxes as a percentage of total tax revenue; Moore 2004) as a measure of government capacity. Data range from a low of 3 percent in Tajikistan and Bosnia after their conflicts to 57 percent in South Africa.

Results

The results of the governance analysis are displayed in Table 4. The robustness of closed-list representation on postconflict governance is striking. On five of the nine different dependent variables, the exogenous selection of closed-list representation has a significant effect in the hypothesized direction that is robust to the inclusion of structural control variables and determinants of resumed conflict.²¹

Having a closed-list system, as opposed to other modes of power sharing, improves perceptions of government effectiveness by over 0.5 points on a 5-point scale, quality of regulation by 1.7 points, control of corruption by 0.7 points, literacy rates by 30 percent, and government spending on health by 2 percent. While not statistically significant, closed-list PR also demonstrates the hypothesized sign on three other indicators of governance. It is associated with higher electricity consumption, lower military spending, and better state capacity to collect income taxes. Only one of the measures shows an incorrectly predicted effect. Mysteriously, states with closed-list PR have worse road coverage, although this effect is not significantly different from zero. In short, there is evidence that closed-list PR undergirds greater state capacity and public goods provision, which satisfy the welfare needs of a broader swathe of the population.²² This finding helps explain why resumed civil war is less likely under such regimes.

Unfortunately, this analysis is limited by missing data, a common issue when studying postconflict societies that suffer major damage to their capacity for data collection, if they had such capacity to begin with. None of the governance outcomes under observation include all fifty cases of conflicts. Nevertheless, the strength of the results over the myriad of measures we study, despite different samples sizes, gives us confidence that our findings will survive analysis with a more complete data set.

The Impact of Governance on Peace Duration

The previous analysis demonstrates that the exogenous selection of closed-list PR is positively correlated with the duration of peace after a civil war. Next, we show that the use of closed-list is also positively associated with the quality of governance, as measured by public goods provision and state revenue collection capacity. We have yet to demonstrate, however, that good governance is an intermediate variable linking closed-list PR and peace duration. In other words, we need to demonstrate that the main reason that closed-list PR reduces the probability of conflict resumption is because its implementation leads to better public goods provision.

To do this, we rerun our survival models, but this time controlling for the measures of governance that were positively associated with the use of closed-list electoral systems. We replicate the two-stage survival model employed in Table 3 (model 6), where we used exogenously predicted closed-list PR, to sidestep the possibility that governance and closed-list PR are correlated simply because they both are caused by a common underlying factor. We perform this exercise in Table 6.

Model 1 begins by replicating the two-stage survival model on the set of observations for which we have governance data and a complete set of control variables. Once again, closed-list PR is strongly associated with less risk of resumed civil war, with a Hazard Ratio of 0.25. Next, we run six pairs of models using the governance factors that were correlated with closed-list PR in Table 5. The first model in the pair substitutes the governance variable for closed-list PR in the survival specification. The second model adds controls for closed-list PR as well.

Table 3. Two-Stage Model of Closed-List Selection and Regime Survival (Probit and Weibull Regression Model Estimates)

