

Do Civil Wars, Coups and Riots Have the Same Structural Determinants? *

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The literature on political instability focuses on institutional and leader survival, or outcomes like civil wars and coups. We suggest that this approach overlooks lower levels of instability, and that isolating outcomes understates the likelihood that they are manifestations of similar structural determinants. We extend the notion of instability to encompass jointly but distinctly civil wars, coups and riots. Our explanation focuses on the role of political institutions and the related ethnopolitical strife over state power. Using data from 1950 to 2007 we find that the three outcomes share some determinants like a factional partial democracy and the exclusion from power of a large proportion of the population; the inverted U-shaped effect of political institutions is driven by a subset of semi-democracies; there is a substitution relationship between civil wars and coups emerging from the composition of governing coalitions.

Key words: Civil war, Coup d'état, Riots, Political Institutions, Social Groups

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Much of the literature on political instability focuses on the survival of political institutions (Gurr 1974, Gates et al. 2006), leader survival (Bueno de Mesquita et al. 2003, Goemans 2008), overall political violence (Mueller and Weede 1990) or particular outcomes like civil wars (Collier and Hoeffler 1998, Fearon and Laitin 2003) or coups d'état (Londregan and Poole 1990, Belkin and Schofer 2003, Powell 2012). Yet, the literature also suggests that various forms of instability are related and merge into one another under specific conditions (Gurr 1971). For example, Sambanis (2004) notes that “for many countries caught in a conflict trap, civil war is a phase in the cycle of violence. By isolating civil war in quantitative studies ... we discard a lot of useful information that explains how we end up having a civil war” (p. 268). Also, Fearon (2004) suggests that “both coups and peripheral insurgencies are strategies for using violence to take power” (p. 289).

The paper proceeds in two steps. First, we argue that broad political regime changes or leader survival overlook underlying lower levels of instability. On the other hand, however, neatly isolating outcomes (most prominently civil war, but also coup d'état) understates the likelihood that they are manifestations of similar conditions. Therefore, we extend the notion of political instability to encompass *jointly* but *distinctly* civil wars, coups d'état and riots. Our approach captures and unifies two key aspects of instability: the use of violence and the use of irregular means to achieve political aims. Second, we aim to understand what factors are conducive to social peace and whether the different types of instability have similar underlying structural determinants. Our key research question is what explains the various dimensions of instability. While prominent accounts of the determinants of civil war emphasize opportunity (Collier and Hoeffler 2004) or insurgency feasibility (Fearon and Laitin 2003, Collier et al. 2009), we take a fresh look at the role of political regimes and social factors. We draw on existing theories of institutions and contentious politics and argue that explanations of instability should focus both on the role of regime characteristics and the related ethnopolitical strife over state power. To test our arguments we use

Goldstone et al. (2010) for a fine-grained categorization of political regimes and Wimmer et al. (2009) for a political account of ethnic group relations.²

Our empirical findings use data from 1950-2007 and alternative definitions of coup d'état and civil conflict, to verify robustness. We have three main findings. First, our results do not show support for a strict inverted U-shaped relationship between political institutions and instability: Among anocracy types, only partial democracies with factional politics increase the risk of instability. Partial non-factional democracies are not more likely than autocracies or democracies to see instability. And, partial autocracies increase only the risk of coup d'état. The substantive effect of institutional variables is on par with the effect of income per capita, a key explanatory variable in the study of instability. Also, because we include extensive controls for countries history of riots, coups d'état and civil conflicts, we believe that we are able to isolate the effect of political institutions from the effect of low levels of violence (Vreeland 2008, Goldstone et al. 2010).

Second, the risk of riot, coup d'état and civil war increases when a larger proportion of the population is excluded from access to government power on ethnic grounds. Third, we identify differences between conditions favorable to coup d'état and civil war: The fragmentation of the governing coalition resulting from including multiple ethnic groups increases the risk of civil war but reduces the risk of coup d'état. Moreover, the inclusion of a demographically large junior coalition group also increases the likelihood of a coup. This evidence points in the same direction as work carried out at the group level for countries in sub-Saharan Africa (Roessler 2011), suggesting that, when designing ruling coalitions, leaders face a trade-off between exposure to civil war and coup.

This paper makes several contributions. First, we contribute to the emerging literature on the question of whether diverse forms on political violence share similar determinants (e.g., Cunningham and Lemke 2014; Houle *forthcoming*; Powell 2014; Roessler 2011). Cunningham and Lemke (2014) show that

² An early version of the argument was discussed in Bodea and Elbadawi (2007).

ten different forms of political violence – including riots, coups and civil wars – have many of the same determinants. Our analysis improves over theirs by introducing more refined measures of ethnic exclusion and political institutions. Cunningham and Lemke (2014) use ethnic fractionalization along with its square, as well as the Polity score and its square. By contrast, we rely on the fine-grained categorization of political institutions of Goldstone et al. (2010). We also use a wide range of variables taken from the Ethnic Power Relations (EPR) dataset to capture ethnic exclusion (rather than ethnic fractionalization). Roessler (2011), Houle (forthcoming) and Powell (2014), for their part, look at how ethnic exclusion, inequality and coup-proofing, respectively, affect the trade-off that rulers face between coups and civil wars.³ We contribute to the literature by demonstrating that the three outcomes indeed share several determinants, like partial factional democracy and ethnic exclusion. Moreover, studying these different forms of instability together enables us to show that rulers face trade-offs between different forms of instability. Like Roessler (2011), we find that there is a substitution relationship between civil war and coup d'état emerging from the design of governing coalitions. Roessler's (2011) analysis, however, is limited to sub-Saharan Africa. We thus show that this dynamic extends to other regions.

Second, we have novel findings. For example, we show that the inverted U-shaped effect of political institutions is almost completely driven by a subset of semi-democracies: partial factional democracies. While Goldstone et al. (2011) have already shown that partial factional democracies are particularly prone to civil wars, we extend this finding to coups and riots, and further show that other forms of anocracy are not more unstable than full autocracies and full democracies. Moreover, we show that

³ There is also an important literature showing that one form of violence (e.g., riot) increases the likelihood of another form of violence (e.g., coup) (e.g., Bell and Koga *forthcoming*; Belkin and Schofer 2003; Thyne *forthcoming*). However, the question addressed by this literature is different than the one examined in this paper (i.e. whether these different forms of violence share similar determinants).

countries that exclude a large proportion of the population because of their ethnicity are more likely to endure riots, coups and civil wars. Although Wimmer et al. (2009) have already reported a similar finding for civil wars, we are the first to show that this variable has the same effect on coups and riots.

CIVIL WARS, COUPS AND RIOTS

Defining political instability involves conceptual and empirical choices that are not necessarily clear cut. For example, Goldstone et al. (2010) use instances of large civil wars and other types of “undesirable political instability” (p. 191), including major adverse changes in political institutions, genocides and politicides. Gates et al. (2006) identify institutional changes by setting author-defined thresholds for movements in the Polity score components of competitiveness of executive recruitment, constraints on the executive and popular participation. The literature on leader tenure is probably the least arbitrary in the choice of events to be explained, but, on the other hand, it misses civil wars that do not see leadership change or failed coups d’etat (Bueno de Mesquita et al. 2003, Goemans 2008).

In our case, civil wars, coups d’etat and riots are qualitatively different events and here we discuss how they can be plausibly considered elements of political instability. Our focus is both on the shared features of violence and irregular means to achieve political aims and on the inter-connectedness of these events. Civil wars and coups d’etat are most clearly associated with the breakdown of national political institutions and are the most consequential events. Civil wars are large domestic conflicts involving casualties and fighting between the state and organized non-state actors, seeking “either to take control of a government, to take power in a region, or to use violence to change government policies” (Fearon and Laitin 2003, p. 76). Therefore we follow the literature and associate such wars with political instability (Smith 2004, Goldstone et al. 2010).

Coup d’etat is an irregular transfer of a state's chief executive, operated illegally by the military or other insider elites, which sometimes involves force or the threat of force, but need not involve casualties

(Powell and Thyne 2011). Like Powell and Thyne (2011), we view coups as distinct from civil wars. In particular, coups are staged by regime insiders, such as members of the military or the police forces, or civilian members of the government. In fact, one of the definitional features of coups is that they take place “without overt mass participation” (Morrison and Stevenson 1971, p. 13). Civil wars, on the other hand, require the participation of the masses. Moreover, coups are staged to overthrow the chief executive. Civil wars, however, sometimes have other aims, such as taking control of a region or influencing policies. Unfortunately, the previous empirical literature has often conflated coups and civil wars. Powell and Thyne (2011), for example, report that 38 armed conflicts in the Prio/Uppsala dataset – which is often used to capture civil wars – and 5 civil wars in the Correlates of War dataset are actually coups.

Coups have been connected to political instability via the leadership survival literature (Goemans 2008). In addition to leadership turnover, we consider coup attempts as well, because they also disrupt the effectiveness of governance and change the incentives of leaders. Coup risk and civil war are intrinsically connected via the role of the military (Belkin and Schofer 2003). Related, Acemoglu et al. (2009) show in a formal model that weak governments may allow an ongoing civil war to continue because of fear that a strong military may attempt a coup d’etat.

Riots are violent clashes or demonstrations, which can be spontaneous or organized. Some riots are large and others can be rather small and some are directed against the government, while others target specific social groups. Not all riots are a “direct breakdown of the political system” (Morrison and Stevenson 1971), yet they do involve violence, and a history of such events can have serious consequences. Horowitz (2001), for example, argues that ethnic riots are a candid barometer of ethnic relations, and informally relates riot incidence with civil war, forced migration, extremism, polarization of sentiment, and coup d’etat. Also, violent protests may elicit a similarly violent response on the side of the government, leading to cycles of violence and repression (Tilly 2003, Moore 1998). Furthermore, participation in violent riots creates individual experience or even leadership in the practice of violence (Tilly 2003). Because riots

are fundamentally violent and can have deleterious consequences, we argue for their inclusion in the study of political instability. This allows us to actually test both whether riots have similar determinants to civil wars and coups d'état, and whether riot incidence leads to further escalation in the form of civil war and coup d'état. We view riots, however, as distinct from both coups and civil wars. Contrary to coups, riots are usually not carried out by members of the state apparatus. Even when regime insiders play an important role – for example, by supporting the objectives of the riot – the masses remain the key actor. In addition, unlike coups, riots are not necessarily attempts at seizing power. Riots also differ from civil wars in that they do not involve *sustained* fighting between the government and an organized non-state actor. Although riots involve violence, their intensity and the level of organization of the opposition rarely reach the level of a civil war.

