Uncertainty, Cleavages and Ethnic Coalitions*

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Abstract

Why do ethnically diverse elites share power in government coalitions? I argue that uncertainty about their societal support makes ethnic leaders frequently form oversized coalitions when their group does not represent an overwhelming majority. This uncertainty stems from cross-cutting cleavage configurations, which enable coethnics to hold membership in multiple groups, and opens up the possibility of future defection to the opposition along shared identity markers. In response, elites prefer coalitions that internalize cross-cutting cleavages as they restrict defections to coalition partners and survive longer. To test these hypotheses, I collected new data on linguistic, religious, and racial intra-group divisions. Using conditional choice models on formation opportunities in 134 ethnically divided societies between 1946 and 2009 I find that, independent of institutional rules, ethnic elites frequently opt for oversized multi-ethnic coalitions that share as many ethnic markers as possible. These coalitions survive longer than more heterogeneous pacts.

KEYWORDS: coalition formation, coalition duration, cross-cutting cleavages, ethnic identity, power-sharing

Why do ethnically diverse elites share power in coalitions?[1] This is a central question for scholars who study the prevention and resolution of civil wars (Lijphart, 1977; Walter, 2002; Hartzell and Hoddie, 2007) and policy-makers concerned with violent conflicts in ethnically divided societies such as South Sudan and Iraq.[2] The composition of the ruling coalition also influences important outcomes such as economic growth (Bueno de Mesquita et al., 2003), authoritarian regime stability (Pepinsky, 2009), and patronage politics (Chandra, 2004). Studying the origins of ethnic power-sharing is of particular interest because conventional wisdom holds that it should be very difficult to accomplish. Students of ethnically divided societies conceptualize political elites and their coethnic supporters as rational actors who want to maximize their own share of power (e.g., Posner, 2005), or even subordinate members of other groups (Horowitz, 2000). In the absence of institutional rules such as guaranteed government inclusion, minimum-winning coalitions or even minority rule should predominate in ethnically divided societies due to ethnic outbidding (Horowitz, 1993; Rabushka and Shepsle, 2008). The resulting large-scale ethnic exclusion is a fertile breeding ground for violent conflicts (see Cederman, Gleditsch and Buhaug, 2013).

Yet despite an extensive literature that links so-called power-sharing institutions such as proportional representation (PR) or authoritarian parties to desirable outcomes including stability and economic growth (e.g., Norris, 2008; Gandhi, 2008), relatively little evidence exists that the same institutions affect the formation of multiethnic coalitions. In fact, Figure 1 shows no link between institutions and multiethnic coalitions.[3] The frequency of multiethnic coalitions in 2009 (grey bars) exceeds the frequency of single-group rule (black) in states without power-sharing institutions (left) while the pattern reverses in states with power-sharing institutions (right). The absence of multiethnic coalitions in many countries with power-sharing institutions calls into question the

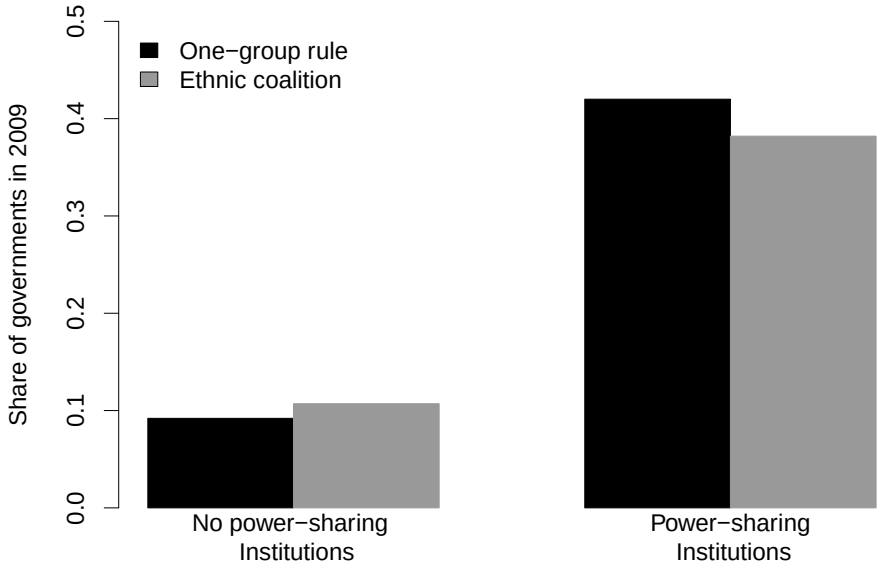
[1] I use the terms *coalition* and *power-sharing* to denote any national government, such as communist central committees, military juntas, or presidential cabinets, that consists of leaders of more than one ethnic group. In contrast, I refer to executive bodies dominated by representatives of one ethnic group as *monoethnic* or *single-group rule*.

[2] These are multiethnic states where politicians make ethnic claims in national politics.

[3] My operationalization of power-sharing institutions follows the literatures on conflict resolution (Horowitz, 2002; Lijphart, 2002) and authoritarian politics (Boix and Svolik, 2013, 307), and encompasses any of the following formal rules: PR, the alternative vote, or parliamentary government in democracies, and parliaments or parties in autocracies.

hypothesized effectiveness of these institutions. That elites form multiethnic coalitions where no power-sharing institutions exist demands a new explanation.

Figure 1: Power-sharing institutions in 2008 and ethnic regime type in 2009. Data on power-sharing institutions comes from Cheibub, Gandhi and Vreeland (2010) and Bormann and Golder (2013). Data on ethnic coalitions comes from the Ethnic Power Relations dataset by Cederman, Wimmer and Min (2010).



In this study, I argue that political elites frequently form *oversized* multiethnic coalitions due to incomplete information about their true support and the anticipation of impending challenges to their rule. Uncertainty over their own strength compels elites to ensure themselves against the risk of coups and rebellions, party splits and uncertain elections. This unertainty arises from intra-group conflict and defections (Kalyvas, 2008; McLauchlin and Pearlman, 2012). It is particularly severe when cross-cutting cleavages endow individuals with membership in multiple groups, for example when speakers of one language subscribe to the same religious attributes as members of another linguistic group (Posner, 2005; Chandra, 2012). Although individuals cannot just claim membership in any identity group, shifts in salient group boundaries can transform bare majorities into minorities. These realignments occur, for example, when a subset of ruling elites offers previously excluded group leaders a new pact along cross-cutting cleavages that gives the defectors greater influence in the new government coalition. In response, ruling elites generally seek *secure* majorities that survive defections by their supporters and prefer coalitions among groups with shared identity attributes.[4] Governments formed around cross-cutting cleavages feature a smaller number of internal divisions, and correspondingly fewer opportunities for defection to the opposi-

[4]I define secure majorities as (1) oversized coalitions that exceed minimum-winning size, and

tion. Therefore, more homogeneous government coalitions survive longer than those with greater internal diversity at equal size.

The primary contribution of this study is to develop and test a novel mechanism of ethnic coalition formation that emphasizes the interplay between ethnic elites and their supporters in the presence of uncertainty-increasing cross-cutting cleavages. My argument draws on recent insights into how the threat of violence creates self-enforcing power-sharing (Svolik, 2009, Roessler, 2016, Ch.10), and adds that the position of elites can weaken when supporters defect. My study also speaks to the debate between scholars who highlight how African leaders share power to deter rebellion (Rothchild and Foley, 1988; Francois, Rainer and Trebbi, 2015) and coups (Arriola, 2009), and researchers who argue that leaders in divided societies exclude other ethnically distinct elites in minority or minimum-winning coalitions (Horowitz, 2000; Rabushka and Shepsle, 2008; Roessler, 2011). Taking an intermediate position, I predict that, on average, leaders balance the costs of sharing power too widely with the risk of losing power in minority and minimum-winning governments by choosing oversized but not grand coalitions. Finally, building on existing work on ruling coalitions in Africa (Arriola, 2009; Francois, Rainer and Trebbi, 2015), I test the implications of my argument for ethnic government formation and duration on a global sample.

I evaluate my hypotheses with the help of conditional choice models and semi-parametric duration models on data of ethnic coalitions in 134 ethnically divided states from the Ethnic Power Sharing (EPR) dataset (Cederman, Wimmer and Min, 2010). To explore the central cleavages mechanism I introduce new data on ethnic groups' linguistic, religious, and racial segments that can cut across group boundaries. The statistical tests confirm my three main theoretical expectations. First, the results indicate that ethnic elites prefer oversized coalitions to minority, minimum-winning, and grand coalitions regardless of the institutional rules in operation. Monoethnic regimes are typical when the ruling group constitutes an overwhelming majority, and leaders mostly fear internal challenges predicted by the commitment logic rather than rebellion or supporter defections. Yet my sample includes as many oversized coalitions as monoethnic regimes, and secure majorities are thus by far the most likely type of government in ethnically divided so-

(2) monoethnic rule by a group that includes an overwhelming majority ($> 60\%$) of the population. A minimum-winning government requires links to at least 50% of the population and includes the minimum number of groups to pass this threshold.

cieties while minority rule is rare. Second, ethnic elites prefer homogeneous coalitions around cross-cutting cleavages as they anticipate shifts in salient identity markers and erect reinforcing cleavages to excluded groups. Third, coalition governments are generally unstable but those which internalize cross-cutting cleavages survive longer than those that do not. I conclude by illustrating the logic of my theory in a case study of Indonesia.

Theory

Why do ethnic elites share power in coalition governments? Almost every theory of coalition formation draws on Riker's (1967) formative work that captures the importance of the distribution of power in the "size principle," which predicts that utility-maximizing actors aim to form minimum-winning coalitions. Later studies explore other aspects of coalitions in democracies such as ideological congruence or proposal sequencing, but the relative power of actors remains central (e.g., Axelrod, 1970; Baron and Ferejohn, 1989). Although empirical work on coalition formation shows that minimum-winning governments are not ubiquitous, they constitute the modal outcome in post-war European democracies (Golder, Golder and Siegel, 2012, 436).

In the context of ethnically divided societies, three expectations prevail. First, leaders of majority groups generally rule alone (Horowitz, 2002, 20, Rabushka and Shepsle, 2008, 91). Second, minority rule prevails in the absence of majority groups and formal institutions that require or incentivize multiethnic coalitions (Horowitz, 2000, 433–434). Third, leaders only form coalitions where institutional rules impose winning thresholds that no group manages to surpass on its own (ibid., 369).[5] This view underwrites analyses that attribute political violence and other suboptimal social outcomes to the lack of cooperation between ethnically distinct groups (see, e.g., Alesina, Baqir and Easterly, 1999; Roessler, 2011; Esteban, Mayoral and Ray, 2012).

In reaching these conclusions, existing work on ethnic power-sharing usually builds on three central assumptions: (1) ethnic elites and their followers are utility-maximizing actors; (2) authoritarian regimes and some democracies lack commitment technologies, that is mechanisms that incentivize cooperation across ethnic boundaries; and (3) ethnic groups are homogeneous and unified actors.[6] While I share the first assumption of utility-maximizing actors (also see Posner, 2005;

[5]Table A1 in the online appendix summarizes numerous studies making these predictions.

[6]I follow Weber (1978) in defining ethnicity as a "putative belief in common ancestry" that builds on shared identity markers such as language, religion, caste, and race.

Chandra, 2012; Francois, Rainer and Trebbi, 2015), I relax the remaining two statements.

With respect to commitment technologies, I assume that violent revolutions and coups in dictatorships serve as substitutes for elections and partisan defections in democracies (also see Bueno de Mesquita et al., 2003; Svolik, 2009; Francois, Rainer and Trebbi, 2015).[7] Most scholars agree that democratic elections incentivize coalitions when elites lack a clear majority (Horowitz, 2002; Lijphart, 2002). However, in autocracies minority rule is the standard expectation (Horowitz, 1993, 21; Bueno de Mesquita et al., 2003, 70; Rabushka and Shepsle, 2008, 90-1).

Yet upon closer inspection, ethnic minority regimes such as Assad's Syria and Apartheid South Africa constitute the exception rather than the rule. Opposition majorities successfully overthrew minority regimes in Afghanistan, Ethiopia, Liberia, Uganda, South Africa, and Zimbabwe, and seceded from Pakistan and Sudan. On average, larger excluded groups are more likely to violently challenge the government directly than smaller groups (Buhaug, 2006) and "stronger rebels" are more likely to win civil wars (Cederman, Gleditsch and Buhaug, 2013, 196–198). Only if ethnic minority governments, such as Ladinos in Guatemala, balance their demographic inferiority with vast superiority in coercive capacity should they be able to defend their position in the long run. To stay in power, incumbents in authoritarian "hegemonial exchange regimes" in Sub-Saharan Africa share power in coalition governments "to reduce alienation and opposition" (Rothchild and Foley, 1988, 250). Even in dictatorships ethnic elites usually require the support from a majority of the population due to the threat of violence from excluded groups.[8]

Nevertheless rational elites benefit less from holding office the more spoils they need to share with their coalition partners. In contrast to theories focusing primarily on external and internal threats to incumbent elites' hold on power (Arriola, 2009; Roessler, 2011; Francois, Rainer and Trebbi, 2015), my theory does not predict that leaders simply include all potential rivals and form ever larger or grand coalitions. However, elites will not enjoy any spoils if they do not hold

[7]Conceptually, I distinguish autocracies and democracies by the method of leader selection and the degree to which elites in most democratic regimes are accountable to their supporters.

[8]Since violence as a commitment device entails higher personal risks than losing elections, it should deter potential defectors, and thus permit smaller coalitions than in democracies. Yet due to weaker accountability mechanisms, authoritarian elites capture relatively larger rewards from holding office than democratic politicians (Bueno de Mesquita et al., 2003, 22). With increasing rewards, rebellion risk rises, and so does the need for larger coalitions.

sufficient coercive capacity to obtain and defend their position. On average then, elites opt to first secure their position in majority governments and then exclude as many groups as possible.

Uncertainty and coalitions

So far I have argued that ethnic elites are most likely to form majority-sized coalitions no matter the institutional rules under which they operate. Yet even if ethnic leaders form majority governments, existing theoretical models of coalition formation predict that these coalitions should be minimum-winning (Riker, 1967). Therefore, a large number of ethnic groups should still be excluded from power-sharing pacts. Research on civil war alliances (Christia, 2012) and government formation in ethnically divided societies (Rabushka and Shepsle, 2008) supports the minimum-winning prediction. However, the conditions under which Riker's logic holds have received less attention in these analyses. As discussed above, one central assumption that undergirds the minimum-winning logic is that ethnic leaders obtain the full support from their coethnics and know how large this support is (Riker, 1967, 47). With this fixed and indivisible conceptualization of ethnic groups, existing research presupposes that ethnic elites have complete information over the distribution of power.

In contrast, I argue that ethnic groups are neither fixed nor indivisible units that support their political elites unconditionally. Although ethnicity is probably the most common political cleavage globally, the boundaries between ethnic groups are neither impenetrable nor unchangeable (Barth, 1969). Ethnic boundaries are least telling of political allegiance where identity markers allow membership in multiple sub-groups. In these contexts, individuals stress the one identity marker that guarantees their inclusion in the smallest possible winning coalition (Posner, 2005; van der Veen and Laitin, 2012). This implies that political elites who draw on the support of their coethnics to gain and stay in power operate in an environment of incomplete information: they only know the approximate distribution of power gauged from the headcount of different ethnic groups.

There is ample evidence that group loyalties in multiethnic states do not always prove stable. Recent research shows that ethnic voting becomes less likely when material benefits are neither distributed along ethnics lines nor excludable (Dunning and Nilekani, 2013; Ichino and Nathan, 2013). Brass (1968) describes the fluidity of coalitions in Indian state parliaments, and Ferree (2012) shows that governments in Sub-Saharan Africa that include ethnic groups with majority sub-segments frequently experience volatility. Once the ethnic distribution of power becomes uncertain, the minimum-winning logic no longer applies:

> *The uncertainty of the real world and the bargaining situation forces coalition members to aim at a subjectively estimated minimum-winning coalition rather than at an actual minimum. In decision-systems large enough so that participants do not know each other or what each is doing, the actual size and weight of a coalition may be in doubt, if only because of . . . participants' inability to estimate each other's weights* (Riker, 1967, 77–78).

Riker's quote captures the political competition in ethnically divided states where elites only have an approximate sense of the strength of their support from group members. This uncertainty stems from the lack of fixed group membership, which does not automatically translate into political allegiance. Even in states where ethnic tensions run high, group members hardly ever throw their support consistently behind just one ethnic organization (e.g., McLauchlin and Pearlman, 2012). As a consequence, political elites anticipate defections from their coethnic supporters and allies, and rely on *secure* majorities. In nation-states, where one ethnic group constitutes a vast majority and regime-threatening rebellions are unlikely, leaders form monoethnic governments that minimize the potential for splits and internal challenges. Where ethnic demography precludes such arrangements, uncertainty is higher and leaders seek oversized coalitions that can deter rebellions and survive defections.[9]

Ethnic cleavages' effect on coalition formation and duration

Cleavage reconfiguration constitutes one of the major sources of uncertainty for ethnic leaders regarding the strength of their support, and therefore proves crucial in forming governments and maintaining coalitions. Whereas earlier work on ethnicity and cleavages emphasized rigidity and lock-in of cleavages (Lijphart, 1977; Lipset and Rokkan, 1990 (1967)), more recent studies emphasize how individuals alternate between highlighting one identity attribute such as their language and another such as their religion (Chandra, 2004; Posner, 2005; van der Veen and Laitin, 2012). If enough individuals activate an alternative identity attribute, they reconfigure state-wide cleavage constellations (Chandra, 2012, 58–9). Then, a government majority on one ethnic dimension can turn into a minority along another cleavage (Chandra, 2005, 243). Unlike creating new identities or

[9] A different type of uncertainty lies at the heart of the commitment problem logic, which highlights that ethnically distinct coalition partners do not know each others' intentions and cannot trust each other to continue cooperation (Svolik, 2009; Roessler, 2011).

assimilating into another ethnic group, changing the salience of available ethnic attributes constitutes a 'legitimate' defection because it aligns with preexisting identity markers.[10] Where support realignment threatens the survival of the ruling coalition, elites will act on it.

Aware of alternative majorities, excluded elites stress those cleavages that cross-cut the border between the government coalition and the opposition in order to delegitimize their own exclusion. In Zambia, politicians who are likely to lose elections during multiparty competition between language groups, aim to activate latent tribal identities, which would upend linguistic majorities (Posner, 2005, 192-4). Similarly, excluded elites in India attempt to activate new caste cleavages to gain power Chandra (2004). This mechanism differs from ethnic outbidding, which pits moderates against hardliners from the same group and aims at the exclusion of coalition partners. In fact, outbidding frequently occurs locally in Zambia, where competition centers on one ethnic dimension, but not on the national level (Posner, 2005, 110). In contrast to competition over one cleavage, multi-dimensional contests induce moderation (Chandra, 2005, 241).

Anticipating the threat of cleavage realignment, ruling elites attempt to undercut the emergence of new salient ethnic dimensions through a variety of strategies including using state power to distribute patronage, discredit opposition politicians, and outright intimidate them. Yet even under authoritarian rule, excluded elites can counter government power by mobilizing supporters on university campuses and through religious networks (see Slater, 2009), or by relying on private-sector funding (Arriola, 2012). This is why ruling elites try to preclude supporter defection by forming coalitions around cross-cutting cleavages. For example, leaders of linguistic groups seek coalition partners with whom they share religious and racial markers, thus minimizing intra-coalition diversity.[11] Simultaneously, ruling elites exclude groups that differ on a large number of ethnic

[10]It is conceivable that non-ethnic allegiances trump ethnic ones (e.g., Dunning and Nilekani, 2013), but most scholars assume that ethnic cleavages dominate non-ethnic divisions in their ability to overcome collective action dilemmas (Horowitz, 2000). Yet Chandra (2005, 243) suggests that the distinction between ethnic and non-ethnic cleavages blurs in environments with numerous cross-cutting ethnic cleavages while Lupu and Riedl (2012, 1357) question the ability of ethnicity to structure political space when uncertainty is high.

[11]Expelling coalition partners decreases coalition diversity but also increases civil war risk. The mechanism of reducing internal diversity operates independent of coalition size by choosing coalition partners with cross-cutting rather than reinforcing cleavages.

dimensions, and thus reinforce the ethnic differences between the ruling coalition and the opposition. Where ethnic leaders succeed in forming coalitions that internalize cross-cutting cleavages, support realignment may shift the balance of power within the government but not to the opposition. However, when leaders fail to internalize cross-cutting cleavages, opposition elites emphasize dormant ethnic dimensions to shift away support from the ruling party or ambitious junior partners inside the coalition seek outside support to improve their relative power.

Uncertainty about the loyalty of their supporters also affects government duration. High uncertainty, often resulting from the expectation of instability, compels elites to form oversized coalitions to stabilize their own rule (Riker, 1967, 77-79; Slater and Simmons, 2012). Since elites form larger coalitions in anticipation of instability, these coalitions are characterized by shorter survival times than demographically dominant monoethnic regimes with few opportunities for defection. My argument adds that coalitions with fewer ethnic dimensions survive longer because supporters cannot defect as easily to the opposition.

I summarize my three central expectations in the following hypotheses:

H_1 : Ethnic elites are more likely to form secure majorities than minimum-winning coalitions, minority governments, and grand coalitions.

H_2 : Ethnic elites are more likely to form coalitions around cross-cutting cleavages with few ethnic dimensions than more heterogenous pacts.

H_3 : The more cleavages divide a government the shorter its duration.

Alternative explanations

The commitment problem logic constitutes an important rival explanation for ethnic coalition formation while also stressing the threat of violence as the main incentive for elites to overcome mutual suspicion (e.g., Svolik, 2009; Dal Bó and Powell, 2009; Boix and Svolik, 2013). However, these accounts primarily focus on the difficulties of elites to commit to future cooperation amongst each other and disregard the relations between elites and their supporters. Emphasizing coup risk in multiethnic coalitions, Roessler (2011) argues that the very tactics elites from one group employ to prevent coups, appear to be threatening to coalition partners from another group. To preempt their own exclusion, elites then expel their rivals from power, and should increasingly form monoethnic and minority governments but not oversized coalitions (cf. Rabushka and Shepsle, 2008).

While I do not negate the risk coups pose, I argue that elites usually form another oversized coalition after deposing an opponent rather than moving towards monoethnic rule. Similarly, Arriola (2009) and Roessler (2011, 325) describe diffusing power among many coalition partners as a coup-proofing strategy in Sub-Saharan Africa. Roessler (2016, Ch.10) also demonstrates that the commitment logic predicts stable power-sharing when the two largest groups in a country are equally powerful. Roessler's work then implies that oversized coalitions should be less likely in democracies, where coups are less of a risk, and should mostly involve equally sized partners. If, however, fear of cleavage reconfiguration drives elites, oversized coalitions should occur at similar rates in democracies and autocracies, and be more unstable than predicted by Roessler.

The common solution to the commitment problem are institutions that allow elites to credibly commit to power-sharing (e.g. Boix and Svolik, 2013). The capacity of state and non-state institutions, rather than their type, likely affects coalition formation and duration but the direction of this effect is not clear. Strong non-state organizations such as highly institutionalized party systems and communist organizations could enable opposition politicians to activate dormant cleavage dimensions, or harden active ethnic and non-ethnic identities, and thus reduce the likelihood of defections. Similarly, strong states have less of a need for oversized coalitions, yet also have the power to integrate many elites in large coalitions as argued by Slater (2010). More clearly, strong states should have more resources to withstand attempts of cleavage reconfiguration.