Independent variable	Restricted two-stage model			Fully specified two-stage model		
	1st Stage (1)	2nd Stage A (2)	2nd Stage B (3)	1st Stage (4)	2nd Stage A (5)	2nd Stage B (6)
Proportion of closed-list in region	0.014*** (0.006)			0.023*** (0.008)		
Closed-list proportional rep.		0.054* (0.085)	0.536 (0.280)		0.004*** (0.008)	0.218* (0.185)
Total power-sharing arrangements	0.066 (0.073)	0.537*** (0.148)	0.551*** (0.150)	0.056 (0.112)	0.215*** (0.099)	0.323*** (0.136)
Previous regime type	-0.006 (0.172)	0.623 (0.319)	0.760 (0.374)	-0.226 (0.248)	0.087* (0.115)	0.453 (0.431)
Third-party enforcer	-0.007 (0.166)	0.395* (0.193)	0.425* (0.205)	-0.121 (0.256)	0.114*** (0.113)	0.166*** (0.145)
Conflict deaths (ln)	-0.063 (0.059)	1.128 (0.188)	1.200 (0.193)	0.092 (0.134)	9.807*** (7.217)	7.450*** (4.604)
Ethnic war	-0.120 (0.107)	1.888 (0.840)	2.494*** (0.991)	-0.128 (0.125)	1.702 (1.031)	2.720** (1.345)
Mountainous terrain	-0.003 (0.003)	1.002 (0.009)	1.006 (0.009)	0.003 (0.004)	1.024 (0.019)	1.005 (0.014)
Lootable goods	-0.077 (0.214)	1.703 (1.238)	2.621 (1.783)	0.110 (0.223)	0.379 (0.379)	0.580 (0.576)
Fractionalization				-0.000 (0.154)	0.343 (0.227)	0.292* (0.216)
Presettlement factions				0.118 (0.449)	1.459 (3.092)	0.299 (0.489)
GDP per capita (ln)				0.143 (0.166)	1.381 (0.924)	0.682 (0.354)
Population (ln)				0.015 (0.099)	0.717 (0.325)	0.693 (0.269)
Constant		0.091 (0.162)	0.013*** (0.017)		11.459 (61.191)	156.353 (781.614)
ρ		0.810 (0.137)	0.807 (0.138)		1.095 (0.226)	0.996 (0.209)
Correctly predicted usage	35/53			28/41		
Pseudo R^2	0.186			0.338		
χ^2	12.06	24.03	21.42	16.06	44.39	36.46
Prob > χ^2	0.1486	0.00227	0.00610	0.0031	1.31e-05	0.000273
N	53	53	-64.48	41	41	-39.85
Log likelihood	-29.84	-63.18	-63.57	-18.81	-35.89	-37.90

Months at risk	6985	6985	5280	5280
Cases of failure	25	25	18	18
Kleinberg–Paap weak identification	7.483	4.210		
Kleinberg–Paap under identification	5.469	5.996		
Prob > χ^2	0.0194	0.0143		

Note: Table 3 employs a two-stage approach to address endogeneity in the selection of closed-list PR. The analysis is divided into two specifications. The “Restricted Analysis” employs the full set of fifty-three observations, but restricts control variables to those with full coverage. The “Unrestricted Analysis” uses a fully specified set of control variables but drops observations with incomplete data. Models 1 and 4 result from a probit model of closed-list PR selection using the proportion of regional neighbors with closed-list PR at the end of the conflict as an instrument. Marginal probabilities are displayed with robust standard errors in parentheses. Models 2 and 5 present the hazard ratios from a second-stage model employing the predicted probability of closed-list selection as the key causal variable. Models 3 and 6 rerun that analysis, but substitute the predicted probability for a dichotomous variable where 1 equals higher than .5 probability of selection and 0 equals less than 0.5. All second-stage models display bootstrapped standard errors in parentheses. Hazard ratio < 1: Contribution to regime survival; > 1: Contribution to regime failure. In implies natural log. Weak and under identification tests are displayed at the bottom of the table. While the instrument meets the exclusion criterion, underidentification is significant and could bias results positively.

* $p < .01$. ** $p < .05$. * $p < .1$.