Although they involve different actors, we believe that civil wars, coups and riots are all different forms of instability that may share similar structural determinants. For example, weak political institutions could be vulnerable to all forms of instability. In fact, Goldstone et al. (2010) have shown that civil wars, adverse regime changes, and genocides and politicides have similar root causes. Moreover, whether a group is a regime insider or outsider in the first place is, to some extent, a choice of the ruler. By studying these different forms of instability simultaneously – some of which are driven by insiders and others by outsiders – we are able to better understand the trade-offs faced by leaders as they design ruling coalitions.

The selection of the outcomes of interest – coups, civil wars and riots – necessarily requires some choice that could be argued to be somewhat arbitrary. However, we believe that coups, civil wars and riots share two key attributes that justify grouping them together: (1) they involve violence or at least the threat of violence; and (2) they are attempts to achieve political goals through irregular means. Although coups do not always involve combat, they are still violent and, at the very least, rest on the threat of violence. Outcomes that do not share these two attributes, such as non-violent campaigns, are not considered in the analysis. Moreover, our key hypothesis is that coups, civil wars and riots share some of the same social and

structural determinants, notably regarding political institutions. In particular, we argue that partial factional democracies are more likely to experience all three forms of violence. Therefore, we exclude forms of political violence that are likely not driven by the same factors. This includes, for example, terrorist attacks. A large literature already examines the relationship between regime types and terrorist attacks, arguing that democracies should see the highest incidence of terrorist events and this view is supported by the data (Braithwaite and Li 2007; Eubank and Weinberg 2001; Li 2005; Pape 2003).⁴ In addition, domestic terrorism appears to be an actual strategy inside of civil war (Findley and Young 2012; Thomas 2014). It is unclear therefore how to separate civil war as an outcome from terrorist attacks as a strategy used in civil war. This equivalence can complicate our empirical estimations, because standard models of civil war include a control for “ongoing conflict”, which de facto could be definitionally equivalent to a dependent variable based on terrorist attacks.

While our approach is novel, it is related to recent research on the topic. Goemans (2008), for example, looks at leader tenure in a competing risks approach, with two possible outcomes: regular and irregular exit from power. Regan and Norton (2005) view civil conflict as a “process that has discrete levels or breakpoints” (p. 326) and investigate the determinants of non-violent protest, violent rebellion and civil war. Also, Smith (2004) argues that changes in political institutions may obscure underlying instability and studies in parallel regime changes, civil wars and riots. Besley and Persson (2011) explain political violence as an ordered variable ranging from zero (peace) to one (repression) and two (civil war). Roessler (2011) views ethnic groups in sub-Saharan Africa as having a choice between rebelling and attempting a coup d’etat. Finally, Cunningham and Lemke (2014) examine the effect of seven independent variables – income per capita, ethnic fractionalization, regime type, mountainous area, political instability, population and a history of political regime instability – on the onset of ten different forms of domestic violence.

⁴ Some studies find instead a non-significant relationship (Wade and Reiter 2007).

THE ROLE OF REGIME TYPE AND COALLITION POWER POLITICS

What kind of political regimes experience bouts of violence of greater or smaller magnitude or attempts to change leaders in an irregular way? Huntington (1968) writes that “the level of political community a society achieves reflects the relationship between its political institutions and the social forces that comprise it” (p. 8). Similarly, we believe that a holistic answer to this question investigates both the role of institutional arrangements and the role of power relations among social groups. Below, we derive testable implications based on the literature on political institutions and social mobilization.

Political Institutions

Much of the literature has shown that strong autocracies and strong democracies experience the least political instability. For example, Mueller and Weede (1990) find that overall political violence measured as death rates is significantly lower for regimes with both high and low capacity for repression. They argue that, at one end, severe repression inhibits mobilization and reduces the likelihood of success. At the other end, the availability of peaceful means for political action makes rebellion undesirable. In the middle, intermediate levels of repression results in rebellion being more attractive than peaceful collective action.

This finding is replicated when the dependent variable is specifically coded as civil war onset, rather than political violence (Hegre et al. 2001, Fearon and Laitin 2003). In this work, semi-democracies are weak, incoherent regimes mixing authoritarian and democratic features, in which repression still occurs and leads not just to grievances, but also collective action that is facilitated by relative political openness. Further, the survival of political institutions has been shown to be a feature of consistent democracies or autocracies (Gates et al, 2006, p. 893). In this account, inconsistent regimes are unstable because of features allowing

elites to challenge executive authority (very likely in irregular fashion) and because groups and individuals lack incentives to support democracy.⁵

Substantially less work has investigated the connection between political institutions and coups d'état and riots and this work has mixed findings regarding the inverted-U relationship effect of political institutions. In the case of coups, the U-shaped relationship to political institutions is suggested by the argument that (i) weak states will see more coups (Jackman 1978, Jenkins and Kposova 1993), that (ii) political participation reduces the likelihood of coups (Luttwack 1968, Belkin and Schofer 2003), but that (iii) autocracies decrease the opportunities to initiate a coup because of effective coup proofing strategies (Belkin and Schofer 2003). For example, Belkin and Schofer (2003) include competitiveness of the political system and the degree of regulation of participation as proxies for the legitimacy component of their structural coup risk indicator. This coup risk indicator also includes proxies for the strength of civil society and a country's history of coups and is found to significantly predict new coup d'état.⁶ Thyne (2010), however, finds that for a sample of Latin American countries, democracy does not affect the likelihood of a coup d'état. And Powell (2012) does not find a robust inverted-U relationship between coups and regime type. More broadly, however, Goemans (2008) investigates the causes of irregular leader transition by means of successful coup d'état, assassination, defeat in civil war, or international intervention. He finds that mixed and transitional regimes have a higher risk of such irregular leader transition when compared to autocracies, and, that, in addition, leaders of parliamentary democracies do better than autocrats.

Riots have received even less systematic attention and the sparse work has had mixed results, with Smith (2004) finding an inverted-U relationship for peaceful demonstrations, riots and strikes lumped together and Urdal (2006) failing to identify such a robust relationship for riots and violent demonstrations.

⁵ The inverted-U relationship is also found in Smith (2004).

⁶ Earlier work also finds that broad participation reduces the coup risk (Jackman 1978, Johnson et al. 1984).

For the case of riots, the received literature suggests that the U-shaped relationship to political institutions need not be very strong. Eckstein and Gurr (1975) consider that low-level conflict is “a price democracies have to pay for freedom” (p. 452). Also, Regan and Norton (2005) argue that initial mobilization and low levels of violence involve low costs and low levels of repression from the government. They also suggest that no side payments may be needed and grievance may be enough to observe low levels of violence. In this situation (low costs to collective action, low probability of repression, and pervasive grievance) neither democracy, nor autocracy may be better at deterring riots than anocracies.

[Figure 1 about here]

We use the approach proposed in Goldstone et al. (2010) to test in a comparative fashion the effect of political institutions on civil wars, coups and riots. Most studies that have political institutions as an explanatory variable use the Polity scale ranging from -10 to 10 or a three category measure (democracy, anocracy and dictatorship) based on the Polity scale, or a binary measure identifying democracies versus autocracies (e.g. Cheibub et al. 2010). Goldstone et al. (2010) use two components of the Polity data – the openness of executive recruitment and the competitiveness of political participation – to generate a five category measure of institutions: democracies, autocracies, partial autocracies, partial factional democracies and partial non-factional democracies. Goldstone et al.’s (2010) partition of political institutions is shown in Figure 1. There are three reasons we favor this measure: (i) it is shown to have good predictive power for rare events like civil war, (ii) it manages to isolate coherently across two specific dimensions of the Polity score the idea of consistent, or self-enforcing institutions (Gates et al. 2006), and (iii) it offers a desirable partition of the varied mix of institutions that make up the amorphous anocracy category (Vreeland 2008).

Institutional Hypotheses

Figure 2 presents the contrasting arguments discussed above about the effect of semi-democracy on riots, coups and civil wars. If anocracies see more instability because of an incoherent mix of institutional

features, then all three types – partial autocracies, partial factional democracies and partial non-factional democracies – should see more civil wars and coups d'état. If instead the problem of semi-democracies is a specific combination of institutional openness and political participation channeled through networks rooted in traditional identities, then we should see that partial factional democracies, in particular, have the highest risk of instability.

[Figure 2 about here]

Our expectations regarding the effect of anocracy on riots are more ambiguous. While the previous literature offers arguments suggesting that neither democracies nor autocracies may be better than anocracies at deterring riots, one could also argue that weak and incoherent regimes may be particularly ill equipped in addressing grievances or deterring protest, which may encourage riots. Moreover, based on the literature on social mobilization (see more below) the particular type of factional anocracy could also encourage more rioting.

Social Groups

Huntington (1968) suggests that modernization brings out new social groups with specific demands, and that, at least in some societies, the role of political institutions is to mediate these demands. Lijphart (1999) makes the similar point that rules can mediate the positions of contending groups. However, power dynamics among social groups also conditions the kind of institutions that emerge in a society and thus can directly influence instability. Work following Lipset and Rokkan (1967) suggests that political institutions reflect social cleavages, and that the independent effect of institutions should be limited. Huntington (1968) also suggests that underdeveloped societies experience a “general politicization of social forces and institutions” (p. 194). So, to properly show the effect of political institutions, we account for the

relationships among social groups.⁷ Ethnicity has been the one cleavage receiving the largest amount of attention in the civil war literature, so we focus our attention on ethnic groups and the power relations amongst them, based on new research and data by Wimmer et al. (2009).⁸

In the study of civil war, prominent scholars have found limited evidence for the idea that social diversity or polarization are risks for the onset of civil war, emphasizing instead the material and geographic conditions that favor insurgency (Collier and Hoeffler 1998, 2004; Fearon and Laitin 2003). Others still stress the idea that social characteristics can explain civil conflict (Sambanis 2001, Elbadawi and Sambanis 2000, Reynal-Querol 2002; and even Collier et al. 2009) and some find that diverse or polarized societies are more likely to experience ethnic civil war, or civil conflict more broadly (e.g. Sambanis 2001, Reynal-Querol 2002, Esteban and Ray 2012). Also, more recent work finds that exclusion from government on ethnic criteria increases civil war risk (Cederman et al. 2010a, Wimmer et al. 2009).

