Abstract

We examine how external intervention interacts with polarization of group identities to induce rebellion and civil war. We first provide statistical evidence for the importance of this interaction, and then examine models in which external intervention is the catalyst for civil war in combination with ethnic or social identification. In our models, local actors representing different groups are emboldened by their foreign patrons to pursue their objectives violently. This, in turn, induces greater salience of identity and inter-group polarization. Without the specter of intervention, polarization is often insufficient to induce war and, in turn, in the absence of polarization external intervention is insufficient to induce war. We present case evidence consistent with our claim. The model serves as a bridge between international relations and comparative political-economy approaches to internal conflict.
1 Introduction

The salient role of external powers in the wave of civil wars occurring in the Middle East since the invasion of Iraq in 2003 and widespread expectations of an even more competitive interstate security environment with the deterioration of U.S.-Russian relations put a premium on advancing scholarship on the effects of external intervention on intra-state conflict. We pursue that objective by focusing on the interaction between external intervention and social identity. The theory presented in this paper underscores the importance of a crucial yet poorly understood link between inter- and intra-state conflict: how external intervention can make identity more salient in inducing rebellion and civil war. In a systemic setting conducive to high incidence of intervention, groups within states will be more likely to frame their understanding of social identity in ways that increase polarization, escalate demands for autonomy or control of the center, and fail to find war-avoiding bargains. Observers are thus right to be concerned when states exhibit a greater propensity to involve themselves materially in the inter-group identity politics of other states. We show that the reasons to be concerned go deeper and may have more baleful implications for global security than is currently appreciated.

We begin by presenting empirical results that highlight the promise of this enterprise. Foundational quantitative studies of the effect of ethnic fragmentation or polarization on conflict onset follow the dominant approach in the scholarly literature of looking for direct, linear effects of domestic variables without considering the international system. Fearon and Laitin (2003) found no statistically significant correlation between civil war and ethnic fractionalization, a result that puzzled scholars, given the large historical and sociological literature on nationalism theorizing a link between ethnic difference, cultural antipathy, and conflict (e.g. Hall and Malasevic 2014). Subsequent research explained the discrepancy by the mismatch between theory and empirical proxies, as static measures of countries’ demographies cannot capture the depth of group divisions that fuel nationalism (Chandra and Wilkinson 2008). A second wave of studies proposed different measures, replacing the
fractionalization index with a polarization index (few large groups rather than many small ones), or combining ethnic difference with a measure of political exclusion (Cederman, Min, and Wimmer 2010; Wimmer 2012). A strong result from these studies is that polarization is correlated positively with civil war (Montalvo and Reynal-Querrol 2005). This result reinstated the idea that "ethnicity matters" yet the conditions under which it matters were still left unexplored.

We argue that available empirical measures of polarization cannot capture the complex ways in which politics affects the salience of ideological divisions between ethnic groups. Recent theoretical studies have shown that social identification is a dynamic, historically contingent process (Sambanis and Shayo 2013). Violence exposure, status reversals, and inter-group competition all affect the salience of ethnic identification. Building on these insights, we reexamine the relationship with an eye toward capturing how the international system might affect these dynamics. We show results from cross-country regressions that suggest that the widely accepted association between ethnic polarization and civil war is actually contingent upon the international environment. The positive correlation between polarization and civil war only applies to the Cold War period, a period known for competitive interventions by the great powers. The nature of data currently available does not allow a statistical exploration of the relationship between intervention and civil war onset, but our results do strongly suggest the analytical costs of examining polarization as a purely domestic phenomenon and the promise of integrating the inter-state security environment.

The statistical evidence presented motivates a formal model that takes as its starting point the insight that external intervention affects the likelihood of internal conflict while highlighting the identity and polarization mechanism that extant literature on intervention has left unexamined. We depart from previous work by bracketing the interveners’ preferences and constraints as well as the problems created by asymmetric information and credible commitment.1 We agree that these strategic issues are important, but want to highlight a

new mechanism for which it is not necessary to base our analysis on the same bargaining framework. The model allows for a wide variety of different instruments of external intervention by sponsors of the government and rebels and distinguishes between rebellion, war, and settlement under the threat of war. It provides a theoretical architecture to explore how domestic actors’ incentives can change as a result of foreign intervention and how their identities complicate that relationship.

Specifically, we model the interaction between a government and a group that may seek autonomy, secession, or to overthrow the government. The government represents the interests of a dominant group and the group out of power first has the choice between acquiescing to the status quo or rebelling. Rebellion can lead to either a negotiated settlement or civil war. That is, there are three sets of outcomes that are possible: the status quo, rebellion followed by settlement, and rebellion followed by civil war. This allows for a more nuanced and empirically accurate discussion of civil wars, which typically grow out of gradually escalating conflicts. Civil war, in turn, leads to either victory or defeat of the rebels. This setting allows for a rich set of factors that could lead to rebellion and civil war that involve both external intervention and identity issues.

Intervention emerges as complementary to identity in inducing rebellion or civil war in at least two analytically distinct ways. First, if we follow much of the existing literature in assuming fixed identity differences between the government and potential rebels, the external sponsor of potential rebels can use combinations of the different instruments at its disposal to induce rebellion and civil war. The greater the identity differences, the easier it is for an intervener to attain this result. Second, we show how intervention can itself affect identities and polarization to induce war or rebellion. Intervention can serve as such a stimulus, as differences in identity become more salient when an external power arms either the government or a distinct identity group within the state. This endogeneity


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of identities to arming can yield counterintuitive implications if seen from the prism of extant studies of intervention. Whereas the expectation based on previous studies is that pro-government intervention will reduce the risk of civil war (Cunningham 2016), our model makes a more nuanced argument by exploring the polarization mechanism. When an outside power bolsters the government, for example, that could make war more likely by sharpening identity differences due to arming (preparing for war). Arming makes identities more salient and increases perceived (psychological) distance between the government and a minority group. The government’s sponsor cannot help deter civil war in the same way that the rebel’s sponsor may induce the rebels to engage in war; by helping the government, its sponsor may well be unable to deter war and only increase the government’s likelihood of victory in war. The net result is likely to be contingent on underlying conditions, such as the ex ante distance between minority groups (potential rebel) and the state, the power asymmetry between them.2

While the paper’s contribution is primarily theoretical, we show how the mechanisms identified in the model help explain Ukraine’s descent into civil war after 2014. While controversy swirls around aspects of this case, in-depth studies reveal abundant process-level evidence of the ways in which heightened interventionism after 2013 made existing identity differences more salient and fed the dynamics that ended in war.

The major implication is that patterns of intra-state conflict may depend on the type of incentives offered by foreign sponsors; and the types of groups that rise to challenge the state

2 Other strands of the civil war literature can also be integrated with our framework. For example, Cederman, Min, and Wimmer (2010) and Cederman, Hug, Schadel, and Wucherpfennig (2015) present important new results on the effect of ethnic inclusion or regional autonomy concessions on the onset of ethnic war. They find these concessions to ethnic groups can reduce the risk of conflict. In our framework, these concessions could be endogenous to the type of available instruments of external intervention. If an external backer subsidizes rebellion contingent on rebel victory that could provide different incentives for rebellion than if external backing changes the marginal costs of fighting for the rebels or if the rebels receive unrestricted subsidies conditional on rebelling (independent of outcome). The government’s offers of inclusion or autonomy should be sensitive to these considerations. This is consistent with Mylonas (2013) who explains the choice of government policy toward ethnic minorities by looking at whether a revisionist neighboring power supports the minority with the intent of destabilizing the state and reclaiming territory. Both the likelihood of inclusion and the effectiveness of that policy in de-escalating conflict could depend on patterns of external intervention.
could also be endogenous to patterns of foreign intervention and great-power politics. Even if we assume that major inter-state war will remain unlikely, merely increasing rivalry at the system level threatens to reverse the post-Cold War trend of decreasing prevalence of civil war. This dire potential highlights the need for theories that bridge domestic and inter-state levels, and the model developed here can serve as the springboard for these efforts.

2 Preliminary Evidence on the Relevance of External Intervention on War Onset

Available data sources do not allow an analysis of the effect of intervention on war onset as interventions have only been coded in ongoing conflicts. Thus, cases where intervention failed to lead to violent conflict are excluded from prior studies. Moreover, whether intervention occurs is likely endogenous to characteristics of the domestic conflict so identifying its causal effect on war onset would be difficult. In light of these constraints, we probe the relationship between intervention and war onset indirectly by adding a plausibly exogenous proxy for intervention to an established model of civil war and checking if that changes the model’s results. The proxy we use is an indicator variable for the Cold War. The benefit of this approach is that the proxy for intervention is exogenous to the details of each case and the Cold War is known as a period characterized by superpower competition over spheres of influence, leading to proxy wars in the periphery. Regional hegemons coordinated their actions with their superpower sponsors resulting in many competing interventions in civil conflicts. We focus on the interactive effects of the Cold War variable, specifically on how it affects the relationship between ethnic polarization and civil war. Our theory would suggest that high-polarization countries would be at greater risk for civil war if domestic groups receive (or anticipate receiving) assistance by foreign backers. Moreover, polarized countries lend themselves to intervention as large ethnic groups become easily identifiable targets of intervention. If competing interventions were more likely during the Cold War, then the effect of polarization on civil war would be greater during the Cold War as compared to the
post-Cold War period.

We approach this question by re-examining an established empirical result that shows a robust positive and linear effect of ethnic polarization on civil war (Montalvo and Reynal-Querol 2005). Their study was path-breaking because the first wave of quantitative studies of civil war had dismissed the role of ethnic difference in civil war on the basis of results showing no statistically significant correlation between civil war onset and indices of ethno-linguistic fractionalization (ELF). Scholars interpreted this counter-intuitive result liberally to suggest that ethnic difference and nationalism are not contributing factors to explaining insurgency and civil war (e.g. Fearon and Laitin 2003). Montalvo and Reynal-Querol (2005) challenged that interpretation by demonstrating that by replacing ELF with an index of ethnic polarization (which takes higher values in countries with a few large groups rather than many small ones), they find a robust positive correlation with civil war. These results brought ethnic difference back to the forefront of models of civil war. We replicate their result in Table 1, column 1 and argue that what is missing from their analysis is an explanation of the mechanism underlying the association between polarization and war. Recent theoretical contributions by Esteban and Ray (2011) provide a mechanism linking polarization to conflict, but they focus exclusively on the domestic political economy. We instead argue that external conditions determine when ethnic polarization is associated with conflict and test if Montalvo and Reynal-Querol’s results on polarization are conditional on the international environment. Specifically, we test if the effect of polarization is limited to the Cold War period. If polarization becomes a less significant determinant of civil war in the post-Cold War period, this would be consistent with our claim that patterns of external intervention “activate” latent ethnic cleavages that might otherwise lay dormant, an argument that we model in the next section.