Table 4. Impact of Power-Sharing Institutions on Quality of Governance

Dependent variables	World Bank perceptions			Public goods delivery			Expenditures/revenue		
	Effectiveness (1)	Regulation (2)	Corruption (3)	Power (4)	Literacy (5)	Paved roads (6)	Health/GDP (7)	Mil/GDP (8)	Income tax (9)
Independent variables									
Closed-list proportional rep.	0.579* (0.300)	1.709*** (0.589)	0.746* (0.409)	0.943 (0.810)	29.677*** (11.412)	-17.452 (15.422)	2.110* (1.184)	-7.012 (5.371)	-3.688 (9.260)
Third-party enforcer	0.149 (0.177)	0.637 (0.443)	0.280 (0.207)	-0.618 (0.613)	6.766 (10.106)	-16.826 (11.285)	1.312* (0.776)	-3.562 (3.992)	-8.699 (5.965)
Previous regime type	0.367* (0.188)	0.685* (0.352)	0.320 (0.292)	0.502 (0.615)	12.851 (9.053)	15.676 (11.227)	2.160*** (0.892)	-1.349 (3.298)	-3.693 (6.128)
Lootable goods	-0.219 (0.182)	0.331 (0.358)	0.088 (0.217)	-1.226 (0.766)	-9.514 (11.074)	-32.286*** (9.597)	-0.388 (0.831)	-3.663 (4.981)	-4.582 (5.644)
Conflict deaths (ln)	-0.306*** (0.082)	-0.311* (0.173)	-0.281*** (0.098)	-0.084 (0.328)	4.570 (4.700)	11.673*** (5.441)	-0.068 (0.324)	3.332 (2.148)	-3.387 (3.285)
Fractionalization	-0.250 (0.344)	-0.664 (0.588)	0.223 (0.392)	-0.383 (1.203)	-32.437*** (14.210)	-53.424*** (17.235)	-1.324 (1.421)	-2.536 (3.658)	21.916*** (9.837)
Population (ln)	0.142*** (0.069)	0.271* (0.158)	0.139* (0.084)	-0.432 (0.298)	-4.811 (4.524)	-17.551*** (4.833)	-0.467 (0.290)	-1.568 (1.327)	1.957 (2.533)
Mountainous terrain	-0.002 (0.003)	-0.002 (0.005)	0.000 (0.003)	-0.000 (0.013)	-0.044 (0.135)	-0.163 (0.188)	-0.004 (0.012)	0.094* (0.049)	-0.191*** (0.071)
Age of settlement	0.026*** (0.007)	0.038*** (0.014)	0.026*** (0.010)	-0.017 (0.018)	0.307 (0.316)	-0.105 (0.393)	0.051* (0.028)	0.028 (0.113)	0.044 (0.174)
Constant	-2.952*** (1.190)	-5.612*** (2.456)	-3.504*** (1.436)	10.036*** (3.509)	85.624 (57.077)	225.263*** (60.526)	4.751 (4.382)	30.084 (18.878)	14.607 (27.295)
Observations	41	41	39	29	34	35	40	26	27
R ²	0.594	-0.049	0.137	0.377	0.180	0.593	0.315	0.390	0.483
RMSE	7.645	7.645	5.812	6.419	5.432	8.177	10.23	5.028	3.542
Kleinberg-Paap weak identification	0.215	0.215	0.175	0.335	0.194	0.277	0.293	0.226	0.293
Kleinberg-Paap under identification	6.208	6.208	5.045	5.541	5.256	5.527	7.616	4.422	3.814
Prob > χ^2	0.0127	0.0127	0.0247	0.0186	0.0219	0.0187	0.00578	0.0355	0.0508

Note: All models result from instrumental variable, two-stage least squares regression (IV-2SLS), instrumenting by the proportion of countries in the region with closed-list PR at the end of the conflict. Robust standard errors, clustered at the regional level are shown in parentheses. The results show that exogenously predicted closed-list PR is positively associated with governance in five of the nine models. In implies a natural log. RMSE= Root Mean Squared Error.

***p < .01. **p < .05. *p < .1.

Table 5. Impact of Closed-List PR after Government Controls (Weibull Regression Model Estimates)