The early literature on the determinants of coups d'état has also focused prominently on the role of social mobilization and structure (Jackman 1978, Johnson et al. 1984, Kposova and Jenkins 1993). Such work examines the effect on coups of factors like ethnic polarization, fractionalization and dominance, both in the general population and within the elites. In particular this early research focuses on African cases and the evidence points to polarization and fractionalization as increasing the risk of coups, and dominance having a mixed effect. Subsequent work on coup d'état (Belkin and Schofer 2005, Londregan and Poole

⁷ Reynal-Querol (2002) shows that social factors (religious polarization) and political institutions (inclusiveness of voting rules) influence the risk of ethnic civil war. Esteban and Ray (2012), on the other hand, argue that political institutions and social group characteristics may interact in determining conflict.

⁸ Ethnicity may not be the most salient cleavage for all our outcomes. In particular riots tend to be driven by local policies. However, given our use of macro level data, ethnic cleavages have the best data coverage.

1990, Powell 2012) and also on leader turnover (Goemans 2008) abandons completely the early focus on social factors.

Group relations are argued to be relevant for riot incidence as well, although little evidence is available for global samples. Horowitz (2001), for example, writes that ethnic riots represent a “full expression of ethnic sentiment” (p. 14). Wilkinson (2004) argues that riots in India are a result of elite manipulation of particular identities in the run-up to elections and finds riots to be more likely in states where governing parties do not need to rely on minority support to govern. Urdal (2008) studies the effect of ethnic relations on low levels of violence across the Indian states. He finds that low intensity armed conflicts (including inter-communal violence, political assassinations, and rioting) cannot be linked systematically to variables like religious heterogeneity, linguistic fractionalization or the relative growth of the Hindu population. On the other hand, a specific count measure of Hindu-Muslim riots is strongly associated with higher religious heterogeneity and states that have a non-Hindu majority population. However, as in the case of coups d’etat, other recent quantitative literature on global samples of riots is not directly interested in the role of ethnic group relations (Smith 2004, Urdal 2006).

Closely related to arguments over whether social structure affects the degree of conflict in a society, are questions about the exact nature of the relationship. Ethnicity may matter mainly because of the number of interests that it generates, in which case indexes of fractionalization should proxy well for the mechanism. Yet a more satisfying and sophisticated view endows ethnic groups with agency and strategy vis-à-vis each other and the state. Thus, in earlier work, ethnic dominance is argued to increase the ability and incentives of majorities (groups that make 45%-90% of the population) to exploit minorities, and this increase the risk of civil conflict (Collier 2001, Collier and Hoeffler 2004). Also, based on rent-seeking models, the risk of civil conflict is argued to be higher when the distribution of social characteristics across a country’s population is bimodal and social polarization – situations in which two social groups have the same size – is high (Esteban and Ray 1994, Reynal-Querol 2002). These are, however, relatively narrow

views of what may matter in the relationship among domestic ethnic groups that focus on the relative size of groups.⁹ More broadly, Wimmer et al. (2009) argue that the state is a “central object of and participant in ethnopolitical power struggles” and that “(ethnic) exclusion from state power and competition over the spoils of government” breeds ethnic conflict (Wimmer et al. 2009, p. 317). In this case, measures of fractionalization and polarization do not capture the relationship and antagonisms between the ethnic groups that have access to the state and excluded groups.

In a step forward in the study of the relationship between violence and ethnopolitical conflict, Wimmer et al. (2009) introduce the Ethnic Power Relations (EPR) data. This data records all politically relevant ethnic groups (regardless of minority/majority status) and their access to state executive power, as well as the intra-elite ethnic power dynamics. Their research shows that, controlling for political institutions, exclusion from state power leads to a higher risk of civil war in general (as well as fighting initiated by the excluded) and ethnic fragmentation of government power leads to infighting among elites. Also based on the EPR data, Roessler (2011) takes a group (as opposed to a structural) approach to coup d’etat and civil war. He finds that, in sub-Saharan Africa, a group that is excluded from state power is less likely to engage in a coup d’etat against the government, and that governments facing a high risk of coup engage in strategic group exclusion. He also shows that an excluded ethnic group poses a larger risk of initiating civil war against the government.

Social Group Hypotheses

⁹ The relative size of groups may be important to the endogenous emergence of credible power sharing. Roessler and Ohls (2015), for example, show that ethnic power sharing (versus ethnic exclusion) is more likely to emerge in weak states when the ruling group and the opposition have strong threat capabilities, proxied by the size of groups.

The different hypotheses about the effects of social group variables on riots, coups and civil wars are, once again, shown in Figure 2. Ethnic exclusion has been argued to lower the legitimacy of the regime, thus making it easier for rebels to mobilize among their co-ethnics (Wimmer et al. 2009) and the evidence shows that exclusion increases the risk of civil war. We therefore expect to find a similar relationship. Exclusion is likely to affect the risk of coup d'état via a related causal mechanism. While coups do not require mass participation, the citizenry needs to acquiesce to the change of political leaders for a coup d'état to be successful. This is more likely to happen in regimes that have low legitimacy (Belkin and Schofer 2003). We expect then that states excluding larger proportions of their populations to be more coup prone. At its core, ethnic exclusion from power is linked to underprovision of private and public goods to the excluded population, so, very likely leads to economic, political or symbolic grievance against the state and the included population. Such ethnic politics may lead to a domestic security dilemma and to violent mobilization and counter mobilization of ethnic groups (Wimmer et al. 2009, p. 321). Our expectation is that rioting behavior may also be a result of such ethnic tensions proxied by exclusion.

In addition, intra-coalition dynamics is likely to affect instability, although here our predictions differ across different forms of instability. We expect that the ethnic fragmentation of governing coalitions raises the risk of the civil war outcome. Wimmer et al. (2009) argue that infighting among included coalition groups is more likely for more ethnically fragmented governing coalitions. They posit that shifting alliances within the governing coalition increase the fear of losing out in the competition over government spoils and therefore raise the risk that included groups risk civil war against the government. More broadly, actors outside the governing coalition may view ethnic fragmentation as a weakness of the government, perceive an increasing chance of winning a civil war against such a government and therefore wage war.

For coups d'état, however, we have mixed expectations. On the one hand, Roessler (2011) finds that, in sub-Saharan Africa, central government fragmentation reduces the chances that a particular ethnic group will perpetrate a successful coup d'état. He argues that this may be the case both because

fragmentation makes coordination difficult among power holders to pull the resources necessary to execute a successful coup and because groups fear exclusion relatively less in more inclusive coalitions. If this logic holds we should expect that coup d'état risk is lower in more fragmented governments. However, if we extrapolate the logic of Wimmer et al. (2009) for infighting to the coup d'état outcome, we should expect that coup d'état risk increases for more fragmented governing coalitions.

Furthermore, we have reasons to expect that the size of included groups matters for coup d'état risk. Roessler (2011) finds that larger groups are more likely to participate in successful coups, linking this finding to the likelihood that such groups are better represented in the military and thus have better access to the technology of coup d'état. To the extent that coup is carried out by members of ethnic groups other than the group of the leader, we expect that including larger groups in one's coalition increases the risk of coup d'état.

Finally, Roessler (2011) finds that ethnic groups that have recently been excluded from the ruling coalition are more likely to initiate a civil war but less likely to stage a coup. We expect that the exclusion of an ethnic group should increase both the likelihood of civil war and of riot because it creates grievances. Regarding coups, however, our predictions are more ambiguous. On the one hand, as argued by Roessler (2011), groups that are excluded from power have a lower capacity to stage coups. As stressed above, by definition, coups are staged by regime insiders (including members of the military). On the other hand, however, recent exclusion creates grievances which may incentive members of the newly excluded group, such as members of the military that have not been purged yet, to wage a coup.

RESEARCH DESIGN AND DATA

The unit of analysis is the country-year. We use the country-year rather than the ethnic group-year – like Roessler (2011), for instance – as our unit of analysis for two main reasons. First, ethnic groups are not the only actors that can carry out coups, civil wars and riots. Using the ethnic group-year as our unit of analysis

would thus force us to drop coups/civil wars/riots that were not instigated by ethnic actors. Second, our main purpose is to examine the country-level factors, such as political institutions, that are the most conducive to instability. The main sample covers 6,705 observations on 149 countries between 1950 and 2007. The sample decreases to 6,355 observations when all our control variables are included (Model 2, Table 1).

In our theoretical account riots, coups and civil wars are alternative outcomes of the same propensity for violence or irregular contestation of political power. To test this view of instability a multinomial model is required (however, all results are robust to the use of regular logic regressions; see Table A4-A6 of the Supplementary Appendix). We use an unordered multinomial logit model with four outcomes: riot, coup, civil war and a “peace” or “no new conflict” outcome (the reference category). In the appendix (Discussion 1) we analyze the benefits and drawbacks for using a multinomial model, as well as how the multinomial can be replaced by estimating a series of binary logit models in which the reference category is adjusted.

The Dependent Variable

All our outcomes have issues of definition and measurement, so we use multiple sources to verify the robustness of the results. We use alternative definitions for civil war onset, based on widely used measures in the literature: the Prio/Uppsala data (Gleditsch et al. 2002) and the Correlates of War (COW) (Sarkees and Wayman 2010).¹⁰ Powell and Thyne (2011) report that 38 of the armed conflicts included in the

¹⁰ The Prio/Uppsala measure uses a lower threshold of 25 battle deaths per year to identify a conflict and we regard a conflict as a new conflict onset if it occurs two years after the previous conflict (Ross 2012). This definition captures the onset of smaller scale conflict, the re-ignition of dormant conflict and also earlier onsets for the large scale conflicts. In the COW dataset, in order to qualify as an intra-state conflict a

Prio/Uppsala dataset and 5 of those in the COW dataset are actually coups.¹¹ Therefore, we purged the coups identified by Powell and Thyne (2011) from both datasets on civil conflict/civil war, and rightly identify the events in those country-year observations as coups.

We also use two data sources for coups d'état, coding both successful and failed coups: Powell and Thyne (2011) and the Center for Systemic Peace (CSP) (Marshall and Marshall 2014).¹² Powell and Thyne (2011) – which we use as our main indicator of coups – make sure to exclude all riots and civil wars from their dataset. The main analysis uses the data of Prio/Uppsala and Powell and Thyne (2011). The models using the COW and CSP measures are reported in Tables A7-A9 of the Supplementary Appendix. Riots come from the Banks Cross National Time Series (CNTS) Data Archive, and are defined as any violent demonstration or clash of more than 100 citizens involving the use of physical force. In principle, it is

war needs to result in at least 1,000 battle deaths per year and involve sustained fighting between at least two organized groups. The COW dataset excludes one-sided massacres.

¹¹ The list of cases is provided in the online appendix of Powell and Thyne (2011): http://www.uky.edu/~clthyn2/coup_data/home.htm.