We re-estimate Montalvo and Reynal-Querol’s model, adding an indicator variable for the Cold War (coldwar). Their data is organized in country five-year periods and the Cold
War variable is coded 1 for the first 6 five-year periods and 0 for the last 2 periods. The dependent variable is coded 1 in each country-five-year period with a civil war as coded by the PRIO/UCDP dataset. There are 274 observations with 57 periods of war in the post-Cold War period and 822 observations with 102 periods of war in the Cold War period. The Cold War variable is weakly significant and negative (column 2) and the results of the baseline model do not change significantly. In column 3, we add an interaction between the ethnic polarization index and the Cold War indicator ($CW*P$). We find that the linear polarization term is no longer significant; the positive association between ethnic polarization and civil war is only statistically significant during the Cold War period. The same is not true for ethnic fractionalization, which is consistently non-significant whether independently or in interaction with the Cold War variable (column 4).

Next, we update Montalvo and Reynal-Querol’s data (their analysis period ends in 2000) to include wars until the end of 2015 and we use better data for a number of explanatory variables (data improvements are described in Author). These updates reduce the number of missing observations and give us many more post-Cold War periods of war. We now have 102 country five-year periods of war after the Cold War and 93 war periods of war during the Cold War. Results are reported in column 5 and we again see a similar pattern with polarization being statistically significant only during the Cold War. We now obtain significant results for per capita income, population, and resource-dependence (these variables were not significant using Montalvo and Reynal-Querol’s data, but they are relatively robust correlates of civil war in other studies). As a further robustness test, we checked that our results hold when we use a differently coded polarization measure based on the Ethnic Power Relations (EPR) dataset (Cederman, Wimmer and Min 2010). The new measure yields very different polarization scores for some countries (the correlation with the original measure is just .55) since the raw data now include only politically-relevant groups across different cleavage dimensions (e.g. race, religion, language) rather than all linguistic groups in each country.

These correlations do not provide conclusive evidence that interventions increase the risk
of civil war via the polarization mechanism. However, the evidence is strongly suggestive. In the online Appendix (Table A1), we take a more direct approach using country-year data to explore the effect of intervention on conflict escalation. We code troop deployments by third parties in minor armed conflicts and find that minor conflicts with intervention are much more likely to become full-blown civil wars. To our knowledge this is the first time a relationship between intervention and conflict escalation has been shown using cross-country data. Taken together with the results in Table 1, our analysis establishes the plausibility of our claim about the effects of intervention on conflict escalation. We now develop the logic of our claim in a theoretical model.

3 The Basic Model: Conflict over Secession

We begin with a model in which a group demands secession. (The model could also be interpreted to be about gaining autonomy; in the online Appendix, we consider conflict over control of the central government). We focus on settings in which one or two foreign actors could influence the emergence and evolution of conflict within a country.

For the country concerned, we consider the interaction between the central government that is associated with a particular group $A$ and a region or group denoted by $B$, that seeks secession. The main third party that we consider is a potential sponsor of $B$, denoted by $B^*$, who might provide support for a rebellion and possible guarantees of economic support following secession. We do not examine $B^*$’s optimizing choices but only consider how changes in support parameters in favor of $B$ would change the likelihood of rebellion and civil war. We also consider the effects of a potential third-party sponsor for the government, denoted by $A^*$.

The interaction of $A$ and $B$ involves both material and non-material concerns. The material source of conflict has a total size of $Y$; that could consist of natural resource rents, income from public-sector enterprises, or dedicated tax revenue. We suppose that under a status quo arrangement, $A$ receives a $\gamma \in (0,1)$ share of $Y$ with the remainder $1 - \gamma$
share retained by $B$. This division of the economic surplus could be the result of a previous agreement between the two groups or fixed by the government. The main source of non-material payoffs we consider is the possible alienation that members of $B$ might feel when they are under the rule of $A$. In particular, members of $B$ incur an alienation or distance cost $\Delta > 0$ when ruled by $A$.\footnote{This is similar to the "heterogeneity costs" in Spolaore’s (2008) model of secession. Non-material concerns can also include prestige or status payoffs. In turn, such payoffs can depend on the level of conflict between the two groups; we examine such dependence in the next section.} We perceive distance $\Delta$ as partly a function of how different the minority group’s attributes are from the majority group and partly a function of the history of conflict or cultural differences between the groups.

The share of the population belonging to group $A$ is $\alpha \in (0, 1)$, with $1 - \alpha$ being the share or $B$. Given the population shares and the distance $\Delta$, the quantity $\alpha^2 (1-\alpha) \Delta + (1-\alpha)^2 \alpha \Delta = \alpha (1 - \alpha) \Delta$ represents the most common measure of polarization (Esteban and Ray, 2011, equation (4)). The closer is $\alpha$ to $1/2$ (that is, the more equal are the two groups) and the higher is the distance measure $\Delta$, the higher is the polarization of the country.

We assume that the decisions are made by the elites of $A$ and $B$ that reflect the wishes of their respective groups, in the sense that they maximize the groups’ total payoff. The first decision that the leaders of group $B$ make is whether to choose the status quo or prepare for rebellion. Under the status quo the payoffs of the two groups are:

\[
U^q_a = \gamma Y \quad \text{where } \gamma \in [0, 1] \\
U^q_b = (1 - \gamma)Y - (1 - \alpha)\Delta
\]

The elites of the region can prepare for a rebellion that can have three possible outcomes: in the event of war, victory and defeat occur with the probability of each outcome depending on the relative military capabilities of the insurgents and the government. Victory for the rebels would lead to Secession whereas defeat would lead to continued rule under the central government as well as loss of material income $(1 - \gamma)Y$. The third possible outcome after rebellion is for the two parties to negotiate a settlement that takes place under the threat of
war. In that case the rebels would remain under the central government’s rule, but might receive a higher share of material income.

Let \( m_a \) and \( m_b \) denote the military efforts of the Government and the rebels. We suppose that the probabilities of the Government and the rebels winning in the event of War are:

\[
p_a = \frac{m_a}{m_b + m_a}, \quad p_b = 1 - p_a = \frac{m_b}{m_b + m_a}
\]  

(2)

If \( B \) chooses the path of rebellion, the sequence of moves is as follows:

1. \( A \) and \( B \) choose simultaneously \( m_a \) and \( m_b \) military efforts.

2. \( A \) makes a Settlement offer to \( B \) which consists of a division of \( Y \).

3. \( B \) either accepts or rejects the offer made by \( A \). If they accept, the payoffs of \( A \) and \( B \) are in accordance with the offer. If they reject the offer, War takes place with the probabilities of winning described in (2).

In case of War, the expected payoffs of the two sides are:

\[
U_a^w = p_a Y + (1 - p_a)0 - F - c_a m_a
\]

\[
U_b^w = p_a (-(1 - \alpha)\Delta) + (1 - p_a)(Y + S_b^*) - F - c_b m_b
\]  

(3)

When the Government wins (with probability \( p_a \)) it receives the whole contested economic payoff \( Y \), while when it loses (with probability \( 1 - p_a \)) it receives nothing.\(^4\) From these expected terms, there are two terms that are subtracted. First, both sides pay costs of war \( F(>0) \) that could include destruction, collateral damage, and additional military expenditures due to actual conflict taking place. Second, there are the costs expended on military resources. The marginal (and average) cost of these expenditures depend on several factors. The parameter \( c_a \) (and \( c_b \) for \( B \)) can be thought to represent fixed capital and organizational inputs into military capacity, with higher levels of capital and organizational inputs yielding

\(^4\)The government does receive other payoffs but, because they are constant and the two sides are risk neutral, there is no reason to take them into account here as they would merely add notational burden without bringing about any difference in the results.
a lower marginal cost of military resources.\footnote{Total military capacity could be modeled as a function of two inputs, a fixed input $K$ (representing capital and organizational capacity) and a variable input $L$. To see how $c_i$ ($i = a, b$) can reflect the marginal cost of variable inputs suppose that military capacity is determined by the production function $m_i = K_i^\beta L_i$ where $\beta > 0$. Then the variable cost function (with capital $K_i$ fixed and its cost sunk) is obtained by solving the following problem (with $w$ representing the cost of $L_i$): $\min_{L_i} wL_i$ subject to $m_i = K_i^\beta L_i$, which readily yields: $c(m_i) = \frac{w}{K_i^\beta} m_i$. We can then define $c_i \equiv \frac{w}{K_i^\beta}$. Note that the greater the amount of capital and organizational capacity ($K_i$), the lower is the marginal cost of production.} We can expect a government to have higher (perhaps much higher) levels of capital equipment and organization than the (potential) rebels. However, the latter could obtain help from their sponsor $B^*$ (as can the Government receive support from their own sponsor $A^*$).

The expected payoff for the rebels, in addition to the cost elements just described, leads to $-(1 - \alpha)\Delta$ when they lose (with probability $p_a$). When they win (with probability $1 - p_a$) they not only obtain the full contested material payoff $Y$ and they avoid $-(1 - \alpha)\Delta$ due to secession, but they could also expect $S_b^*$ economic benefits from their sponsor. These benefits are only available given secession as we explain below.

**Instruments of external intervention**

Third parties $B^*$ and $A^*$ can affect the interaction of $A$ and $B$ via several instruments. First, $B^*$ could make promises and even commitments of economic assistance in the event that $B$ manages to secede (as represented by $S_b^*$). Direct grants, investment, loan facilities, technical assistance, trade deals and preferential access to $B^*$’s markets on the part of an autonomous $B$ could all be part of such economic benefits. Whereas $A^*$ could also make such commitments to similarly help $A$, the effects are not symmetric. Since $A$ represents a sovereign government it would be hard for $A^*$ to condition such help only on victory in the event of civil war. Without such conditions, the effect of general economic subsidies of $A^*$ to $A$ would not affect the incentives of $A$ or $B$ on whether or not we have the status quo, rebellion with settlement or rebellion with war as an equilibrium outcome.

Second, third parties could directly finance part of the variable military expenditures of their respective clients in the event of rebellion. That is, $B^*$ could subsidize $m_b$ and $A^*$ could subsidize $m_a$. It is known, however, that the equilibrium choices of $m_a$ and $m_b$ are...
independent of the subsidies as long as the subsidies do not exceed their equilibrium levels. Yet, whereas the marginal conditions do not change, the effects of such subsidies on the two sides are different: they do not affect the incentives of the Government side $A$ (because it is not the government that chooses to rebel), but they could change the incentives of side $B$ in moving into rebellion and civil war.