Another rival explanation highlights mutual cultural or policy preferences and trust as the main impetus for elites, or their supporters, to prefer certain coalition partners over others. One version of this argument points to greater cultural distance between racially distinct groups (Caselli and Coleman, 2013) or religious traditions (Huntington, 1996); another emphasizes that common identity markers imply shared policy preferences (Lieberman and McClendon, 2013). The cultural distance logic implies that multiethnic coalitions are less likely across specific dimensions – a claim I test below. Coalitions around shared identity markers may reduce policy differences and mistrust relative to coalitions separated by multiple ethnic dimensions. However, the policy and trust arguments still predict relatively small coalitions as each new member adds at least one more ethnic marker. In contrast, my theory predicts oversized coalitions around cross-cutting cleavages in anticipation of future defections and can thus account for supporter realignment detailed in studies from Africa (Posner, 2005; Ferree, 2010) and Asia (Chandra, 2004; Horowitz, 2013).[12]

[12]It is possible that supporters do not defect because cross-cutting cleavages in the ruling coali-

Research Design and Data

The analysis in this paper proceeds in three steps. The first two consist of quantitative analyses of the government formation hypotheses ($H_{1\&2}$) and the duration hypothesis (H_3) along with competing explanations for each outcome. The last step illustrates my argument and scope conditions with ethnic coalition dynamics in Indonesia. In what follows, I focus on the complex formation stage, which forms the basis of the duration analysis.

While there are different ways to model ethnic power-sharing I build on Martin and Stevenson (2001) and the literature on parliamentary government formation in using *conditional choice models*. This family of statistical estimators models the choice situation of elites in one country at a given point in time by comparing *all* potential government coalitions rather than only the observed outcome. Conditional logit models thus combine the rigour of fixed effects estimators with the ability to capture the exact bargaining situation of each state. Rather than estimating the binary decision of coalition government versus monoethnic rule (Reilly, 2005) or the share of the included population (Wimmer, 2013, Ch.5), the estimator enables me to capture the different choice environments in ethnic majority countries such as Turkey and fragmented polities such as Chad.

My unit of analysis is the formation opportunity that includes between three and over a million government choices depending on the number of groups in a state.[13] Conditional choice models estimate the likelihood of each alternative available to leaders at each formation opportunity. Although the number of choices varies, these models weigh each formation opportunity equally. A large number of choices in one state does not disproportionally influence the estimated coefficients relative to a formation opportunity in a different state with fewer choices since each formation opportunity only counts as one unit. Similarly, the estimator accounts for a changing number of relevant groups within states over time.

I draw my sample of formation opportunities from the Ethnic Power Relations (EPR) dataset (Cederman, Wimmer and Min, 2010; Cederman, Gleditsch and Buhaug, 2013), which codes po-

tion imply higher trust/policy agreement relative to more diverse coalitions.

[13] See Table A2 for an example. The number of coalition choices at a formation opportunity is $2^n - 1$, where n is the number of groups, as the empty coalition is excluded. Since the number of choices rises exponentially, a state like India with 20 relevant groups presents more than a million coalition opportunities compared with 3 in Trinidad and Tobago.

litically relevant ethnic groups in all states where leaders make claims on behalf of their groups, or where the state discriminates politically against any group.[14] Government coalitions are usually formed between political organizations that represent ethnic groups and EPR implicitly includes organizations. The EPR codebook notes that "[an] ethnic group is considered politically relevant if at least one political organization claims to represent it in national politics..." (Min, Cederman and Wimmer, 2008). While it would be preferable to have data on political organizations, existing datasets usually only include a much smaller number of groups or states. Moreover, some regimes included in this study legally ban all political organizations. For most military dictatorships, it would be impossible to collect organizational actor information.

I construct my dependent variable, the actual government choice, from information on the political access of group representatives to executive power. When EPR considers group representatives as included in the executive, I code the group as a participant in the actual government.[15] Token membership by ethnic elites that do not effectively represent a group does not qualify for an "inclusion" coding. Only if elites from at least two groups effectively represent their respective coethnics, does my data record power-sharing.

Drawing on its constructivist understanding of ethnicity, EPR traces the reconfiguration of ethnic group boundaries. In a number of states, ethnic groups split into smaller segments – Blacks in South Africa after the end of Apartheid – or merge into larger ones, for example, along territorial lines.[16] Ethnic groups gain or lose political relevance in national politics when elites start or cease to make claims on behalf of these groups. Similarly, the data capture changes in relative group sizes over time, for example, due to differential birth rates in Lebanon.

New formation opportunities arise under two sets of circumstances. First, the actual bargaining environment must change. This occurs whenever the EPR dataset records changes in group size, in the set of politically relevant ethnic groups, or in the power position of any group that does not affect coalition composition.[17] These events are comparable to new elections in the literature on

[14]Discrimination is usually negative as in Apartheid-South Africa.

[15]Monoethnic regimes consist of "dominant" or "monopoly" groups. Coalition governments feature "senior" and "junior partners" (Cederman, Wimmer and Min, 2010, 93 & 100-1).

[16]Horowitz (2002, 20) describes the ethnic polarization of political allegiances between northern and southern groups in many African states.

[17]This might include a relative change within the government coalition, one group moves from

parliamentary government formation. Second, novel formation opportunities also arise when the government composition changes without any apparent alteration to the overall bargaining environment. Such reconfigurations result either from government breakdown, in which case at least one group leaves the government, or from government expansion, when at least one group enters the coalition. This situation is comparable to government collapse after a vote of no confidence in the study of parliamentary government formation. I use these changes in the ethnic composition of the executive to measure the time in years until government failure in the duration analysis.

The data then include a new formation opportunity that comprises all possible combinations of ethnic groups, and identify the realized government.[18] Although governments constantly face the possibility of failure, and thus reconfiguration, the distribution of realized governments at the formation opportunities identified above does not differ much from the distribution of formation opportunities recorded each year (see Figure A3). However, my approach is computationally more feasible. Due to such limitations, my analysis already excludes Russia/the Soviet Union and China.[19] Yet my sample still features 4,795,033 potential coalitions across 473 formation opportunities in 134 ethnically divided states between 1946 and 2009.

My explanatory variables proxy power relations through the number of groups in a potential coalition, and four dummy variables that note whether the largest group in a state is included, whether elites form single-group majority governments, oversized or minimum-winning coalitions.[20] I follow common practise and use the population share of ethnic groups to code their relative power in the coalition (e.g., Francois, Rainer and Trebbi, 2015, 467). Theories of coalition formation generally attribute a formateur advantage to the largest ethnic group in a state, which is thus an important control variable (ibid.). Moreover, Riker's (1967) "size principle" suggests that elites prefer ruling with as few other groups as possible to maximize their own share of power

junior to senior partner status, or among excluded groups, when a previously discriminated group moves to powerless status.

[18]The online appendix provides an alternative strategy to identify formation opportunities based on changes in the institutional setup and leadership alternations that likely indicate a change in the bargaining environment. Analyses based on this sample do not alter the fundamental conclusions.

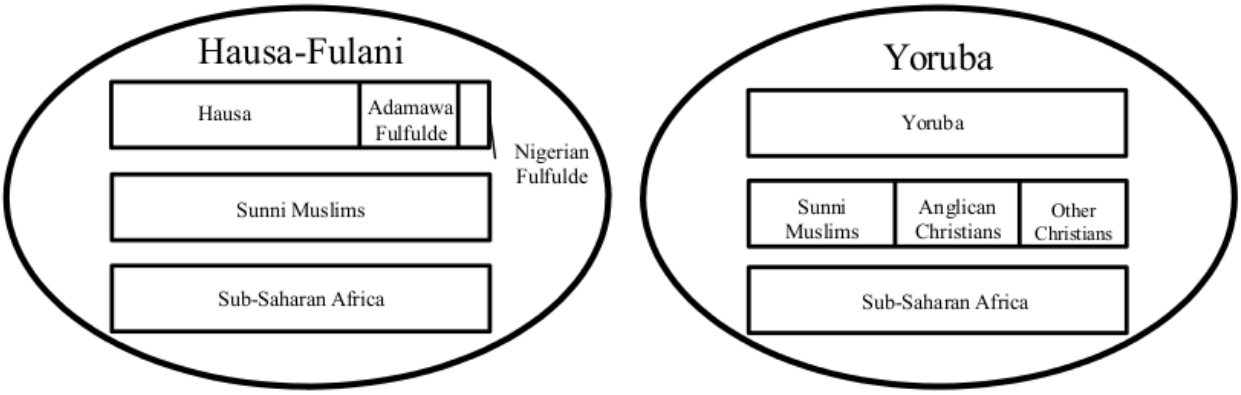
[19]The exponential growth in the number of combinations in countries with more than 40 groups translates into more than a trillion potential coalitions at each formation opportunity.

[20]Minority coalitions constitute the residual category.

and spoils. Finally, I control for path dependencies by adding a variable that measures the share of the population represented in the previous government, which drops initial formation opportunities and reduces the sample to 333 cases.

In order to measure cleavages for each potential government constellation, I collected new data on the linguistic, religious, and racial segments of each ethnic group in the EPR data.[21] As suggested by constructivist theories of ethnicity, individuals usually possess multiple identity attributes but not all of them are politically salient at the same time (Chandra, 2012). The politically relevant groups included in the EPR data usually differ from other groups on at least one but not necessarily on all ethnic dimensions. Using two ethnic groups from Nigeria as examples, Figure 2 shows that the data provide information on up to three segments per ethnic dimension. The Yoruba and Hausa-Fulani are primarily divided by language but members of both groups adhere to the Sunni Muslim faith, and they do not differ on the racial dimension.

Figure 2: Example of linguistic, religious, and racial subgroup segments for the Hausa-Fulani and Yoruba in Nigeria.



To assess the potential for members of one group to defect to elites who stress alternative identity attributes, I count the ethnic dimensions with at least one division between groups. In a potential coalition between the Haussa and Yoruba in Nigera, the variable would take the value '2', reflecting racial homogeneity but differences on the language and religious dimensions. The coalition is thus vulnerable to splits on the two latter ethnic dimensions, for example, if Christian Yoruba would align with other southern Christians or other Yoruba-speakers and exclude Hausa-Fulani and Yoruba Muslims. I also use another operationalization that counts the sum of all cleav-

[21] I derived most of the information from the Ethnologue catalog of languages by Lewis (2009) and the *Joshua Project: Unreached Peoples of the World* (2011) online database that codes the religious affiliation of Ethnologue groups. See the online appendix for more details.

ages by coalition. In the Hausa-Fulani and Yoruba case, the total cleavage count takes a value of '5', reflecting three linguistic cleavages and two religious divisions. The shared Sunni segment reduces the number of cleavages on the religious dimension relative to a similar coalition partner with a non-Sunni religious segment. Whereas the cleavage dimension variable provides the more conservative measure as it disregards shared sub-segments, the total cleavage count more accurately traces potential splits within groups.[22]

The duration sample only includes realized governments for each year in which the government holds office for a total of 6,390 government-years and 179 instances of changes in its ethnic composition. The analysis uses all explanatory variables from the formation stage except for lagged government membership. In addition, I control for rebellions targeted at overthrowing the government (Gleditsch et al., 2002), coups and leader age (Goemans, Gleditsch and Chiozza, 2009), as well as GDP and population variables (Gleditsch, 2002) that correlate strongly with instability (Hegre and Sambanis, 2006).[23] I employ Cox-proportional hazard models to estimate the impact of explanatory factors on the baseline hazard of coalition failure (Box-Steffensmeier and Jones, 2004).[24]

Analysis

Before turning to multivariate choice models of coalition formation and duration, I explore the global patterns of ethnic coalitions descriptively. Between 1946 and 2009, ethnic leaders formed coalitions in more than half of all formation opportunities (246). Among coalition governments, elites opted for Lijphart's grand coalition that contains representatives of all relevant ethnic groups 76 times. The Central African Republic features the smallest ethnic coalition between the Yakoma and Mbaka with just 9% of the country's population.

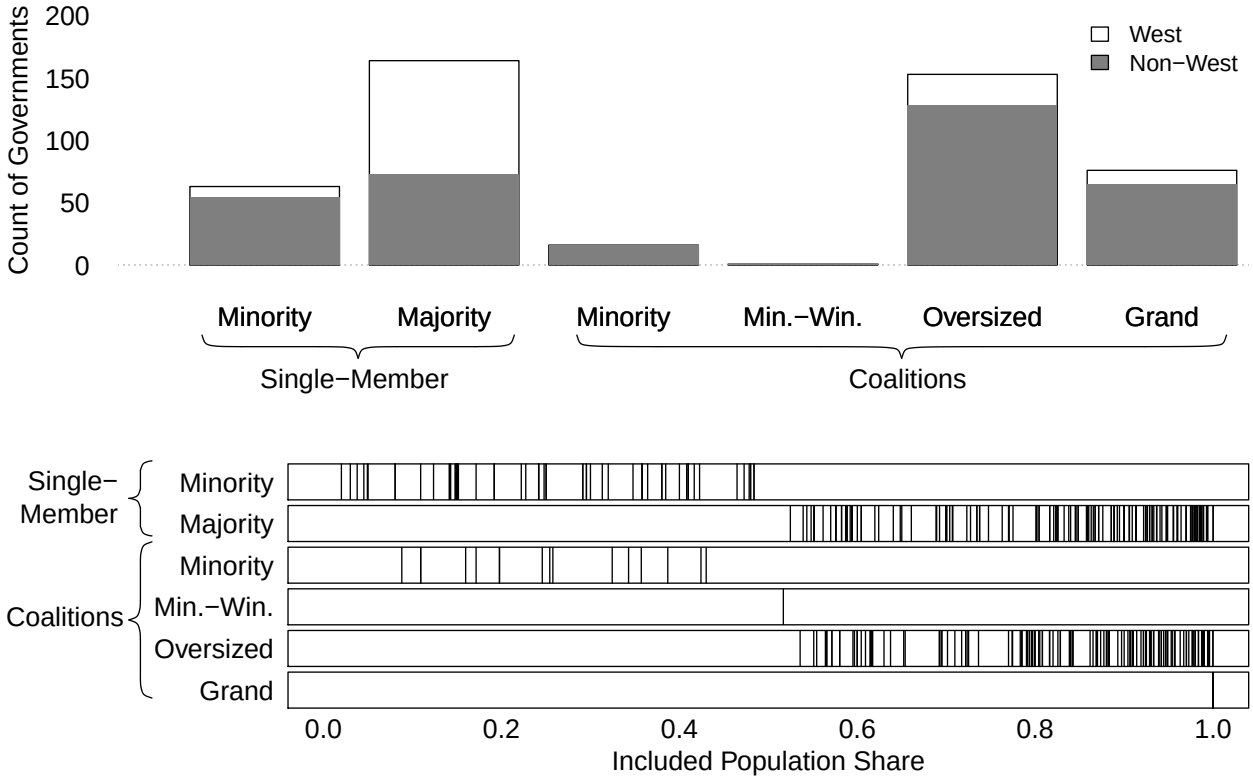
Figure 3 shows the distribution of realized government types in ethnically divided societies and the population shares represented in them (bottom). The pattern revealed by the bar graph is definite: the vast majority of ethnic governments are majority governments, and the combination of grand and oversized coalitions constitute the modal government type. Focusing on non-western states (grey area) further strengthens the conclusion that leaders prefer oversized coalitions over

[22]Figure A6 plots the distribution of the two variables.

[23]Table A8 in the appendix provides summary statistics.

[24]Cox models estimate the form of the hazard rate from the data.

Figure 3: Realized governments and size of included population in 134 states, 1946–2009.



other government types and half of these coalitions even include a majority group. As the size distribution of single-member majority regimes below shows, elites generally choose monoethnic rule when they command an overwhelming demographic majority (the average is about 84% while the median is even higher). Only 14% of all monoethnic majority governments represent less than 60% of the population.

In states with a secure monoethnic majority, neither violent challenges by exluded minorities nor internal defections by coethnics present a credible threat to the dominant group. Single-group majorities prove more stable with an average duration of more than 30 years compared to oversized coalitions with an average duration of about 15 years. Oversized coalitions account for 104 out of 161 changes in government composition (64%), and for 93% of all events in which the leaders of at least one group have to leave the government. This empirical pattern is consistent with both my uncertainty logic that sees oversized coalitions as insurance against defections, and theories that link commitment problems to instability (e.g., Roessler, 2011). Whereas the commitment problem explains the frequency and stability of monoethnic majorities, it cannot explain why unstable oversized coalitions are replaced by other oversized pacts rather than single-group rule.

Coalition formation

Table 1 presents five conditional logit models that test H_1 and H_2. As indicated by the positive effects for single-group majorities and oversized coalitions across all models, governments that include groups representing more than 50% of the ethnically relevant population in a state are more likely to emerge than minority governments (the baseline category). Political elites that represent majority ethnic groups often opt to govern alone as argued by Horowitz (2002, 22). Yet many of these governments rule in European and American states, which represent successful nationalist projects (Figure 3).

Contrary to predictions of many models of coalition formation, ethnic leaders rarely choose minimum-winning coalitions. The estimated effect is statistically insignificant in all and even negative in the first three models in Table 1, implying that in some circumstances even minority rule seems more likely. Where ethnic group elites do cooperate, they overwhelmingly form oversized coalitions. Wald tests indicate that both oversized and single-majority governments differ significantly from minimum-winning coalitions ($\chi^2(1) = \{5.11^\star, 4.88^\star\}$). Overall, these models provide strong evidence in support of H_1 that expects ethnic elites to form secure majorities.

Turning to the control variables, the estimate for the largest group dummy is positive but statistically insignificant in all models, which provides weak support for a formateur advantage. In Model 1, the negative estimate for the number of groups in a coalition implies that ethnic elites try to maximize their own relative share of power with respect to other ethnic groups, even while they are building secure majorities. This negative effect also sheds doubt on Lijphart's prediction of grand coalitions.[25]

Model 2 adds a cleavage count variable to the base specification. As opposed to the estimated effect of the number of included groups, which becomes indistinguishable from zero, the cleavage effect is negative and statistically significant. Clearly, political elites prefer more homogeneous governments to more diverse alternatives. The fewer cleavages included in the government relative to alternative coalition options, the more difficult it becomes for exluded politicians to activate other ethnic dimensions that cross-cut government-opposition lines. In line with H_2, supporter defections through cleavage reconfiguration become less likely.

[25]Figure A7 in the appendix also plots the predictions of grand coalitions from Model 1, which clearly demonstrates that they are less likely than oversized coalitions.

Table 1: Conditional logit models of coalition formation in 134 states, 1946–2009.

	(1)	(2)	(3)	(4)	(5)
Single-Group Majority	2.724***	2.193***	2.181***	1.985***	2.976***
	(0.427)	(0.420)	(0.429)	(0.511)	(0.735)
Minimum-Winning Coalition	-1.203	-0.582	-0.184		1.625
	(1.059)	(1.053)	(1.071)		(1.190)
Oversized Coalition	1.545***	1.977***	2.036***	2.116***	2.566***
	(0.407)	(0.407)	(0.411)	(0.443)	(0.630)
Largest Group	0.273	0.348	0.147	-0.065	0.607
	(0.336)	(0.337)	(0.295)	(0.353)	(0.434)
Member Count	-0.528*	-0.348	-0.295	-0.515*	0.142
	(0.218)	(0.217)	(0.224)	(0.238)	(0.262)
Cleavage Dimensions		-0.973***	-0.915***	-0.688*	-1.465***
		(0.206)	(0.255)	(0.271)	(0.429)
Past Government Share			2.710***	2.422***	3.880***
			(0.458)	(0.484)	(1.064)
Formation Opportunities	473	473	333	208	125
Potential Coalitions	4795033	4795033	4489587	279316	4210271
ℓ	-1327.874	-1276.863	-940.774	-635.622	-288.601
χ^2	95.953	118.332	107.631	67.568	79.583

Country-clustered standard errors in parentheses.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Model 3 adds a variable that measures the population share included in both the previous and newly formed government. Its positive estimate indicates that incumbency exerts a strong influence on the subsequent ethnic composition of governments. Including an incumbency proxy weakens some of the other regressors – especially the largest group dummy – but does not change the substantive insights regarding H_1 and H_2.

Alternative explanations of coalition formation

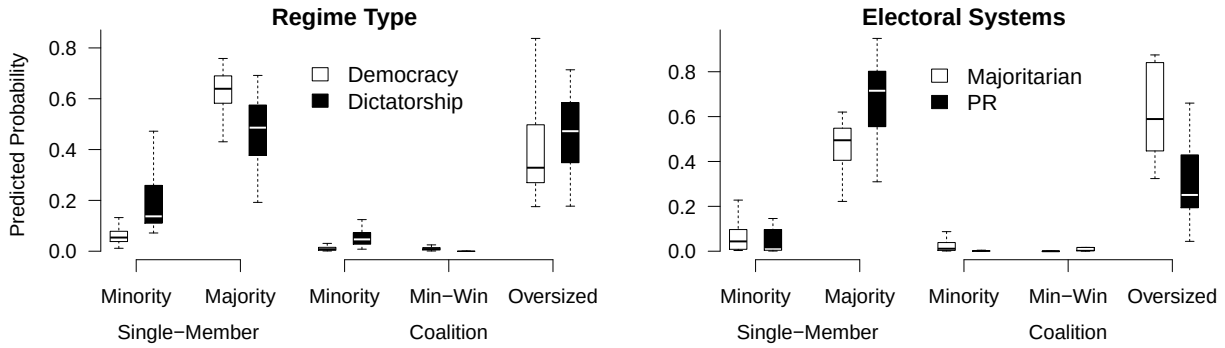
Formal rules that encourage or prescribe elite cooperation offer the most important alternative explanation to my theory. To test this proposition I rerun Model 3 on a subset of different institutional configurations. In Table 1, Models 4 and 5 display the estimated coefficients for autocracies and democracies respectively.[26] Lijphart and others expect that democracies and PR electoral rules should make minority rule unlikely while increasing the probability of ethnic coalition formation relative to single-group rule (Lijphart, 2002; Norris, 2008). Although Model 4 and 5 display some differences such as the larger estimate for single-majority governments in democracies, none of these changes differ significantly between the two subsets. The increased size of the estimated coefficient likely derives from including established nation-states in Europe and the Americas.

Figure 4 reinforces this conclusion by displaying the predicted probabilities across all formation opportunities for various government types. For each type, the plot displays the probability in democracies and dictatorships on the left (data from Cheibub, Gandhi and Vreeland, 2010), and in electoral systems within democracies on the right (data from Bormann and Golder, 2013). The bars inside the boxes indicate the median predicted probability while the whiskers represent the 90% confidence intervals.

The left panel of Figure 4 shows hardly any differences between democracies (white boxes) and dictatorships (black) in the overall patterns of government formation. Only minority rule by one ethnic group is significantly more likely in dictatorships than in democracies. The graph also confirms that ethnic elites are far more likely to form either single-group majorities or oversized coalitions than any other type of government. Again, no notable differences between democratic and autocratic rule exist within these categories. Although it seems as if oversized coalitions are even more likely in dictatorships than in democracies, the relationship is not statistically signifi-

[26]Minimum-winning coalitions are dropped from Model 4 because none formed in authoritarian regimes. Table A12 displays the underlying regression models for the electoral distinctions.