¹² Powell and Thyne (2011) define coup attempts as “illegal and overt attempts by the military or other elites within the state apparatus to unset the sitting executive” (p. 252). The CSP defines a coup “as a forceful seizure of executive authority and office by a dissident/opposition faction within the country’s ruling or political elites that results in a substantial change in the executive leadership and the policies of the prior regime” (Codebook, p. 1). The CSP reports successful, failed, plotted and alleged coups. In the analysis, we only use successful and failed coups, since, as argued by Powell and Thyne (2011), plotted and alleged coups are often fabricated by governments to justify repression. Moreover, data on plotted and alleged coups is less reliable because such events do not generate as much media coverage. The correlation between the two series is 0.78.

possible that some coups or civil wars are mistakenly identified as riots in the Banks dataset. If that were the case, we would expect the overwhelming majority of observations with either coups or civil wars to have also been coded as having a riot. Yet only about one third of the observations with coups and civil wars have concurrently experienced a riot (32.85% and 33.63%, respectively).¹³ Moreover, even if a small number of riots were in fact coups or civil wars, it would not affect our results because of the way the dependent variable in our multinomial logit regressions is constructed (see below). Whenever a riot happens during the same year a civil war (or a coup) we code that observation as having experienced only a civil war (coup).

In order to construct the multinomial dependent variable we need to decide on how to treat country-years that experience multiple outcomes. For example, El Salvador experienced a successful coup in 1979, which is also the year the civil war started. Pakistan in 1971 experienced both a coup d'état and the onset of civil war. Also, Argentina saw both riots and coup d'état in 1970, 1971 or 1976. While the outcomes are not ordered to the extent that we can estimate an ordered logit model, we rank war as the outcome involving the highest instability level, followed by coups and then riots. We view civil wars as usually more destabilizing than coups and riots because they are typically associated with more violence. The fact that civil wars entail sustained fighting also means that they tend to generate more instability. Moreover, we view coups as creating more instability, on average, than riots because they occasion the transfer of executive power. The impact of riots is generally (albeit not always) more limited.

Thus, if a country experiences either a coup or a riot and the onset of a war in the same year we code the multinomial outcome a war. If a country experiences both a riot and a coup we code the multinomial alternative as a coup. To account for the fact that one form of instability (e.g., riots) can trigger

¹³ Nineteen percent of the observations in the full sample experience a riot.

other forms of instability (e.g., coups), we control for the history of riots and coups, and for whether a country is currently experiencing a civil war.

The way we operationalized our dependent variable in the multinomial logit models is imperfect. Coups, for example, are not necessarily more destabilizing than large violent riots. Therefore, we also adopt three other strategies. First, we run three individual logit models (one for each form of instability) with the same reference category (“peace”). For example, in the riot model, the dependent variable takes the value 1 if the country has experienced a riot – no matter if it has also endured a coup/civil war or not – and 0 if it has been free from riots, coups and civil wars (“peace”). Cases in which a country has experienced either a coup or a civil war but not a riot are omitted from the riot model, which is similar to the way multinomial models are estimated. The dependent variables for the coup and civil war models are constructed in the same way. In all three models the reference category is the absence of any form of instability. The results are reported in Table A4 of the Supplementary Appendix. Second, in Table A5 of the Supplementary Appendix, we run three ‘regular’ logit models (i.e. logit models with different reference categories). Now, in the coup model, for example, the dependent variable takes the value 1 if a coup was staged and 0 otherwise, no matter if a riot or a civil war occurred or not. Finally, in Table A6 of the Supplementary Appendix, we again run three ‘regular’ logit models but control for whether the country also experiences the two other forms of instability. For example, in the riot model, we include control variables for whether there is a civil war onset or a coup during the same year.

Key Explanatory Variables

We use a five category measure of political regime from Goldstone et al. (2010), relying on two underlying components of the Polity IV score: The measure of executive recruitment and the competitiveness of

political participation.¹⁴ Figure 1 illustrates how these variables are constructed. Executive recruitment shows the ways superordinates come to occupy their positions (Polity IV manual, p. 19) and the competitiveness of political participation refers to the extent to which alternative preferences for policy and leadership can be pursued in the political arena (Polity IV manual, p. 25). Full autocracies involve repressed political participation and no leader elections. Partial autocracies involve either some degree of competitive political participation or elections for the executive, but not both. Partial democracies see some degree of political participation and election of political leaders. However, only full democracy is characterized by both competitive elections of leaders and fully competitive political participation.

Further, we distinguish partial democracies that are characterized by factional politics, i.e. countries with political factions that “promote particularist agendas that favor group members to the detriment of common, secular and cross-cutting agendas” (Polity IV manual p. 26). We choose to treat interregnum periods (code –77) and transition periods (code –88) in the Polity IV series as a distinct category, as they are characterized either by the collapse of the state or by fluidity between characteristics of new and old regimes. This category is troubling because 19 of the Fearon and Laitin (2003) civil wars occur in regimes coded as -77 or -88 by Polity. Other studies use interpolated data to manage the issue, but that inflates the anocracy category, aiding research to identify an inverted U-shaped relationship between political institutions and civil war. Similar to other studies, we treat interruption periods in the Polity IV series (code –66) as missing data. In our estimations the regime indicator variables are lagged one year and the reference category is full autocracy.

We also use a number of indicators of ethnic group power relations based on the EPR data. To measure ethnic exclusion, we employ the proportion of the population that are members of ethnic groups

¹⁴ There are multiple criticisms of the use of Polity IV –10 to 10 scale. See, e.g. Gleditsch and Ward (1997), Vreeland (2008), Cheibub et al. (2010).

that are excluded from power. An ethnic group is defined as being excluded if it has a status below ‘junior partner’ in the EPR. Central government fragmentation is measured as the number of ethnic groups included in the governing coalition (i.e. the number of ethnic groups that are at least junior partners). We also include the size of members of the ruling coalition: Size of senior partner(s) and size of junior partner(s). Our last key explanatory variable is a dummy variable taking the value 1 if at least one ethnic group has been excluded from the governing coalition within the last three years.

In our first model we control for the lagged log of income per capita¹⁵ and the lagged history of violent conflict by including a dummy variable that takes the value of 1 if a country experienced a coup in the past five years; we count the number of years with riots in the past 5 years;¹⁶ and include a dummy variable measuring whether a civil war was ongoing in the previous year. We then estimate a second model that includes more control variables: the lagged log of the country’s population, lagged past institutional instability, the log of the estimated percentage of country’s mountainous terrain, as well as a measure for oil wealth.¹⁷ Because it is a major risk factor for coup d’etat we include a lagged indicator for military

¹⁵ Previous studies find strong evidence that poverty fuels instability (especially civil wars and coups) (Fearon and Laitin 2003; Londregan and Poole 1990).

¹⁶ For the first five years in a country’s time series we compute the variable for the available years only rather than drop the observations.

¹⁷ Income per capita comes from Treisman (*forthcoming*). Population size is based on World Bank data. The mountainous terrain variable is the logged share of the country’s area covered by mountains (EPR). Institutional instability is coded 1 if a country has experienced a change in Polity IV of three points or more in the previous three-year period. Oil wealth is a dummy variable for countries with oil exports that make more than 30% of total exports (Fearon and Laitin 2003; updated to 2007 from World Bank World Development Indicators).

regimes.¹⁸ In addition, the second model includes decade dummy variables, regional dummies, and dummies for French and British colonial rule, to control for unobserved heterogeneity and common shocks.

RESULTS AND ANALYSIS

Before moving to the full model, we discuss the distribution of each outcome of our dependent variable across the different regime types (Appendix Table A2). Full democracies and full autocracies are much more stable than semi-democracies. However, not all anocracies are equally unstable. Partial factional democracies are particularly likely to experience riots, coups and civil wars, while partial non-factional democracies are much more stable. In fact, partial non-factional democracies are *less* likely to experience coups than full autocracies. Transitional regimes are also highly unstable and partial autocracies are vulnerable to coups.

To make sure that these differences in the distribution of outcomes across regime types are statistically significant, we run a series of chi-square tests comparing the distribution within each regime type. Partial factional democracies, in particular, differ significantly from full democracies (p-value <.001), full autocracies (p-value <.001), partial autocracies (p-value=0.014), and partial non-factional democracies (p-value <.001).

The findings from the multinomial logit regressions are shown in Table 1. These models use the measures of civil conflict and coup d'état of Prio/Uppsala and Powell and Thyne (2011), respectively. The coefficients in the tables and the robust standard errors are displayed distinctly for the three instability alternatives. Model 1 controls only for GDP per capita and the history of civil wars/coups/riots, while model 2 includes all the control variables along with decade and region dummy variables.

[Table 1 about here]

¹⁸ Variable equals 1 for both direct and indirect military rule (Banks CNTS Data).

We first discuss the effect of institutional variables, where several findings stand out. The first is that two variables increase *all types of instability*: Riots, coups and civil wars are all more likely in regimes that have been coded in the previous year as partial factional democracies. While Goldstone et al. (2011) have already reported that partial factional democracies are particularly prone to civil wars, this paper is the first to extend this finding to coups and riots. Also, riots, coups and civil wars are more likely in transitional or interregnum regimes, although the results on coups and civil wars are only statistically significant once the control variables are included (Model 2). Second, we do not find support for a strict inverted U-shaped relationship between political institutions and instability: Among anocracy types, only factional partial democracy increases the risk of instability. In fact, partial non-factional democracies are very likely to have instability risks similar to those of democracies. And partial autocracies increase only the likelihood of coup d'état. Moreover, while democracies do not lower the risk of riot or civil war, they significantly reduce the chance that a country will see a coup d'état.

Other work has raised questions about the robustness of the U-shaped relationship among political institutions and civil war onset. Vreeland (2008) makes the argument that the inverted U-shaped relationship between the Polity score and the likelihood of a civil war onset may be driven by the way the Polity score is coded. He claims that the coders of the Polity score have used the presence of political violence as evidence of factionalism.

We adopt several strategies in order to make sure that our results are not driven by the way factionalism has been coded. First, following Hegre et al. (2001) and Fearon and Laitin (2003), we lag our independent variables – including partial factional democracies – and our dependent variable is the *onset* of a civil war/coup/riot. Therefore, a civil war/coup/riot in the current year cannot explain why a regime has been classified as factionalized in the previous year; meaning that our findings are not tautological.