The third instrument that third parties could use to intervene involves changing the capital or organizational military capacity of their respective clients, that is, changing the marginal costs $c_a$ and $c_b$. As we will show, changing these marginal costs does change the incentive of the clients to invest in military resources themselves and the overall equilibrium outcome (see Chang et al (2007) for an analysis of this type of intervention).

Finally, a fourth instrument could be unrestricted subsidies directly provided by $B^*$ as long as $B$ is fighting regardless of the probability of winning and independent of the outcome. This has the same effect as military subsidies and can induce rebellion and civil war. $A^*$ can offer a similar subsidy to $A$ conditional on reaching the stage of war (but it is $B$ that has the choice to rebel).

We now turn to examining the possible subgame perfect equilibrium outcomes, starting with stage 3 of the sequence of moves described above. At that stage, $B$ will have already paid its military expenditures that are not included in the cost of conflict $F$ (that is, $C_{m_b}$ will have already been sunk$^6$) and therefore it will accept any share $1 - \eta$ of $Y$ if and only if:

$$\eta Y - (1 - \alpha)\Delta \geq U^w_B + c_b m_b$$

(4)

Otherwise, War will take place. Then, in stage 2 $A$ would only make an offer that satisfies (4) as an equality and the resulting Settlement payoff for $A$ is at least as great as $U^w_A + c_a m_a$. That is, denoting by $\eta^*$ the $\eta$ that satisfies (4) as an equality, $A$ will make an offer that $B$ will accept only if

$$\eta^* Y \geq U^w_A + c_a m_a$$

(5)

$^6$Because of risk neutrality the results do not change if we don’t consider these costs sunk.
Given (3), and adding (4) and (5), Settlement is thus assured if

\[ 2F \geq (1 - p_a)(S_b^* + (1 - \alpha)\Delta) \]  

(6)

Settlement is possible if the costs of conflict (2F) are sufficiently high. How high they need to be to avoid War depends on the probability of the rebel group B winning \((1 - p_a)\), the subsidy expected from the foreign sponsor \((S_b^*)\), and the distance the rebel group has from the government-controlling group \((\Delta)\) as well as the size of the group \((1 - \alpha)\). Conversely, the higher are these values, the higher is the chance of War. Note that War is possible in this setting without incomplete information, misperceptions, optimism, or commitment problems on the part of either party. Moreover, even in the absence of the distance \(\Delta\) War could still occur under a sufficiently high expected subsidy from the foreign sponsor.

Whereas the parameters \(F, \alpha, \Delta, \) and \(S_b^*\) are exogenous, the probabilities of winning, \(p_a\) and \(1 - p_a\) are endogenous. The probabilities of winning are determined by the equilibrium choices of military resources under War with the payoff functions in (3). Taking (2) and the payoff functions in (3) into account, the equilibrium choices, denoted by \(m_a^w\) and \(m_b^w\) are (see Appendix for derivations):

\[
m_a^w = \frac{c_b(Y + S_b^* + (1 - \alpha)\Delta)Y^2}{[c_bY + c_a(Y + S_b^* + (1 - \alpha)\Delta)]^2}\]
\[
m_b^w = \frac{c_aY(Y + S_b^* + (1 - \alpha)\Delta)^2}{[c_bY + c_a(Y + S_b^* + (1 - \alpha)\Delta)]^2}\]  

(7)

The military effort of \(A\) is (i) increasing in \(A\)'s "prize" \(Y\); (ii) increasing in the opponent’s marginal cost \(c_b\) and (iii) decreasing in own marginal cost \(c_a\). The symmetric properties hold for the military effort chosen by \(B\). By substituting (7) into (2) we obtain the probabilities of winning under War:

\[
p_a^w = \frac{c_bY}{c_bY + c_a(Y + S_b^* + (1 - \alpha)\Delta)}\quad \text{and}\]
\[
p_b^w = 1 - p_a^w = \frac{c_a(Y + S_b^* + (1 - \alpha)\Delta)}{c_bY + c_a(Y + S_b^* + (1 - \alpha)\Delta)}\]  

(8)

Each side’s probability of winning depends (i) positively on own "prize" and negatively on the opponent’s one; (ii) positively on own size and negative on opponent’s size; and
(iii) negatively on own marginal cost of military resources and positively on that of one’s opponent. The higher "prize" for $B$ (due to the subsidy $S_b^*$ and avoiding the distance cost of $(1-\alpha)\Delta$ in case of a win) is thus a force counteracting the disadvantage that comes from a lower size and, presumably, higher marginal cost $c_b$ relative to the government’s.

By substituting (8) into (5), we obtain that War would ensue only if the following inequality were to be satisfied:

$$2F < \frac{c_a(Y + S_b^* + (1-\alpha)\Delta)}{c_b(Y + c_a(Y + S_b^* + (1-\alpha)\Delta))} (S_b^* + (1-\alpha)\Delta)$$

(9)

This inequality includes the combinations of solely exogenous parameter values for which War could occur. We summarize its implications as a Proposition.

**Proposition 1** Conditional on $B$ choosing to rebel, War can occur only if inequality (9) were to hold. Then War is more likely, (i) the higher is the external subsidy $S_b^*$; (ii) the higher is the distance $\Delta$ felt by group $B$; (iii) the lower is the cost of War $F$; (iv) the higher is the population of $B$ (the lower is $\alpha$); and (v), by combining (ii) and (iv), for $a > 1/2$ the higher is the polarization index $\alpha(1-\alpha)\Delta$. Moreover, provided that either $\Delta$ or $S_b^*$ is positive, the right-hand-side of (9) is higher (and War is more likely) the lower is group $B$’s marginal cost parameter $c_b$ (and the more this parameter is lowered by subsidies from $B^*$) and the higher is the cost parameter $c_a$. (For the proof, please see the Online Appendix.)

Empirically, this Proposition implies that ethnic or other type of polarization is neither necessary nor sufficient for civil war if polarization is understood only in terms of demographic sizes of groups; but higher cultural or ideological distance or external intervention can increase the risk of civil war in a country with two large ethnic groups. This proposition is consistent with the empirical results we showed earlier, where a purely demographic measure of ethnic polarization is only associated with civil war during the Cold War period when interventions and proxy wars were more frequent. Furthermore, whereas large enough $S_b^*$ or
Δ (external subsidies or ethnic distance) can induce War by themselves, an organizational subsidy (such as the lowering of $c_b$) cannot do so without complementing at least one of $S_b^*$ or Δ. This is one sense in which external intervention complements identity in inducing civil war; the next section examines how external interventions changes Δ itself.

We next turn to the incentives for rebellion and the possibility of Settlement. Let $M_b^*$ denote a direct subsidy that $B$ receives from $B^*$ as long as $B$ engages in rebellion and which can be used for either military purposes or consumption. Then, for future reference, the equilibrium payoff of $B$ under War equals:\(^8\)

$$V_b^w = p_a^w(-(1-\alpha)\Delta) + (1-p_a^w)(Y + S_b^*) - c_b m_b^w - F + M_b^*$$

$$= p_a^w(2-p_a^w)(-(1-\alpha)\Delta) + (1-p_a^w)^2(Y + S_b^*) - F + M_b^*$$

(10)

If (9) were to be reversed, then Settlement under the threat of War would be feasible and an acceptable offer by $A$ could be found that would be consistent with a subgame perfect equilibrium. In that case, however, whereas $B'$s payoff function would be the same as in (3) (because $A$ receives all the possible surplus as he makes a take-it-or-leave-it offer), $A$'s payoff functions should equal $\eta^*Y$ where $\eta^*$ is the $\eta$ that satisfied (4) as an equality. It turns out, then, that the payoff functions under Settlement are the following:

$$U_a^s = p_a(Y + S_b^* + (1-\alpha)\Delta) - (S_b^* + (1-\alpha)\Delta) + F - c_a m_a$$

$$U_b^s = p_a(-(1-\alpha)\Delta) + (1-p_a)(Y + S_b^*) - F - c_b m_b$$

(11)

Note that even under Settlement the payoffs of the two sides ultimately depend on their probabilities of winning, which depend in turn on the military efforts chosen by each side.

\(^8\)To determine the equilibrium payoffs under War, we need to substitute into (3) the equilibrium military resources in (7) and the equilibrium probabilities in (8). $B'$s equilibrium cost of military resources is:

$$c_b m_b^w = \frac{c_b(Y + S_b^* + (1-\alpha)\Delta)^2}{c_b(Y + S_b^* + (1-\alpha)\Delta)^2 + c_a(Y + S_b^* + (1-\alpha)\Delta) + \alpha(Y + S_b^* + (1-\alpha)\Delta)^2}.$$

\(^9\)Under bargaining protocols different than the "ultimatum" bargaining that we have here, the payoff of $B$ under Settlement would not be identical to the payoff under War. Alternative bargaining protocols include a more complex alternating-offers game or the adoption of a bargaining solution such as the Nash or Kalai-Smorodinsky solution. However, especially because utility is transferable in our game, the qualitative results would be the same as the one we adopt here. For an overview of bargaining under the threat of fighting, see Skaperdas (2006). On how different bargaining solutions may affect arming when utility is non-transferable, see Anbarci et. al. (2002).
This is so because the *disagreement* payoffs are the ones driving bargaining and these payoffs are the War payoffs. Moreover, the "prize" for A is now the same as that for B (i.e., $Y + S_b^* + (1 - \alpha)\Delta$) instead of just $Y$ because the subsidy from $B^*$ and the distance cost $(1 - \alpha)\Delta$ are part of the total "pie" that the two sides bargain over.

In the Appendix we derive the equilibrium military efforts and winning probabilities under Settlement. We can then derive the equilibrium payoff under Settlement by substituting the equilibrium military efforts and probabilities of winning in (10) and adding $M_b^*$:

$$V^*_b = p^*_a(2 - p^*_a)(-(1 - \alpha)\Delta) + (1 - p^*_a)^2(Y + S_b^*) - F + M_b^* \tag{12}$$

where $p^*_a = \frac{c_b}{c_a + c_b}$ is A's probability of winning under Settlement. For rebellion to occur, it is necessary that either $V^*_{bw}$ or $V^*_s$ is greater than the status quo payoff $U^q_b = (1 - \gamma)Y - (1 - \alpha)\Delta$.

In the Appendix we also provide conditions under which different types of subgame perfect equilibria can occur.