Figure 4: Estimated government type probabilities in democracies and dictatorships (left) and under PR and majoritarian electoral rules within democracies (right).



cant. Whether or not governments are elected has little effect on their ethnic inclusiveness.[27]

Several scholars agree that first-past-the-post electoral rules reduce the chances of multiethnic coalitions because even minority groups can gain a majority of parliamentary seats (Lijphart, 1977; Horowitz, 2000). The more proportional the electoral result, the greater the incentives for ethnic power-sharing. The right panel of Figure 4 compares majoritarian and PR electoral systems. It lends little support to the assertion that PR (black boxes) promotes ethnic power-sharing. Rather, majoritarian electoral systems (white) are more often associated with oversized coalitions. Even more surprisingly, ethnic leaders opt for single-member majorities significantly more often than for oversized coalitions under PR. Uncertainty about coethnic support again explains this finding. In contrast to PR systems, small changes in the vote distribution can lead to large shifts in the seat distribution under majoritarian rule and result in loss of power. Elites hedge against this possibility by forming oversized coalitions that allow them to remain in office after losing some support.[28]

Rather than differences in type, variation in institutional capacity could affect both the choice of government type and its diversity. I proxy the capacity of non-state organizations by the degree of party institutionalization and present or past communist insurgencies. In both cases, oversized coalitions become more likely as the government anticipates a greater threat from excluded groups (cf. Slater, 2010). In contrast, governments challenged by strong non-state institutions are less

[27]Using the Polity IV by Marshall, Jaggers and Gurr (2011) instead of the DD measure and adding anocracies as a third category does not change this insight (Figure A8).

[28]In Figures A9-A11 in the appendix, I also explore variation within autocracies, specifically between civilian and military regimes, dictatorships with and without ruling parties or legislatures. The main results remain robust.

likely to form coalitions around cross-cutting cleavages, potentially because strong organizations harden identities and prevent defections (Table A19). I proxy state capacity by two historical measures: low settler mortality and a long history of statehood. Governments with greater degrees of statehood are more likely to form oversized coalitions but the relationship reverses for governments of states with low settler mortality, possibly because the data is only available for a restricted sample. Governments in weaker states pay more attention to internalizing cross-cutting cleavages regardless of the measure as they have less power to guard themselves against supporter defection (Table A20). Overall, I find some evidence that institutional capacity affects the two main theoretical mechanisms but the differences are not statistically significant.

Trust between groups that share ethnic attributes rather than the anticipation of defections offers an alternative explanation for H_2, which states that coalitions including cross-cutting cleavages should be more likely. In the absence of survey data that allows me to test this mechanism directly by comparing levels of trust between all ethnic groups within countries, I rely on existing research and my qualitative narratives. Both indicate that it is unlikely that trust accounts for coalitions in multiethnic societies. Wucherpfennig, Hunziker and Cederman (2016), for example, employ an instrumental variable strategy to demonstrate that government leaders from one ethnic group tend to include groups that pose a threat to their rule to appease them (also see Roessler, 2016, Ch.10). Trust between the biggest rivals seems an unlikely explanation for the choice of such coalition partners although more tests are needed to fully rule out this possibility.

To test the robustness of my results to modeling and sampling assumptions, I rerun the main specifications with the more complex but unbiased mixed logit (Table A9) and on an alternative specification of formation opportunities defined by institutional change (Table A10). In both cases, my results remain robust. Selection poses another threat to the robustness of my results, although, I argue, an unlikely one. If the two different sets of formation opportunities oversampled uncertain periods and countries relative to stable situations, the results would be biased towards more oversized and more homogeneous coalitions. Yet the sample of formation opportunities used above balances actual changes in government composition (54%) with changes in the bargaining environment without governmental alternation (46%; see Table A5). Moreover, formation opportunities are not more likely after coups or governmental civil wars (Table A6).

To ensure that the results are not driven by cases in which ethnicity has arguably less political

salience, I rerun Model 3 on various subsets of countries. Neither the removal of specific world regions (Table A11), nor the exclusion of states where the largest ethnic group accounts for at most 60% of the population challenges my findings. Adopting a broader definition of minimum-winning coalitions has no effects on the main insights of the formation analysis either (Table A12). I continue to find support for H_2 when replacing the cleavage dimension variable with the total count of cleavages. Other tests show no systematic relationship between any specific ethnic dimension and coalition formation predicted by cultural distance theories (Table A13).

Coalition duration

My theory predicts that elites form oversized coalitions around cross-cutting cleavages to minimize the risk of supporter defection. Empirically, governments that internalize cross-cutting cleavages should survive longer than more heterogeneous pacts with more overlap with excluded groups (H_3). Moreover, oversized coalitions should be less stable than monoethnic governments because elites form them in anticipation of defections. The Cox regression models in Table 2 estimate these effects on the risk of changes in the ethnic composition of the government. Positive coefficients indicate an increased risk of government failure.[29]

Across all specifications, governments that feature more cleavage dimensions are more likely to fail than governments formed around fewer cleavage types while controlling for the number of groups in the coalition. When coalitions include cross-cutting cleavages, and thus fewer overall cleavage dimensions, the likelihood of supporter realignment that changes the ethnic composition of the government decreases as predicted by H_3. In line with the uncertainty logic, Wald tests indicate that monoethnic governments with a crushing demographic dominance and little opportunity for defection outlast oversized coalitions in all models. Relative to the baseline category of minority governments single-group majorities are associated with a lower risk of failing, although the difference is only significant at the 10% level once I add controls for regime capacity. Similarly, oversized coalitions do not seem to outlast minority governments. However, they grow more stable as leaders add additional ethnic groups to the coalition. Whether or not a coalition includes the country's largest group does not make a statistically significant difference to government stability.

[29]The duration models estimate the likelihood of failure of realized governments. With only one minimum-winning coalition among them, which lasted for three years, I dropped the dummy from the duration analysis.

Table 2: Cox duration models of coalition failure, 1946-2009.

	(6)	(7)	(8)	(9)	(10)
Single-Group Majority	−1.320***	−1.061*	−0.960	−1.101	−1.021
	(0.387)	(0.507)	(0.538)	(0.606)	(0.589)
Oversized Coalition	−0.208	0.174	0.291	0.258	0.240
	(0.323)	(0.423)	(0.453)	(0.502)	(0.501)
Largest Group	−0.182	−0.331	−0.330	−0.327	−0.304
	(0.339)	(0.459)	(0.485)	(0.568)	(0.547)
Member Count	−0.099*	−0.116*	−0.105	−0.116	−0.117*
	(0.049)	(0.049)	(0.062)	(0.061)	(0.057)
Cleavage Dimensions	0.711**	0.765**	0.660*	0.531*	0.616*
	(0.231)	(0.246)	(0.267)	(0.245)	(0.253)
Civil War Ongoing		0.495**	0.354*	0.366*	0.365*
		(0.155)	(0.156)	(0.168)	(0.160)
Irr. Leader Change		1.977***	1.962***	2.002***	1.970***
		(0.212)	(0.211)	(0.198)	(0.202)
Log(Leader Tenure)		0.286**	0.218*	0.348**	0.233*
		(0.094)	(0.089)	(0.112)	(0.099)
Socio-Economic Controls	No	No	Yes	Yes	Yes
DD Regime Institutions	No	No	No	Yes	No
Electoral & Party Institutions	No	No	No	No	Yes
Wald test: Pr($\beta_1 = \beta_2$)	<0.001***	0.002**	0.002**	<0.001***	0.001**
Observations	6,360	5,724	5,724	5,724	5,724
ℓ	−859.352	−680.765	−674.130	−663.093	−669.222

*p<0.05; **p<0.01; ***p<0.001. Displayed estimates are coefficients, not hazard ratios. Country-clustered standard errors in parentheses.

Model 7 controls for important threats to incumbent governments: ongoing governmental civil wars, coups, and the age of the current head of government all increase the risk of changes to the ruling coalition. Governments are more stable in wealthier countries while GDP growth and population size are statistically insignificant (see Table A21 for full results). Model 9 includes regime type dummies from the Democracy and Dictatorship dataset. Monarchies produce more stable ethnic power relations but other regime types differ little from one another. Finally, Model 10 introduces electoral and party-system dummies that link majoritarian electoral rules with higher government instability in line with my uncertainty-based theory.[30]

Alternative explanations of coalition duration

As in the formation stage, the most important alternative explanation of coalition stability is an institutional one, specifically in dictatorships where legislatures and parties correlate strongly with regime stability. Yet controlling for an alternative set of authoritarian and democratic institutions

[30]Tests of the proportional hazards assumption do not reveal any violations.

does not change the robustness of the estimated effects (Table A22). Adding controls for institutional strength reduces the statistical significance of the estimated cleavage effect in some specifications while also decreasing sample size due to missing values on the institutional variables (Table A23). Neither controlling for regime change periods and foreign occupation (Table A24) nor using continuous indicators of the included population and groups rather than governmental dummies alters the basic conclusions (Tables A25-A28).

Reverse causality and selection pose two challenges to my tests of H_3. Although, a reverse causal arrow running from coalition failure to more diverse and larger coalitions seems implausible, I lagged all explanatory variables by one year. Selection is at the core of my theoretical argument: leaders prefer coalition partners with cross-cutting cleavages and, if possible, select into less diverse governments because they expect them to last longer. Both the formation and duration stage support this interpretation with their estimated cleavage effects.

Illustrating case narrative

Before concluding, I illustrate the logic of my argument by briefly describing the dynamics of ruling coalitions in Indonesia.[31] The case exemplifies ethnically diverse polities with multiple cleavage dimensions and showcases their effect on government formation and duration. I compare two regime periods in Indonesian history. General Suharto's authoritarian rule demonstrates scope conditions of my argument in the form of non-ethnic institutions and overwhelming coercive capacity. The transition period after Suharto's removal and the following democratic regime show that elites form oversized coalitions out of uncertainty over future threats, and that internalizing cross-cutting cleavages limits supporter defection.

After independence, attempts by Indonesia's first President Sukarno to create a stable multiethnic regime by appealing to Indonesian nationalism, Islam, and the multiethnic Communist Party of Indonesia (PKI) failed. Afraid of the PKI's plans for land redistribution and its growing influence among multiple ethnic groups, the Indonesian military led by General Suharto allied with religious elites from Indonesia's largest ethnic group, the Javanese, to overthrow Sukarno and kill hundreds of thousands of PKI members (Roosa, 2006, 20-33). Instead of cross-cutting ethnic cleavages highlighted by my argument, communist ideology buttressed by a strong non-state institution, the PKI, bridged ethnic boundaries. Although the mechanism seems similar to my argument, future re-

[31] The appendix provides a more detailed narrative and adds Malaysia as a second case.

search should follow Slater's (2010) example and explore the interaction of ethnic and non-ethnic cleavages and institutions.

After the politicide Suharto's Javanese-dominated and "seemingly omnipotent state loomed above a weakened and mostly quiescent society" (Aspinall, 2005, 27-8). My theory suggests that single-group rule should only be possible when elites can count on overwhelming popular support. Yet military aid by the United States during the Cold War and the lack of any meaningful domestic challenger that could exploit Indonesia's cross-cutting Muslim cleavages had effectively created a secure majority, which ruled for three decades.

Feeling secure from external challenges, Suharto felt no need for sharing power. The Javanese religious elites that supported Suharto against the communists, started turning away from the regime and began to organize outside state institutions. During the Asian Financial Crisis in 1998, Suharto was forced out of office by an economically and ethnically diverse opposition (Aspinall, 2005, 23-5; Slater, 2010, 180-1; Horowitz, 2013, 37). Faced by massive uncertainty, mistrust among key players, and the threat of violence engulfing the country, a multiethnic, oversized coalition formed during the transition period and continued to operate after the country's transition to democracy (Horowitz, 2013, 45-8).

This change from monoethnic rule to oversized coalitions illustrates the importance of cross-cutting cleavages. Relying almost exclusively on Javanese-dominated military power, Suharto lost the support of crucial Islamic elites (Slater, 2010, 193-4), who mobilized cross-class opposition to his rule among the Javanese and outer-island ethnic groups. Excluding the cross-cutting Muslim cleavage from the ruling coalition facilitated its demise.

The logic of cross-cutting cleavages shaped political competition even more after Suharto's ouster. Political elites could count on a core of supporters bound to them via shared identity (Horowitz, 2013, 178), but failed to cement their hold on power due to the "very multiplicity [of cleavages], so that not all of them were politically active at any one time, and their considerable fluidity, so that alignments among various membership categories could shift" (ibid., 37). Thus:

> *Voter allegiances and party boundaries are both malleable. At both regional and national levels, candidates can and do defect from their parties to join executive tickets nominated by other parties, even parties from a different stream [or cultural community]. Candidate fluidity across streams, of course, induces voters who favor particular*

candidates to follow (ibid., 273).

To gain and keep presidential office, ruling elites formed multiethnic oversized coalitions that combined modernist, traditional, and secular members from the dominant Javanese group along with peripheral, generally Muslim, elites. In line with H_3, the post-Suharto ruling coalition was repeatedly returned to power despite high voter volatility. Although electoral support was also lost to newly founded intra-ethnic rivals, the relevant power shifts occurred within the coalition. The presidency alternated between members from different parties, but the ethnic composition of the ruling coalition remained remarkably stable (Slater and Simmons, 2012, 1383-4).

When intra-coalition conflict over policy intensified in 2011, some coalition partners suggested expelling disloyal members but President Yudhoyono preferred secure majorities that could survive future defections (Horowitz, 2013, 289). Cross-cutting cleavages within the coalition did not translate into greater trust among ruling elites. Competition over the spoils of office and the desire to keep them created the basis for oversized but not grand coalitions as predominantly Christian ethnic groups and some intra-ethnic rivals from different parties remained excluded.

Conclusion

In this paper, I argued that multiethnic executive coalitions frequently result from elite uncertainty about future support by their coethnics supporters and coalition partners. My findings indicate a preference for oversized coalitions that stems from the desire of elites to hold on to power in environments of incomplete information about coethnic support when cross-cutting cleavages enable membership in multiple sub-groups. Alhough my analysis reveals that leaders seek ethnic hegemony when they command large demographic or coercive superiority, it also demonstrates that power-sharing occurs more frequently than many existing studies predict (e.g., Horowitz, 2000). Yet leaders do not predominantly form Lijphart's grand coalitions either, as they balance the risks of losing office and the costs of sharing power.

My argument also predicts which specific coalition leaders will choose. My results support and complement insights from the literature on ethnic politics that show how rational individuals stress the identity marker that allows them to be a member of the smallest possible winning coalition (Posner, 2005; van der Veen and Laitin, 2012). Focusing on political elites, I argue that leaders anticipate potential defections by their coethnics. Therefore, they attempt to form coalitions between groups with cross-cutting cleavages that keep supporter defections inside the ruling coalition. In-

deed, I find that elites prefer coalitions that encompass a smaller number of ethnic dimensions, and thus incorporate more cross-cutting cleavages, to coalitions with more heterogeneous constituents and more overlap with excluded groups. I also find that the former survive longer than the latter.

My explanation that combines the role of elites and their supporters adds to recent studies that emphasize self-enforcing power-sharing coalitions (Svolik, 2009, Roessler, 2016, Ch.10), even when formal institutions designed to enforce commitments are absent. I do not find that specific institutions systematically increase the likelihood of ethnic coalition formation and only weak evidence that these institutions extend the survival of ethnic coalitions. These findings have two major implications for the literature on power-sharing and conflict research. First, future research that investigates institutional interventions to resolve conflict needs to take the cleavage landscape of societies and the resulting elite behavior into account. As Diermeier and Krehbiel (2003, 127) point out: "It cannot be stressed enough that (...) behavior within the institution – not just the institution in isolation – determines whether institutions are outcome-consequential, or, as is more often uttered, whether institutions matter."

Second, if my theory is correct that encompassing coalitions emerge when leaders face uncertainty, institutions that reduce uncertainty such as guaranteed government inclusion are less likely to induce de facto cooperation among ethnic leaders. Since existing research also argues that high uncertainty increases the risk of civil war (e.g., Mattes and Savun, 2010), we should expect that elites embrace power-sharing when conflict is most likely. Policy-makers who want to promote power-sharing for normative reasons of political equality thus face a dilemma. Future research needs to pay more attention to the conditions under which ethnic coalitions form and how the interaction of coalitions and institutions affect civil war risk.

Finally, focusing on ethnic coalitions allows political scientists interested in coalition behavior more generally to expand their empirical scope far beyond parliamentary democracies in Europe (e.g., Martin and Stevenson, 2001). Multiple theoretical models of coalition formation outside parliamentary democracies now exist (e.g., Acemoglu, Egorov and Sonin, 2008; Christia, 2012; Driscoll, 2012; Francois, Rainer and Trebbi, 2015). Yet only few of these theories have been exposed to the same systematic tests applied to parliamentary government formation. Ethnic divisions constitute of course only one type of political cleavage, and many scholars hold that they are exceptional (Lijphart, 1977, 238; Horowitz, 2000). Future research should focus on more complex

cleavage configurations that include economic, ideological, and intra-religious divisions and further cross-cut ethnic differences (also see Lupu and Riedl, 2012, fn.1). Only the comparative study of cleavages will allow political scientists to conclude whether or not the patterns described in this study are exceptional for ethnically divided societies, or generally prevalent in settings where elites face high uncertainty about their true support.

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Uncertainty, Cleavages and Ethnic Coalitions

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Contents

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1 Predictions on coalition formation in the literature

Table A1: Predictions of coalition size in non-democratic states.

Scope	Publication	Prediction
Ethnically Divided Societies	Lijphart (1977, 238)	(1) Grand coalitions under consociational arrangements; (2) monoethnic dominance under Westminster rules or in dictatorships
	Horowitz (1993, 21)	Monoethnic minority rule
	Wimmer (1997, 649)	Monoethnic minority rule
	Horowitz (2000, 369 & 438)	Coalition government with electoral thresholds, otherwise minority rule
	Horowitz (2002, 20)	Majority groups will dominate minorities
	Rabushka and Shepsle (2008, 91)	Grand coalitions formed prior to independence break down into monoethnic rule
Sub-Saharan Africa	Arriola (2009)	Leaders form oversized or grand coalitions to endure in office
	Roessler (2011)	Leaders initially include coalition partners but exclude them over time
	Francois, Rainer and Trebbi (2015)	Grand coalitions form
Post-conflict states	Dal Bó and Powell (2009)	Coalition of unknown size only feasible when coalition partner non-threatening
	Mattes and Savun (2009)	Coalition of unknown size through fear-reducing and cost-increasing provisions in negotiated settlements
	Driscoll (2012)	Grand coalition that crumbles over time
Dictatorships	Bueno de Mesquita et al. (2003, 70)	Minority coalitions large enough to withstand revolutions
	Gandhi and Przeworski (2006, 2007)	Coalitions (of unknown size) induced by authoritarian institutions such as parties and legislatures
	Acemoglu, Egorov and Sonin (2008)	Coalition size depends on power configuration between elites
	Boix and Svolik (2013, 307)	Minimum-winning coalitions induced by authoritarian institutions such as legislatures and parties

2 Definitions of formation opportunities

Table A2 displays an example of a formation opportunity in Iraq in 2003.

The analyses in this paper are run on a sample of formation opportunities defined by changes in the size, unity, or number of ethnic groups, and changes in the power relations between these groups within a country. An alternative strategy to identify formation opportunities is to link them to major institutional changes. In addition to the first year of a

Table A2: Ethnic coalition formation opportunities in Iraq.

Formation Opportunity	Coalition Member(s)	Pop. Share	Actual Coalition
(1)	Sunni	0.19	0
(2)	Shi'a	0.63	0
(3)	Kurds	0.17	0
(4)	Sunni & Shi'a	0.82	0
(5)	Sunni & Kurds	0.36	0
(6)	Shi'a and Kurds	0.8	1
(7)	Sunni, Shi'a & Kurds	1	0

state's existence, this alternative definition identifies electoral rule changes in democracies, leadership changes in autocracies, and regime transitions between democratic and autocratic regimes as relevant windows of opportunity in which elites attempt to renegotiate ethnic power relations. I identify different regimes and transitions between them in the *Democracy and Dictatorship* dataset by (Przeworski et al., 2000; Cheibub, Gandhi and Vreeland, 2010) The data is particularly useful for the purpose of this analysis because it offers a dichotomous distinction between democracy and dictatorship that relies on a mixture of institutional rules and personal leadership – the two criteria used to identify formation opportunities. It only identifies a democratic regime when there have been elections for the legislature and the executive in which at least two parties compete, and if the government has changed at least once (Cheibub, Gandhi and Vreeland, 2010, 69). Within democratic regimes, I follow the established approach in the comparative literature to code the timing of electoral regime changes (Lijphart, 1994, 14).[1] In dictatorships, leadership changes indicate regime alternations (Geddes, 2003; Svolik, 2009). I rely on the *Archigos* dataset by Goemans, Gleditsch and Chiozza (2009). Overall, this alternative sample includes 803 distinct formation opportunities, and thus almost twice as many as the one used in the main analysis. Table A3 and Figure A3 provide more information on the two alternative sampling strategies.

3 Coding ethnic segments, dimensions, and cleavages

The cleavage data capture three ethnic *dimensions*: linguistic, religious, and racial differences. I refer to all individuals who share an ethnic attribute or marker, for example all Urdu speakers in India, as one *ethnic segment*. Ethnic segments and groups are not identical. Segments derive purely from shared individual attributes/markers; groups emerge from the political mobilization of group members based on one or more shared attributes (cf. Chandra, 2012, 58). Segments can be shared between groups and thus constitute

[1] Also see Golder (2005, 107). The data are from Bormann and Golder (2013).

cross-cutting cleavages, or they stack up to define group boundaries as *reinforcing cleavages.*

I compute cleavages from newly collected data on ethnic segments, which feature two innovations: first, they include religious, linguistic, and racial segments for each group rather than defining groups as either linguistic, religious, or racial a priori. I define race as ethnic groups' origins from particular world regions, such as Europe, Sub-Saharan Africa, Oceania, etc. These regional origins – expressed at the individual level through certain phenotypical markers (particularly skin color) – have become relevant as social categories in the context of European colonization of the world and the related process of racial classification (see, e.g., Wade, 2010, 5-19). Second, the data identify multiple linguistic and religious segments per group rather than identifying only one.

Figure 2 illustrates the coding with regards to two Nigerian groups. While belonging to one religion, the Hausa-Fulani are divided linguistically into three segments. Conversely, a linguistically homogeneous group such as the Yoruba may count adherents from multiple religions such as Islam and Christianity among its members. Per group I identify up to three linguistic, religious, and racial segments along with their relative demographic share of all group members. The Yoruba's largest religious segment includes 43% of all group members.

In principle, a politically relevant ethnic group in EPR could consist of more than three segments on one ethnic dimension but in the vast majority of cases they do not. In exceptional cases such as the Indigenous Peoples in Brazil, I only coded the three largest segments. Note that a segment was only recorded if it accounted for at least 10% of group members.

The data on linguistic segments build on the well-known Ethnologue database, which uses mutual intelligibility as its main criterion for identifying languages (Lewis, 2009). Data on religious segments derive from the Joshua Project, which connects the language groups of Ethnologue with government statistics, and a variety of sources on religious adherence, yielding a list of "people's groups and their religious make-up" (see *Joshua Project: Unreached Peoples of the World*, 2011).

The dataset codes ethnic segments as time-invariant properties that do not capture multilingual or syncretic practices primarily due to limited data availability. Time invariance is a reasonable assumption because cultural change is usually a multi-generational process (see, e.g., Weber, 1976). Although multilingualism and syncretism are possible on the individual level, they rather reinforce my argument. Where individuals can claim belonging to multiple identity categories, coalition formation will be more uncertain and thus oversized coalitions should be more likely. Laitin (1993) proposes a similar argument with respect to language regimes.

In sum, my dataset contains 629 unique languages and 67 distinct religious creeds, and 7 distinct racial segments for 793 ethnic groups. These sum to 1,147 linguistic, 1,535

religious, and 920 racial group-segments. As a result, ethnic groups are more uniform in linguistic terms than along the religious dimension but most uniform on the racial dimension. The mean of linguistic segments per ethnic group is approximately 1.4, just over 1.9 for religious segments, and about 1.1 for racial divisions.