However, it is still possible that a history of political violence may have influence the coding decisions and increase the likelihood of a civil war/coup/riot in the next period; hence creating a spurious

positive relationship between factionalism and civil war/coup/riot. To address this possibility, we follow Goldstone et al. (2010) and Gleditsch et al. (2009) and include extensive controls for countries' history of violence and for interregnum regimes. Thus, we cannot attribute the findings on political institutions to underlying low levels of violence. Instead, our evidence suggests that political institutions have an important role. That is, a "polarized politics of exclusive identities or ideologies, in conjunction with partially democratic institutions" (Goldstone et al. 2010, p. 198) increases the risk for all our outcomes.

Finally, Marshall and Cole (2012) have reexamined the coding of the Polity data. Their findings contradict the assertion of Vreeland (2008) that the Polity score is contaminated by the conflation between factionalism and political violence. According to them, "periods coded as 'factional' were distinguished by the forms of political organization and the qualities of political participation and not by scattered or systematic acts of violence" (p.3)

The substantive effect of institutional variables is large and clearly similar in size to the effect of income, which has been argued to be a key factor affecting both coup d'etat (Londregan and Poole 1996) and civil conflict (Fearon and Laitin 2003). Appendix Table A3 shows the predicted probabilities of riot/coup d'etat/civil war when varying the value of the explanatory variables that have achieved statistical significance. Key variables are set at plausible levels in the sample, while keeping the remaining covariates at the average of their observed values. Predicted probabilities are shown for the estimations of Model 2 in Table 1.

Becoming a transitional or interregnum regime increases the risk of riots and coup d'etat in the following year by about 36% and more than doubles the risk of civil war. A full democracy is about twelve times less likely to see a coup d'etat compared with a dictatorship, whereas a partially autocratic regime is 76% more likely. A partial factional democracy increases the risk of riots by 22% and almost doubles the risk of coup and civil war.

In addition to institutions, one of the social conflict variables has a consistent and independent effect on instability: Riots, coups and civil wars are more likely when a larger proportion of population is excluded from government power. When we vary the size of the excluded population from the 50th percentile to the 90th percentile, the risk of riot increases by 14%, the risk of coup by 24 % and the risk of civil war by 33%. This result differs somewhat from that of Roessler (2011) who finds that ethnic groups that are excluded from power are less likely to stage coups. However, the unit of analysis of Roessler (2011) is the ethnic group-year whereas ours is the country-year. Therefore, these results do not necessarily contradict each other. It seems plausible that while ethnic groups that are excluded from power are less likely to initiate a coup – for example, because they are not well represented in the military – countries that exclude a large share of the population are more likely to fall victims to coups because of the exclusive nature of the regime.

The other social conflict variables have weaker effects. We find that, in those cases where ethnicity is a relevant cleavage, the inclusion of a larger number of ethnic groups of the governing coalition reduces the risk of coup d'état but increases the risk of civil war and riot. However, its effect on riots and coups is not robust to the inclusion of the extended set of control variables. Similar to work done only for sub-Saharan Africa (Roessler 2011), we thus find some evidence that, when they design ruling coalitions, leaders face a trade-off between civil war and coup d'état. The inclusion of a larger number of small ethnic groups reduces the risk of coup d'état, while such center fragmentation increases the risk of civil war. Moreover, the inclusion of a demographically large junior coalition group increases the risk of coup d'état. When varying the size of the junior included group from the 50th percentile (0% of population) to the 90th (44% of the population) percentile, the risk of coup d'état increases by 59%.

Several other factors are important for our models of instability. Perhaps unsurprisingly, a history of riots consistently increases instability, across our three categories and the size of the effect is large. Clearly, our models use macro data and are weakest in predicting the risk of riots. Still, regardless of whether past

riots are due to grievance or better ability to overcome collective action, our framework allows us to estimate the change in instability risks for substantively interesting situations and point to the very damaging effect of a history of riots. We can look, for example, at the predicted risks faced by long standing, non-military autocratic regimes like Assad's Syria or Mubarak's Egypt, when varying the history of riots from zero to one. Nearly 40% of all autocracies have had at least one year with riots in the past five years. According to our estimations, a single year with riots in the past five years increases the risk of further riots by 47% and the risk of coup d'état and civil war by 24% and 19%, respectively.

A history of coup d'état and military regimes, unsurprisingly, increase the chance of coups. A country that experienced a coup in the past five years has more than doubled its risk of seeing another coup in the current year. Military regimes have a 41% and 54% higher chance of coup d'état and civil war, respectively. Also, a history of coups d'état is a robust indicator of lower risk of riots, suggesting, perhaps, an expectation of more repression and thus having a small dampening effect on riot occurrence.

Income per capita affects the risk of instability, although it is robustly statistically significant only in the case of coups and civil conflicts. The oil export dummy increases the risk of civil war. Similarly, countries with large mountainous areas are more likely to experience civil wars. Among the control variables, our most surprising result is that we do not find that countries that have recently experienced institutional instability – measured as a three point change in the Polity score over the last three years – are more likely to experience civil wars. However, when we exclude our key institution dummy variables and the controls for recent coups and riots, instability does foster civil war and the relationship is significant at the 1% level (available upon request).

The Supplementary Appendix presents additional robustness tests (Discussion 2). Our results withstand these additional specifications.

CONCLUSION

In this paper we look at the effects of political institutions and ethnic group relations on political instability, operationalized as civil wars, coups d'état and riots. We argue that our approach captures better lower levels of instability than work focused on the survival of political institutions or leaders. It also identifies better periods of social peace than the literature focused solely on civil wars or coups d'état and allows us to test whether our outcomes are alternative manifestations of similar root causes. With respect to the determinants of instability, we return to ideas present in earlier work suggesting that both political institutions and the relationships among social forces can be expected to exert an influence (e.g. Huntington 1968). We use the Goldstone et al. (2010) five category measure of political institutions to test the previously posited U-shaped relationship between such institutions and our three instability outcomes – civil wars, coups d'état and riots. Results suggest that partial factional democracies are more likely to experience all three types of instability. It must be noted, however, that this result may not apply to *all* forms of violence. As discussed above, for example, the previous literature has found that full democracies are the most likely to experience terrorism. We also use the Ethnic Power Relations data (Wimmer et al. 2009) to test the effect of ethnic exclusion and governing coalition fragmentation on political instability.

Our findings suggest that the literature on different manifestations of instability ought to be more closely connected. By studying different forms of instability simultaneously, we can determine whether they share similar determinants. Moreover, studying these events simultaneously enables us to assess whether rulers face a substitution effect between different forms of instability while designing governing coalitions, as suggested by Roessler's work on sub-Saharan Africa, for example. We find that the ethnic composition of the governing elites may generate a substitution relationship between coups d'état and civil wars.

Our results have also very important implications for policies aimed at reducing instability. They suggest that, since coups, civil wars and riots often share common root determinants, a unified set of strategies may be employed to prevent their occurrence. Our results also imply that the inverted U-shaped

relationship between democracy and instability is driven by a single type of anocracy: partial factional democracies. They thus have implications for the design of institutions in transitioning democracies. Semi-democracies are particularly vulnerable to diverse forms of instability when at least some of those who govern are selected through elections and the competing interests taking part in the elections are based on parochial or ethnic-based political factions. Among other things, these results point to the importance of developing strong secular and cross-cutting political groups before the introduction of elections in transitioning democracies.

Finally, the literature on civil conflict has moved away from country-year studies and disaggregation has been very useful to match rebel locations with local conditions and thus be more precise about the locally driven incentives of rebel groups. Disaggregation, however, cannot preclude a focus on national level politics and institutions or how groups relate to each other and vie for control of resources at the national level. Dysfunctional national politics creates the background conditions for why groups may think they would not be treated fairly or why groups may fear that resources on their territory would be appropriated by the central government with little in return. Our results thus suggest that future research on political instability and violence should consider mechanisms that operate both at the country and group levels.

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SUPPLEMENTARY MATERIAL

A supplemental appendix, showing additional estimations discussed in the article, is on the publisher's website.

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Tables and Figures

FIGURE 1. Political institutions - Source: Goldstone et al. 2010

	<i>Competitiveness of Political Participation</i>					
<i>Executive Recruitment</i>	Repressed (1)	Suppressed (2)	Unregulated (0)	Factional (3)	Transitional (4)	Competitive (5)
(1) Ascription	Autocracy		Partial Autocracy			
(2) Ascription + Designation						
(3) Designation						
(4) Self-Selection						
(5) Transition from Self-Selection						
(6) Ascription + Election	Partial Autocracy	Non-Factional Partial Democracy	Factional Partial Democracy	Non-Factional Partial Democracy	Democracy	
(7) Transitional or Restricted Elec.						
(8) Competitive Election						

FIGURE 2. Summary of the Main Arguments on the Effects of Political Institutions and Social Factors on Civil Wars, Coups and Riots

Conditions	Civil Wars		Coups		Riots	
	Mechanisms	Expected Outcomes	Mechanisms	Expected Outcomes	Mechanisms	Expected Outcomes
Semi-democracy	Weak and incoherent regimes	Higher likelihood of civil war in all semi-democracy types	Weak and incoherent regimes	Higher likelihood of coup in all semi-democracy types	Weak and incoherent regimes are ill equipped to address grievances or insure effective policing and rule of law	Higher likelihood of riot in all semi-democracy types
	Combination of institutional openness and political participation channeled through networks rooted in traditional authorities	Higher likelihood of civil war only in partial factional democracies	Combination of institutional openness and political participation channeled through networks rooted in traditional authorities	Higher likelihood of coup only in partial factional democracies	Combination of institutional openness and political participation channeled through networks rooted in traditional authorities	Higher likelihood of riot only in partial factional democracies
					Low costs to collective action; and low probability of repression	Riots are not more (or less) likely in semi-democracies
Ethnic Exclusion	Reduces the legitimacy of the regime	Higher likelihood of civil war	Reduces the legitimacy of the regime	Higher likelihood of coup	Reduces the legitimacy of the regime	Higher likelihood of riot
Central government fragmentation	Increases risk of infighting among coalition members; and weakens the regime to threats from excluded groups	Higher likelihood of civil war	Creates coordination obstacles; and lessens the fear of exclusion	Lower likelihood of coup		None
			Creates fragmented and/or competing coalitions	Higher likelihood of coup		
Size of members of the governing coalition		None	Coups waged by larger groups are more likely to be successful	Higher likelihood of coup		None
Newly excluded group	Increases grievances	Higher likelihood of civil war	Increases grievances	Higher likelihood of coup	Increases grievances	Higher likelihood of riot
			Decreases the capacity to stage a coup	Lower likelihood of coup		

TABLE 1. Multinomial Logit: Determinants of Instability - Riots, Coups, and Civil Wars