The main issue that we turn to next is the factors that determine the thresholds that would bring about a rebellion, with or without War. To see the incentives for rebellion, we first note that B's payoffs under rebellion, $V^*_{bw}$ and $V^*_s$, are both decreasing in A's respective probabilities of winning (and increasing in the probabilities of winning of B).\(^\text{10}\) B* can increase B's winning probability by subsidizing the decrease in B's marginal cost $c_b$ and, in the case of the probability under War, by increasing the subsidy $S_b^*$ in case of secession. A decrease in $\alpha$ (> 1/2), which increases the measure of polarization, also increases B's probability of winning and thus increases the likelihood of rebellion. As far as the probabilities of winning are concerned, A* can only counteract by subsidizing a reduction in the marginal cost of arming of their client A ($c_a$). B* can also directly induce B to rebel with a sufficiently high direct subsidy $M_b^*$ or, equivalently, by directly subsidizing military expenditures. A* cannot use a similar instrument to support their client because their client is not making the decision to rebel or not.

\(^{10}\) For both $i = w, s$, using (11) or (13) we have: \(\frac{\partial V^*_i}{\partial p^*_a} = -2(1 - p^*_a)(1 - \alpha)\Delta - 2(1 - p^*_a)(Y + S_b^*) < 0.\)
To more clearly see the conditions necessary for either type of rebellion, it can be shown using (1) and (10) or (12) that $V_i > U_q$ (for either $i = s, w$) is equivalent to

$$(1 - p_i^a)^2(Y + S_b^* + (1 - \alpha)\Delta) + M_b^* - (1 - \gamma)Y > F$$

(13)

The first term of the left-hand side of this inequality reflects the net gains from rebellion. In case of secession the rebels receive all contested income $Y$ plus the expected subsidy from their sponsor $S_b^*$ and they avoid the distance cost $\Delta$ that direct rule under $A$ brings in all other circumstances. These net gains are multiplied by $(1 - p_i^a)^2$, a term that reflects their probability of winning as well as incorporating (in its derivation) the costs of arming. We summarize this and other implications of (13) in Proposition 3.

**Proposition 2** A rebellion by $B$ is more likely (i) the higher is the distance cost $\Delta$; (ii) the higher are the subsidies by $B^*$ to $B$ ($S_b^*, M_b^*$, and those that lower $c_b$); (iii) the lower is the share of $A$’s population $\alpha(>1/2)$; (iv) the lower is the share of contested income $(1 - \gamma)$ received by $B$ under the status quo; (v) the lower is the subsidy given by $A^*$ to $A$ to lower $c_a$; (vi) the lower is the cost of War $F$; and (viii) by (i) and (iii), the higher is the polarization measure $\alpha(1 - \alpha)\Delta$.

The factors that induce rebellion are thus qualitatively similar to those that induce War, except that the sponsor of the rebels has additional instruments at its disposal. In the Appendix we modify the model so that the potential rebels (possibly a social class rather than a region or ethnic group) are challenging the government’s rule. The conditions that can induce rebellion by group $B$ are qualitatively similar as in the secession model, but the conditions that induce war are slightly different when we consider the role of distance between groups.

### 4 Endogenous distance of identities

Thus far we have assumed the distance between the two groups ($\Delta$) to be exogenous to the actions undertaken by all parties. Rebellion and war, however, typically exacerbate
differences between groups and the perceived distance between groups increases. If the two sides were to foresee such a possibility, they might hold back on inducing rebellion and war. Once, however, there is rebellion in the presence of the various instruments of external intervention the greater cleavage that has already been created between the two groups may well increase the chance of outright war. If the foreign sponsor of the rebel could foresee such a possibility, it might then induce their client to arm so as to increase polarization and destabilize the host state. To allow for such possibilities, we now relax the assumption of exogenous \( \Delta \) by following Sambanis and Shayo (2013) who model the perceived distance between the two groups depending on the level of total arming.\(^{11}\) In particular, we have:

\[
\Delta = \Delta' + \delta(m_a + m_b) \text{ where } \Delta' > 0 \text{ and } \delta \geq 0
\]

That is, group distance has a fixed component \( \Delta' \) and a variable component that depends on the total level of military expenditures of the two sides, with the parameter \( \delta \) indicating the strength of this dependence on military expenditures.\(^{12}\)

Thus, once rebellion takes place and the two sides choose positive levels of military expenditures, whether in order to gain bargaining advantage in a prospective Settlement or to prepare for War, the perceived distance between the two groups increases. We examine two issues under this specification of endogenous distance of group identities: How the chance of War and the chance of rebellion change in view of the different possible forms of external intervention. Given the endogeneity of \( \Delta \), the payoff functions under War in (3) are now modified as follows:

\[
U_{a}^{w'} = p_{a}Y + (1 - p_{a})0 - F - c_{a}m_{a}
\]
\[
U_{b}^{w'} = p_{a}[(1 - \alpha)(\Delta' + \delta(m_{a} + m_{b})) + (1 - p_{a})(Y + S_{b}^{*}) - F - c_{b}m_{b}]
\]

\(^{11}\)Distance can also depend on the conflict outcome such as whether there is Settlement, victory in War or loss in War or on investments on nation-building that a state might undertake. Our qualitative results would be similar under suitable assumptions on the effects that different outcomes have on group distance, whereas investments in nation-building would obviously reduce the chance of rebellion and war.

\(^{12}\)As applied to a model that explains the escalation of ethnic conflicts, the sensitivity \( \delta \) of perceived distance to arming could be thought of as a measure of the intensity of the ethnic security dilemma (Posen 1993) that characterizes relations between A and B.
Since only group $B$ bears the distance cost, it is only the payoff function of $B$ that differs from (3). Using (2), in the Appendix we derive military expenditures under the expectation of War (denoted $m'_w$ and $m'_w$) and the endogenously determined distance between the groups can be shown to equal:

$$\Delta(m'_w + m'_w) = \Delta' + \delta \frac{Y(Y + S_b^* + (1 - \alpha)\Delta')}{c_b Y + c_a(Y + S_b^* + (1 - \alpha)\Delta')}$$

which is increasing in $\delta$, $\Delta'$, and $S_b^*$ and decreasing in $c_a$ and $c_b$.

Under the expectation of Settlement the payoff functions of the two parties are as in (11) except $\Delta = \Delta' + \delta(m_a + m_b)$. Following the same method as for the case of War, we can show that the equilibrium choices of military expenditures and distance are the following:

$$m'_a = \frac{c_b(Y + S_b^* + (1 - \alpha)\Delta')}{(c_b + c_a)^2}$$
$$m'_b = \frac{c_a(Y + S_b^* + (1 - \alpha)\Delta')}{(c_b + c_a)^2}$$

$$\Delta(m'_w + m'_w) = \Delta' + \delta \frac{Y(Y + S_b^* + (1 - \alpha)\Delta')}{c_b + c_a}$$

By substituting $\Delta(m'_w + m'_w)$ in (9) and either $\Delta(m'_w + m'_w)$ or $\Delta(m'_w + m'_w)$ in (13) we can obtain, respectively, the effect of the endogenous distance cost in the likelihood of war conditional on rebellion (for the case of (9) and the likelihood of rebellion for the case of (13)). The effects of the variables $\delta$, $\Delta'$, $S_b^*$, $c_a$, and $c_b$ are straightforward and identical on both $\Delta(m'_w + m'_w)$ and $\Delta(m'_w + m'_w)$ and are summarized in the following Proposition.

**Proposition:** The endogenous distance cost whether there is War, $\Delta(m'_w + m'_w)$ or Settlement under the threat of War, $\Delta(m'_w + m'_w)$ is (i) increasing in the expected external subsidy $S_b^*$; (ii) decreasing in the marginal costs of military efforts $c_a$ and $c_b$; (iii) increasing in the constant term of the distance cost $\Delta'$ and the sensitivity of the distance cost to military efforts ($\delta$). By (9) and (13) it then follows that the same variables increase the chance of War and Rebellion.
These results show that the instruments of intervention that the foreign sponsor of the rebels has at its disposal ($S_b^*$, $M_b^*$, and $c_b$) can be used to affect the chance of War and Rebellion by influencing the perceived distance between rebels and government. By increasing the expected subsidy to the rebels in the event of secession or by decreasing the rebels’ marginal cost of military expenditures, total military expenditures increase which, in turn, make rebels and government feel that they are further apart. In turn, this increase in perceived distance makes War and Rebellion more likely, beyond what is contributed independently by the factors identified in Propositions 1 and 2.

In other words, actual or expected intervention does not just shape the bargaining calculations of Karabagh Armenians, Abkhaz, Ossetians, Turkish Cypriots, Kosovo Albanians, or any other minority group considering rebellion; it also shapes their identity because arming due to actual or realized external support highlights incompatibilities with the state and makes their ethnic identity more salient, increasing the group’s distance from the group that controls the state. When the effect of intervention on distance is taken into account, this changes the way the government’s external sponsor will think about intervention. That sponsors’ intervention to reduce the marginal costs for the state ($c_a$) is not the same as when $\Delta$ is fixed. Because a subsidy that decreases this marginal cost increases military expenditures and, through this channel increases distance and the likelihood of War and Rebellion, the sponsors of the government who have an interest in avoiding war might have a reason to moderate the capital and organizational subsidies they provide to the government.\(^{13}\)

### 5 Case Illustration: Ukraine’s Civil War

The upshot of the theory and evidence presented thus far is that intervention can make the difference between peaceful and violent resolution of inter-group conflict within target states.

\(^{13}\)In other words, the endogenous identity channel identifies a mechanism through which external support for governments increases the risk of rebellion whereas the extant literature posits a strictly negative effect of pro-government intervention on war risk (Cunningham 2006). The net effect will depend on the overall balance of power. It is possible that the distance effect (increasing the risk of war) will be overshadowed by the deterrent effect of arming the government if power asymmetry reduces the chances of rebel victory.
By most accounts, Ukraine is a salient example. Until 2013 scholars saw Ukraine as a case ripe for violent conflict but where peace had been preserved (Snyder 1993; Posen 1993; Laitin 2001; Roeder 2007, Colton 2010). The country contended with separatist sentiment in key regions, a weak, corrupt state and underperforming economy, a history rich with episodes waiting to be used by political entrepreneurs to feed ethnic nationalist grievance narratives, and a neighboring great power with political elements nurturing irredentism. Yet as of the fall of 2013, there had been no violence for control of the government or secession. Why did the peace last until then; and why did war break out in 2014?