4 Methods: the mixed logit

The mixed logit model has two advantages over the conditional logit. First, it relaxes the independence of irrelevant alternatives (IIA) assumption that can produce bias in the estimated coefficients of the conditional logit.[2] Second, it allows me to model random coefficients that account for unobserved preference heterogeneity among ethnic elites. While I assume that all ethnic elites are power-maximizing actors, it is not inconceivable that the preferences of political leaders regarding the size and make-up of their ruling coalition are not constant. For example, in the neighboring countries of South Africa and Zimbabwe, political history with respect to inter-ethnic relationships developed very differently over the past three decades. Some observers attribute inter-ethnic peace in South Africa to the conciliatory character of Nelson Mandela, and inter-ethnic conflict in Zimbabwe to Robert Mugabe's intransigence and thirst for power.[3] Besides being a more realistic modeling strategy, the random coefficients also provide more information. In addition to average effects the mixed logit model estimates a full distribution around the mean effect for each explanatory variable (see Figure A1).

However, the mixed logit also has at least one drawback: Its estimation is computationally very demanding. Model runs may take several hours or even days. The reason for this sluggishness is that the likelihood is not analytically tractable. Instead of maximum likelihood estimation, the mixed logit requires simulation techniques such as Maximum Simulated Likelihood (MSL) or Bayesian Monte Carlo simulation.[4] I use Maximum Simulated Likelihood estimation with 500 Halton draws and a burn-in period of 50 draws.[5] The mixed logit models in this appendix do not include Indian formation opportunities, whose choice alternatives exceed the computational capability of my computer (see Table A3).

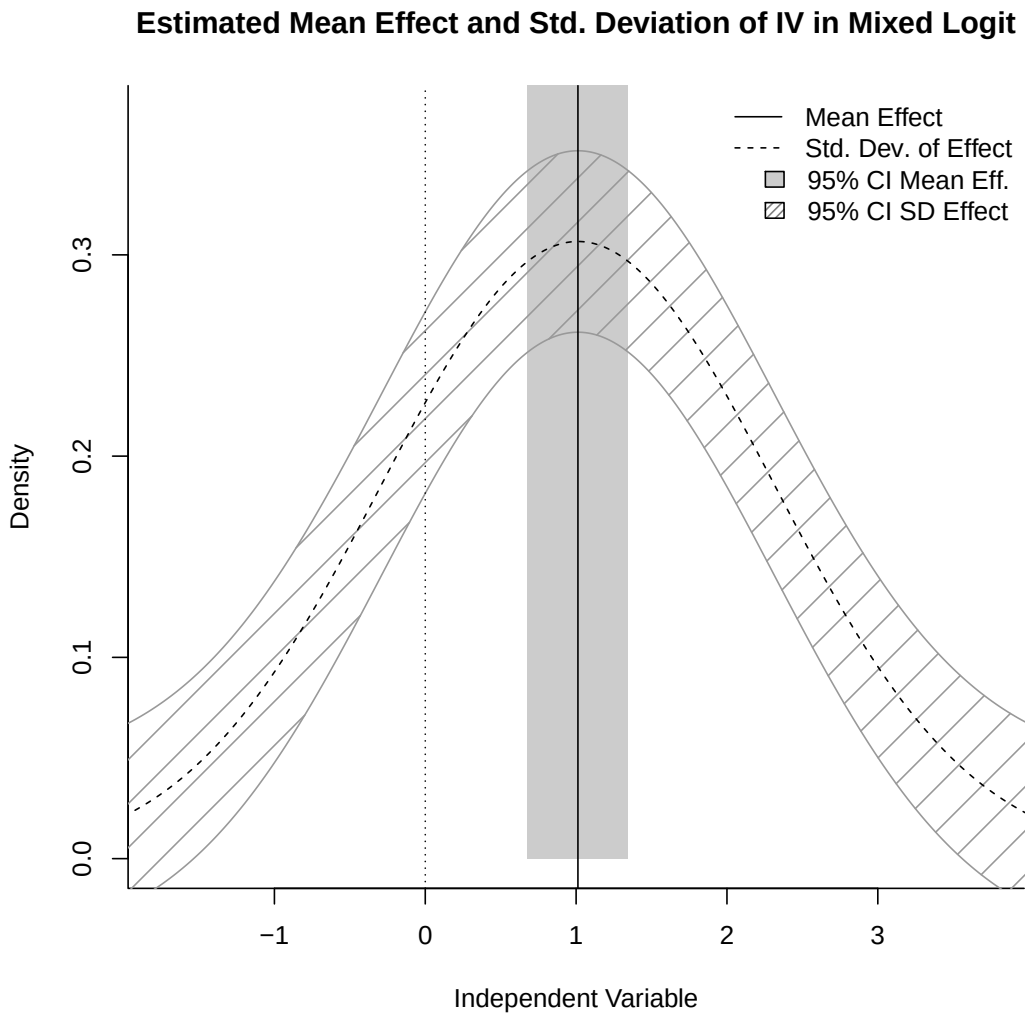
More formally, the mixed logit models the probability of government j out of K choices in formation opportunity i:

$$\Pr_{ij} = \frac{e^{x_{ij}\beta + x_{ij}\eta_i}}{\sum_{k=1}^{K} e^{x_{ij}\beta + x_{ij}\eta_i}}$$

As the random effects – that is, the ηs – are not directly observed, a joint probability distribution $g(\eta|\Omega)$ is used where Ω includes the fixed parameters of the distribution g. To obtain the unconditional probability of a coalition choice, the previous expression is

[2] Glasgow, Golder and Golder (2012, 251-3).
[3] Chideya (2013); Smith (2014).
[4] Train (2003, Chs.10-12).
[5] Cf. Glasgow, Golder and Golder (2012, 254).

Figure A1: Example of estimated parameters in mixed logit models.



integrated over all possible values of η and weighted by the probability density function g:

$$\Pr_{ij} = \int \left[\frac{e^{x_{ij}\beta + x_{ij}\eta_i}}{\sum_{k=1}^{K} e^{x_{ij}\beta + x_{ij}\eta_i}} \right] g(\eta|\Omega) d\eta$$

The researcher must make assumptions about g but it is common to use the normal distribution, and I do so in my analyses.[6]

[6] Glasgow, Golder and Golder (2012, 255).

5 Descriptive statistics

Due to computational limitations, three states are not included in all analyses. China and Russia/the Soviet Union are missing in all empirical tests, as each country features more than 40 ethnic groups. Combining these groups at different formation opportunities results in more than $10e^{14}$ government alternatives at any formation opportunity – a figure that exceeds the storage space limits of a regular hard drive. Since both states have been dominated by ethnic Chinese and Russians throughout the temporal span covered by my analysis, adding these data points is unlikely to add much variance to models of coalition formation. In contrast, India is included in the dataset. It is excluded from mixed-logit estimates that are based on a simulation-based estimation strategy due to the too-large number of government alternatives (see Table A3).

Table A3: Formation opportunities in the institution- and EPR-periods-based samples.

	EPR Periods		*Institutional Change*	
	− India	+ India	− India	+ India
Number of states	133	134	133	134
Formation opportunities	467	473	800	803
Potential governments	338,591	4,795,035	338,882	1,125,311

Table A4: All formation opportunities that experience change (EPR sample).

Country	Year	Type	Failure	Coup	Rebellion
United States	2009	Oversized Coalition	expansion		0
Trinidad and Tobago	1987	Grand Coalition	expansion	0	0
Trinidad and Tobago	1992	Minority Single	breakup	0	0
Trinidad and Tobago	1996	Grand Coalition	expansion	0	0
Guyana	1992	Majority Single	replacement	0	0
Brazil	2003	Oversized Coalition	expansion	0	0
Bolivia	2006	Oversized Coalition	expansion		0
United Kingdom	1964	Oversized Coalition	expansion	0	0
Slovakia	1998	Grand Coalition	expansion	0	0
Slovakia	2007	Majority Single	breakup		0
Yugoslavia	1966	Oversized Coalition	expansion	0	0
Yugoslavia	1987	Oversized Coalition	breakup	0	0
Yugoslavia	1992	Oversized Coalition	breakup	0	0
Yugoslavia	2007	Majority Single	breakup		0
Bosnia	1996	Oversized Coalition	expansion	0	0
Cyprus	1964	Majority Single	breakup	0	0
Bulgaria	2002	Oversized Coalition	expansion	0	0
Moldova	2001	Oversized Coalition	expansion	0	0
Romania	1996	Oversized Coalition	expansion	0	0
Romania	2009	Majority Single	breakup		0
Guinea-Bissau	1981	Grand Coalition	replacement	1	0
Guinea-Bissau	2000	Majority Single	breakup	1	0
Guinea-Bissau	2006	Grand Coalition	expansion		0
Guinea-Bissau	2009	Majority Single	breakup		0
Mali	1991	Grand Coalition	expansion	0	0
Mali	1994	Majority Single	breakup	0	0
Mali	1996	Grand Coalition	expansion	0	0
Benin	1964	Oversized Coalition	breakup	1	0
Benin	1968	Oversized Coalition	exchange	1	0
Benin	1970	Grand Coalition	expansion	1	0
Benin	1990	Grand Coalition	expansion	0	0
Benin	1996	Oversized Coalition	breakup	0	0
Benin	2006	Grand Coalition	expansion		0
Mauritania	1984	Grand Coalition	expansion	0	0
Niger	1991	Oversized Coalition	expansion	0	0
Niger	1993	Oversized Coalition	expansion	0	1

Niger	1996	Minority Single	breakup	0	0
Niger	2000	Oversized Coalition	expansion	1	0
Ivory Coast	1994	Minority Coalition	breakup	0	0
Ivory Coast	2000	Oversized Coalition	expansion	1	0
Ivory Coast	2003	Grand Coalition	expansion	0	1
Guinea	1986	Minority Single	breakup	0	0
Guinea	2009	Grand Coalition	expansion		0
Liberia	1981	Minority Single	replacement	1	1
Liberia	2004	Grand Coalition	expansion	0	0
Sierra Leone	1964	Minority Single	breakup	0	0
Sierra Leone	1968	Oversized Coalition	replacement	1	0
Sierra Leone	2006	Grand Coalition	expansion		0
Sierra Leone	2008	Grand Coalition	exchange		0
Ghana	1966	Grand Coalition	expansion	0	0
Ghana	1970	Oversized Coalition	breakup	0	0
Ghana	1972	Grand Coalition	expansion	0	0
Togo	1963	Grand Coalition	expansion	0	0
Togo	1967	Minority Single	breakup	0	0
Togo	1991	Grand Coalition	expansion	0	0
Togo	1992	Minority Single	breakup	0	0
Togo	2006	Grand Coalition	expansion		0
Nigeria	1965	Minority Single	breakup	0	0
Nigeria	1967	Oversized Coalition	expansion	1	0
Nigeria	1970	Oversized Coalition	expansion	0	0
Nigeria	1979	Oversized Coalition	breakup	0	0
Nigeria	1984	Minority Single	breakup	1	0
Nigeria	1999	Oversized Coalition	expansion	0	0
Nigeria	2007	Oversized Coalition	expansion		0
Gabon	1963	Minority Single	breakup	0	0
Gabon	1968	Grand Coalition	expansion	0	0
Gabon	2001	Oversized Coalition	exchange	0	0
Gabon	2006	Grand Coalition	exchange		0
CAR	1966	Grand Coalition	expansion	0	0
CAR	1970	Minority Single	breakup	0	0
CAR	1982	Minority Coalition	replacement	1	0
CAR	1994	Grand Coalition	expansion	0	0
CAR	2002	Oversized Coalition	breakup	0	1
CAR	2003	Grand Coalition	expansion	0	0
CAR	2006	Oversized Coalition	breakup		0

CAR	2009	Grand Coalition	expansion		0
Chad	1976	Oversized Coalition	expansion	1	0
Chad	1983	Oversized Coalition	exchange	1	0
Chad	1987	Oversized Coalition	breakup	0	0
Chad	1989	Oversized Coalition	breakup	0	0
Chad	1991	Oversized Coalition	expansion	1	0
Chad	2006	Oversized Coalition	breakup		0
Congo	1964	Minority Coalition	exchange	1	0
Congo	1969	Oversized Coalition	exchange	1	0
Congo	1972	Minority Single	breakup	0	0
Congo	1977	Minority Coalition	replacement	0	0
Congo	1979	Oversized Coalition	expansion	0	0
Congo	1985	Minority Coalition	breakup	0	0
Congo	1991	Grand Coalition	expansion	0	0
Congo	1992	Oversized Coalition	breakup	0	0
Congo	1995	Oversized Coalition	expansion	0	0
Congo	1998	Minority Coalition	exchange	1	0
DR Congo	1997	Minority Coalition	replacement	0	1
DR Congo	1998	Minority Coalition	exchange	1	1
DR Congo	2003	Minority Coalition	expansion	0	0
DR Congo	2007	Minority Coalition	breakup		1
Uganda	1966	Minority Single	replacement	0	0
Uganda	1970	Minority Coalition	replacement	0	0
Uganda	1972	Minority Single	breakup	1	1
Uganda	1974	Minority Single	replacement	0	0
Uganda	1980	Minority Single	replacement	0	0
Uganda	1986	Oversized Coalition	replacement	1	0
Uganda	1990	Oversized Coalition	exchange	0	1
Kenya	1967	Oversized Coalition	breakup	0	0
Kenya	1979	Oversized Coalition	exchange	0	0
Kenya	2003	Oversized Coalition	exchange	0	0
Kenya	2006	Oversized Coalition	breakup		0
Kenya	2008	Grand Coalition	expansion		0
Burundi	1966	Minority Single	breakup	0	1
Burundi	1989	Grand Coalition	expansion	0	0
Burundi	1994	Minority Single	breakup	1	0
Burundi	2002	Grand Coalition	expansion	0	1
Rwanda	1995	Minority Single	replacement	1	1
Djibouti	1981	Majority Single	breakup	0	0

Djibouti	1992	Grand Coalition	expansion	0	1
Djibouti	2003	Majority Single	breakup	0	0
Ethiopia	1992	Oversized Coalition	expansion	1	0
Eritrea	2000	Oversized Coalition	exchange	0	1
Zimbabwe	1980	Grand Coalition	expansion	0	0
Zimbabwe	1982	Oversized Coalition	exchange	0	0
Zimbabwe	1988	Oversized Coalition	exchange	0	0
Zimbabwe	1992	Grand Coalition	exchange	0	0
Zimbabwe	2000	Majority Single	breakup	0	0
Zimbabwe	2006	Oversized Coalition	expansion		0
Malawi	1994	Grand Coalition	expansion	0	0
South Africa	1948	Minority Single	replacement	0	0
South Africa	1994	Oversized Coalition	expansion	0	0
Madagascar	1973	Grand Coalition	expansion	1	0
Sudan	2006	Minority Coalition	expansion		1
Iran	1947	Oversized Coalition	expansion	0	0
Iraq	1964	Minority Single	breakup	1	0
Iraq	2003	Oversized Coalition	replacement	0	0
Syria	1949	Grand Coalition	expansion	0	0
Syria	1958	Majority Single	breakup	0	0
Syria	1961	Oversized Coalition	expansion	0	0
Syria	1970	Minority Single	breakup	0	0
Lebanon	1971	Oversized Coalition	expansion	0	0
Israel	1977	Oversized Coalition	expansion	0	0
Israel	1992	Min-Winning Coalition	expansion	0	0
Israel	1996	Oversized Coalition	expansion	1	0
Yemen	1995	Grand Coalition	exchange	0	0
Afghanistan	1979	Oversized Coalition	expansion	1	0
Afghanistan	1992	Oversized Coalition	exchange	0	1
Afghanistan	1996	Minority Single	replacement	0	1
Afghanistan	2002	Oversized Coalition	expansion	1	1
Kyrgyzstan	2005	Majority Single	breakup	0	0
Kazakhstan	1995	Majority Single	breakup	0	0
Taiwan	1987	Grand Coalition	expansion	0	0
India	1972	Oversized Coalition			
India	1977	Oversized Coalition	expansion	0	0
Bhutan	1988	Minority Single	replacement	0	0
Pakistan	1972	Oversized Coalition	exchange	1	0
Pakistan	1974	Oversized Coalition	breakup	0	0

Pakistan	1978	Oversized Coalition	exchange	1	0
Pakistan	1989	Oversized Coalition	exchange	1	0
Pakistan	2000	Oversized Coalition	exchange	1	0
Pakistan	2009	Oversized Coalition	exchange		0
Myanmar	1959	Majority Single	breakup	0	0
Sri Lanka	1985	Oversized Coalition	expansion	0	0
Sri Lanka	1988	Oversized Coalition	expansion	0	0
Sri Lanka	2006	Majority Single	breakup		0
Nepal	1951	Oversized Coalition	replacement	0	0
Nepal	1960	Minority Single	breakup	0	0
Nepal	1990	Oversized Coalition	expansion	0	0
Nepal	2001	Minority Coalition	expansion	0	1
Nepal	2007	Oversized Coalition	expansion		1
Thailand	1972	Oversized Coalition	expansion	0	0
Thailand	1977	Majority Single	breakup	1	0
Cambodia	1970	Oversized Coalition	breakup	0	0
Cambodia	1975	Majority Single	breakup	0	0
Cambodia	1979	Oversized Coalition	expansion	0	0
Cambodia	1993	Oversized Coalition	exchange	0	0
Laos	1975	Oversized Coalition	exchange	0	0
Laos	1991	Oversized Coalition	expansion	0	1
Indonesia	2005	Oversized Coalition	expansion	0	0
New Zealand	1990	Grand Coalition	expansion	0	0
Fiji	1988	Majority Single	breakup	1	0
Fiji	2000	Grand Coalition	expansion	0	0
Fiji	2001	Majority Single	breakup	1	0
Fiji	2007	Grand Coalition	expansion		0

Table A4 displays those formation opportunities in the EPR sample that result in a change in the government coalition and the reason for the break-up of the preceding coalition. I define *expansions* as any recalibration that adds one additional member to the government coalition. Whereas *replacements* identify cases in which the entire government was turned out of office and succeeded by leaders from different ethnic groups, *exchanges* indicate that representatives of at least one group were superseded by leaders of another. Finally, I code *breakups* whenever one group is expelled from the government without being replaced by another. The coup and rebellion columns indicate whether the formation opportunity was preceded by either of these events in the previous year.

Table A5: Formation opportunities and change to prior coalition (initial government excluded).

	Count	Share
Breakup	55	0.165
Replacement	18	0.054
Exchange	25	0.075
Expansion	80	0.240
No Change	155	0.465
Total	333	1

Table A5 indicates the counts and shares of different sources of change, and also adds all formation opportunites without a change. By definition, the first formation opportunity for each country is not included. Just less than half of all formation opportunities do not result in a reconfiguration of the ethnic coalition. A quarter results in an expansion, and 16% result from a breakup. The remaining 13% fall into complete replacements or exchanges of individual members. As (Table A6) indicates, attempted and successful coups (Powell and Thyne, 2011) or irregular leadership changes (Goemans, Gleditsch and Chiozza, 2009) precede about one out of seven formation opportunities. Ethnic governmental civil wars (Gleditsch et al., 2002; Harbom and Wallensteen, 2010; Wucherpfennig et al., 2012) in the previous year are even less frequent.

Table A6: Formation opportunities in the EPR-periods-based samples and political violence in preceding year (initial government excluded).

	Prior Violence	
	No	Yes
Coups	283	50
Irregular Leadership Change	284	49
Governmental Civil War	302	31

Figure A2 displays the distribution of formation opportunities over time in the two samples. Formation opportunities to some extent track changes in the international system such as the birht of states after decolonization or after the end of the Cold War. Yet no five-year period suffers from too few observations. Figure A3 plots the share of realized government types for the two samples underlying my analysis and a hypothetical country-year sample. The distribution in the EPR-defined sample and the country-year sample are relatively close to another. The institution-based sample indicates a higher share of monoethnic majority governments and a lower share of oversized coalitions but is otherwise quite similar to the other distributions.

Figure A2: Share of formation opportunities by country and five-year period in the institution- and EPR-periods–based samples, 1946–2009.

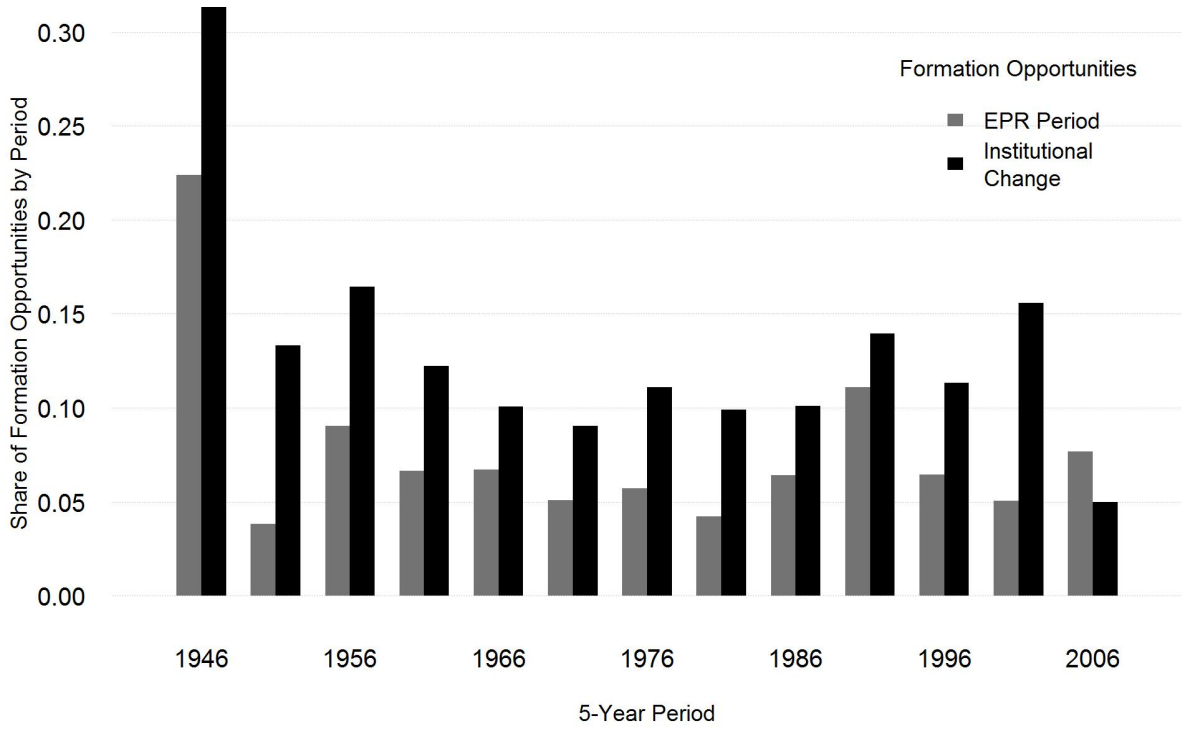
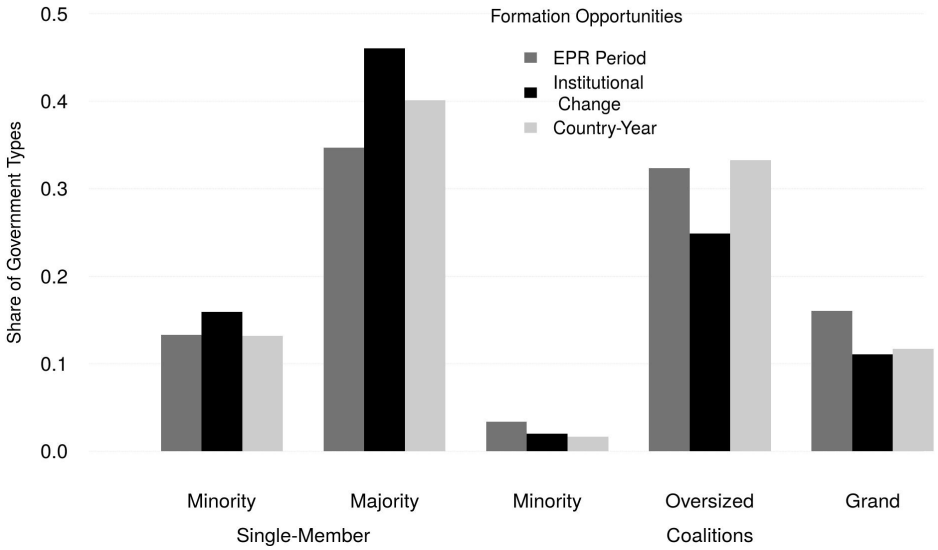


Figure A4 takes a closer look at ethnic coalitions and plots their frequency during and after the end of the Cold War. Moreover, the two period-bars are subdivided into those coalitions that include a group with majority status (light) and those without (dark). Two observations stand out: first, about half of all coalitions are formed in spite of the presence of a majority group that could govern by itself if a 50% threshold would exist. Horowitz' fear that groups with majority status automatically exclude minority groups does not seem to be borne out by the data. Second, the share of coalitions among all governments has increased after the end of the Cold War. One explanation for this pattern could be an increase in power-sharing institutions in this period that stem from efforts by the international community to resolve intrastate conflicts by negotiated means (Hartzell and Hoddie, 2007). Boix and Svolik (2013) offer an alternative that is more in line with the

Figure A3: Realized coalitions by different formation opportunity definitions, 1946–2009.



theoretical argument of this paper: the drop in super-power support that buttressed many regimes during the Cold War has led to greater uncertainty about the relative balance of power within dictatorships and increased the occurrence of governmental power-sharing.