Dependent Variables:	Baseline			Effectiveness		Regulation		Corruption		Literacy		Health/GDP		Income Tax	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)		
Predicted Closed-List PR	0.254* (0.191)		0.318 (0.261)		0.427 (0.354)		0.393 (0.350)		0.276 (0.254)		0.307 (0.245)		0.152* (0.166)		
Governance Indicator		0.339* (0.210)	0.462 (0.284)	0.421** (0.152)	0.514* (0.210)	0.340* (0.202)	0.460 (0.293)	0.978 (0.018)	0.992 (0.019)	0.730* (0.123)	0.784 (0.128)	0.990 (0.065)	1.013 (0.068)		
Total power-sharing arrangements		0.320*** (0.132)	0.324*** (0.134)	0.304*** (0.133)	0.324*** (0.139)	0.318** (0.147)	0.348** (0.163)	0.405** (0.186)	0.420** (0.184)	0.251*** (0.111)	0.305*** (0.131)	0.217** (0.175)	0.247** (0.179)		
Previous regime type	0.352 (0.296)	0.823 (0.654)	0.556 (0.493)	0.817 (0.675)	0.637 (0.583)	0.752 (0.597)	0.610 (0.540)	0.393 (0.332)	0.347 (0.314)	0.859 (0.708)	0.656 (0.582)	0.456 (0.515)	0.481 (0.568)		
Third party enforcer	0.439 (0.312)	0.317 (0.225)	0.405 (0.289)	0.386 (0.267)	0.475 (0.338)	0.281 (0.219)	0.286 (0.228)	0.630 (0.494)	0.507 (0.394)	0.430 (0.301)	0.511 (0.351)	0.155 (0.234)	0.212 (0.250)		
Conflict deaths (ln)	1.230 (0.269)	1.219 (0.300)	1.170 (0.284)	1.236 (0.306)	1.200 (0.292)	1.307 (0.314)	1.240 (0.297)	1.345 (0.336)	1.256 (0.310)	1.436 (0.358)	1.303 (0.322)	3.517** (2.588)	3.431 (3.063)		
Ethnic war	2.482* (1.214)	2.310* (1.075)	1.971 (1.025)	2.454* (1.206)	2.256 (1.162)	2.352* (1.128)	1.957 (1.042)	2.732** (1.378)	2.123 (1.178)	3.050** (1.370)	2.356* (1.158)	2.478 (1.799)	1.626 (1.387)		
Mountainous terrain	1.020 (0.014)	1.010 (0.013)	1.013 (0.014)	1.011 (0.014)	1.012 (0.014)	1.007 (0.016)	1.009 (0.016)	1.027* (0.015)	1.026* (0.015)	1.016 (0.013)	1.016 (0.014)	1.011 (0.026)	1.008 (0.029)		
Lootable goods	1.520 (1.306)	0.967 (0.877)	0.928 (0.891)	0.912 (0.827)	0.877 (0.838)	1.801 (1.653)	1.986 (1.917)	1.707 (2.416)	1.627 (2.324)	0.790 (0.720)	0.773 (0.712)	2.588 (4.612)	1.516 (2.618)		
Fractionalization	1.375 (1.974)	2.171 (2.827)	1.407 (1.938)	3.380 (4.467)	2.211 (3.116)	2.202 (3.039)	1.209 (1.832)	0.465 (0.875)	0.590 (1.083)	5.683 (8.097)	3.218 (4.805)	0.884 (2.438)	0.358 (1.201)		
Presettlement	0.399 (0.253)	0.712 (0.465)	0.537 (0.357)	0.756 (0.514)	0.603 (0.423)	0.000 (0.001)	0.000 (0.001)	0.000 (0.000)	0.000 (0.000)	0.681 (0.612)	0.681 (0.495)	0.000 (0.000)	0.000 (0.002)		

(continued)

Table 5. (continued)

Dependent Variables:	Baseline	Effectiveness	Regulation	Corruption	Literacy	Health/GDP	Income Tax						
Independent Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Constant	0.291 (0.701)	0.013* (0.033)	0.076 (0.204)	0.007 ^{***} (0.017)	0.026 (0.073)	8.362e+10 (5.048e+14)	1.553e+11 (9.315e+14)	1.328e+13 (5.594e+16)	1.690e+12 (5.381e+15)	0.030 (0.072)	0.092 (0.228)	1.981e+12 (9.026e+15)	2.099e+11 (1.250e+15)
ρ	0.873 (0.177)	0.876 (0.176)	0.900 (0.181)	0.890 (0.179)	0.908 (0.183)	0.948 (0.200)	0.978 (0.209)	0.809 (0.191)	0.869 (0.207)	0.870 (0.183)	0.906 (0.192)	0.862 (0.231)	0.982 (0.278)
Conflicts	42	42	42	42	42	40	40	34	34	39	39	26	26
Months at risk	5470	5470	5470	5470	5470	5455	5455	5112	5112	5317	5317	4644	4644
Cases of failure	18	18	18	18	18	16	16	14	14	17	17	10	10
χ^2	28.41	28.13	30.17	29.83	30.92	29.92	31.04	18.79	20.72	26.06	28.40	21.94	25.40
Prob > χ^2	0.00155	0.00172	0.00149	0.000912	0.00113	0.000883	0.00109	0.0430	0.0363	0.00366	0.00281	0.0154	0.00797
Log likelihood	-43.57	-43.71	-42.68	-42.85	-42.31	-36.67	-36.11	-35.93	-34.96	-42.24	-41.07	-22.58	-20.85
Joint-significance test			4.55		6.15	4.28			3.11		5.41		3.02
Prob > χ^2			0.1029		0.0463	0.1176			0.2144		0.067		0.2211