An important part of the answer is that before 2013 the crucial initial condition of our model—that the government “is associated with a particular group”—did not apply strongly or consistently enough to catalyze Ukraine’s incipient polarization. Governments in Kyïv balanced between Russia and the West at the systemic level and between western and eastern regional identities (roughly speaking) at the domestic level (Kuzio 2015). In other words, as Colton (2010) summarized, "A crucial dampener on the most apocalyptic visions being realized is the attitude of external players, and in particular the trio of Russia, the European Union, and the United States.” This “messy equilibrium” helped preserve domestic peace until great power “contestation over the lands between Russia and the West . . . led to the explosion in Ukraine . . .” (Charap and Colton 2017). Mechanisms identified in the model advanced here play a central role in explaining the links between major power competition and the descent to civil war.

First, heightened competitive expectations of subsidies and other forms of external support from the EU and Russia undermined the government’s ability to ameliorate perceived distance from key regional identity groups, thus effectively contributing to Ukraine’s growing polarization. Coming after a five-year period during which Moscow and Brussels/Washington had increasingly framed their offers to Ukraine in zero-sum, east-west terms, the events that unfolded in mid-to-late 2013 reflected a dilemma illuminated in the model: attempts to bolster the government effectively incentivized rather than deterred rebellion via the polar-
As of the summer and fall of 2013, the government of Viktor Yanukovych was considering a formal association with the EU that featured a “deep and comprehensive trade agreement” [DCTA] even as he was under pressure from Moscow to join its Customs Union. Each of these agreements would have differential effects in different regions. Ukrainian industry was heavily dependent on Russian trade and subsidies (Ickes and Gaddy, 2014) and much of that industry was located in the South and East, Yanukovych’s base. Not only would association with the EU almost certainly spell the end of those subsidies, but officials in Brussels also made clear that it was not compatible with current and prospective trade arrangements between Russia and Ukraine. Russia meanwhile, deployed tough sanctions and reduced subsidies to impose costs on Ukraine as it seemed close to accepting the EU-sponsored agreement. Fearing continued losses and presented with an attractive package of subsidies and $15 billion in aid from Putin, in late November Yanukovych decided not to pursue the EU trade agreement.

In the competitive great power setting, this decision seemed to mark the government’s decisive association with its base regional identities in the east and south, increasing their perceived distance from a western regional identity and effectively increasing the country’s polarization and providing the spark for the Maidan movement, which emanated from regions with majorities that not only had identity-based reasons for favoring a western orientation and had less economically to lose from reduced economic relations with Russia but also had reason to believe that association with the EU would yield direct and indirect material benefit over the long term ($S^t$ in the model). Abundant evidence of prospective western support—symbolized in the media by photos of US Undersecretary of State Victoria Nuland distributing sandwiches during the Maidan protests—fed strong expectations for meaningful intervention ultimately including full inclusion in the economic and security institutions of the west (Menon and Rumer 2016; Charap and Colton 2017).

Expectations of intervention and associated increased polarization are thus both impli-
cated in the Maidan rebellion, which sparked the collapse of the Yanukovich government. The hastily assembled successor, quickly backed by the EU and the US, immediately signaled that the western regional identity would dominate its approach to defining the Ukrainian nation, increasing alienation in the east and south. Consistent with the model, we thus have a contest over autonomy in a polarized environment but, in contrast to all previous post-1991 crises, Moscow determined not to seek to win over the government but to support alienated groups in Crimea and the Donetsk coal basin ("Donbas"). In late February and early March 2014, Russian special forces facilitated the annexation of Crimea. These events, accompanied by heightened official nationalism and support for the “Novorossiya” idea in Russia, radically transformed expectations of intervention in other Ukrainian regions, notably Donbas (Petrov 2015).

This led to the second key intervention effect: increasing the appeal of the regional identity and emboldening insurgents in eastern Ukraine to ramp up demands and take armed actions that would otherwise have been unlikely. Scholars debate the relative weight of indigenous causes (especially the breakdown in state authority in the region) versus the external factor (cf. Sakwa 2016; Wilson 2016). But even accounts meant to highlight domestic causes cast doubt on the counterfactual that the conflict would have escalated to war in the absence of increased expectations of intervention (Arel and Driscoll 2015; Kudhelia 2015). As Wilson (2016, 632) concludes “Local actors would not have acted as they did without Russian support.” Potential rebels were presented with overwhelming evidence that the old equilibrium in which Moscow officials eschewed support for separatism was over. Once Crimea was in play, Russian official statements highlighting the “Novorossiya” concept received wide coverage. Russian military maneuvers on Ukraine’s border added urgency to the message. And, of course, expectations were borne out quickly, as Russian intelligence and logistical support for various rebel formations quickly materialized (International Criminal Court 2016, 37).

Experts’ accounts of the case also highlight other aspects of the model. Zhukov (2015)
presents strong evidence that, more than any other Ukrainian region, Donbas confronted a “perfect economic storm” if Kyiv opted for the DCTA. Indeed, the storm had already hit in July 2013 as Russia responded to Yanukovich’s negotiations with the EU by imposing trade restrictions—felt acutely in Donbas by late fall—and promising much worse to come. All this evidence is consistent with the model’s prediction that war risk is higher the lower the marginal costs \( c_b \) of rebellion (due to lower wages in the rebel region), and the lower is the share of contested income \( (1 - \gamma) \) received by the rebels under the status quo. And by all accounts it was Moscow’s military intervention that allowed the separatists to sustain the rebellion against government assaults, thus helping to explain high casualty levels. As President Lukashenka of Belarus noted, “let’s be honest, the days of the [rebellious regions] DNR and LNR would have been numbered long ago without Russia” (quoted in Wilson 2016, 629).

But the overwhelming majority of the combatants were Ukrainians, and they were very unlikely to have been killing each other had competitive external actors not made latent polarization of identities more salient. Abundant process-tracing evidence details how expectations of intervention fed actions that led to war, consistent with the mechanism underlying the model. A key escalatory move was the lightning strike to seize government buildings in Slav’ians’k by the former Russian FSB officer Igor Girkin (aka “Strelkov”) and his volunteers from Crimea. While “[i]t is uncertain whether Strelkov’s initial involvement in Ukraine was officially sanctioned by the Russian government” (Ostanin 2014), the key is that his actions were initially successful and met with local elite and popular support in part because of widespread expectations that his vision for Donbas would be backed by Russia. Strelkov himself stressed that he was well aware of the effect of imitating the actions of the “little green men” in Crimea. According to him, the locals “openly expressed their sympathies for us” because they believed that “everything would be repeated as in Crimea” (quoted in Kudhelia 2015, 14). At the end of March 2014, Strelkov predicted that “by summer Ukraine will not exist in its current form—the East and Southeast will declare independence, which
Kyïv will not recognize, but will be powerless to counter, because Russia will stand behind the separatists.”

6 Conclusion

The theory and evidence presented here strongly suggest that, as expectations or the reality of external intervention grow, so does the global problem of civil war. Not only can major powers funnel resources into ongoing intra-state conflicts and thereby prolong them and render them more sanguinary, as is well understood in the current literature, but through a variety of mechanisms that we identify the mere presence of increased interventionism in the international system can cause intra-group disputes within states to morph into violent conflicts. In a systemic setting conducive to high incidence of intervention, groups within states will be more likely to frame their understanding of social identity in ways that increase polarization, escalate demands for autonomy or control of the center, and fail to find war-avoiding bargains.

Our model has profound implications for both the theoretical and empirical study of civil war. The type of conflicts that we observe (conflicts over secession or capture of the center) may depend on the type of incentives offered by foreign sponsors; and the significance of ethno-linguistic or other cultural differences for domestic political conflicts could be endogenous to patterns of foreign intervention and great-power politics. The implications for the empirical study of conflict are significant. These influences have not yet been integrated in empirical models of civil war, but omitting them is likely to bias inferences about when, why, and where civil wars occur.

From the perspective of theory, we propose a new approach to modeling civil war that puts inter-state politics at center stage. The model can serve as the springboard for more elaborate theories connecting intra-state and inter-state conflict. Material interests and psychological affinities connecting domestic groups and potential foreign sponsors could be modeled in a more complex framework that endogenizes the probability of intervention.
The outcomes of civil war and their effects on competition over power between potential interveners could also be modeled in a framework that explores the inter-relationships of inter-state rivalries and domestic armed conflict. Indeed, the type of intervention and the identity of the intervener might even explain which social cleavage will become politically salient in post-intervention politics in the target country. The key lesson of our model is that international politics can shape the structure of domestic conflict. Just as sectarian war in Iraq (and Syria) was defined by the institutions that were built by the American occupation, so could interventions elsewhere determine if groups will organize along ethnicity, sect, or political ideology. Our model therefore supports the argument that the relationship between ethnicity and conflict is contingent on the political context (Cederman et al 2010).

Substantively, the model’s upshot is that even if we assume that major inter-state war will remain unlikely, merely increasing rivalry at the systemic level threatens to reverse the post-Cold War trend of decreasing the prevalence of civil war. This dire potential highlights the need to integrate theory across the domestic and inter-state levels. In order to isolate intervention’s effects on domestic settings, we treated the international system as exogenous, which allows us to highlight the strategic considerations of domestic actors. The crucial next task is to go beyond this approach. To do so, we need to revivify systemic theory—which is central to other social sciences and once was much more central to international relations research than it is now—but do so in a way that allows scholars to model interactions across the systemic, domestic-institutional, and individual level of analysis. The resurgence of ethno-nationalism around the world is at least partly the result of intervention in political conflicts by major powers. The outcomes of those interventions are increasingly bad – state failure in Libya, a failed occupation in Iraq, an Islamic proto-state carved out of Syria, zones of lawlessness and constant war in Central Asia, and waves of migrants from poor and war-ravaged countries in the Middle East, South Asia, and Sub-Saharan Africa perceived to be threatening the tenuous liberal-democratic balance in the West. A crucial task is to identify the conditions under which states might inculcate mutual restraint regarding intervention in
third conflicts. The superpowers failed to do this in the Cold War, with baleful consequences. Today’s major powers should try harder. To provide knowledge relevant to that task, scholars need to develop theories better suited to understanding system-domestic interactions than the rigidly segmented theories of the 20th century.

7 References


Tauris.