Figure A4: Ethnic coalition composition during and after the Cold War.

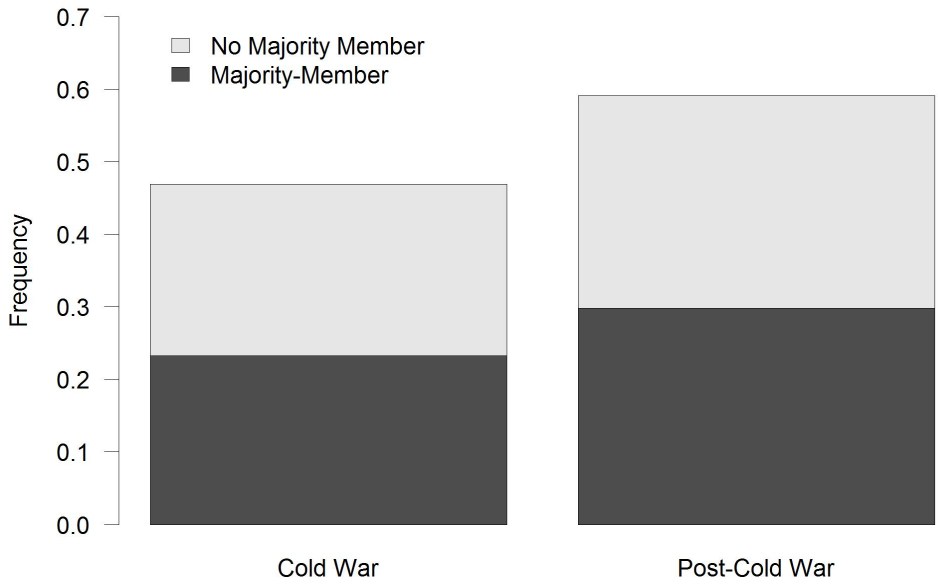


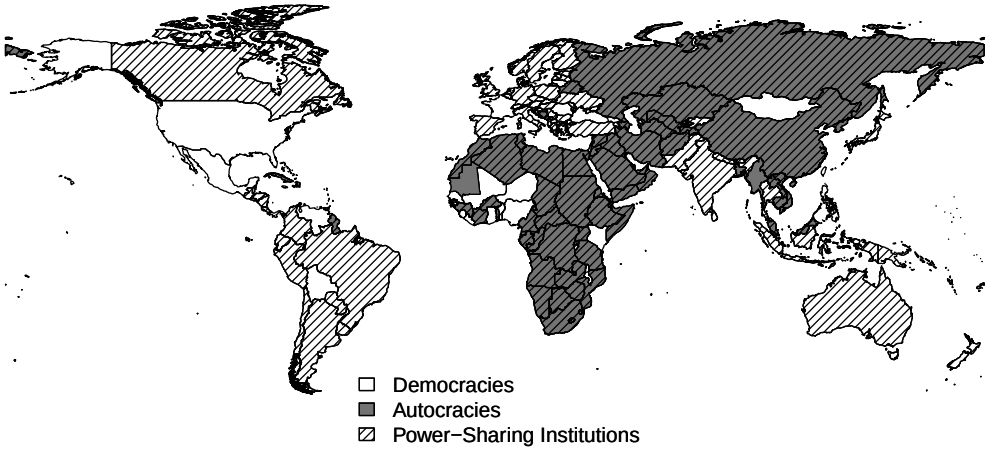
Table A7 and Figure A5 provide additional information on the global distribution power-sharing institutions in 2008 and ethnic coalitions in 2009 (the same information underlie Figure 1 in the main text). Neither display of the data offers any evidence for a systematic relationship between institutions and coalitions.

Table A7: Formal power-sharing institutions in 2008 and ethnic coalitions in 2009 – absolute and relative counts.

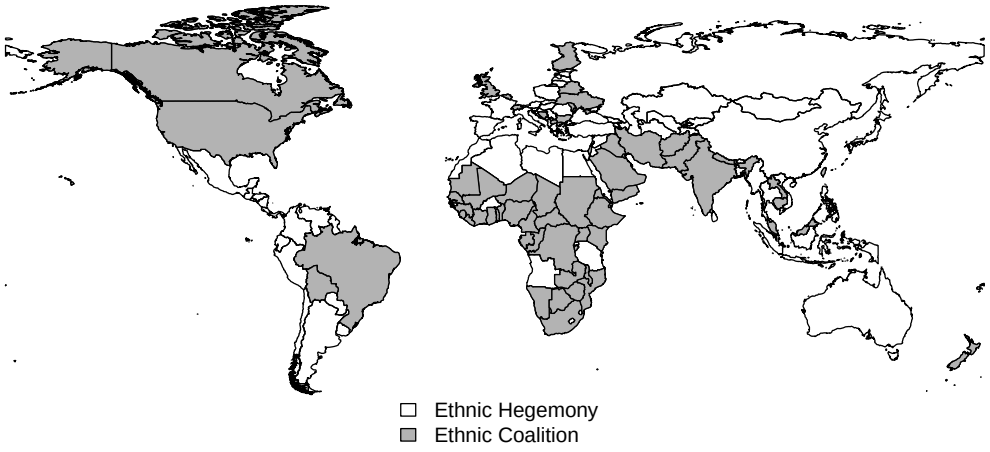
Ethnic Coalitions	Power-Sharing Institutions		
	No	Yes	Row Sum
No	12	55	67
	0.092	0.420	
Yes	14	50	64
	0.107	0.382	
Column Sum	26	105	131

$\chi^2 = 0.323$; d.f. $= 1$; p $= 0.570$

Figure A5: Power-sharing institutions in 2008 (top) and ethnic power-sharing in 2009 (bottom).



(a) Authoritarian and democratic powers-sharing institutions in 2008. Dictatorships in grey, power-sharing-institutions striped. Data from Bormann and Golder (2013) and Cheibub, Gandhi and Vreeland (2010).



(b) Ethnic powers-sharing coalitions in 2009. Data from Cederman, Wimmer and Min (2010) and Cederman, Gleditsch and Buhaug (2013).

Figure A6 depicts the distributions of cleavages across realized and potential governments. The first row depicts the count of distinct ethnic dimensions per government whereas the second and third row each depict the count of all cleavages for all governments and oversized coalitions respectively. Each row demonstrates that the coalitions leaders choose tend to have fewer cleavages than the potential alternative coalitions would feature.

Figure A6: Ethnic cleavages in realized and potential governments.

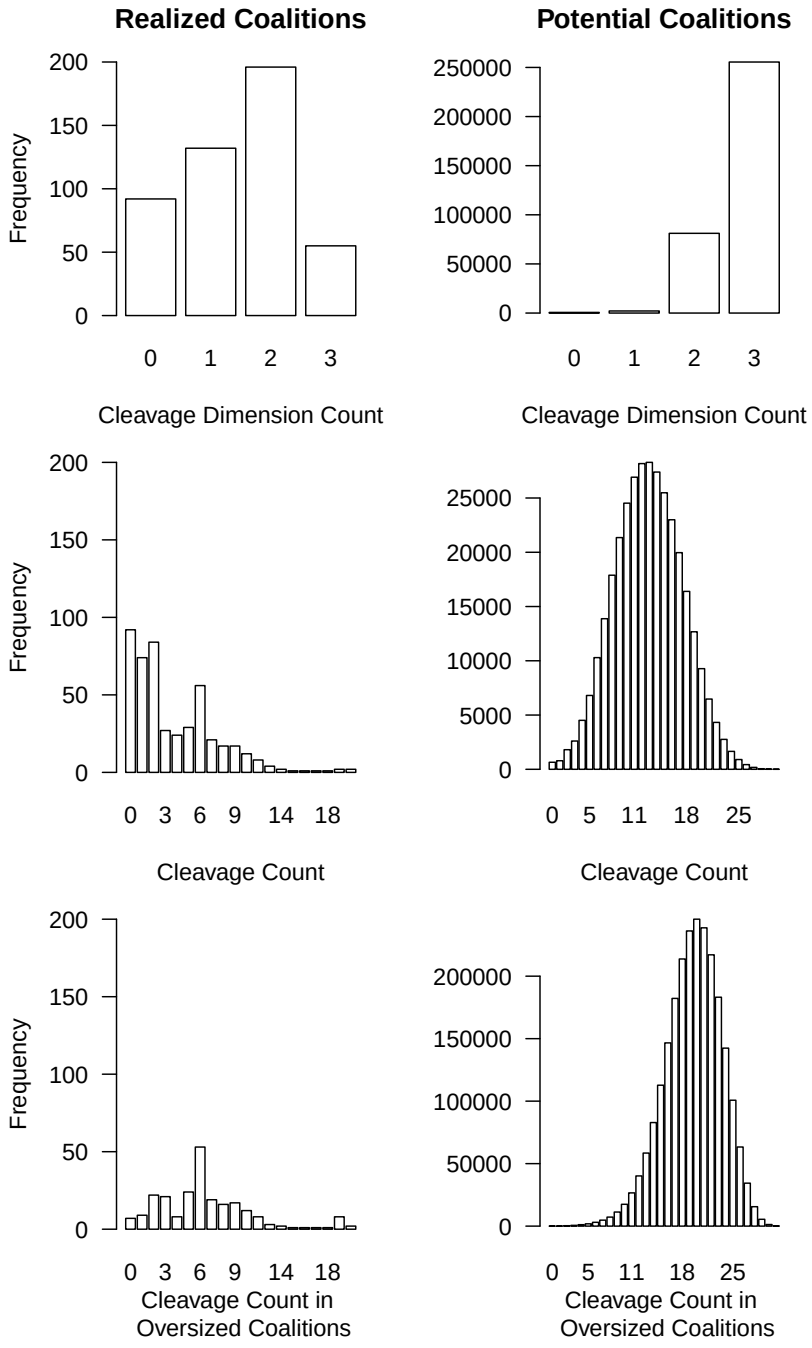


Table A8: Summary Statistics of Main Duration Analysis Variables.

Statistic	N	Mean	St. Dev.	Min	Max
Government Failure	6,524	0.027	0.163	0	1
Single-Group Majority	6,524	0.453	0.498	0	1
Oversized Coalition	6,524	0.377	0.485	0	1
Largest Group	6,360	0.836	0.370	0	1
Member Count	6,524	1.971	1.862	1	14
Cleavage Dimensions	6,524	0.281	0.450	0	1
Ethnic Gov. Conflict	6,524	0.121	0.326	0	1
Irregular Leader Change	5,876	0.040	0.196	0	1
Log(Leader Tenure)	5,876	1.731	0.823	0.000	3.871
Log(GDP p.c.)	6,524	3.480	0.542	2.043	5.049
GDP Growth	6,522	0.021	0.075	−0.654	0.887
Log(Population)	6,524	7.003	0.658	5.353	9.120
Parliamentary (DD)	6,524	0.165	0.371	0	1
Semi-Presidential (DD)	6,524	0.072	0.259	0	1
Presidential (DD)	6,524	0.137	0.344	0	1
Civilian (DD)	6,524	0.341	0.474	0	1
Military (DD)	6,524	0.211	0.408	0	1
PR (BG)	6,524	0.193	0.395	0	1
Majoritarian (BG)	6,524	0.139	0.346	0	1
Mixed (BG)	6,524	0.043	0.202	0	1
One-Party (Gandhi)	6,524	0.197	0.398	0	1
Multi-Party (Gandhi)	6,524	0.234	0.423	0	1

6 Coalition Formation – Additional Tests

- Figure A7 plots the predicted probabilities of Model 1 for each government type including grand coalitions, which are clearly less likely than oversized or single-majority governments. Similar results obtain from Models 2 and 3.

- Table A9 replicates the results in Table 2 in the main text but use mixed logit models. The only major difference is the statistical significance of the largest group mean effect in Models A1 and A2. All other results indicate that the simply conditional logit provides similar estimates to the unbiased mixed logit estimator.

- In order to alleviate concerns that the findings are driven by the selection of formation opportunities, I estimate the specifications of Models 1 and 2 from Table 2 with conditional logit models on both the EPR-based sample and the institutions-based sample described above. Except for the lack of statistical significance for the estimated effect of oversized coalitions in Model A5, the results remain virtually the same across the two samples.[7]

- The models in Table A11 assess how sensitive the results are to the removal of cases where ethnicity is arguably less salient in politics such as OECD members (Model A8), Western countries including those in the Americas, Western Europe, Australia, and New Zealand (A9), post-Soviet member states (A10), and all states outside Africa, Asia, and the Middle East. Running the specification from Model 3 on the four subsets has no bearing on the conclusions reached in the main text.

- Table A12 presents four models. Model A12 counts all coalitions that include less than 60% of the population as minimum-winning governments, and respectively subtracts them from the oversized category. The estimated effect for minimum-winning coalitions is now positive and statistically significant but continues to be substantively and statistically weaker than that of single-member governments and oversized coalitions. While minimum-winning coalitions according to this alternative definition are more likely than minority governments they fail to reach the popularity of secure majorities in ethnically divided societies. Model A13 restricts the analysis to all states in which the largest group accounts for at most 60% of the population. In these societies, ethnicity should be a highly relevant cleavage. The estimated effects of oversized coalitions and count of cleavage counts hardly changes. This is a strong signal that countries in which ethnicity might less salient do not unduly affect

[7] Israel is the only country that observes the formation of a minimum-winning coalition and while it undergoes multiple changes in its bargaining environment, and therefore features multiple formation opportunities in the EPR-based sample, it is institutionally stable throughout its history. It is thus only included in the first year of its existence when it was not ruled by a minimum-winning coalition. As a result of this perfect prediction, I cannot estimate the minimum-winning coalition effect in Models A5 and A7.

the substantial conclusion of my analysis. Models A14 and A15 indicate different post-conflict dummies. The former specification controls for the presence of two ethnic groups within the government who had fought a past civil war against each other. The latter model only distinguishes between government with the experience of a prior war and those without. Although both estimated effects are negative, implying that governments are less likely to include groups that have fought prior civil wars, neither of them is significantly different from zero. Other specifications that look at interactions between war experience and particular government types return similarly insignificant results.

- Table A13 evaluates a number of alternative cleavage variable operationalizations. Model A16 includes the count of all cleavages in a coalition rather than the sum of at least one difference on linguistic, religious, and racial dimension. Model A17 divides the sum of all cleavages in the coalition by the total number of cleavages in the country to make sure that the cleavage results are not driven by very homogeneous countries where the count is always small. Both models show strongly negative and statistically significant effects for the respective variables, which implies that ethnic elites prefer government with fewer cleavages to those with more cleavages. The remaining two models in Table A13 assess whether or not the cleavage results are driven by one of the underlying dimensions by including three variables that measure the fractionalization (A18) and polarization (A19) on each of the three ethnic cleavage dimensions. I compute fractionalization as $Frac = 1 - \sum_{i=1}^{S} segsize_i^2$ and polarization as $Polar = 1 - \sum_{i}^{S} 4 * (\frac{1}{2} - segsize_i)^2 * segsize_i$ (cf. Reynal-Querol, 2002, 33) where $segsize$ captures the relative size of the cleavage segment i for one group with S segments on one cleavage dimension. For example, a religiously homogeneous group with multiple linguistic segments would have a religious fractionalization score of 1 but a linguistic fractionalization score < 1. Although the religious and racial dimensions exhibit a negative relationship with the likelihood of coalition formation indicating that ethnic cooperation might indeed be less likely along these two dimensions, none of the estimated effects is statistically significant from zero.

- Four figures present the predicted probabilities of various government types under different institutional frameworks, more specifically, democracies, anocracies, and autocracies in Figure A8, dictatorships with and without ruling parties in Figure A9, dictatorships with and without a parliament in Figure A10, and military versus civilian regimes in Figure A11. As mentioned in the main text, the Figures do not point to any differences in the patterns of coalition formation in ethnically divided societies between the various institutional frameworks.

- Table A18 splits the formation sample into cases preceded by a negotatiated settle-

ment in the past five years or not. I use two datasets, one by Hartzell and Hoddie (2007) and updated by Mattes and Savun (2010), and the other by Högbladh, Pettersson and Themnér (2011) to operationalize negotiated settlements. In post-conflict settlement cases, the relationship between coalition types and the number of cleavages within governments continues to point in the right direction but fails to be statistically significant at the 5%-level – a likely result of the starkly reduced number of formation opportunities. The relationship in non-settlment cases remains robust.

- Table A19 includes models that assess the influence of non-state institutional capacity on ethnic coalition formation. I assess differences between strongly and weakly institutionalized party systems (Models A37&A38) with the help of an index of party institutionalization from the Varieties fo Democracies project (Coppedge et al., 2017). I split my sample of formation opportunities at the median of the index (measured in country-years). Models A39&A40 test how elites create government coalitions when faced with ongoing and past governments insurgencies, with data from Kalyvas and Balcells (2010). Slater (2010) argues that communist insurgencies have the power to threaten incumbent regimes and thus constitute strong non-state organizations. In the case of either strong party systems or communist insurgencies, the likelihood of elites choosing oversized coalitions over minority rule increases relative to weak non-state institutions although the change in the difference is not statistically significant. Formation opportunities with strong non-state institutions are less likely to be associated with cross-cutting cleavages than those with weaker institutions. Once more, the difference is not statistically significant.

- Table A20 includes models that assess the influence of state capacity on ethnic coalition formation. I proxy strong states by low (versus high) settler mortality (Acemoglu, Johnson and Robinson, 2001) and high (versus low) values on the *state antiquity index* by Bockstette, Chanda and Putterman (2002), which codes the degree of centralized statehood on the territory of current-day states for the 39 half centuries between 1 and 1950 C.E.. I again split each sample at the median. No systematic differences with respect to oversized coalitions emerge between strong and weak states. Whereas elites prefer oversized coalitions slightly more in cases of settler mortality (and weaker states) the relationship reverses in states with a longer history of statehood. Either way the differences are not statistically significant. Reducing the number of cleavages per coalition consistently is more important in weak states but once more the differences between strong and weak states fail to reach statistical significance.

Figure A7: Estimated government type probabilities based on Model 1 in Table 2 including Grand Coalition.

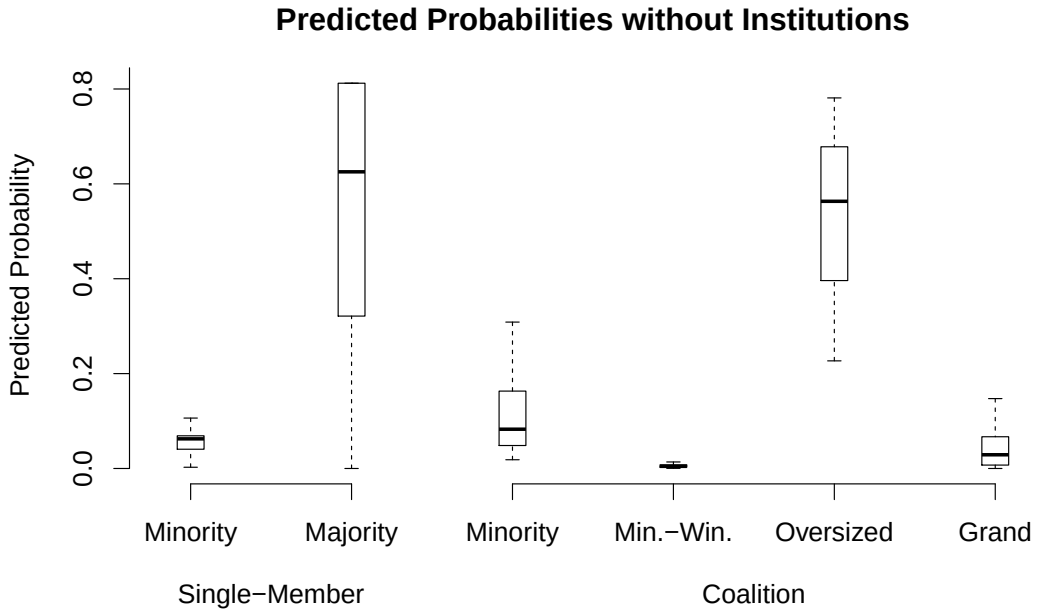


Table A9: Mixed logit models of coalition formation in 133 states, 1946–2009.

	(A1)		(A2)		(A3)	
	Mean	SD	Mean	SD	Mean	SD
Single-Group Maj.	3.023***	4.684***	3.365***	5.620***	2.955***	3.340***
	(0.664)	(0.911)	(0.718)	(1.106)	(0.750)	(0.979)
M.-W. Coalition	-0.017	-0.376	0.378	0.602	-0.336	0.400
	(0.458)	(0.604)	(0.595)	(0.765)	(1.172)	(1.410)
Oversized Coal.	1.579***	-0.399	2.231***	-0.749	2.327***	0.792*
	(0.345)	(0.576)	(0.394)	(0.491)	(0.451)	(0.380)
Largest Group	1.215**	1.505***	1.107*	1.592***	0.390	-0.613
	(0.426)	(0.335)	(0.441)	(0.434)	(0.443)	(0.418)
No. of Groups	-0.551**	1.231***	-0.199	1.389***	0.011	1.207***
	(0.186)	(0.167)	(0.187)	(0.288)	(0.206)	(0.166)
Cleavage Count			-0.712**	1.212***	-1.048***	-1.149***
			(0.218)	(0.247)	(0.269)	(0.249)
% of Incumbents					2.553***	1.578**
					(0.434)	(0.558)
Formation Opportunities	467		467		328	
Potential Governments	338591		338591		295288	
ℓ	-1021.64		-990.213		-727.204	
χ^2	443.938		451.171		298.480	

Country-clustered standard errors in parentheses.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A10: Conditional logit model comparing two different samples, 1946–2009.