Note: This table replicates the two-stage models, but substitutes the measures of governance that were found to be positively associated with closed-list PR in Table 4. Model 1 ensures that closed-list PR continues to have a statistically significant hazard ratio that is below 1 in the set of observations for which controls variables and governance data are sufficient. Next, follow six pairs of models using the governance factors that were correlated with closed-list PR in Table 4. The first model in the pair runs substitutes the governance variable for closed-list PR in the survival specification. The second model controls for closed-list PR in the analysis. In four of the six cases, we observe a similar pattern. The governance indicator is less than one and statistically significant before controlling for closed-list PR. After controlling for closed-list PR, however, the variable becomes insignificant. Hazard ratio < 1: Contribution to regime survival; > 1: Contribution to regime failure. In implies natural log.

***p < .01. **p < .05. *p < .1.

In four of the six cases, we observe a similar pattern. The governance indicator is less than one and statistically significant before controlling for closed-list PR. After controlling for closed-list PR, however, the variable becomes insignificant and closed-list PR does not remain significant in its own right. The other two governance measures (literacy and state capacity) are not significantly associated with peace duration even in the absence of closed-list PR. Tests of joint significance, presented in the bottom row of Table 6, confirm this finding. Exogenously predicted closed-list PR and the four governance measures are jointly significant, but not individually significant when used together in the same model. We can see this graphically in Figure 3. The first panel depicts the restricted models without controlling for closed-list PR. Effectiveness, regulation, corruption control, and health expenditures all have 90 percent confidence intervals that do not cross over the unit one benchmark, indicating that they are positively associated with peace duration. In the second panel, after controlling for closed-list PR, we see that all confidence intervals cross the unit one line, so we cannot tell whether the variable has a positive or negative impact on conflict resumption. The hazard ratio of exogenously predicted closed-list PR (from model 1) is also displayed as a benchmark. It demonstrates the same pattern—significant when not controlling for governance, but insignificant in the unrestricted model.

These four cases are classic representations of multicollinearity. Exogenously predicted usage of closed-list PR and governance are highly correlated; as a result, it is too difficult to isolate the independent effects for the variables when both are used in the same model. *This is exactly the relationship that our theory predicts.* The impact of closed-PR operates primarily through governance. Thus, when we control for governance, we do not observe a separate effect of closed-list PR on civil war resumption.

Because we use a two-stage process and the governance data are taken five years after the peace settlement, we can be reasonably confident that the selection of closed-list is exogenous to governance and that the causal process does not run in the opposite direction, from good governance, especially better public service provision and restrictions on government avarice, to closed-list selection.²³

Conclusion

In this article, we address two questions: what components of power sharing are more or less associated with the duration of peace and what explains the apparent relationship between electoral system design and stability? The first question revisits an established research question but employs a more nuanced approach to political power-sharing arrangements. Our analyses strongly support the claim that some political institutions—notably, closed-list PR—are associated with longer-lived episodes of peace. By dispersing power and encouraging greater party institutionalization, this electoral system may encourage the formation of more durable political coalitions in government, compelling one time rivals to cooperate and develop stakes in the postwar system. Indeed, by providing checks on executive power,

closed-list PR may have similar effects as the institutions prescribed by proponents of power-dividing solutions, notably the creation of multiple majorities and the diffusion of power in the system.