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Supplementary Statistical Evidence

In the paper, we show that the effect of polarization on civil war is contingent on systemic conditions – the Cold War – that could proxy an environment in which external interventions in civil conflicts are more likely. Here, we supplement the analysis by analyzing existing data on third-party troop deployments in active minor conflicts and explore whether such interventions can explain why some minor armed conflicts turn into civil wars. This analysis now examines directly the effect of interventions of a specific form (troop deployments) on conflict escalation and it is limited to country-years with active conflicts. We show that intervention has a statistically significant escalatory effect on civil conflicts. That effect is robust to changes in model specification; to controls for several other variables that might affect a country’s overall conflict proneness; and to the inclusion of country-level fixed effects to capture unobserved sources of country heterogeneity. These empirical results strengthen the arguments in the paper about the plausibility of our claims regarding the effects of external intervention and motivate the theoretical model.

The approach used below is to use country-year data to explore the connection between
intervention and conflict escalation. This approach has limitations as intervention is by necessity treated as an exogenous variable in the regression models presented below. Domestic policy imperatives and interests in the intervening country are likely to influence decisions by third parties to intervene (or not), therefore it is plausible that in many cases the decision to intervene might not be entirely a function of factors that affect the risk of violence escalation in the conflict-affected country. Yet it is unlikely that intervention decisions are entirely exogenous to conflict dynamics in the target country. Thus, the causal effect of intervention cannot be identified in the cross-country regressions that we show below. To date no empirical study has been able to identify the causal effect of intervention. That is why the regression models presented in the main text are particularly useful, since the Cold War variable is a plausibly exogenous proxy measure of intervention. By taking a more direct approach below, we can delve deeper to show that a robust correlation exists between patterns of intervention and conflict escalation. To our knowledge this is the first time a relationship between intervention and conflict escalation has been shown using cross-country data.\textsuperscript{14}

As mentioned earlier, data on intervention in countries without active conflicts do not exist. Thus, it is not possible to study whether intervention or its anticipation generates conflict in the first place. We can, however, study the effect of intervention on conflict escalation if we drop all observations with no active conflict and focus on cases of minor armed conflict where a minimum of 25 battle-deaths are registered in a given year. By restricting the sample this way, we can then test whether intervention is a statistically significant predictor of escalation from minor conflict to full-blown civil war.\textsuperscript{15} Our data

\textsuperscript{14}A related approach is Schulhofer-Wohl (2016) who studies the effect of intervention on conflict duration and violence intensity in civil war including fighting among "on-side" (i.e. allied) groups. He shows that intervention can lead to ritualistic fighting that is not aimed at winning. Fighting serves to destabilize the government to benefit external sponsors and it lasts as long as domestic groups receive subsidies. This is consistent with our argument since escalation or de-escalation can result from changes in the level of subsidies from foreign sponsors. See Jonah Schulhofer-Wohl, 2016, "The Political Economy of Quagmires: Belligerents, Foreign Backers, and Civil War Traps." Unpublished manuscript, University of Virginia.

\textsuperscript{15}This approach also suggests that we do not believe that intervention is a necessary condition for conflict outbreak. Domestic factions can overcome organizational hurdles in others ways to rebel. Yet it is possible that the anticipation of external assistance emboldens groups to start small conflicts that will later only
source for minor conflicts is the UCDP dataset. We code new data for civil war with coverage extended to 2012. Conflicts that eventually accumulate 1,000 deaths and meet other criteria (e.g. reciprocal violence and continuous violent activity) are coded as civil wars. Conflicts that do not meet those criteria remain coded as minor incidents. Using these data, we can test whether intervention can explain why some conflicts escalate to civil war. Out of 296 conflict onsets in the UCDP data, 171 cases correspond to civil war onsets in our data; 94 of these cases correspond to conflicts that started out as minor and escalated to war.\textsuperscript{16} Using the UCDP classification of conflicts into ethnic and non-ethnic wars, we can test the effect of intervention on ethnic conflicts separately. This is consistent with the model we develop later, which differentiates between claims for secession/autonomy—which are usually ethnic in nature—and other conflicts over control of the central government.

Data on interventions come from the UCDP database, which defines interventions narrowly to include only third party troop deployments. These actions represent a subset of the ways in which a third party may affect the interaction between the government and domestic challengers in the model that we develop later. However, the UCDP data offer a good starting point for a baseline analysis. The data also allow us to distinguish between pro-government and pro-rebel interventions. We expect the effects of intervention on civil war risk to be different depending on the target. Given the power asymmetry between government and rebels, it is reasonable to expect that pro-government intervention will reduce the risk of conflict escalation. Cunningham (2016) offers supportive evidence for this claim, showing that countries with significant military-political support from the United States are less likely to experience violent challenges. By contrast, intervention on behalf of rebel organizations or small ethnic groups challenging the state should increase the risk of civil war by increasing the capabilities of those groups.

\textsuperscript{16}All except 22 civil war onsets occur during periods when the UCDP dataset codes an ongoing conflict. The 22 cases of coding disagreement are dropped since we only want to analyze periods of ongoing minor conflict. We also identify a number of ambiguous cases of civil war, where one or more of the coding criteria in Author might not be satisfied and drop those cases to check robustness.
Results are presented in Table A1 below. We use logistic regression, clustering standard errors at the country level in all models with the exception of models 3 and 4, where we include country fixed effects to capture unobserved sources of country heterogeneity. The first two columns include only the intervention variables and a year trend. Intervention on behalf of the rebels clearly increases the risk of conflict escalation as anticipated. The effect of pro-government intervention is the opposite, though it is less robust (it is not statistically significant if we look at all wars, though the effect is strong for ethnic wars alone). In light of the fact that intervention is unlikely to be assigned randomly across cases and unobserved country heterogeneity could explain why there is intervention in some countries but not others, we re-estimate the model using conditional (fixed effects) logit, which exploits within-cluster variation to identify the effect of intervention. Any selection effects that operate at the country level should be addressed in these regressions. We find that the results are very strong in these models for both types of intervention, which gives us more confidence in our findings (columns 3 and 4).\footnote{What these regressions cannot establish is the causal direction of the relationship as escalating conflicts might invite intervention. New data would be required to address this point. Yet this correlation is also informative and helps motivate the model that follows. Our case evidence is better suited to address the question of endogeneity of intervention and the interplay between intervention and social identification.} Finally, in models 5 and 6 we add a number of controls, drawing from the large literature on civil wars. We include per capita income (lagged one year), population size (lagged one year), oil dependence, elevation difference, ethnic and religious fractionalization. These are all standard controls in civil war regressions so we do not expand on the logic of adding them to the model.\footnote{The variables included are found in standard civil war models (e.g. Fearon and Laitin 2003) and they measure both grievances and opportunities for rebellion. We tried different model specifications and additional controls We have describe data sources in our supplement and present more robustness tests using additional controls, such as political discrimination of ethnic groups and different measures of ethnic polarization and regime type and the results were substantively unchanged.}

Insert Table A1 here

This empirical analysis is not conclusive, but it does establish a plausible connection between intervention and violence escalation, which is the focus of our theoretical claims in the model presented in the paper. Note that the empirical models do not include a
control variable for ethnic polarization. We do not include that because all existing cross-
country empirical measures of polarization merely measure group difference across a single
dimension (usually language) and existing polarization measures merely capture differences
in the demographic sizes of groups (see, for example, Montalvo and Reynal-Querol 2005). As
we discuss in our theory section below, this is not the right way to think about polarization,
which is inherently a concept that encapsulates the history of interaction between groups.
Polarization deepens as the ideological distance between groups grows. As we explain in
our model, ideological or psychological “distance” can be a function of history, politics,
past conflict and any number of other variables that shape the salience of social identities.
While that complex, dynamic measure of polarization cannot yet be captured in cross-
country regressions, we capture this concept of polarization in our model by combining the
demographic sizes of groups with a measure of psychological distance that divides those
groups. Since available cross-country measures of polarization do not correspond to the
theoretical concepts, we refrain from relying too heavily on existing empirical proxies for
polarization and instead explore our argument using a formal model and historical case-
studies that we present after the model.

9 Proofs and Extensions of the Model

To derive the military efforts under War in (7) (denoted by \(m^w_a\) and \(m^w_b\)), take account of
(2) and simultaneously solve the following two derivatives of (3):

\[
\frac{\partial U^w_a}{\partial m_a}(m^w_a, m^w_b) = \frac{m^w_b}{(m^w_a + m^w_b)^2} Y - c_a = 0
\]

\[
\frac{\partial U^w_b}{\partial m_b}(m^w_a, m^w_b) = \frac{m^w_a}{(m^w_a + m^w_b)^2} (Y + S^*_b + (1 - \alpha)\Delta) - c_b = 0
\]

Note how these first-order conditions indicate that the "prize" of the war-contest for \(A\) is the
disputed material payoff \(Y\), but for \(B\) the prize is \(Y + S^*_b + (1 - \alpha)\Delta\), because \(B\) by winning,
does not only gain \(Y\) but also gains the expected subsidy from its sponsor \((S^*_b)\) and avoids
the distance cost \((1 - \alpha)\Delta\). This is a source of asymmetry in the War contest, in addition
to the other asymmetries of the model that can be expected to have an effect on the choices of military efforts. Solving for $m_w^m$ and $m_w^w$ we obtain:

**Proof of Proposition 1:**

(i) Taking the derivative of the right-hand-side of (9), we obtain:

$$\frac{\partial \left\{ \frac{c_a(Y+S_b^a+(1-\alpha)\Delta)}{c_a+ca(Y+S_b^a+(1-\alpha)\Delta)}(S_b^a+(1-\alpha)\Delta) \right\}}{\partial \alpha} = \frac{c_a(Y+S_b^a+(1-\alpha)\Delta)}{c_a+ca(Y+S_b^a+(1-\alpha)\Delta)} \Delta + $$

$$+ \{ \frac{c_a^2(Y+S_b^a+(1-\alpha)\Delta)}{[c_a+ca(Y+S_b^a+(1-\alpha)\Delta)]^2} \} (S_b^a+(1-\alpha)\Delta) = $$

$$= \frac{c_a(Y+S_b^a+(1-\alpha)\Delta)}{c_a+ca(Y+S_b^a+(1-\alpha)\Delta)} \Delta + \frac{c_a Y}{c_a+ca(Y+S_b^a+(1-\alpha)\Delta)}(S_b^a+(1-\alpha)\Delta) > 0$$

(ii) Same steps as in (i) yield the result.