	(A4) EPR Sample	(A5) Institutional Sample	(A6) EPR Sample	(A7) Institutional Sample
Single Group Majority	2.724***	2.702***	2.231***	2.178***
	(0.427)	(0.638)	(0.428)	(0.616)
Minimum-Winning Coalition	-1.203		-0.577	
	(1.059)		(1.045)	
Oversized Coalition	1.545***	1.021	1.991***	1.570**
	(0.407)	(0.627)	(0.399)	(0.574)
Largest Group in Government	0.273	0.484	0.332	0.560
	(0.336)	(0.573)	(0.327)	(0.537)
No. of Groups in Coalition	-0.528*	-0.501*	-0.315	-0.189
	(0.218)	(0.219)	(0.224)	(0.223)
No. of Cleavage Dimensions			-0.748***	-0.936***
			(0.194)	(0.207)
Formation Opportunities	473	803	473	803
Potential Governments	4795033	1125306	4795033	1125306
ℓ	-1327.874	-1845.202	-1294.428	-1768.349
χ^2	95.953	85.152	118.092	115.664

Country-clustered standard errors in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A11: Conditional logit models on different geographic regions, 1946–2009.

	(A8) Non-OECD	(A9) Non-West	(A10) Non-Post-Soviet	(A11) SSA & Asia
Single Majority	2.014***	2.057***	2.012***	1.979***
	(0.449)	(0.498)	(0.447)	(0.569)
Minimum-Winning Coalition		-0.194	-0.213	-0.284
		(1.083)	(1.075)	(1.084)
Oversized Coalition	2.028***	2.055***	1.995***	1.958***
	(0.414)	(0.439)	(0.420)	(0.447)
Largest Group	0.188	0.065	0.159	0.047
	(0.307)	(0.299)	(0.297)	(0.304)
Member Count	-0.284	-0.298	-0.279	-0.304
	(0.234)	(0.236)	(0.229)	(0.245)
Cleavage Dimension Count	-0.982***	-0.839**	-0.900***	-0.749*
	(0.271)	(0.294)	(0.264)	(0.298)
Formation Opportunities	300	265	310	241
Potential Governments	4488728	4488263	4488950	4487103
ℓ	-887.896	-866.981	-917.652	-824.518
χ^2	85.968	76.935	93.681	70.340

Country-clustered standard errors in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A12: Conditional logit models with alternative minimum-winning coalition threshold, only states whose largest group encloses at most 60% of the population, and post-conflict interactions.

	(A12)	(A13)	(A14)	(A15)
Single Group Majority	2.036***	1.753*	2.160***	2.165***
	(0.453)	(0.787)	(0.423)	(0.421)
Minimum-Winning Coalition	1.156*	-0.289	-0.176	-0.193
	(0.496)	(1.137)	(1.072)	(1.069)
Oversized Coalition	2.576***	1.838***	2.053***	2.035***
	(0.525)	(0.541)	(0.409)	(0.404)
Largest Group in Government	-0.135	0.238	0.153	0.165
	(0.371)	(0.328)	(0.292)	(0.291)
No. of Groups in Coalition	-0.408	-0.161	-0.275	-0.260
	(0.227)	(0.279)	(0.231)	(0.232)
No. of Cleavage Dimensions	-0.656**	-0.799*	-0.922***	-0.916***
	(0.247)	(0.365)	(0.258)	(0.256)
% of Last Government	0.641	3.396***	2.704***	2.604***
	(0.439)	(0.872)	(0.454)	(0.461)
Past Civil War Opponents			-0.322	
			(0.354)	
Past Civil War				-0.620
				(0.366)
Observations	4489587	4457848	4489587	4489587
ℓ	-829.970	-634.949	-939.834	-937.343
χ^2	117.121	47.014	112.814	111.838

Country-clustered standard errors in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A13: Conditional logit model of coalition formation with India and alternative ethnic cleavage operationalizations, 1946–2009.

	(A16)	(A17)	(A18)	(A19)
Single Group Majority	2.604***	2.239***	2.727***	2.799***
	(0.410)	(0.434)	(0.426)	(0.419)
Minimum-Winning Coalition	-0.708	-0.026	-0.860	-0.700
	(1.023)	(1.089)	(1.084)	(1.066)
Oversized Coalition	1.561***	2.210***	1.537***	1.680***
	(0.386)	(0.425)	(0.374)	(0.377)
Largest Group in Government	0.122	0.179	0.206	0.092
	(0.300)	(0.294)	(0.329)	(0.291)
No. of Groups in Coalition	0.300	-0.273	-0.459	-0.405
	(0.392)	(0.230)	(0.241)	(0.226)
No. of Cleavages	-0.525**			
	(0.202)			
Relative No. of Cleavages		-2.190**		
		(0.675)		
Linguistic Fractionalization			1.003	
			(0.611)	
Religious Fractionalization			-0.575	
			(0.888)	
Racial Fractionalization			-0.610	
			(0.923)	
Linguistic Polarization				0.007
				(0.465)
Religious Polarization				-0.671
				(0.692)
Racial Polarization				-0.321
				(0.537)
% of Last Government	3.007***	2.782***	3.286***	3.007***
	(0.482)	(0.458)	(0.546)	(0.499)
Formation Opportunities	333	333	333	333
Potential Governments	4489587	4489587	4489577	4489577
ℓ	-952.877	-947.682	-967.522	-968.386
χ^2	101.294	94.446	90.419	90.042

Country-clustered standard errors in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A14: Conditional logit models by regime and electoral system, 1946–2009. Basis for Figures 4a and 4b.

	(A20) Dictatorship	(A21) Democracy	(A22) Majoritarian	(A23) PR
Single Majority	1.957***	2.976***	2.448*	3.148***
	(0.512)	(0.735)	(1.138)	(0.899)
Minimal-Winning Coalition	-12.734***	1.625	-11.403***	3.201**
	(0.454)	(1.190)	(0.650)	(1.198)
Oversized Coalition	2.061***	2.566***	1.480*	4.105***
	(0.454)	(0.630)	(0.624)	(0.849)
Largest Group	-0.045	0.607	1.261	-0.430
	(0.356)	(0.434)	(0.668)	(0.492)
Member Count	-0.511*	0.142	0.308	-0.878
	(0.239)	(0.262)	(0.285)	(0.586)
Cleavage Dimension Count	-0.674*	-1.465***	-1.022	-1.569***
	(0.273)	(0.429)	(0.649)	(0.350)
Past Government Share	2.410***	3.880***	3.276**	4.277**
	(0.483)	(1.064)	(1.129)	(1.566)
Formation Opportunities	208	174	60	51
Potential Governments	279316	4210271	4202860	7153
ℓ	-634.740	-288.601	-202.143	-59.246
χ^2	2709.919	79.583	1317.648	71.404

Country-clustered standard errors in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A15: Mixed logit models by Polity IV regime-classification, 1946–2009. Basis for Figure A8.

	(A24) Autocracies		(A25) Anocracies		(A26) Democracies	
	Mean	SD	Mean	SD	Mean	SD
Largest Group in Government	0.975	2.095**	0.616	-0.220	3.695	-2.668
	(0.656)	(0.670)	(0.539)	(1.338)	(2.241)	(1.471)
Single Group Majority	2.004	7.363*	3.250***	2.676	4.929***	3.956**
	(1.170)	(3.339)	(0.928)	(1.427)	(1.492)	(1.304)
Minimum-Winning Coalition	-19.911	0.027	-16.379	0.033	3.611*	0.418
	(18638.821)	(18519.990)	(8017.638)	(8068.815)	(1.740)	(1.918)
Oversized Coalition	1.346**	0.371	2.278***	-0.067	4.892***	0.084
	(0.480)	(0.718)	(0.681)	(0.669)	(1.459)	(0.868)
No. of Groups in Coalition	-0.076	0.981***	-0.495	1.258***	-0.493	1.743***
	(0.258)	(0.220)	(0.314)	(0.316)	(0.388)	(0.390)
No. of Cleavage Dimensions	-0.989***	0.779*	-0.825*	0.703	-1.873**	-2.264***
	(0.288)	(0.345)	(0.352)	(0.456)	(0.669)	(0.627)
N	66,137		148,221		64550	
ℓ	-410.116		-264.102		-219.349	
χ^2	109.024		63.564		103.822	

Country-clustered standard errors in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A16: Mixed logit models by authoritarian institutions, 1946–2009. Basis for Figures A9, A10, and A11.

	(A27) Parties		(A28) Legislatures		(A29) Civilian		(A30) Military	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Largest Group in Government	0.045	-0.114	-0.077	-0.231	0.375	-0.281	-0.017	-1.506
	(0.542)	(0.955)	(0.527)	(1.224)	(0.577)	(0.845)	(0.855)	(1.048)
Single Group Majority	3.961*	6.633*	3.568*	2.853	4.797***	1.314	-0.229	2.978
	(1.587)	(3.336)	(1.497)	(2.108)	(1.255)	(2.056)	(1.517)	(3.151)
Minimum-Winning Coalition	-18.342	0.194	-17.728	-0.014	-18.560	-0.042	-17.565	0.281
	(12993.906)	(13631.576)	(9369.590)	(9531.419)	(16694.336)	(15842.125)	(6657.623)	(6833.570)
Oversized Coalition	2.795**	2.558*	3.029**	2.979**	2.634**	-3.153*	1.204	0.041
	(0.961)	(1.070)	(1.017)	(0.958)	(0.899)	(1.333)	(0.737)	(1.203)
No. of Groups in Coalition	-0.093	1.350***	-0.153	1.250***	-0.056	1.294***	-0.165	1.656***
	(0.309)	(0.261)	(0.317)	(0.307)	(0.312)	(0.248)	(0.471)	(0.473)
% of Last Government	3.490***	1.868	3.500***	2.079	3.371***	2.631*	2.258**	-1.654
	(0.902)	(1.425)	(0.787)	(1.129)	(0.984)	(1.080)	(0.775)	(1.101)
No. of Cleavage Dimensions	-0.269	-2.113***	-0.945*	1.884***	-0.983	1.666***	-0.460	-0.636
	(0.464)	(0.565)	(0.443)	(0.560)	(0.511)	(0.426)	(0.408)	(0.832)
N	207548		196783		131524		146024	
ℓ	-311.795		-345.858		-305.585		-203.164	
χ^2	136.131		111.093		88.955		92.998	

Country-clustered standard errors in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A17: Conditional logit models by period, 1946–2009.

	(A31) Cold War	(A32) Post-Cold War
Single Majority	2.463***	1.928***
	(0.598)	(0.498)
Minimum-Winning Coalition	-11.959***	0.737
	(0.488)	(1.201)
Oversized Coalition	1.922***	2.154***
	(0.501)	(0.553)
Largest Group	0.001	0.286
	(0.469)	(0.354)
Member Count	-0.395	-0.177
	(0.269)	(0.281)
Cleavage Dimension Count	-0.786*	-1.033**
	(0.307)	(0.316)
Past Government Share	2.674***	2.842***
	(0.470)	(0.682)
Formation Opportunities	177	156
Potential Governments	3248403	1241184
ℓ	-490.816	-444.389
χ^2	2051.933	60.417

Country-clustered standard errors in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A18: Conditional logit models by negotiated settlements, 1946–2009.

	(A33)	(A34)	(A35)	(A36)
	Hartzell & Hoddie		UCDP	
	Settlement	∼Settlement	Settlement	∼Settlement
Single Majority	1.641	2.227***	1.333	2.275***
	(0.980)	(0.448)	(0.841)	(0.471)
Minimum-Winning Coalition	-18.198***	-0.087	-14.884***	-0.077
	(0.885)	(1.076)	(1.041)	(1.051)
Oversized Coalition	1.711	2.142***	1.983	2.117***
	(1.030)	(0.412)	(1.149)	(0.416)
Largest Group	0.195	0.155	0.392	0.118
	(0.467)	(0.311)	(0.574)	(0.314)
Member Count	-0.385	-0.303	-0.420	-0.297
	(0.503)	(0.223)	(0.548)	(0.224)
Cleavage Dimension Count	-0.621	-0.956***	-0.598	-0.973***
	(0.437)	(0.266)	(0.367)	(0.258)
Past Government Share	2.856	2.819***	3.026	2.784***
	(2.202)	(0.459)	(1.587)	(0.458)
Formation Opportunities	26	307	39	294
Potential Governments	144369	4346046	140107	4350308
ℓ	-114.559	-855.016	-132.730	-834.940
χ^2	2086.017	102.375	2805.978	91.957

Country-clustered standard errors in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A19: Conditional logit models by institutional strength, 1946–2009.

	(A37)	(A38)	(A39)	(A40)
	Party System Institutionalization		Communist Insurgency	
	High	Low	Yes	No
Single Majority	3.865***	1.482**	3.258**	2.058***
	(0.782)	(0.472)	(1.085)	(0.454)
Minimum-Winning Coalition	2.421**	-12.248***	-10.568***	-0.227
	(0.862)	(0.503)	(0.951)	(1.074)
Oversized Coalition	2.655***	2.182***	3.155**	1.938***
	(0.636)	(0.576)	(1.057)	(0.426)
Largest Group	0.547	0.264	2.679***	0.050
	(0.382)	(0.344)	(0.791)	(0.290)
Member Count	-0.183	-0.315	-0.564	-0.249
	(0.325)	(0.269)	(0.350)	(0.241)
Cleavage Dimension Count	-0.682	-1.083***	-0.675	-0.956***
	(0.424)	(0.293)	(0.384)	(0.276)
Past Government Share	4.331**	2.647***	6.637**	2.667***
	(1.320)	(0.655)	(2.448)	(0.461)
Formation Opportunities	131	161	45	288
Potential Coalitions	4364729	86935	1075311	3415104
ℓ	-371.995	-453.632	-146.821	-814.284
χ^2	46.153	2369.294	1214.301	93.577

Country-clustered standard errors in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A20: Conditional logit models by state strength, 1946–2009.

	(A41)	(A42)	(A43)	(A44)
	Settler Mortality		State Antiquity	
	Low	High	High	Low
Single Majority	1.487	1.516	3.351***	1.453**
	(0.773)	(0.808)	(0.816)	(0.508)
Minimum-Winning Coalition	-13.416***	-8.825***	1.394	-12.405***
	(0.605)	(0.967)	(1.157)	(0.458)
Oversized Coalition	1.742**	1.947*	2.124**	1.464**
	(0.663)	(0.814)	(0.702)	(0.456)
Largest Group	0.038	1.820**	1.308**	-0.168
	(0.404)	(0.588)	(0.405)	(0.309)
Member Count	-0.152	0.004	-0.465	0.095
	(0.364)	(0.399)	(0.326)	(0.359)
Cleavage Dimension Count	-0.985*	-1.885***	-0.508	-0.784*
	(0.391)	(0.523)	(0.304)	(0.356)
Past Government Share	2.142***	2.163*	5.224**	1.603***
	(0.550)	(1.031)	(1.748)	(0.362)
Formation Opportunities	150	73	143	160
Potential Coalitions	184570	4250365	4282233	80080
ℓ	-439.643	-206.826	-405.479	-441.272
χ^2	1739.135	462.254	56.912	1360.921

Country-clustered standard errors in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure A8: Estimated government type probabilities in democracies, anocracies, and autocracies. Data from Polity IV.

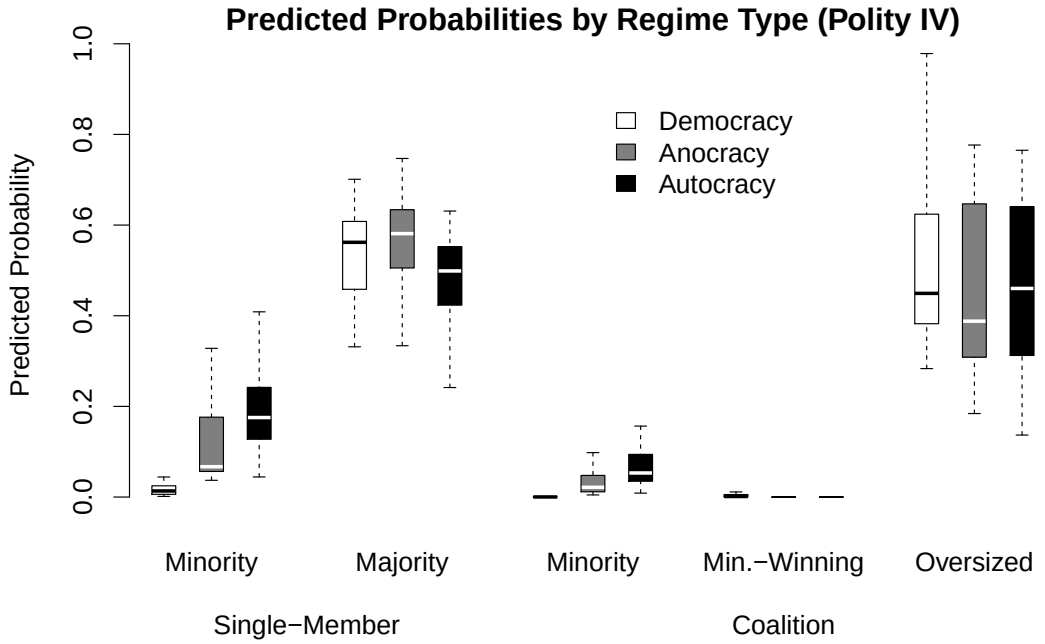


Figure A9: Estimated government type probabilities in authoritarian regimes with and without ruling parties. Data from Cheibub, Gandhi and Vreeland (2010).

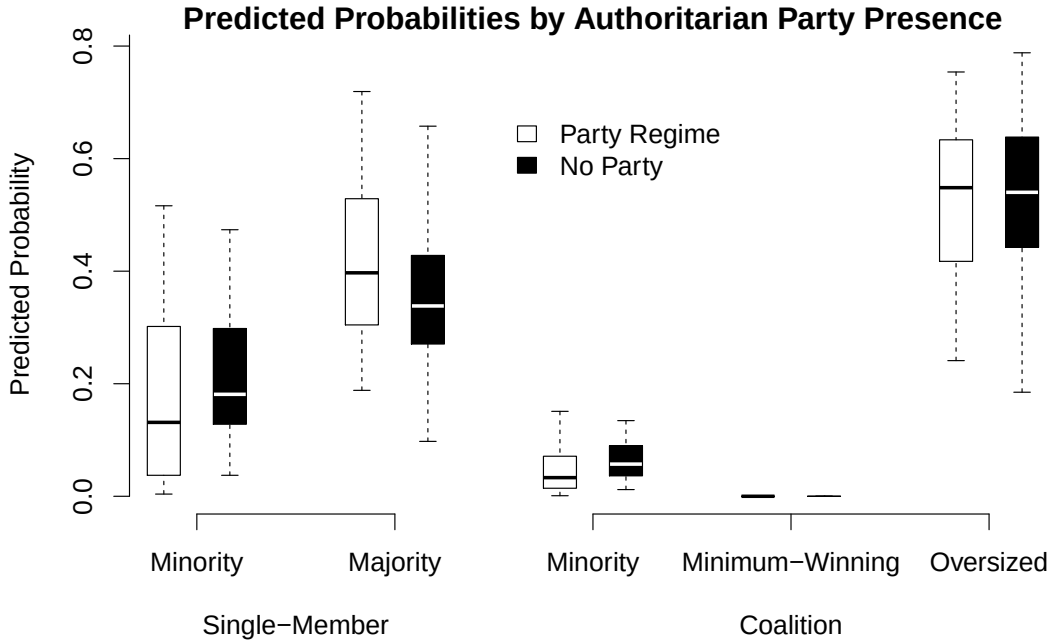


Figure A10: Estimated government type probabilities in authoritarian regimes with and without legislatures. Data from Cheibub, Gandhi and Vreeland (2010).

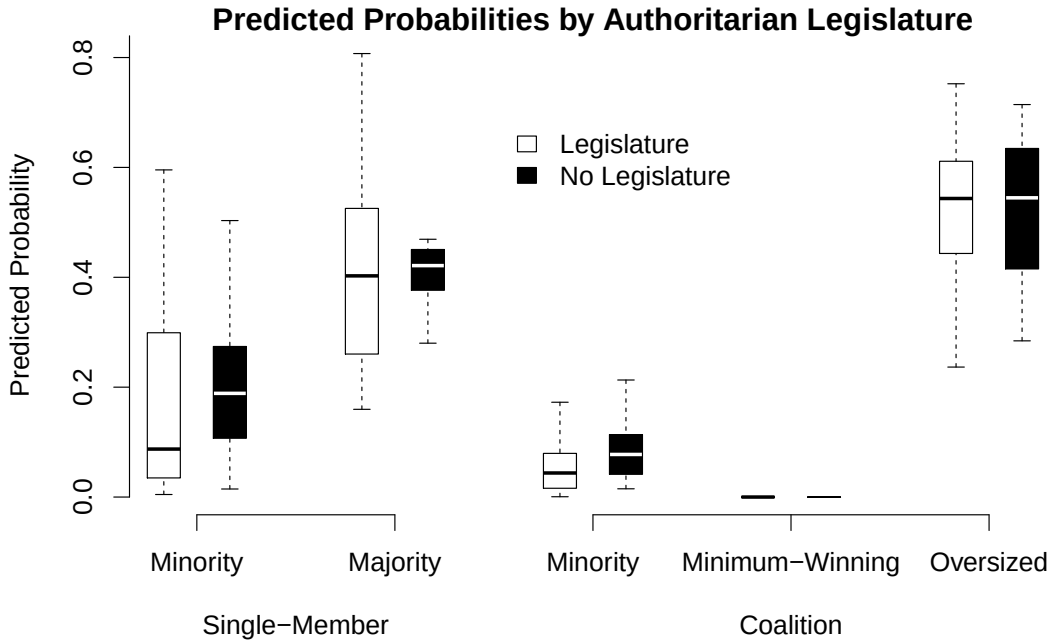
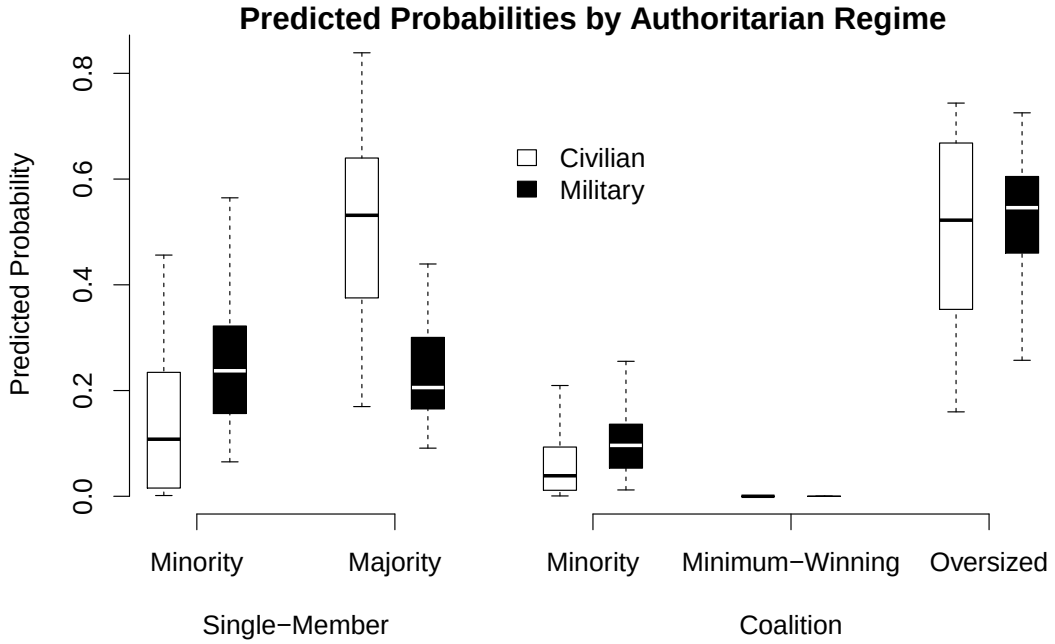


Figure A11: Estimated government type probabilities in authoritarian regime type. Data from Cheibub, Gandhi and Vreeland (2010).