	Model 1			Model 2		
	Riots	Coups	Civil Wars	Riots	Coups	Civil Wars
Ongoing civil war in past year	0.0725 (0.104)	0.188 (0.152)	0.571*** (0.177)	-0.0537 (0.115)	0.449** (0.175)	0.0169 (0.172)
Coup attempt in past 5 years	-0.257** (0.111)	1.262*** (0.133)	0.260 (0.176)	-0.373*** (0.128)	0.841*** (0.155)	0.277 (0.215)
# years with riots in past 5 years	0.673*** (0.0266)	0.395*** (0.0479)	0.395*** (0.0571)	0.483*** (0.0304)	0.307*** (0.0560)	0.267*** (0.0657)
Transitional and interregnum regime ^a	0.455** (0.208)	0.428 (0.269)	0.455 (0.329)	0.692*** (0.231)	0.574** (0.291)	0.763** (0.364)
Full democracy ^a	-0.0407 (0.130)	-2.671*** (0.757)	-0.679* (0.370)	-0.254 (0.205)	-2.572*** (0.956)	0.671 (0.573)
Partial autocracy ^a	0.177 (0.134)	0.629*** (0.173)	-0.226 (0.288)	0.187 (0.147)	0.708*** (0.204)	0.0513 (0.316)
Partial factional democracy ^a	0.378*** (0.122)	0.618*** (0.179)	0.459** (0.217)	0.428*** (0.140)	0.920*** (0.221)	0.860*** (0.269)
Partial non-factional democracy ^a	0.0434 (0.122)	-0.499** (0.253)	-0.0686 (0.247)	0.117 (0.146)	-0.0701 (0.302)	0.0995 (0.312)
Excluded population	0.301* (0.182)	0.528** (0.263)	0.927*** (0.306)	0.470** (0.214)	0.645** (0.310)	0.776** (0.384)
Size of senior partner	-0.194 (0.152)	-0.589* (0.351)	-0.210 (0.313)	0.0982 (0.164)	0.0475 (0.368)	0.0493 (0.353)
Size of junior partner	-0.710** (0.312)	1.267*** (0.449)	-0.419 (0.510)	-0.163 (0.357)	1.152** (0.507)	-0.305 (0.619)
# included groups	0.0919*** (0.0315)	-0.128** (0.0621)	0.186*** (0.0466)	0.0502 (0.0364)	-0.103 (0.0704)	0.141*** (0.0513)
Newly excluded group	-0.0628 (0.239)	0.316 (0.259)	0.304 (0.320)	0.119 (0.260)	0.519* (0.270)	0.415 (0.334)
Log GDP/capita ^a	0.0396 (0.0473)	-0.224*** (0.0827)	-0.249** (0.102)	0.0371 (0.0749)	-0.288** (0.134)	-0.289** (0.138)
Log Population ^a				0.350*** (0.0357)	-0.00561 (0.0632)	0.387*** (0.0641)
Log Mountainous terrain				-0.0386 (0.0331)	-0.0757 (0.0637)	0.146** (0.0736)
Instability				0.0956 (0.124)	0.0410 (0.160)	0.0638 (0.213)
Oil				-0.150 (0.128)	0.0347 (0.207)	0.688*** (0.211)
Military regime ^a				-0.0368 (0.146)	0.399** (0.188)	0.487** (0.234)
Former British colony				0.202* (0.108)	-0.142 (0.201)	-0.0759 (0.251)
Former French colony				-0.0641 (0.143)	-0.00679 (0.198)	0.00563 (0.258)
Constant	-2.862*** (0.378)	-1.916*** (0.662)	-2.340*** (0.801)	-8.722*** (0.963)	-2.302 (1.604)	-10.14*** (1.917)
Region dummies	N	N	N	Y	Y	Y
Decade dummies	N	N	N	Y	Y	Y
Number of Events	1,061	306	203	1,021	292	195
Log pseudo likelihood/ Pseudo R ²		-4282.9 / 0.14			-3916.6 / 0.177	
Observations	6,705	6,705	6,705	6,355	6,355	6,355

Note: * significant at 10%; ** significant at 5%; *** significant at 1%. Robust standard errors in parentheses. ^a is lagged one year.

Supplementary Material

Discussion 1: A Multinomial Model of Conflict

In our theoretical account riots, coups and civil wars are alternative outcomes of the same propensity for violence or irregular contestation of political power. To test this view of instability a multinomial model is required (however, all results are robust to the use of regular logic regressions; see Table A5 of the Supplementary Appendix). We use an unordered multinomial logit model with four outcomes: riot, coup, civil war and a “peace” or “no new conflict” outcome (the reference category). The main benefit of using a multinomial logit model is that the reference category (the 0 outcome in the dependent variable) is the same across all forms of instability. While studying the determinants of riots, for example, we need to distinguish cases in which there is no riot, no coup and no civil war (“peace”) from those in which there is no riot but a coup or a civil war. Otherwise, peaceful observations are lumped together with observations that experienced a coup or a civil war (but not a riot). Given that we view riots, coups and civil wars as different manifestations of the same propensity for instability, the reference category for all three outcomes needs to be the absence of instability. A series of binomial logit regressions side by side can be specified instead of a multinomial.¹⁹ However, in order to compare the effect of the independent variables on alternative outcomes, the binomial logit regressions need to have the same reference category.

This is not necessarily the practice in the sparse literature on multiple outcomes. For example, Regan and Norton (2005) study the determinants of the incidence of three outcomes: protest, rebellion and civil war in three separate logit regressions in which the dependent variable takes the value of 1 for

¹⁹ The assumption of Independence of Irrelevant Alternatives (IIA) in the multinomial logit allows the estimation on subsets of alternatives. However, the estimation sample needs to be adjusted to exclude those observations for which the chosen alternative is not in the estimation subset.

all country years of specific outcome incidence. All other data points are coded as the reference outcome 0. That is, the reference category for civil war includes instances of peace, protest and rebellion, the reference category for rebellion includes peace, protest and war and the reference for protest includes peace, rebellion and civil war. Given the lack of a common reference category for the three civil conflict outcomes, we believe our own multinomial specification is more appropriate for interpreting the results in a comparative fashion. Wimmer et al. (2009), on the other hand, are rightly using a multinomial logit regression to show comparatively the effect of key variables on different types of ethnic civil war.

The weakness of the multinomial logit is the assumption that the random disturbance terms in the equations for each alternative are identically and independently distributed in accordance with the extreme value distribution. This assumption is inappropriate when the disturbances of a subset of the outcomes are correlated due to some similar unobservable characteristics or omitted variables. A remedial solution is to estimate a multinomial probit that allows disturbances to be correlated across outcomes. Our multinomial logit findings are robust to a multinomial probit specification.

Discussion 2: Additional Robustness tests

As already discussed in the research design section, Tables A4-A6 show that our results are robust when we employ bivariate logit models. In Tables A7-A9 we further show that our results are robust to the use of the indicator of civil wars of the Correlates of War and the indicator of coups of the Center for Systemic Peace. The only notable change is that the effect of the proportion of excluded population on coups fall out of significance when we combine the Prio/Uppsala measure of civil wars with the measure of coups of the Center for Systemic Peace (Table A8). In the same model, moreover, the (negative) effect of the number of included groups on coups strengthens substantially.

Also, multinomial probit models give similar results (available upon request). In addition, we have included other control variables: The one year lagged rate of income growth is statistically significant across the models and positive growth reduces the risk of riot and coup d'état. The share of the Muslim population in each country increases the risk of coup d'état. The inclusion of these variables has little effect on our findings (available upon request). Finally, few of the variables in our models explain riots very well. We think this may be due to the more local nature of politics and riots (as shown in Wilkinson 2004, Urdal 2008) or to the aggregation of the dependent variable, covering, e.g., both ethnic riots and anti-government riots, as well as small and large riots.

TABLE A1. Summary Statistics

	Mean	St. Deviation	Min.	Max.
Riots	0.186	0.389	0	1
Coups (P&T)	0.049	0.215	0	1
Coups (CSP)	0.055	0.227	0	1
Civil Wars (PRIO)	0.031	0.173	0	1
Civil Wars (COW)	0.019	0.135	0	1
# years with riots in past 5 years	0.944	1.289	0	5
Coup attempt in past 5 years (P&T)	0.177	0.382	0	1
Coup attempt in past 5 years (CSP)	0.2	0.4	0	1
Ongoing civil war in past year (PRIO)	0.158	0.365	0	1
Ongoing civil war in past year (COW)	0.08	0.278	0	1
Transitional and interregnum regime	0.032	0.175	0	1
Full democracy	0.216	0.411	0	1
Full autocracy	0.432	0.495	0	1
Partial autocracy	0.085	0.279	0	1
Partial factional democracy	0.109	0.311	0	1
Partial non-factional democracy	0.127	0.333	0	1
Excluded population	0.16	0.227	0	0.98
Size of senior partner	0.157	0.279	0	0.99
Size of junior partner	0.107	0.205	0	0.95
# included groups	1.664	1.873	0	14
Newly excluded groups	0.03	0.171	0	1
Log GDP/capita	7.978	1.07	5.33	10.353
Log Population	16.122	1.381	12.773	20.999
Log Mountainous terrain	2.178	1.393	0	4.421
Instability	0.126	0.332	0	1
Oil	0.16	0.367	0	1
Military regime	0.126	0.332	0	1
Former British colony	0.251	0.434	0	1
Former French colony	0.17	0.376	0	1

TABLE A2. Distribution of Riots, Coups and Civil Wars across Regime Types

	Peace	Riot	Coup	Civil War
Full democracy	83.55%	15.49%	0.15%	0.81%
Full autocracy	79.21%	12.54%	5.08%	3.17%
Partial autocracy	67.83%	19.67%	9.74%	2.76%
Partial factional democracy	62.89%	23.50%	7.88%	5.73%
Partial non-factional democracy	75.49%	19.07%	2.20%	3.24%
Transitional and interregnum regime	59.02%	21.46%	11.71%	7.80%
Total	76.27%	16.07%	4.59%	3.07%

TABLE A3. Predicted Probabilities of Instability: Riots, Coups, and Civil Wars

	Predicted Probability of Riot	Percent Change	Predicted Probability of Coup	Percent Change	Predicted Probability of Civil War	Percent Change
Ongoing civil war = 0 = 1			0.042 0.062	48%		
Coup attempts in past 5 years = 0 = 1	0.172 0.123	-40%	0.032 0.072	125%		
# years with riots in past 5 years = 0 =3	0.096 0.276	188%	0.038 0.064	68%	0.027 0.04	48%
Transitional and interregnum regime = 0 =1	0.159 0.236	48%	0.045 0.061	36%	0.03 0.049	63%
Full democracy = 0 = 1			0.049 0.004	-92%		
Partial autocracy = 0 = 1			0.042 0.074	76%		
Partial factional democracy = 0 = 1	0.156 0.191	22%	0.041 0.08	95%	0.027 0.052	93%
Excluded population at 50 th percentile at 90 th percentile	0.156 0.177	14%	0.041 0.052	24%	0.027 0.036	33%
Size of junior partner at 50 th percentile at 90 th percentile			0.041 0.065	59%		
# included groups = 1 = 3					0.027 0.034	26%
Newly excluded group = 0 =1			0.045 0.067	49%		
Log GDP/capita at 50 th percentile at 90 th percentile			0.041 0.028	-32%	0.027 0.018	-33%
Log Population at 50 th percentile at 90 th percentile	0.148 0.228	54%			0.026 0.045	73%
Log Mountainous terrain at 50 th percentile at 90 th percentile					0.031 0.038	23%
Oil = 0 = 1					0.027 0.051	89%
Military regime = 0 = 1			0.042 0.059	41%	0.028 0.043	54%
Former British Colony = 0 = 1	0.155 0.18	16%				

Note: Marginal effect computed using Model 2 in Table 1. Predicted probabilities are missing when the independent variable does not have a significant effect on the particular multinomial logit outcome.