Our second question opens up a new line of research on power sharing by assessing how governance, defined in terms of government effectiveness, public goods provision, and state capacity, mediates the relationship between power-sharing institutions and postconflict stability. Closed-list PR is associated with improved governance on a wide array of measures and our analyses indicate that governance is a key mechanism linking institutional design and the duration of peace: countries that experience relative improvements in governance are likely to have more durable postconflict peace agreements while closed-list PR is associated with improved governance. Good governance may both suppress potential motivations for and reduce the feasibility of civil conflict. At a minimum, when citizens believe that their governments deliver basic services more effectively and respect the rule of law, they are less likely to favor a return to arms.

Multiple factors explain complex phenomena such as the durability of peace agreements and “good governance.” Although we recognize that one-size-fits-all solutions do not exist, our research suggests that closed-list PR electoral systems can play an important role in promoting these outcomes in postconflict settings. Focusing on institutions that help quell violence is a noble goal, but long-term peace and stability for the citizens of war-torn countries requires the selection of institutions that encourage broad-based coalitions and good governance. Though it appears mundane, the choice of electoral system appears to have robust and important implications for governance and therefore the welfare of citizens in war-ravaged societies.

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Authors' Note

Replication data are available at the *Journal of Conflict Resolution* website and at Dataverse (<http://dvn.iq.harvard.edu/dvn/dv/emalesky/faces/study/StudyPage.xhtml?globalId=hdl:1902.1/15864&versionNumber=-1&tab=files>).

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Notes

1. As we discuss later, conceptualizations of governance vary widely. To capture diverse interpretations, our analyses include multiple measures of government effectiveness, public goods provision, budgetary priorities, and tax revenue collection.
2. The rule of law is implicit in most definitions of democracy (Moore 2004; Schmitter and Karl 1991) and democratic rule may be associated with improved material conditions for a broader segment of the population (Heller 2000; Sen 1999). Nonetheless, the rule of law and material quality of life are distinct from democracy as a regime type and therefore should be analyzed separately (Rothstein 2011).
3. In contrast to power-sharing arrangements, power-dividing solutions call for institutions to promote individual, universal civil liberties, the separation of powers to create multiple majorities, and in-built checks and balances to limit the potential ill effects of majority rule (Roeder 2005a, 52).
4. Norris (2008) is a partial exception because her analyses include measures of electoral system type. Other key components of political power-sharing such as shared executives and minority veto guarantees, however, are not included as separate measures.
5. Bohrer (1997, cited in Reilly 2005, 169) suggests that shared executives are the only feature of political power-sharing present in the most stable new democracies.
6. We expect that the effects of legislative quotas, or the allocation of reserve seats for members of competing ethnic, ideological, or party-based groups in the legislative branch, are less clear-cut. To the extent that they guarantee a stake in the political system and provide a check on executive power, reserve seats may promote postconflict stability and even provide an incentive for politicians from diverse groups to cooperate on shared goals. Alternatively, legislative quotas may have negative effects because smooth governance and the stability of the polity depend on the willingness of different groups to articulate and act on mutual objectives. At a minimum, the effects of reserve seats depend on the structure of the legislative body and the proportion of seats distributed on a quota basis.
7. Closed PR (as well as large magnitude districts and low electoral thresholds) are key components of Lijphart's prescriptions for consociational democracy (Lijphart 1990).
8. As Reilly (2005) argues, the empirical record suggests that the most stable ethnically divided democracies do *not* tend to have PR systems, which proponents of the approach largely advocate. Similarly, empirical research suggests that survival rates among new democracies are higher in countries with less proportional systems (Bohrer 1997, cited in Reilly 2005, 169). Elkins and Sides (2007) also cast doubt on the benefits of proportional electoral systems in multiethnic societies, but they focus on the identification of individuals with the state (i.e., "Are you proud to be Iraqi?"), rather than with the more immediate outcomes of the electoral systems, such as governance.
9. Data on PR are drawn from the World Bank's Database of Political Institutions (DPI), while the other measures were coded through our own reading of the peace settlements in each of the conflicts. Coding justifications are available upon request and will be posted online upon publication of this article.