(iii) Since $F$ is the sole term on the left-hand-side of (9), the lower is $F$ the more likely is that (9) will be satisfied.

$$\frac{\partial \left\{ \frac{c_a(Y+S_b^a+(1-\alpha)\Delta)}{c_a+ca(Y+S_b^a+(1-\alpha)\Delta)}(S_b^a+(1-\alpha)\Delta) \right\}}{\partial \alpha} = - \frac{c_a(Y+S_b^a+(1-\alpha)\Delta)}{c_a+ca(Y+S_b^a+(1-\alpha)\Delta)} \Delta + $$

$$+ \{ \frac{c_a(Y+S_b^a+(1-\alpha)\Delta)(-c_a \Delta)}{[c_a+ca(Y+S_b^a+(1-\alpha)\Delta)]^2} \} (S_b^a+(1-\alpha)\Delta) = $$

$$= - \frac{c_a(Y+S_b^a+(1-\alpha)\Delta)}{c_a+ca(Y+S_b^a+(1-\alpha)\Delta)} \Delta - \frac{c_a \Delta c_a Y}{[c_a+ca(Y+S_b^a+(1-\alpha)\Delta)]^2} (S_b^a+(1-\alpha)\Delta) < 0 \text{ (for } \alpha > 1/2)$$

(iv) The higher $\Delta$ is and the lower $\alpha$ (for $\alpha > 1/2$), the higher is the polarization index $\alpha(1-\alpha)\Delta$. Therefore, by (ii) and (iv), anything that increases polarization also increases the right-hand-side of (10) and, thus, the likelihood of War.

Next consider the right-hand-side of (9) for sufficiently large $S_b^a$ or $\Delta$

$$\frac{\partial \left\{ \frac{c_a(Y+S_b^a+(1-\alpha)\Delta)}{c_a+ca(Y+S_b^a+(1-\alpha)\Delta)}(S_b^a+(1-\alpha)\Delta) \right\}}{\partial \alpha} = - \frac{c_a(Y+S_b^a+(1-\alpha)\Delta)}{[c_a+ca(Y+S_b^a+(1-\alpha)\Delta)]^2} (S_b^a+(1-\alpha)\Delta) < 0$$

$$\frac{\partial \left\{ \frac{c_a(Y+S_b^a+(1-\alpha)\Delta)}{c_a+ca(Y+S_b^a+(1-\alpha)\Delta)}(S_b^a+(1-\alpha)\Delta) \right\}}{\partial \alpha} = $$

$$= \{ \frac{c_a(Y+S_b^a+(1-\alpha)\Delta)}{[c_a+ca(Y+S_b^a+(1-\alpha)\Delta)]^2} \} \frac{c_a(Y+S_b^a+(1-\alpha)\Delta)^2}{[c_a+ca(Y+S_b^a+(1-\alpha)\Delta)]^2} (S_b^a+(1-\alpha)\Delta) =$$

$$= \frac{c_a(Y+S_b^a+(1-\alpha)\Delta)}{[c_a+ca(Y+S_b^a+(1-\alpha)\Delta)]^2} (S_b^a+(1-\alpha)\Delta) > 0$$

**Equilibrium under Settlement**

The equilibrium choices of military efforts are determined by first taking the own derivatives of the payoff functions in (11) with respect to the own strategies of each side:
\[
\frac{\partial U_a^s(m^a, m^s)}{\partial m_a} = \frac{m^s_b}{(m^a + m^s_b)^2}(Y + S^*_b + (1 - \alpha)\Delta) - c_a = 0
\]
\[
\frac{\partial U_b^s(m^a, m^s)}{\partial m_b} = \frac{m^a_a}{(m^a + m^s_b)^2}(Y + S^*_b + (1 - \alpha)\Delta) - c_b = 0
\]

(15)

Solving this system yields the following equilibrium choices of military efforts:

\[
m^a_a = \frac{c_b(Y + S^*_b + (1 - \alpha)\Delta)}{(c_b + c_a)^2}
\]
\[
m^s_b = \frac{c_a(Y + S^*_b + (1 - \alpha)\Delta)}{(c_b + c_a)^2}
\]

(16)

It can be shown that \(m^a_a > m^w_a\) for all parameter values and \(m^s_b > m^w_b\) provided that \(S^*_b + (1 - \alpha)\Delta\) relative to \(Y\) (specifically, \(\frac{Y + S^*_b + (1 - \alpha)\Delta}{c_b^2} > \frac{c_a^2}{c_b^2}\)). The associated implied probabilities of winning in the event of War (but when Settlement is the outcome) are:

\[
p^a_a = \frac{c_b}{c_b + c_a}
\]
\[
p^s_b = 1 - p^a_a = \frac{c_a}{c_b + c_a}
\]

(17)

Unambiguously, \(p^a_a > p^w_a\) and \(p^s_b = 1 - p^a_a < 1 - p^w_a = p^w_b\), and the probability of winning for the rebels when War is expected (and is an equilibrium) is higher than when Settlement is expected (and is the equilibrium). Given these inequalities, and following the comparisons under which we derived (10), War cannot occur and Settlement can occur (provided there is rebellion) when \(2F \geq (1 - p^w_a)(S^*_b + (1 - \alpha)\Delta) > (1 - p^a_a)(S^*_b + (1 - \alpha)\Delta)\), whereas War becomes possible when \((1 - p^w_a)(S^*_b + (1 - \alpha)\Delta) > 2F > (1 - p^a_a)(S^*_b + (1 - \alpha)\Delta)\) or \((1 - p^w_a)(S^*_b + (1 - \alpha)\Delta) > (1 - p^a_a)(S^*_b + (1 - \alpha)\Delta) \geq 2F\) hold.

Classification of Equilibria

For rebellion to occur, it is necessary that either \(V^w_b\) or \(V^s_b\) is greater than the status quo payoff \(U^q_b = (1 - \gamma)Y - (1 - \alpha)\Delta\). Because \(p^a_a > p^w_a\), it can be shown that \(V^w_b > V^s_b\) always holds. Thus if it were to pay to rebel and settle (i.e., if \(V^s_b > U^q_b\)), then it would also pay to rebel and engage in War provided that (10) satisfied.
There are three types of equilibria that can occur in our model: One in which $B$ acquiesces to the status quo; another in which $B$ rebels that is followed by Settlement; and the third one in which rebellion by $B$ is followed by War. Which equilibrium occurs depends, first, on the relationship between $V_{wb}$, $V_{sb}$, and $U_{qb}$ and, second, on whether inequalities such (9) are satisfied or not. Let $D^i \equiv (1 - p_s^i)(S_b^i + (1 - \alpha)\Delta)$, where $i = w, s$ and is the right-hand sides of (6) and (9) under War and Settlement, and it provides with a short-hand in characterizing the conditions under which each of the three types of equilibrium may exist in the next Proposition. (Note that, because $p_a^s > p_a^w$, we always have $D^w > D^s$.)

**Lemma:**
(i) If $U_{wb}^q > V_{wb}^w (> V_{wb}^s)$, regardless of the relationship between $2F$ to the $D^i$’s, there is a unique equilibrium that involves $B$ choosing the status quo. (ii) If $V_{wb}^w > U_{wb}^q$ and $D^w > D^s > 2F$, then rebellion followed by War is a possible equilibrium but rebellion followed by Settlement is not possible as an equilibrium; (iii) If $(V_{wb}^w > V_{wb}^s > U_{wb}^q$ and $2F > D^w (> D^s)$ then rebellion followed by Settlement is a possible equilibrium but rebellion followed by War is not possible as an equilibrium; (iv) If $V_{wb}^w > V_{wb}^s > U_{wb}^q$ and $D^w > 2F > D^s$, then both rebellion with War and rebellion with Settlement are possible equilibria.\(^{19}\)

Part (i) of this Lemma is obvious. For part (ii), first note that for $B$ to choose rebellion with War we must have $V_{wb}^w > U_{wb}^q$. Second, $D^s > 2F$ implies that, under the military effort choices $m_a^s$ and $m_b^s$, there is no possible division of the total surplus that could avoid War and, therefore, rebellion followed by Settlement cannot be an equilibrium. Third, $D^w > 2F$, also implies that, under the military effort choices $m_a^w$ and $m_b^w$, Settlement is not possible but rebellion followed by War is. Thus, under the condition of part (ii) only rebellion followed by War is possible as an equilibrium. Parts (iii) and (iv) of the Lemma follow the same logic as that of part (ii).

**The Model When the Rebels Seek to Overthrow the Government**

This part of the appendix develops the model in which the goal of rebellion is to overthrow of the central government. The interaction is between the central government of the country

\(^{19}\)When the inequalities in this Proposition hold as equalities, then there is the possibility of multiple equilibria as well. We do not explicitly mention these cases for brevity of exposition.
that is associated with a particular group or class $A$ and a group or class, denoted by $B$, that may seek to violently overthrow the government or seek concessions and settle under the threat of a violent overthrow. The sole difference from the secession model is that when the government loses in the event of war, it incurs a cost of $\alpha \Delta$. To avoid pathological cases, we maintain that contestable income $Y$ is larger than the alienation cost $\Delta$ and the expected subsidy $S^*_b$. The fact that the government now incurs losses $\alpha \Delta$ when $B$ wins implies that, under majority rule ($a > 1/2$), the government has more to lose from war than the rebels have to gain from war. In that case, the greater the distance $\Delta$ between government and rebels, the greater the social losses from war and the greater is the incentive to avoid war (and both sides will have greater incentives to settle). In the presence of a large enough external intervention that provides the rebels with subsidies $S^*_b$, war can still occur. If the government were to lose foreign subsidies in the event of war, then that would be an additional reason for the government to avoid war. If there is minority government ($a < 1/2$) then greater distance has the usual effect we found in the case of the secession model, increasing the expected social surplus from war, making war more likely to occur.

As with the secession model, the main external party that we consider is a potential sponsor of $B$, denoted by $B^*$, who might provide support for a rebellion and possible guarantees of economic support following a government takeover by $B$. We can also consider the effects of a potential external sponsor for the government, denoted by $A^*$, on the likelihood of war and rebellion as well.

The first decision that the leaders of group $B$ make is whether to choose the status quo or prepare for rebellion. Under the status quo model the payoffs of the two groups are as they are under the autonomy model:

$$U^q_a = \gamma Y$$
$$U^q_b = (1 - \gamma)Y - (1 - \alpha)\Delta$$

(18)

$B$ can prepare for a rebellion that can have three possible outcomes. In case war takes
place, two possible outcomes are victory and defeat, with the probability of each outcome depending on the relative military capabilities of the insurgents and the central government of the country. Victory for the rebels would lead to government takeover whereas defeat would lead to continued rule under the central government as well as loss of material income \((1 - \gamma)Y\). The third possible outcome after rebellion is for the two parties to negotiate for a settlement that takes place under the threat of war. In that case the rebels would still remain under the central government’s rule but might receive a high enough share of material income so as to prevent War.