Discussion 2: Robustness of the main results

The Supplementary Appendix presents additional robustness tests for our main models. Our results withstand these additional specifications.

First, we run three series of three separate logit models (one for each type of instability). In the first group of logit models, reported in Table A4 of the Supplementary Appendix, the dependent variables are constructed such that the reference category (i.e. the '0s' or peace – the absence of riot, coup or civil war) is the same across all models. In Table A5 of the Supplementary Appendix we run a second series of three logit models in which the dependent variables have different reference categories ('0s' are not the same across the estimated models). These are 'regular' logit models.

Table A6 redoes the analysis in Table A5 but each model includes two additional control variables to account for whether the country has also experienced the onset of the other two forms of instability (e.g., the coup model includes dummy control variables for whether the country endured a riot or a civil war onset). These models largely confirm that, as already demonstrated by the previous literature (e.g., Bell and Koga *forthcoming*; Belkin and Schofer 2003; Thyne *forthcoming*), countries are more likely to experience one form of instability (e.g., coup) when they are experiencing another form of violence (e.g., riot). One may argue that our findings obtain because one type of instability determines another type, not because they are the result of similar conditions. Table A6 shows that, even when we control for this alternative mechanism, riots, coups and civil wars share many of the same determinants.

In Tables A7-A9 we further show that our results are robust to the use of the indicator of civil wars of the Correlates of War and the indicator of coups of the Center for Systemic Peace. The only notable change is that the effect of the proportion of excluded population on coups fall out of significance when we combine the Prio/Uppsala measure of civil wars with the measure of coups of the Center for Systemic Peace (Table A8). In the same model, moreover, the (negative) effect of the number of included groups on coups strengthens substantially.

TABLE A4. Logit: Determinants of Instability - Riots, Coups, and Civil Wars (Each Regression Uses the Same Reference Category)

	Riots	Coups	Civil Wars
Ongoing civil war in past year	-0.0600 (0.111)	0.327* (0.176)	-0.0785 (0.184)
Coup attempt in past 5 years	-0.187 (0.118)	0.844*** (0.151)	0.270 (0.226)
# years with riots in past 5 years	0.495*** (0.0298)	0.253*** (0.0542)	0.233*** (0.0683)
Transitional and interregnum regime ^a	0.777*** (0.218)	0.497* (0.298)	0.751** (0.381)
Full democracy ^a	-0.286 (0.200)	-2.060** (0.877)	0.688 (0.588)
Partial autocracy ^a	0.255* (0.140)	0.655*** (0.203)	0.0408 (0.319)
Partial factional democracy ^a	0.521*** (0.134)	0.933*** (0.224)	0.842*** (0.289)
Partial non-factional democracy ^a	0.0991 (0.144)	-0.134 (0.300)	0.183 (0.316)
Excluded population	0.548*** (0.206)	0.665** (0.298)	0.756** (0.382)
Size of senior partner	0.160 (0.160)	-0.157 (0.364)	0.121 (0.359)
Size of junior partner	-0.210 (0.340)	1.101** (0.505)	-0.312 (0.648)
# included groups	0.0659* (0.0354)	-0.0839 (0.0694)	0.116** (0.0538)
Newly excluded group	0.196 (0.234)	0.454* (0.270)	0.308 (0.342)
Log GDP/capita ^a	0.0502 (0.0723)	-0.349** (0.136)	-0.271* (0.149)
Log Population ^a	0.339*** (0.0343)	0.000191 (0.0598)	0.375*** (0.0649)
Log Mountainous terrain	-0.0243 (0.0324)	-0.0677 (0.0614)	0.137* (0.0736)
Instability	0.117 (0.115)	0.0596 (0.157)	0.0586 (0.223)
Oil	-0.120 (0.121)	0.0806 (0.205)	0.765*** (0.218)
Military regime ^a	-0.0444 (0.142)	0.363** (0.183)	0.539** (0.243)
Former British colony	0.177* (0.106)	-0.0113 (0.199)	0.00775 (0.251)
Former French colony	-0.0127 (0.134)	0.0274 (0.195)	0.0416 (0.258)
Constant	-8.743*** (0.920)	-1.763 (1.654)	-10.02*** (2.027)
Region dummies	Y	Y	Y
Decade dummies	N	N	N
Number of Events	1,182	309	195
Log pseudo likelihood/ Pseudo R ²	-2396.5 / 0.197	-918.1 / 0.215	-683.2 / 0.172
Observations	6,029	5,156	5,042

Note: * significant at 10%; ** significant at 5%; *** significant at 1%. The reference category of the dependent variables (i.e. the '0s') is the same in all logit regressions. Robust standard errors in parentheses. ^a is lagged by one year.

TABLE A5. Logit: Determinants of Instability - Riots, Coups, and Civil Wars (Each Regression Uses Different Reference Categories)

	Riots	Coups	Civil Wars
Ongoing civil war in past year	-0.111 (0.109)	0.424** (0.167)	-0.0143 (0.172)
Coup attempt in past 5 years	-0.279** (0.116)	0.908*** (0.150)	0.282 (0.217)
# years with riots in past 5 years	0.489*** (0.0291)	0.147*** (0.0532)	0.0898 (0.0656)
Transitional and interregnum regime ^a	0.745*** (0.208)	0.285 (0.277)	0.590* (0.357)
Full democracy ^a	-0.271 (0.200)	-2.048** (0.847)	0.666 (0.578)
Partial autocracy ^a	0.244* (0.138)	0.618*** (0.199)	-0.0256 (0.313)
Partial factional democracy ^a	0.492*** (0.132)	0.802*** (0.216)	0.716*** (0.271)
Partial non-factional democracy ^a	0.126 (0.142)	-0.185 (0.300)	0.0837 (0.306)
Excluded population	0.423** (0.203)	0.606** (0.294)	0.649* (0.372)
Size of senior partner	0.203 (0.156)	-0.115 (0.359)	0.195 (0.342)
Size of junior partner	-0.266 (0.335)	1.293*** (0.479)	-0.280 (0.623)
# included groups	0.0502 (0.0336)	-0.116** (0.0569)	0.0906* (0.0487)
Newly excluded group	0.148 (0.224)	0.346 (0.261)	0.317 (0.328)
Log GDP/capita ^a	0.0601 (0.0718)	-0.373*** (0.130)	-0.274** (0.136)
Log Population ^a	0.337*** (0.0339)	-0.0874 (0.0582)	0.322*** (0.0630)
Log Mountainous terrain	-0.0172 (0.0320)	-0.0721 (0.0600)	0.157** (0.0725)
Instability	0.104 (0.113)	0.0870 (0.153)	0.0827 (0.212)
Oil	-0.136 (0.119)	0.112 (0.198)	0.721*** (0.210)
Military regime ^a	-0.0763 (0.137)	0.387** (0.180)	0.479** (0.232)
Former British colony	0.191* (0.105)	-0.142 (0.190)	-0.114 (0.249)
Former French colony	0.00678 (0.133)	-0.0204 (0.190)	0.00375 (0.252)
Constant	-8.785*** (0.916)	-0.176 (1.576)	-9.084*** (1.902)
Region dummies	Y	Y	Y
Decade dummies	Y	Y	Y
Number of Events	1,182	309	195
Log pseudo likelihood/ Pseudo R ²	-2479.8/ 0.188	-1006.9/ 0.185	-753.9/ 0.135
Observations	6,356	6,362	6,363

Note: * significant at 10%; ** significant at 5%; *** significant at 1%. The reference categories of the dependent variables (i.e. the '0s') are different in each model. Robust standard errors in parentheses. ^a is lagged by one year.

TABLE A6. Logit: Determinants of Instability - Riots, Coups, and Civil Wars (Controls for Other Forms of Instability)

	Riots	Coups	Civil Wars
Civil War Onset	0.350* (0.190)	0.391 (0.302)	
Coup	0.651*** (0.158)		0.406 (0.295)
Riot		0.724*** (0.155)	0.383** (0.185)
Ongoing civil war in past year	-0.123 (0.109)	0.494*** (0.168)	0.00264 (0.172)
Coup attempt in past 5 years	-0.350*** (0.119)	0.942*** (0.152)	0.276 (0.219)
# years with riots in past 5 years	0.487*** (0.0291)	0.0915 (0.0559)	0.0555 (0.0661)
Transitional and interregnum regime ^a	0.725*** (0.210)	0.185 (0.284)	0.557 (0.357)
Full democracy ^a	-0.262 (0.201)	-2.009** (0.825)	0.664 (0.567)
Partial autocracy ^a	0.223 (0.138)	0.592*** (0.200)	-0.0512 (0.316)
Partial factional democracy ^a	0.464*** (0.133)	0.727*** (0.217)	0.664** (0.269)
Partial non-factional democracy ^a	0.131 (0.142)	-0.207 (0.300)	0.0791 (0.306)
Excluded population	0.370* (0.205)	0.573* (0.297)	0.623* (0.373)
Size of senior partner	0.211 (0.156)	-0.148 (0.360)	0.194 (0.339)
Size of junior partner	-0.317 (0.337)	1.343*** (0.479)	-0.300 (0.614)
# included groups	0.0494 (0.0339)	-0.126** (0.0564)	0.0901* (0.0485)
Newly excluded group	0.118 (0.226)	0.320 (0.270)	0.306 (0.329)
Log GDP/capita ^a	0.0665 (0.0718)	-0.391*** (0.128)	-0.272** (0.133)
Log Population ^a	0.338*** (0.0340)	-0.134** (0.0596)	0.307*** (0.0643)
Log Mountainous terrain	-0.0164 (0.0321)	-0.0801 (0.0607)	0.160** (0.0722)
Instability	0.100 (0.114)	0.0859 (0.154)	0.0716 (0.212)
Oil	-0.148 (0.120)	0.127 (0.199)	0.718*** (0.211)
Military regime ^a	-0.104 (0.136)	0.405** (0.181)	0.464** (0.231)
Former British colony	0.198* (0.105)	-0.188 (0.191)	-0.133 (0.250)
Former French colony	0.0105 (0.134)	-0.0199 (0.190)	0.00415 (0.253)
Constant	-8.861*** (0.920)	0.638 (1.568)	-8.873*** (1.884)
Region dummies	Y	Y	Y
Decade dummies	Y	Y	Y
Number of Events	1,182	309	195
Log pseudo likelihood/ Pseudo R ²	-2468.92/0.19	-993.84/0.2	-750.46/0.14
Observations	6,355	6,355	6,355

Note: * significant at 10%; ** significant at 5%; *** significant at 1%. The reference categories of the dependent variables (i.e. the '0s') are different in each model. Controls for alternative forms of instability. Robust standard errors in parentheses. ^a is lagged by one year.