7 Coalition Duration – Additional Tests

This section displays the full results of Table 3 from the main text in Table A21 and additional Cox proportional hazards models to test the robustness of the cleavage variable's effect on coalition duration. Tables A22-A24 add additional controls to the main specification in the text. Throughout these tests single-group majorities make for more stable governments than oversized coalitions. The latter type of government, however, become more stable as they add more members.

Tables A25-A28 add another specification that uses a continuous operationalization of ethnic coalitions but otherwise adds the same controls in the same order as in the main specification. Specifically, these models replace the coalition dummies and membership count variable with the included group and population shares. The included group share proxies the number of diverse ethnic elites that share power whereas the included population share proxies the representativeness of the coalition.[8] The two variables are not independent as increasing the group share increases the population share and vice versa. Yet countries with a majority-minority demography will feature high values on the included population share variable and low values on the included group share measure. Whereas countries with multiple minority groups and oversized coalitions will have high values on both measures.

Generally, I expect governments with a high share of the included population to last longer as rebellions provide less of a danger on the government. In contrast, increasing the number of the included group share means an increasing risk of conflict within the coalition and should decrease coalition survival. Gernally, the results bear out these expectations. Below I will describe the individual models and focus on the effect of cleavage dimensions in the coalition.

1. Tables A22 and A26 add additional institutional variables to the main specifications in the text. Existing work has linked these these institutional variables either to the likelihood of ethnic power-sharing or to the stability of governments in democratic or autocratic regimes. However, none of these specifications alters the insights about the relationship between cleavages and government stability reached in the main text. Less diverse governments which include more cross-cutting cleavages survive longer than more diverse governments which offer greater overlap with excluded groups. In the following I briefly discuss the effects of the added control variables.

    - Using data from the updated Democracy and Dictatorship (DD) dataset by Cheibub, Gandhi and Vreeland (2010)), Models A50 & A68 add the Polity IV

[8] I replace the share of included groups with the count of groups to better capture differences between countries with a larger and smaller number of overall groups. This is not necessary in the main specification as the combination of the count of members and the oversized coalition dummy indicate the proportion of groups in the coalition.

index of democracy (Marshall, Jaggers and Gurr, 2011) which reveals that more democratic states experience more changes in the ethnic composition of their governments though the relationship is only statistically significant at the 5%-level in Model A68..

- Models A51 & A69 again rely on DD data to assess differences between democracies, autocracies with elected parliaments, and dictatorships without them (e.g., Gandhi, 2008). Once more democracies are associated with more instability in the ethnic composition of the government.
- Finally, Models A52 & A70 distinguish authoritarian regimes according to Geddes', Wright's, and Frantz' conceptualization of authoritarian regimes by adding controls for party-based, personalist, and military-based authoritarian regimes (2013). Although the estimated effect for party-based regimes seems to support their argument that such regimes survive longer, none of the effects for the different autocratic institutions differs significantly from one another, or from the baseline of democratic regimes.

2. Rather than evaluating distinct regime types, Tables A23 and A27 evaluate the effect of institutional capacity on ethnic government stability and its relationship with cleavage configurations. As discussed in the main text, non-state institutional capacity could give excluded politicians the ability to activate cross-cutting cleavages with the regime or create a counter-reaction by the state. In contrast, high state capacity should only enable ruling elites to withstand attempts to split their support base. The inclusion of these variables in the base specification (Table A23) reduces the statistical significance of the estimated effect of the cleavage variable, this is not the case in the continuous coalition variable models (Table A27). Since three out of the four institutional strength variables drop a substantial number of cases from the analysis, it is difficult to say whether or not the increased variability in the estimate results from the smaller N or from a true confounding effect.

    - Moreover, none of the institutional variables chosen here has a specifically strong effect on governmental stability. Only states with a greater score on state history index variable feature significantly fewer changes in the ethnic constellations of their governments (Models A55 & A73).
    - Ongoing and past communist rebellions, more institutionalized party systems, and states with higher settler mortality rates fail to exert a statistically significant effect on government stability (Models A53-54, 56 & A71-72, A74).

3. The models in Tables A24 and A28 test the robustness of the cleavage-government stability link when controlling for other sources of uncertainty. Again, the positive and statistically significant link between a higher count of cleavages within the

government coalition, i.e., a greater risk for cleavage realignment, and a greater likelihood of government breakdown remains as predicted by my theory.

- Foreign occupations and changes in the Polity score do not affect government stability in a statistically significant way (Models A57-58 & A75-76).
- A larger number of past civil wars is associated with more stability in the ethnic composition of the government, possibly because information about the fighting capacity of different ethnic groups has been revealed (Models A59 & A77).
- Democratic and autocratic transitions as measured by the DD dataset imply a higher risk of changes in the ethnic composition of the executive as expected by most transition theorists (e.g., Boix, 2003; Acemoglu and Robinson, 2006).

Table A21: Cox duration models of coalition failure, 1946-2009. Full results of Table 3.

	(A45)	(A46)	(A47)	(A48)	(A49)
Single-Group Majority	−1.320***	−1.061*	−0.960	−1.101	−1.021
	(0.387)	(0.507)	(0.538)	(0.606)	(0.589)
Oversized Coalition	−0.208	0.174	0.291	0.258	0.240
	(0.323)	(0.423)	(0.453)	(0.502)	(0.501)
Largest Group	−0.182	−0.331	−0.330	−0.327	−0.304
	(0.339)	(0.459)	(0.485)	(0.568)	(0.547)
Member Count	−0.099*	−0.116*	−0.105	−0.116	−0.117*
	(0.049)	(0.049)	(0.062)	(0.061)	(0.057)
Cleavage Dimensions	0.711**	0.765**	0.660*	0.531*	0.616*
	(0.231)	(0.246)	(0.267)	(0.245)	(0.253)
Civil War Ongoing		0.495**	0.354*	0.366*	0.365*
		(0.155)	(0.156)	(0.168)	(0.160)
Irr. Leader Change		1.977***	1.962***	2.002***	1.970***
		(0.212)	(0.211)	(0.198)	(0.202)
Log(Leader Tenure)		0.286**	0.218*	0.348**	0.233*
		(0.094)	(0.089)	(0.112)	(0.099)
Log(GDP p.c.)			−0.680**	−0.830***	−0.756***
			(0.229)	(0.210)	(0.221)
GDP Growth			1.165	1.349	1.112
			(1.299)	(1.283)	(1.362)
Log(Population)			−0.144	−0.238	−0.222
			(0.200)	(0.210)	(0.189)
Parliamentary (DD)				1.936**	
				(0.712)	
Semi-Presidential (DD)				2.185**	
				(0.696)	
Presidential (DD)				0.867	
				(0.781)	
Civilian (DD)				1.409*	
				(0.643)	
Military (DD)				1.318*	
				(0.656)	
PR (BG)					0.120
					(0.449)
Majoritarian (BG)					0.822***
					(0.226)
Mixed (BG)					−0.091
					(0.736)

One-Party (Gandhi)					0.298
					(0.252)
Multi-Party (Gandhi)					0.353
					(0.272)
Wald test: $\Pr(\beta_1 = \beta_2)$	$<0.001^{***}$	0.002^{**}	0.002^{**}	$<0.001^{***}$	0.001^{**}
Observations	6,360	5,724	5,724	5,724	5,724
ℓ	−859.352	−680.765	−674.130	−663.093	−669.222

*p<0.05; **p<0.01; ***p<0.001. Displayed estimates are coefficients, not hazard ratios. Country-clustered standard errors in parentheses.

Table A22: Cox duration models of coalition failure, 1946-2009.

	(A50)	(A51)	(A52)
Single Group Majority	−1.017	−1.035	−0.927
	(0.545)	(0.540)	(0.552)
Oversized Coalition	0.214	0.202	0.300
	(0.464)	(0.463)	(0.466)
Largest Group	−0.322	−0.280	−0.335
	(0.498)	(0.497)	(0.510)
Member Count	−0.105	−0.104	−0.099
	(0.059)	(0.059)	(0.059)
Cleavage Dimensions	0.658*	0.682**	0.680**
	(0.264)	(0.264)	(0.262)
Civil War Ongoing	0.365*	0.350*	0.351*
	(0.159)	(0.165)	(0.164)
Irr. Leader Change	1.968***	1.942***	1.931***
	(0.209)	(0.208)	(0.208)
Log(Leader Tenure)	0.267**	0.281**	0.238**
	(0.094)	(0.096)	(0.089)
Log(GDP p.c.)	−0.759***	−0.773***	−0.678**
	(0.230)	(0.219)	(0.232)
GDP Growth	1.156	1.225	1.172
	(1.336)	(1.348)	(1.276)
Log(Population)	−0.165	−0.208	−0.155
	(0.198)	(0.201)	(0.197)
Polity	0.022		
	(0.013)		
Democracy (DD)		0.377	
		(0.205)	
Auth. Legislature (Gandhi)		−0.051	
		(0.207)	
Party Regime (GWF)			−0.263
			(0.220)
Personalist Regime (GWF)			0.058
			(0.185)
Military Regime (GWF)			0.002
			(0.228)
Wald test: $\Pr(\beta_1 = \beta_2)$	0.002**	0.002**	0.002**
Observations	5,724	5,724	5,724
ℓ	−672.870	−672.324	−672.951

*p<0.05; **p<0.01; ***p<0.001. Displayed estimates are coefficients, not hazard ratios. Country-clustered standard errors in parentheses.

Table A23: Cox duration models of coalition failure, 1946-2009.

	(A53)	(A54)	(A55)	(A56)
Single Group Majority (β_1)	−0.963	−1.091*	−1.181*	−0.941
	(0.532)	(0.545)	(0.524)	(0.548)
Oversized Coalition (β_2)	0.296	0.294	0.358	0.743
	(0.451)	(0.474)	(0.413)	(0.440)
Largest Group	−0.318	−0.255	−0.119	−0.567
	(0.483)	(0.444)	(0.485)	(0.458)
Member Count	−0.106	−0.103	−0.164*	−0.140
	(0.062)	(0.072)	(0.083)	(0.089)
Cleavage Dimensions	0.675*	0.503	0.469	0.395
	(0.264)	(0.307)	(0.260)	(0.298)
Civil War Ongoing	0.350	0.415*	0.316	0.355
	(0.186)	(0.178)	(0.180)	(0.199)
Irr. Leader Change	1.953***	1.949***	2.052***	2.078***
	(0.209)	(0.265)	(0.209)	(0.203)
Log(Leader Tenure)	0.220*	0.279*	0.233*	0.323*
	(0.092)	(0.112)	(0.105)	(0.137)
Log(GDP p.c.)	−0.695**	−0.828**	−0.817***	−0.626*
	(0.232)	(0.255)	(0.244)	(0.295)
GDP Growth	1.156	0.449	1.943	0.676
	(1.293)	(1.208)	(1.279)	(1.753)
Log(Population)	−0.142	−0.273	0.121	−0.150
	(0.197)	(0.203)	(0.229)	(0.221)
Ongoing Communist Revolution	0.047			
	(0.355)			
Past Communist Revolution	−0.311			
	(0.387)			
Party Institutionalization		0.335		
		(0.495)		
State History Index			−0.001**	
			(0.0005)	
Settler Mortality				0.105
				(0.104)
Wald test: $\Pr(\beta_1 = \beta_2)$	0.002**	0.003**	<0.001***	<0.001***
Observations	5,724	5,033	5,105	3,175
BIC	1412.549	1121.606	1254.211	882.766

*p<0.05; **p<0.01; ***p<0.001. Displayed estimates are coefficients, not hazard ratios. Country-clustered standard errors in parentheses.

Table A24: Cox duration models of coalition failure, 1946-2009.

	(A57)	(A58)	(A59)	(A60)
Single Group Majority	−0.964	−0.971	−1.042*	−0.987
	(0.534)	(0.544)	(0.516)	(0.540)
Oversized Coalition	0.287	0.279	0.240	0.286
	(0.450)	(0.461)	(0.443)	(0.449)
Largest Group	−0.319	−0.324	−0.299	−0.322
	(0.481)	(0.492)	(0.466)	(0.489)
Member Count	−0.106	−0.105	−0.104	−0.103
	(0.062)	(0.062)	(0.067)	(0.061)
Cleavage Dimensions	0.675*	0.659*	0.667*	0.666*
	(0.267)	(0.268)	(0.276)	(0.262)
Civil War Ongoing	0.392*	0.352*	0.458**	0.333*
	(0.175)	(0.157)	(0.167)	(0.168)
Irr. Leader Change	1.944***	1.968***	1.972***	1.761***
	(0.212)	(0.211)	(0.209)	(0.241)
Log(Leader Tenure)	0.212*	0.220*	0.217*	0.243**
	(0.089)	(0.089)	(0.090)	(0.089)
Log(GDP p.c.)	−0.676**	−0.680**	−0.741**	−0.697**
	(0.228)	(0.229)	(0.244)	(0.228)
GDP Growth	1.224	1.164	1.169	1.096
	(1.354)	(1.300)	(1.348)	(1.302)
Log(Population)	−0.144	−0.145	−0.028	−0.156
	(0.199)	(0.200)	(0.212)	(0.190)
Occupation (Polity)	−1.020			
	(1.145)			
Polity Change		0.027		
		(0.042)		
Past Civil Wars			−0.113*	
			(0.054)	
Democratic Transition				0.716
				(0.411)
Autocratic Transition				0.815**
				(0.309)
Wald test: $\Pr(\beta_1 = \beta_2)$	0.002**	0.002**	0.002**	0.001**
Observations	5,724	5,724	5,724	5,724
ℓ	−673.420	−673.841	−672.405	−671.402

*p<0.05; **p<0.01; ***p<0.001.Displayed estimates are coefficients, not hazard ratios. Country-clustered standard errors in parentheses.

Table A25: Cox duration models of coalition failure with continuous coalition variables, 1946-2009.

	(A63)	(A64)	(A65)	(A66)	(A67)
Incl. Group Share	1.116**	1.443**	1.150*	1.262**	1.252*
	(0.408)	(0.456)	(0.466)	(0.489)	(0.491)
Incl. Population Share	−2.949***	−2.852***	−2.490***	−2.720***	−2.649***
	(0.556)	(0.642)	(0.714)	(0.772)	(0.705)
Largest Group	0.728	0.732	0.646	0.673	0.667
	(0.382)	(0.448)	(0.472)	(0.515)	(0.470)
Cleavage Dimensions	0.931***	0.935***	0.932***	0.831***	0.842***
	(0.205)	(0.225)	(0.219)	(0.227)	(0.220)
Civil War Ongoing		0.520**	0.436*	0.444*	0.458*
		(0.191)	(0.187)	(0.202)	(0.186)
Irr. Leader Change		1.971***	1.962***	1.985***	1.960***
		(0.212)	(0.215)	(0.198)	(0.204)
Log(Leader Tenure)		0.308**	0.264**	0.372**	0.293**
		(0.099)	(0.097)	(0.119)	(0.107)
Log(GDP p.c.)			−0.548*	−0.673**	−0.622**
			(0.234)	(0.216)	(0.224)
GDP Growth			1.468	1.634	1.395
			(1.254)	(1.260)	(1.345)
Log(Population)			−0.146	−0.212	−0.226
			(0.170)	(0.190)	(0.164)
Parliamentary (DD)				1.690*	
				(0.671)	
Semi-Presidential (DD)				2.039**	
				(0.651)	
Presidential (DD)				0.550	
				(0.734)	
Civilian (DD)				1.112	
				(0.590)	
Military (DD)				0.958	
				(0.605)	
PR (BG)					0.139
					(0.430)
Majoritarian (BG)					0.876***
					(0.221)
Mixed (BG)					0.087
					(0.828)
One-Party (Gandhi)					0.227

					(0.243)
Multi-Party (Gandhi)					0.370
					(0.253)
Observations	6,360	5,724	5,724	5,724	5,724
ℓ	−855.858	−678.882	−674.424	−663.783	−668.967

*p<0.05; **p<0.01; ***p<0.001. Displayed estimates are coefficients, not hazard ratios. Country-clustered standard errors in parentheses.

Table A26: Cox duration models of coalition failure with continuous coalition variables regime type controls, 1946-2009.

	(A68)	(A69)	(A70)
Group Share	1.165*	1.156*	1.131*
	(0.474)	(0.470)	(0.471)
Population Share	−2.590***	−2.592***	−2.451***
	(0.707)	(0.700)	(0.707)
Largest Group	0.629	0.665	0.620
	(0.471)	(0.466)	(0.466)
Cleavage Dimensions	0.926***	0.948***	0.954***
	(0.219)	(0.213)	(0.223)
Civil War Ongoing	0.445*	0.437*	0.416*
	(0.189)	(0.193)	(0.194)
Irr. Leader Change	1.973***	1.929***	1.946***
	(0.212)	(0.209)	(0.212)
Log(Leader Tenure)	0.327**	0.344***	0.286**
	(0.101)	(0.103)	(0.096)
Log(GDP p.c.)	−0.632**	−0.642**	−0.567*
	(0.229)	(0.224)	(0.231)
GDP Growth	1.473	1.544	1.463
	(1.304)	(1.305)	(1.221)
Log(Population)	−0.172	−0.217	−0.160
	(0.168)	(0.170)	(0.168)
Polity	0.028*		
	(0.013)		
Democracy (DD)		0.423*	
		(0.207)	
Auth. Legislature (Gandhi)		−0.080	
		(0.203)	
Party Regime (GWF)			−0.312
			(0.221)
Personalist Regime (GWF)			−0.040
			(0.177)
Military Regime (GWF)			−0.106
			(0.257)
Observations	5,724	5,724	5,724
ℓ	−672.497	−672.019	−673.207

*p<0.05; **p<0.01; ***p<0.001. Displayed estimates are coefficients, not hazard ratios. Country-clustered standard errors in parentheses.

Table A27: Cox duration models of coalition failure with continuous coalition variables and institutional strength controls, 1946-2009.

	(A71)	(A72)	(A73)	(A74)
Incl. Group Share	1.140*	1.199*	0.555	1.071
	(0.459)	(0.501)	(0.452)	(0.552)
Incl. Population Share	−2.472***	−2.436**	−2.087**	−1.710*
	(0.712)	(0.806)	(0.743)	(0.840)
Largest Group	0.643	0.534	0.598	0.064
	(0.476)	(0.487)	(0.467)	(0.497)
Cleavage Dimensions	0.939***	0.902***	0.927***	0.853***
	(0.222)	(0.237)	(0.241)	(0.250)
Civil War Ongoing	0.419*	0.463*	0.342	0.407
	(0.204)	(0.208)	(0.209)	(0.239)
Irr. Leader Change	1.959***	1.956***	2.011***	2.080***
	(0.212)	(0.269)	(0.223)	(0.225)
Log(Leader Tenure)	0.267**	0.313**	0.296**	0.354*
	(0.098)	(0.118)	(0.107)	(0.144)
Log(GDP p.c.)	−0.555*	−0.615*	−0.649*	−0.559
	(0.236)	(0.267)	(0.274)	(0.317)
GDP Growth	1.454	0.643	2.194	0.815
	(1.250)	(1.226)	(1.231)	(1.758)
Log(Population)	−0.148	−0.244	−0.028	−0.093
	(0.169)	(0.193)	(0.186)	(0.214)
Ongoing Communist Revolution	0.068			
	(0.328)			
Past Communist Revolution	−0.163			
	(0.400)			
Party Institutionalization		0.222		
		(0.507)		
State History Index			−0.001*	
			(0.0005)	
Settler Mortality				0.089
				(0.128)
Observations	5,724	5,033	5,105	3,175
BIC	1408.662	1119.741	1260.21	887.9716

*p<0.05; **p<0.01; ***p<0.001. Displayed estimates are coefficients, not hazard ratios. Country-clustered standard errors in parentheses.

Table A28: Cox duration models of coalition failure with continous coalition variables and uncertainty controls, 1946-2009.

	(A75)	(A76)	(A77)	(A78)
Incl. Group Share	1.109*	1.145*	1.025*	1.185*
	(0.471)	(0.469)	(0.470)	(0.467)
Incl. Population Share	−2.445***	−2.482***	−2.483***	−2.444***
	(0.722)	(0.724)	(0.696)	(0.698)
Largest Group	0.633	0.640	0.644	0.596
	(0.472)	(0.478)	(0.465)	(0.464)
Cleavage Dimensions	0.947***	0.929***	0.974***	0.941***
	(0.219)	(0.219)	(0.224)	(0.213)
Civil War Ongoing	0.456*	0.433*	0.528**	0.428*
	(0.200)	(0.189)	(0.197)	(0.195)
Irr. Leader Change	1.951***	1.967***	1.966***	1.778***
	(0.215)	(0.215)	(0.211)	(0.247)
Log(Leader Tenure)	0.259**	0.266**	0.270**	0.284**
	(0.096)	(0.096)	(0.098)	(0.097)
Log(GDP p.c.)	−0.548*	−0.549*	−0.612*	−0.557*
	(0.234)	(0.234)	(0.251)	(0.234)
GDP Growth	1.504	1.464	1.498	1.410
	(1.283)	(1.253)	(1.298)	(1.256)
Log(Population)	−0.152	−0.144	−0.061	−0.140
	(0.170)	(0.171)	(0.175)	(0.166)
Occupation (Polity)	−0.764			
	(1.096)			
Polity Change		0.024		
		(0.044)		
Past Civil Wars			−0.101	
			(0.054)	
Democratic Transition				0.681
				(0.420)
Autocratic Transition				0.735*
				(0.334)
Observations	5,724	5,724	5,724	5,724
ℓ	−674.061	−674.204	−672.975	−672.123

*p<0.05; **p<0.01; ***p<0.001. Displayed estimates are coefficients, not hazard ratios. Country-clustered standard errors in parentheses.

8 Narratives of government formation in Malaysia and Indonesia

8.1 Case selection

To illustrate my argument further I describe coalition formation in Malaysia and Indonesia.[9] These two case studies neither provide a causal test of my argument, nor were they crucial in developing the theory. Instead they illustrate the plausibility of my theoretical argument. Specifically, they show that three key parts of my argument operate in elites' decisions to form coalition: (1) elites form coalitions out of fear of future external challenges against their rule; (2) ethnic groups do not provide homogeneous support to leaders but fracture internally, robbing leaders of parts of their support base; (3) keeping cross-cutting cleavages inside the coalition prevents supporter defection but cross-cutting cleavages with the opposition allow for supporter defection. Additionally, the case studies reveal the relevance of non-ethnic cleavages. Although it seems as if the same logic that I describe for ethnic cleavages operates in the presence of non-ethnic divisions, additional research on their interplay is required before making firmer conclusions.

Investigating the two Southeast Asian states allows me to exploit both within and between-case variation on the outcome and the explanatory variables. Malaysia's history since independence provides examples of oversized ethnic coalitions and violent internal conflict between ethnic groups included in the coalition. Rather than breaking the coalition, the risk of being deposed by violence brought elites together. Whereas the Malaysian multiethnic coalition survived major challenges to its rule during the Asian Financial Crisis in the late 1990s, Suharto's monoethnic Javanese rule in Indonesia collapsed due to insufficient support among elites and masses. Subsequent Indonesian governments formed oversized coalitions under the uncertainty of democratization and frequent supporter defections.