10. Only two cases (Chad in 1999 and Somalia in 2008) employ a single-use of power sharing without one of the three other general power-sharing arrangements.
11. See http://www.apsanet.org/content_29436.cfm. Summary statistics for all variables can be found in Web Appendix A.
12. Regions are shown in Figure 1.
13. Evidence for this can be found in the boxed portion of Web Appendix B. The exclusion criteria are actually based on the conditional correlation between the instrument and the error term in the second stage, so bivariate correlations only provide tentative insight.
14. Additional diagnostics reported at the bottom of Table 4 demonstrate that the equation is reasonably well identified. Nevertheless, the Kleiberg-Paap diagnostic of underidentification is relatively small and statistically significant. Underidentification can lead to bias in the second stage, so we should be cautious about relying on point predictions from the second-stage model.
15. Kauffman, Kray, and Mastruzzi's (2009) data are especially problematic because the World Bank did not start producing its annual governance index until 1995. For cases of conflict that ended before 1991, we take the first available year as our measure. To address this problem, we control for the age of the settlement in the regression analysis, as countries that stabilized earlier will have had a much longer time to improve their governance and public service delivery. Other data are not affected by this problem. As a further robustness test, we reran all models controlling for the level of governance in the state prior to the conflict. These models are presented in Web Appendix Fa (without additional covariates) and Web Appendix Fb (with a full set of covariates).
16. Summary statistics for the governance outcome variables are shown in Web Appendix 4.
17. For more information on the specific methodology employed, see <http://info.worldbank.org/governance/wgi/index.asp>.
18. This variable is derived from seventeen different sources, including surveys, such as the Global Competitiveness Survey, Freedom House, and the Afrobarometer, as well as smaller NGO studies, such as the Bertelsman Transformation Index. Together, the different data sources account for 738 data points (an average of over ten data sources per country), of which 60 percent of the final index is accounted for by the opinions of commercial business information providers (e.g., risk agencies) and 22 percent from public sector organizations, such as the World Bank.
19. The Corruption index is constructed from 919 data points (eleven sources per country). Fifty-three percent of the weight of this index is provided by commercial information providers and 22 percent from public sources. Individual household surveys also play a significant role, accounting for 12 percent of the information used.
20. To make sure that energy consumption tracks public service delivery and not simply high consumption by rich users in the state, we checked the correlation of the variable with electrical outages. The two are significantly correlated at the .05 level. Unfortunately, outages do not have enough coverage to be useful for our analysis on their own.
21. We present only the fully specified regression to save space, but bivariate correlations are available in Web Appendix E.

22. Open-list PR has similar effects, but these are not as robustly significant or sizable as closed-list candidate selection.
23. To illustrate these findings more concretely, we include a brief case study of Croatia in Web Appendix G. The case of Croatia, which experienced two separate but related conflicts in the early 1990s, supports our arguments by showing how a gradual shift away from majoritarianism toward closed-list PR facilitated the rise of opposition parties and undercut the dominant, ultranationalist party, which was plagued by corruption and ineffective rule throughout the decade.

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Web Appendix

Web Appendix A: Summary Statistics for Key Variables

Web Appendix B: Bivariate Correlations of Variables Used in Survival Analysis

Web Appendix C: Sensitivity Analysis of Table 2

Table Ca: Sensitivity Analysis: Testing the Robustness of Closed-List PR and Regime Survival

Figure Cb: Impact of Power Sharing Type on Regime Survival

Web Appendix D: Descriptive Statistics on Governance Dependent Variables

Web Appendix E: Bivariate Correlations of Governance Variables

Web Appendix F: Replication of Table 4, Controlling for Additional Governance Measures

Table Fa: No Covariates

Table Fb: Full Set of Covariates (with the exception of fractionalization and population)

Web Appendix G: Case Study Selection and Analysis: Power-Sharing, Peace and Governance in Croatia^{24–27}

Figure Ga: Scatter Plot of Governance Quality and Peace Duration

Figure Gb: Scatter Plot of Governance Quality (Hard versus Soft)