TABLE A7. Multinomial Logit: Determinants of Instability - Riots, Coups, and Civil Wars (COW Indicator of Civil War)

	Riots	Coups	Civil Wars
Ongoing civil war in past year	-0.504*** (0.160)	0.127 (0.209)	-0.610** (0.302)
Coup attempt in past 5 years	-0.349*** (0.127)	0.921*** (0.153)	0.189 (0.257)
# years with riots in past 5 years	0.479*** (0.0303)	0.287*** (0.0569)	0.270*** (0.0840)
Transitional and interregnum regime ^a	0.885*** (0.223)	0.633** (0.298)	1.683*** (0.373)
Full democracy ^a	-0.188 (0.204)	-2.025** (0.860)	-14.17*** (0.345)
Partial autocracy ^a	0.215 (0.146)	0.689*** (0.205)	0.551 (0.363)
Partial factional democracy ^a	0.492*** (0.138)	0.940*** (0.223)	1.120*** (0.361)
Partial non-factional democracy ^a	0.129 (0.145)	-0.0336 (0.301)	0.372 (0.422)
Excluded population	0.577*** (0.210)	0.826*** (0.304)	1.257*** (0.435)
Size of senior partner	0.128 (0.160)	-0.0833 (0.370)	-0.150 (0.503)
Size of junior partner	-0.180 (0.345)	1.117** (0.483)	-0.0140 (0.809)
# included groups	0.0560 (0.0349)	-0.0791 (0.0650)	0.0734 (0.0726)
Newly excluded group	0.330 (0.236)	0.410 (0.275)	0.369 (0.407)
Log GDP/capita ^a	0.0186 (0.0740)	-0.349** (0.137)	-0.350** (0.152)
Log Population ^a	0.356*** (0.0353)	0.0239 (0.0604)	0.228*** (0.0820)
Log Mountainous terrain	-0.0338 (0.0329)	-0.106* (0.0630)	0.240*** (0.0836)
Instability	0.196 (0.120)	0.0554 (0.161)	0.115 (0.260)
Oil	-0.117 (0.127)	0.0208 (0.207)	0.751*** (0.263)
Military regime ^a	-0.0529 (0.145)	0.317* (0.184)	0.644** (0.275)
Former British colony	0.197* (0.108)	-0.118 (0.197)	-0.180 (0.292)
Former French colony	-0.0794 (0.142)	-0.0569 (0.193)	-0.423 (0.326)
Constant	-8.727*** (0.954)	-2.341 (1.627)	-21.12*** (2.056)
Region dummies	Y	Y	Y
Decade dummies	Y	Y	Y
Number of Events	1,049	292	116
Log pseudo likelihood/ Pseudo R ²		-3700/0.184	
Observations	6,372	6,372	6,372

Note: Redoes Model 2 of Table 1 with the measure of civil wars of the Correlates of War (COW) rather than that of the Prio/Uppsala. * significant at 10%; ** significant at 5%; *** significant at 1%. Robust standard errors in parentheses. ^a is lagged by one year.

TABLE A8. Multinomial Logit: Determinants of Instability - Riots, Coups, and Civil Wars (CSP Indicator of Coup)

	Riots	Coups	Civil Wars
Ongoing civil war in past year	-0.0358 (0.112)	0.514*** (0.158)	0.0388 (0.171)
Coup attempt in past 5 years	-0.215* (0.121)	0.706*** (0.144)	0.201 (0.210)
# years with riots in past 5 years	0.481*** (0.0302)	0.332*** (0.0544)	0.269*** (0.0658)
Transitional and interregnum regime ^a	0.682*** (0.225)	0.733*** (0.253)	0.786** (0.359)
Full democracy ^a	-0.128 (0.192)	-2.268*** (0.805)	0.788 (0.521)
Partial autocracy ^a	0.292** (0.140)	0.636*** (0.195)	0.00719 (0.315)
Partial factional democracy ^a	0.434*** (0.136)	0.684*** (0.212)	0.818*** (0.268)
Partial non-factional democracy ^a	0.0847 (0.144)	-0.148 (0.287)	0.0439 (0.314)
Excluded population	0.506** (0.209)	0.436 (0.283)	0.727* (0.377)
Size of senior partner	0.108 (0.159)	0.127 (0.313)	0.0284 (0.352)
Size of junior partner	-0.0262 (0.346)	1.280*** (0.421)	-0.298 (0.611)
# included groups	0.0416 (0.0356)	-0.132** (0.0665)	0.138*** (0.0514)
Newly excluded group	-0.00183 (0.269)	0.499** (0.245)	0.457 (0.341)
Log GDP/capita ^a	-0.0885 (0.0734)	-0.459*** (0.122)	-0.335** (0.137)
Log Population ^a	0.336*** (0.0351)	-0.0764 (0.0595)	0.372*** (0.0654)
Log Mountainous terrain	-0.0519 (0.0322)	-0.0920* (0.0558)	0.138* (0.0743)
Instability	0.0767 (0.120)	0.0725 (0.151)	0.0878 (0.210)
Oil	-0.172 (0.126)	0.0176 (0.187)	0.670*** (0.210)
Military regime ^a	-0.0183 (0.146)	0.438** (0.171)	0.524** (0.224)
Former British colony	0.162 (0.106)	-0.0855 (0.178)	-0.0793 (0.249)
Former French colony	-0.158 (0.142)	0.00765 (0.177)	-0.0184 (0.259)
Constant	-7.027*** (0.912)	1.057 (1.531)	-9.505*** (1.880)
Region dummies	Y	Y	Y
Decade dummies	Y	Y	Y
Number of Events	1,072	334	197
Log pseudo likelihood/ Pseudo R ²		-4168.6/0.166	
Observations	6,491	6,491	6,491

Note: Redoes Model 2 of Table 1 with the measure of coups of the Center for Systemic Peace (CSP) rather than that of the Powell and Thyne (2011). * significant at 10%; ** significant at 5%; *** significant at 1%. Robust standard errors in parentheses. ^a is lagged by one year.

TABLE A9. Multinomial Logit: Determinants of Instability - Riots, Coups, and Civil Wars (COW Indicator of Civil War and CSP Indicator of Coup)

	Riots	Coups	Civil Wars
Ongoing civil war in past year	-0.489*** (0.157)	0.216 (0.186)	-0.597** (0.300)
Coup attempt in past 5 years	-0.197 (0.120)	0.755*** (0.143)	0.341 (0.238)
# years with riots in past 5 years	0.476*** (0.0301)	0.316*** (0.0547)	0.278*** (0.0837)
Transitional and interregnum regime ^a	0.873*** (0.218)	0.794*** (0.254)	1.624*** (0.370)
Full democracy ^a	-0.111 (0.192)	-1.856** (0.751)	0.415 (0.773)
Partial autocracy ^a	0.296** (0.139)	0.623*** (0.196)	0.467 (0.361)
Partial factional democracy ^a	0.480*** (0.135)	0.782*** (0.209)	1.021*** (0.361)
Partial non-factional democracy ^a	0.0958 (0.143)	-0.0383 (0.282)	0.243 (0.424)
Excluded population	0.604*** (0.206)	0.648** (0.278)	1.198*** (0.426)
Size of senior partner	0.145 (0.156)	0.0838 (0.308)	-0.200 (0.493)
Size of junior partner	-0.0673 (0.332)	1.266*** (0.409)	0.0297 (0.779)
# included groups	0.0483 (0.0342)	-0.118* (0.0622)	0.0734 (0.0713)
Newly excluded group	0.187 (0.244)	0.428* (0.244)	0.383 (0.404)
Log GDP/capita ^a	-0.0955 (0.0724)	-0.504*** (0.124)	-0.441*** (0.152)
Log Population ^a	0.341*** (0.0347)	-0.0582 (0.0571)	0.213** (0.0837)
Log Mountainous terrain	-0.0505 (0.0319)	-0.111** (0.0559)	0.230*** (0.0829)
Instability	0.162 (0.117)	0.128 (0.150)	0.0892 (0.255)
Oil	-0.143 (0.126)	0.0166 (0.186)	0.685*** (0.257)
Military regime ^a	-0.0568 (0.145)	0.410** (0.167)	0.592** (0.265)
Former British colony	0.175* (0.106)	-0.0833 (0.176)	-0.209 (0.288)
Former French colony	-0.167 (0.141)	-0.0214 (0.173)	-0.477 (0.327)
Constant	-7.101*** (0.905)	1.051 (1.538)	-20.86*** (2.089)
Region dummies	Y	Y	Y
Decade dummies	Y	Y	Y
Number of Events	1,097	337	119
Log pseudo likelihood/ Pseudo R ²		-3963.8/0.17	
Observations	6,508	6,508	6,508

Note: Redoes Model 2 of Table 1 with the measure of civil wars of the Correlates of War (COW) rather than that of the Prio/Uppsala, and the measure of coups of the Center for Systemic Peace (CSP) rather than that of the Powell and Thyne (2011). * significant at 10%; ** significant at 5%; *** significant at 1%. Robust standard errors in parentheses. ^a is lagged by one year.