Both Malaysia and Indonesia feature ethnic divisions along religious, racial, and linguistic lines as well as non-ethnic cleavages. Religious and non-ethnic cleavages cross-cut the salient ethnic dimensions of race in Malaysia and language in Indonesia. The narratives below will explore how reinforcing and cross-cutting cleavages affected coalition formation. While Malaysia experienced democratic government first and then transitioned to competitive authoritarian rule, Indonesia took the reverse path from authoritarian rule to multi-party democracy in the late 1990s. Moreover, both states employed institutions that are commonly associated with elite power-sharing in authoritarian regimes, yet Indonesia experienced monoethnic rule under Suharto. In the following, I will describe several formation opportunities in each state, and explain how the theoretical mechanisms discussed above help to explain elite choices. Subsequently, I will evaluate several alternative explanations that fail to account for the observed dynamics.

[9] The following account heavily relies on Dan Slater's 2010 book *Ordering Power – Contentious Politics and Authoritarian Leviathans in Southeast Asia*. I draw on other sources to both validate his account and to highlight alternative interpretations.

8.2 Malaysia

Although Malaysia never experienced changes to its multiethnic coalition composed of Malay, Chinese and Indian elites, while excluding east-Malaysian Dayaks and Kadazans, several opportunities for reforming the composition of the government existed. Here I focus on the constitution of the government around independence, its reformation after massive ethnic protest in 1969, and the continuation of ethnic power-sharing during and after the Asian financial crisis. The EPR dataset counts even more formation opportunities, for example, in 1963 when Singapore joined the Malaysian federation. The unification increased the Chinese population share relatively to the other ethnic groups, and thus triggered a change in the bargaining power of groups. I refrain from describing these episodes here because they do not add fundamental insight to my theoretical argument.

Independence: The origins of Malaysia's multiethnic coalition government stem from the massive threat of violence to elites around independence, and its latent persistence thereafter. According to Slater (2010, 74), "Malaysia's (...) robust ruling party coalition cohesive and subservient military apparatus, and durable authoritarian regime have their shared historical roots in elite responses to especially challenging pressures from below." Ethnic divisions, specifically the place of its Chinese minority which accounts for more than a quarter of the population, play a central role in these pressures from below. Yet rather than excluding the minority Chinese and their elites, the massive threat they posed through both urban protest and rural communist insurgency prior to independence, led to collaboration between Malay and Chinese as well as Indian elites in *the Alliance* during the last days of colonial rule and after independence.

The very threat of Chinese-Communist rebellion led the British colonial administration and Malay elites to seek out Chinese coalition partners to help defeat the rebellion.[10] Although the *Malayan Communist Party* (MCP) almost exclusively mobilized Chinese recruits, many Chinese elites themselves, who did not share communist convictions, felt threatened by the rebellion. The cross-cutting anti-communist cleavage that united Malay and Chinese enabled multiethnic collaboration (Slater, 2010, 89). The efforts it took to defeat the rebellion and the early electoral successes that enabled access to patronage further demonstrated the usefulness of the coalition to Malay and Chinese elites. Despite public suspicions about Chinese intentions and fears about a loss in Malay status brought about by reconciliatory policies, ethnic leaders "had come to realize that there was an urgent need for co-operation between the Malays and non-Malays in order to ward off racial conflicts in Malaya" (bin Tadin, 1960, 72).

Autocratic Reversal: In the dozen years following independence, the Alliance parties continued to gain majorities at the ballot box against opposition parties slowly increasing in strength. Ethnic outbidding threatened support for the Alliance parties and triggered urban riots. Malay-Islamic elites, formerly part of the Alliance's *United Malayl National Organization* (UMNO)

[10]Slater argues that the Malay response of coalition formation was due to the combined threat of ethnic *and* class rebellion. Yet Stenson (1974, 126) highlights that "although elements of class conflict were essential to the Malayan Communist Party's genesis, the full magnitude of the Party's support derived more from its ethnic than its class base."

founded their own party, the *Pan-Malayan Islamic Organization* (PAS) in 1951. Threatening cleavage reconfiguration by highlighting religious divisions to non-Muslims brought them a substantial share of votes (Crouch, 1996, 18). Nevertheless the Alliances' seat share in parliament never fell below 60% of seats (Slater, 2010, 121), at least in part because the coalition offered representation to Islamic groups.

It was the uncertainty induced by decreasing majorities and the threat of more violence after heavy urban riots that led the ruling elites to abandon electoral democracy in 1969. Although the anti-Chinese riots were triggered by an electoral result that many Malays interpreted as Chinese defection from the Alliance, and thus a monoethnic grab for power, Malay, Chinese, and Indian elites reconstituted their oversized coalition by abandoning democratic rules rather than expelling Chinese elites (Slater, 2010, 123). In fact, instead of downsizing the coalition, the opposite happened and the coalition enlarged its membership on both the elite and the mass level (Crouch, 1996, 33; Liow and Leifer, 2014, 102). Slater (2010, 147) describes how "economic elites, communal elites, and middle classes join[ed] state officials in broad support of more authoritarian politics" in the newly constituted *Barisian Nasional* (BN).

Having recognized the threat of cleavage reconfiguration, the BN implemented an active program of institutionalizing political Islam within its organizational structure throughout the 1970s and 1980s. "The bureaucratization of religious authority ... allowed for the control of increasing religious diversity perceived as a challenge to the Administration's authority" (Nair, 1997, 34). This is not to say that Muslim elites have no say in the coalition. Quite the opposite holds true as "UMNO-led regime [enjoys] broad support among Muslim elites" (Slater, 2010, 149). In line with my second hypothesis, the ethnic leaders in Malaysia incorporate the, albeit minor, cross-cutting religious and territorial cleavages into their coalition to prevent cleavage reconfiguration, while excluding groups such as the Dayaks and Kadazans from East Malaysia without any territorial and religious overlap.

Asian Financial Crisis: The Asian Financial Crisis of 1998 presented a perfect storm for any autocratic regime, and brought down dictators and their ruling coalitions in Indonesia and the Philippines. Despite increasing nepotism and internal challenges to the UMNO-Malay leadership of the BN during the crisis, the multiethnic coalition survived and even thrived thereafter. There are two interpretations of this unlikely success, which are both broadly in line with my argument.

For one, the oversized multiethnic coalition of the BN was strong enough to survive even defections by such high-level Malay leaders as Deputy Prime Minister Ibrahim Anwar, who was widely seen as the likely successor to long-time Prime Minister Mahatir. As predicted by my second hypothesis, Anwar tried to capitalize on his popular support and emphasized religious cleavages to take over power from Mahatir. However, "[t]he extraordinary cohesion of UMNO and the BN left Anwar virtually friendless at the elite level," and he "faced enormous structural difficulties in attracting and mobilizing support from the kinds of communal elites ... who had driven democratic uprisings in the Philippines and Indonesia" (Slater, 2010, 214). The oversized multiethnic coalition survived Malay voter defections motivated by demands for democratization through continued Chinese support. This support stemmed "from ethnic protection [rather] than from economic provision" (Slater, 2010, 221). The Chinese did not love the regime but they feared

potential violence that coalition breakdown had brought about in Indonesia.

Emphasizing class divisions over ethnic cleavages, Pepinsky (2009) offers a different account that points to the UMNO's ability to safeguard the economic interests of its Malay constituency. Uniting the preferences of Malay labor and fixed capital in its policy response to the financial crisis, at the expense of Chinese mobile capital, allowed the regime to retain its largest constituency (119-151). Pepinsky's interpretation highlights the importance of including cross-cutting cleavages, in this instance Malay economic segments, into the ruling coalition to forestall supporter defections. It also points to unsuccessful attempts by excluded elites to shift the political competition to religious cleavages to unseat the BN (ibid. 217). In spite of its focus on class-based divisions, Pepinsky's account still references the BN's tactic of emphasizing the potential of racial violence against the Chinese should it lose power (ibid. 218). Agreeing that non-Malay "voters did contribute to the BN's success in the 1999 elections," Pepinsky downplays multiethnic support and underlines the persistent loyalty of Malay supporters, who profited from the regime's policies (224).

The three formation opportunities in Malaysia support my argument that (i) political elites form oversized coalitions in anticipation of future challenges, that (ii) coethnic defection is one of those challenges, and that (iii) cross-cutting cleavages inside the coalition help elites to remain in power. Although cross-cutting cleavages in Malaysia are predominantly non-ethnic, the threat of cleavage reconfiguration and subsequent supporter defection affects coalition choices throughout all three periods.

8.3 Indonesia

Leaders in Indonesia, unlike Malaysia, prefered exclusive Javanese rule under the guise of all-Indonesian nationalism over ethnic power-sharing until the early 2000s. Although ethnic rebellions broke out on peripheral islands after independence, none of these constituted a sufficient threat to Javanese elites in Jakarta. When faced with a strong, multiethnic communist uprising, the already powerful military took control and literally eliminated the communist threat in a deadly politicide. Absent a strong challenger to Javanese hegemony, the regime relied primarily on military force to uphold its rule. Yet internal divisions emerged over time among Javanese elites on the religious dimension, and the Asian Financial Crisis in unison with multiple ethnic rebellions brought down Suharto's New Order in 1998. Then, cross-cutting ethnic cleavages and constant supporter defection compelled elites to form oversized coalitions.

As in Malaysia, the EPR dataset reports multiple formation opportunities due to changes in the political relevance or relative population share of ethnic groups in Indonesia. Yet the ethnic composition of the government only changes after the Suharto regime collapses. I focus on four crucial formation opportunities: (i) independence, (ii) the end of democracy in 1959, (iii) Suharto's ascendance to power in 1965, and (iv) the return of democratic rule after the Asian Financial Crisis.

Independence: As opposed to the joint struggle of colonial masters and subjects against ethnic-communist rebellion in Malaysia, Indonesian elites fought for independence against the

Dutch. Although this nationalist struggle gave a sense of unity particularly to Javanese elites, Dutch divide-and-rule tactics that favored peripheral ethnic groups such as the Ambonese planted the seeds for lasting center-periphery divisions (Slater, 2010, 106-108). Aided by the United States, Indonesia's pursuit of independence was successful and removed most uncertainty about elite's grasp on power. Although the resulting period of parliamentary democracy saw communist, Islamic, secular, and non-Javanese parties grapple for power in ever-shifting coalitions, President Sukarno's position was not in doubt. Moreover, Javanese infighting was possible because natural sea barriers and weak organization kept ethnic rebellion in the periphery from exerting a serious violent threat to Java (ibid. 112).[11] Absent a potent challenger from within the Javanese group, President Sukarno relied on the military to crush external challenges. The military proved strong enough to overcome internal defections by non-Javanese army members and US-aid to ethnic rebellions. In line with my theory, Indonesia's rulers' coercive capacity was strong enough to exclude leaders of non-Javanese groups from power.

Guided Democracy My theoretical argument also suggests that oversized coalitions can serve as an insurance against coups because they diffuse power (cf. Arriola, 2009). Why, then, did Sukarno not expand the ruling coalition beyond the Javanese dominated military? In fact, he tried by seeking support from the previously weak Communist Party of Indonsia (PKI), which increased greatly in size "under the patronage and protection of Sukarno himself" (Slater, 2010, 137). After abandoning democratic rule in 1959, the PKI expanded from urban Javanese centers to the countryside and into the periphery of the country. "Alone among the political parties the PKI sought to appeal to the populace across ethnic, religious, regional, and cultural boundaries" (Mortimer, 1974, 109). By 1964, its membership reached about twenty million.

Since the PKI's ideology and actions were challenging traditional religious authorities and high-ranking army officers by demanding large-scale land reform, Sukarno's main power base, the army leadership resisted full inclusion of the Communist Party. Sukarno's affiliation with the communists proved to be his downfall. A failed coup attempt against the army leadership had the ostensible goal to protect Sukarno from right-wing takeover. PKI leaders' involvement in the coup gave the military justification to annihilate about 500,000 communist party members and sympathizers between October 1965 and March 1966.[12] The PKI fielded no rebel army and the coup was quickly defeated. In other words, it posed no immediate threat to army rule (Roosa, 2006, 22). Instead it was the fear among Javanese army leaders and Muslim elites of a communist takeover. This uncertainty stemmed from the sheer size of the PKI and triggered the deadly army response (ibid., 205-206).

Suharto's New Order: Leading the counter-insurgency/killing campaign of the army against the PKI, General Suharto replaced Sukarno as de facto leader in 1966. As in Malaysia, the PKI's attempt to grab power united "class and communal conflict" (Slater, 2010, 182). The perception

[11] Slater highlights that it is not the intensity but the type of external challenge that lacked a credible threat to Javanese elites. Ethnic rebellion without class-conflict, he argues, fails to bring about inclusive elite cooperation at the center.

[12] Some observers report up to two million victims (e.g., Anderson, 2001, 9).

of a massive threat forged cooperation across various divisions between Javanese elites, bringing together the army leadership, conservative Muslim and Christian clerics, and nationalist-inspired students. Rather than shared economic interests, the members of Suharto's New Order ruling coalition were united by fear of the communist-communal threat (ibid. 180). Bringing together such a coalition thus follows the spirit of my theoretical argument, if it were to go beyond ethnic cleavages. Yet unlike in Malaysia, where elites decided to ally with the ethnic group most associated with communism, the Indonesian army succeeded at completely eliminating the threat of its enemy. Without the unifying organization of the Communist party, smaller Indonesian ethnic groups posed no threat to Javanese dominance buttressed by massive military superiority.

According to Slater (2010, 183) "The successive pressures of regional and leftist unrest had transformed the Indonesian military from a fragmented post-guerrilla warfare force into a formidable power center." Yet the very strength of the army was to the downfall of Suharto. "[T]he government weakened its own support by its complete success in destroying the organized left in 1965-66" (Anderson, 1978, 6; as quoted in Slater, 2010, 181). One after another, Suharto's non-army coalition partners abandoned the regime voluntarily or were edged out (Aspinall, 2005, 38-39). Since both conservative Muslim clerics and nationalist students were Javanese they did not fear outright discrimination in daily life as Chinese Indonesians did, but they were not content with the regime either. Despite important countervailing theoretical predictions (e.g., Gandhi and Przeworski, 2007; Magaloni, 2008), neither Golkar, the regime's ruling party, nor the authoritarian legislature managed to guarantee power-sharing among Javanese elites (Pepinsky, 2009, 188; Slater, 2010, 188).

Asian Financial Crisis and Democratization: Once Indonesia's economy collapsed in 1998, its ruling coalition had long crumbled: On the elite level, "the factional and institutional frictions the crisis exposed had been decades in the making" (Slater, 2010, 206). On the mass level, protests by Javanese Muslims and students as well as excluded ethnic groups erupted throughout the Indonesian archipelago. Armed rebellion in East Timor, Aceh, and West Papua intensified. Faced with such wide-spread opposition from both their Javanese coethnics and a range of non-Javanese groups, the army did not defend Suharto.

Yet, rather than overthrowing the entire miltary leadership in what would have been a bloody revolution, political leaders representing the entire political spectrum and from multiple ethnic backgrounds opted to form an oversized coalition. Since the perception of Indonesia's political leaders and their subsequent coalition choices during the Asian Financial Crisis captures the essence of my argument, it is worth quoting Horowitz' (2013, 48) description of events at length:

> *Beyond this, the leaders may have feared, and probably did genuinely fear, an emerging civil war. There was much in Indonesian history, and even in recent weeks and months, to bring that fear to life. Even in a conflict short of civil war, they could not be sure of the outcome. . . . Then, finally, there was the uncertainty of political outcome even if the revolutionists had won, had the leaders sided with them. If events moved in an ever-more-radical direction, who could say that these more or less moderate political leaders could continue to ride the tiger that was the swelling Jakarta*

crowd, with its uncertain slogan of reformasi total and its demand for a "People's Committee" to replace the legislature? Where this movement could lead no one could tell.

The result was broad consensus for democratic elections, cooperation between old and new elites, and multiethnic government in oversized coalitions (ibid., e.g., 102 & 185). The initial fear of bloody revolution led elites to make institutional choices that would further promote collaboration subsequently. More than institutional pressures though, cross-cutting ethnic (and non-ethnic) cleavages enabled frequent voter defection. "As membership categories could shift, what seemed like sharp lines at one time might blur at another" (ibid. 37). Overlapping identity segments between ethnic groups, in turn, brought about "multipolarity in the legislature, and that laid the foundation for cooperative politics" (ibid. 86). Yet grand coalitions were not on the table. Ethnic groups such as the Ambonese with religious, linguistic, and racial differences towards other Indonesians remained excluded.

As in Malaysia, the Indonesia case demonstrates that (i) uncertainty about future challenges drives elites into oversized multiethnic coalitions, (ii) that enabling cross-cutting cleavages with the opposition drives cleavage reconfiguration and the downfall of elites (Suharto), and (iii) that leaders were far more attentive to include cross-cutting cleavages after Suharto's downfall to avoid losing their majority in parliament or at the ballot box.

8.4 Alternative explanations

The preceding narratives of coalition formation reveal that fear of future violent challenges led leaders to form oversized multiethnic coalitions in Malaysia from independence until today, and in Indonesia after the end of the New Order. They also demonstrate how crosscutting cleavages motivate leaders to include specific ethnic groups into the coalition but not others. This section will show that the two cases do not support alternative explanations. Comparing Malaysia's and Indonesia's formation opportunities, I discuss theories such as (i) the commitment problem logic as articulated by Roessler (2011), (ii) ethnic outbidding as emphasized by Rabushka and Shepsle (2008) (iii) the cooperation-incentivizing impact of formal institutions in dictatorships (e.g., Gandhi and Przeworski, 2007; Magaloni, 2008; Boix and Svolik, 2013), and (iv) interethnic trust resulting from cross-cutting cleavages.

One rival explanation to my theoretical account identifies uncertainty about coalition partners' intentions as the key driver of coalition dynamics. According to Roessler (2011), the attempts by elites from different ethnic groups to grab power and the counter-measures taken by other coalition partners create a worsening security dilemma that erodes trust, and eventually, coalition failure. As a result, many governments should consist of monoethnic elites rather than multitethnic coalitions, in which the risk of coups and elite defections reaches presumably higher levels. In both cases elite competition within the ruling coalition occurs at multiple occasions. In Suharto's Indonesia, Muslim and nationalist leaders who originally supported Suharto were edged out of the ruling coalition. In Malaysia, the UMNO split in the 1950s, again in the 1980s, and during the Asian Financial Crisis Prime Minister Mahatir faced an internal challenge by

his deputiy Anwar. As opposed to Roessler's account, these defections came from Javanese and Malays, that is coethnics of the leader/dominant group. More importantly, none of these cases led to coalition failure in the sense that members of one ethnic group were completely expelled from the government. Despite the difficult beginnings of the Alliance government in Malaysia, Crouch (1996, 32) even observes that "top party leaders not only cooperated closely in government but became warm personal friends" between 1957 and 1969. In sum, commitment problems between different elites and between different ethnic groups occurred in both Indonesia and Malaysia, yet the fear of external challenges outweighed internal competition.

Whereas the commitment problem described by Roessler plays out on the elite level, others highlight the difficulty of elites to maintain the support of their supporters when compromising in multiethnic coalitions (Horowitz, 2000, 365). Challenged by rivals with the same ethnic background who promise to provide more benefits to the masses if elected, the moderate position of compromise across ethnic lines becomes untenable, and multiethnic coalitions break (Rabushka and Shepsle, 2008). Ethnic outbidding indeed occurred in Malaysia during the 1950s and 1960s (Crouch, 1996, 19), and attracted votes but did not unseat the government for two related reasons. For one, leaders and supporters of the governing parties from each of the three large ethnic groups were more afraid of violence than they were unsatisfied with receiving too little from governing parties. For another, the lesson they took from escalating urban violence in 1969 was not to expel their coalition partners but to abandon electoral competition. Rather than forming a monoethnic Malay-dominated government, elites expanded the ruling coalition (Crouch, 1996, 33). Additionally, those parties that engaged in ethnic outbidding did not mainly appeal to the main racial faultline but rather emphasized Islamic identity to reconfigure cleavages. Since the ruling coalition already represented Muslims qua race, the outbidding strategy at most got the opposition 40% of the vote. Including all ethnic groups with even minor Muslim segments into the government, thwarted the opposition strategy.

A third rival explanation attributes power-sharing in Malaysia and later in democratic Indonesia to the prevailing institutional framework. Although Horowitz (2000, 433) predicts that single-parties in dictatorships open up "opportunities for ethnic and even subethnic cliques and factions to attain hegemonic influence," Malaysia's coalition after 1969 fits well into theories of authoritarian power-sharing. Gandhi and Przeworski (2006, 2007), Magaloni (2008) and others predict that ruling parties such as the *Barisian Nasional* incentivize cooperation between elites. While the BN certainly facilitated coalition survival in Malaysia, the multiethnic coalition between Malays, Chinese, and Indians formed earlier. Importantly, it emerged under democratic institutions that should have promoted factionalism: "Considering the geographic fragmentation of Malayan politics and the absence of a party-list voting system, one should have expected (...) weak parties and localized electoral fiefdoms..." (Slater, 2010, 92). Similarly, in Indonesia, Suharto's ruling party, Golkar, did not lead to or keep power-sharing even among Javanese elites. In democratic systems, proportional representation and parliamentary government, or the alternative vote supposedly induce power-sharing (Lijphart, 2002; Horowitz, 2002). Yet Indonesian multiethnic power-sharing emerged in direct response to the revolution and thus prior to constitutional reforms after the Asian Financial Crisis. Even then, elites chose presidential democracy

and attempted to introduce electoral rules that would decrease party fragmentation, and thus the incentives for coalition government (Horowitz, 2013, 27). Neither country then provides clear support for institutional theories.

Finally, in Malaysia and Indonesia cleavages that cross-cut ethnic groups may create greater trust between their members, which eases elites' ability to compromise. In fact, Horowitz (2013, 6) argues that "the structure of [Indonesian] cleavages . . . proved to be felicitous" for multiethnic collaboration due to their ability to cross-cut major group lines. Yet these cross-cutting cleavages coexist with high levels of suspicion between different ethnic groups. Immediately following his earlier statement, Horowitz (2013:6) concedes that Indonesia has strongly felt ethnic, religious, and cultural differences. . . there is a plethora of ethnic groups, and some of their relationships can become quite conflictual." In Malaysia the relationship between Chinese and Malayans is, if anything, even more polarized than in Indonesia, despite small overlapping religious segments. When the UNMO was first founded, Slater (2010, 78) reports a "palpable sense of ethnic anxiety [that] explains the fervor with which mobilization occurred" among the Malay masses. According to bin Tadin (1960, 72), "[t]he Malay Press was generally suspicious" of Malay leaders' move to open up the UMNO to non-Malays. Later the ethnic origins of the constituent parties would make it difficult to come together in the Alliance: "Certainly the two leading figures, UMNO's Onn bin Jaafar and the MCA's Tan Cheng Lock, were not brought into the partnership by any sense of natural affinity" (Slater, 2010, 92). As discussed above, scepticism and even fear of Malay intentions was even more prevalent among the Chinese, who chose to participate in the multiethnic coalition despite playing second fiddle to the UMNO and their Malay base. The alternative of exclusion and the threat of violence was simply worse.

In sum, both Indonesia and Malaysia sometimes displayed elements of alternative explanations for coalition formation. Yet none of these four alternative theories affected coalition formation as it should have. Commitment problems were present in Indonesia and Malaysia but they affected elites from the same ethnic groups and they did not lead to monoethnic government. Institutional incentives for power-sharing also existed in both cases, but only after coalitions formed in authoritarian Malaysia and democratic Indonesia, or they failed to deliver as under Suharto's rule. Finally, cross-cutting cleavages exist in both cases and created fluidity among groups but they did not seem lead to greater trust among group members or their leaders.

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