As before, letting \(m_a\) and \(m_b\) denote levels of military efforts incurred by the two sides, we suppose that the probabilities of the Government and the rebels winning in the event of War are:

\[
p_a = \frac{m_a}{m_b + m_a}, \quad p_b = 1 - p_a = \frac{m_b}{m_b + m_a}
\]  

(19)

The sequence of moves in case B chooses the path of rebellion are as follows:

1. \(A\) and \(B\) choose simultaneously \(m_a\) and \(m_b\) military efforts.

2. \(A\) makes a Settlement offer to \(B\) which consists of a division of \(Y\).

3. \(B\) either accepts or rejects the offer made by \(A\). If they accept, the payoffs of \(A\) and \(B\) are in accordance with the offer. If they reject the offer, War takes place with the probabilities of winning described above.

In case of War, the expected payoffs of the two sides are:

\[
U_{a}^{w} = p_a Y + (1 - p_a)(-\alpha \Delta) - F - c_a m_a
\]

\[
U_{b}^{w} = p_a(- (1 - \alpha)\Delta) + (1 - p_a)(Y + S_b^*) - F - c_b m_b
\]

(20)

Again, the difference from the War payoffs under the autonomy model is that the Government receives a negative payoff \(-\alpha \Delta\) when they lose a War.
Starting with last stage 3 of the sequence of moves described above, \( B \) will have already paid its military expenditures (that is, \( c_b m_b \) will have already been sunk) and therefore it will accept any share \( 1 - \eta \) of \( Y \) if and only if:

\[
(1 - \eta)Y - (1 - \alpha)\Delta \geq U^w_b + c_b m_b \tag{21}
\]

Otherwise, War will take place. Then, in stage 2 \( A \) would only make an offer that satisfies (21) as an equality and the resulting Settlement payoff for \( A \) is at least as great as \( U^w_a + c_a m_a \). That is, denoting by \( \eta^* \) the \( \eta \) that satisfies (21) as an equality, \( A \) will make an offer that \( B \) will accept only if

\[
\eta^* Y \geq U^w_a + c_a m_a \tag{22}
\]

But adding the two equations above, Settlement is thus possible only if

\[
2F \geq (1 - p_a) (S^*_b + (1 - 2\alpha)\Delta) \tag{23}
\]

Otherwise, War will occur. Since the costs of War are positive \( (F > 0) \), for War to occur the right-hand-side of would have to positive and large enough. Note that the right-hand-side of (23) differs from that in (6) by having an additional negative term \( -\alpha \Delta \), so that the whole term \( (1 - 2\alpha)\Delta \) is negative when the government represents the majority \( (\alpha > 1/2) \). This implies that with majority government it is more difficult to have War when group \( B \) seeks to take over the government than when it seeks autonomy or secession. A minority government \( (\alpha < 1/2) \), however, is more vulnerable to the outbreak of War and a higher expected subsidy \( S^*_b \) to the rebels could tip the rebellion into war.

We next turn to determining these probabilities by considering the equilibrium choices of military resources under War with the payoff functions under war. Taking (2) into account, the equilibrium choices, denoted by \( m^w_a \) and \( m^w_b \), are determined by simultaneously solving the following two derivatives of (20):

\[
\frac{\partial U^w_a (m^w_a, m^w_b)}{\partial m_a} = \frac{m^w_b}{(m^w_a + m^w_b)^2} (Y + \alpha \Delta) - c_a = 0
\]

\[
\frac{\partial U^w_b (m^w_a, m^w_b)}{\partial m_b} = \frac{m^w_a}{(m^w_a + m^w_b)^2} (Y + S^*_b + (1 - \alpha)\Delta) - c_b = 0 \tag{24}
\]
Note how these first-order conditions indicate that the "prize" of the war-contest for A is the disputed material payoff $Y$ plus the alienation cost in the case of a loss, whereas for B the prize is $Y + S_b^* + (1 - \alpha)\Delta$, because A, by winning, does not only gain $Y$ but also gains the expected subsidy from its sponsor ($S_b^*$) and avoids the alienation cost for its group. This is a source of asymmetry in the War contest, in addition to the other asymmetries of the model that can be expected to have an effect on the choices of military resources. Solving for $m_w^a$ and $m_w^b$ we obtain:

$$m_w^a = \frac{c_b(Y + S_b^* + (1 - \alpha)\Delta)(Y + \alpha \Delta)^2}{c_b(Y + \alpha \Delta) + (1 - \alpha) c_a(Y + S_b^* + (1 - \alpha)\Delta)^2}$$

$$m_w^b = \frac{c_a(Y + \alpha \Delta)(Y + S_b^* + (1 - \alpha)\Delta)^2}{c_b(Y + \alpha \Delta) + (1 - \alpha) c_a(Y + S_b^* + (1 - \alpha)\Delta)^2} \quad (25)$$

It can be shown that the military effort of A is (i) increasing in A’s "prize" $Y + \alpha \Delta$; (ii) decreasing in B’s prize $Y + S_b^* + (1 - \alpha)\Delta$ (iii) increasing in the opponent’s marginal cost $c_b$; (iii) decreasing in own marginal cost $c_b$; (iv) increasing in own size $\alpha$ and decreasing in the opponent’s size $1 - \alpha$. The symmetric properties hold for the military efforts chosen by B. By substituting (25) into (19) we obtain the probabilities of winning under War:

$$p_w^a = \frac{c_b(Y + \alpha \Delta)}{c_b(Y + \alpha \Delta) + c_a(Y + S_b^* + (1 - \alpha)\Delta)} \quad \text{and} \quad p_w^b = 1 - p_w^a$$

$$p_w^a = \frac{c_a(Y + S_b^* + (1 - \alpha)\Delta)}{c_b(Y + \alpha \Delta) + c_a(Y + S_b^* + (1 - \alpha)\Delta)} \quad (26)$$

Each side’s probability of winning (i) positively on own "prize" and negatively on the opponent’s one; (iii) positively on own size and negative on opponent’s size; and (iii) negatively on own marginal cost of military resources and positively on that of one’s opponent. The higher "prize" for B (due to the subsidy $S_b^*$ and avoiding the distance cost of $\Delta$ in case of a win) is thus a force counteracting the disadvantage that come from a lower size and, presumably, higher marginal cost $c_b$ relative to the government’s.

By substituting (26) into (23), we obtain that War would ensue only if the following inequality were to be satisfied:

$$2F < \frac{c_a(Y + S_b^* + (1 - \alpha)\Delta)}{c_b(Y + \alpha \Delta) + c_a(Y + S_b^* + (1 - \alpha)\Delta)} (S_b^* + (1 - 2\alpha)\Delta) \quad (27)$$
This inequality includes the combinations of solely exogenous parameter values for which War could occur. We summarize its implications as a Proposition.

**Proposition A1:** Conditional on \( B \) choosing to rebel, War can occur only if inequality (27) were to hold. Then War is more likely, (i) the lower is the size of the group \( A \) supporting the government and the larger is the size of group \( B \) (i.e., the smaller \( \alpha \) is) (ii) the higher is the external subsidy \( S^*_b \); (iii) the lower is the cost of War \( F \); (iv) the higher is group \( A \)'s marginal cost parameter \( c_a \); (v) the lower is the cost parameter \( c_b \) of \( B \) (and the more this parameter is lowered by subsidies from \( B^* \)); (vi) when \( a < 1/2 \), the higher is the distance \( \Delta \).

Proof: For brevity denote the right-hand-side of (27) by \( D \). Then, the comparative static results in the Proposition follow by differentiating \( D \) with respect to the variables in question. Because parts (ii) to (iv) are relatively straightforward, we derive below parts (i) and (vi) only.

\[
\frac{\partial D}{\partial a} = \left\{ \frac{-c_a\Delta}{c_a(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)} - \frac{c_a(Y+S^*_b+(1-\alpha)\Delta)(c_a\Delta-c_a\Delta)}{[c_a(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)]^2} \right\}(S^*_b + (1 - 2\alpha)\Delta) - 2\Delta \frac{c_a(Y+S^*_b+(1-\alpha)\Delta)}{c_a(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)}
\]

\[
= -\frac{c_a\Delta c_a(2Y+S^*_b+\Delta)}{[c_a(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)]^2} (S^*_b + (1 - 2\alpha)\Delta) - 2\Delta \frac{c_a(Y+S^*_b+(1-\alpha)\Delta)}{c_a(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)}
\]

\[
= -\frac{c_a\Delta c_a(2Y+S^*_b+\Delta)}{[c_a(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)]^2} (S^*_b + (1 - 2\alpha)\Delta) - 2\Delta \frac{c_a(Y+S^*_b+(1-\alpha)\Delta)}{c_a(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)}
\]

\[
= -\frac{c_a\Delta c_a(2Y+S^*_b+\Delta)}{[c_a(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)]^2} (S^*_b + (1 - 2\alpha)\Delta) - 2\Delta \frac{c_a(Y+S^*_b+(1-\alpha)\Delta)}{c_a(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)}
\]

Note that sole negative term in the numerator is \(-\alpha^2\Delta^2\). Since \( Y > \Delta \) and the term immediately next to \(-\alpha^2\Delta^2\), \( 2(Y + S^*_b + (1 - \alpha)\Delta)Y > 2Y^2 > \alpha^2\Delta^2 \), the numerator of the expression is always positive. Given that the denominator is positive and the negative sign in front of the fraction, we must then have \( \frac{\partial D}{\partial a} < 0 \), as stated in the Proposition.
(vi) \[ \frac{\partial D}{\partial \Delta} = \frac{c_a(Y+S^*_b+(1-\alpha)\Delta)}{c_b(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)}(1-2\alpha) + \left\{ \frac{c_a(1-\alpha)}{c_b(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)} \right\} (S^*_b + (1-2\alpha)\Delta) \]

\[ -\frac{c_a(Y+S^*_b+(1-\alpha)\Delta)c_b(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)}{[c_b(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)]^2} (S^*_b + (1-2\alpha)\Delta) \]

\[ = \frac{c_a(Y+S^*_b+(1-\alpha)\Delta)c_b(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)}{c_b(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)}(1-2\alpha) + \left\{ \frac{c_a(1-\alpha)c_b(Y+\alpha\Delta) - c_b(Y+S^*_b+(1-\alpha)\Delta)c_a}{[c_b(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)]^2} \right\} (S^*_b + (1-2\alpha)\Delta) \]

\[ = \frac{c_a(Y+S^*_b+(1-\alpha)\Delta)c_b(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)}{c_b(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)}(1-2\alpha) + \left\{ \frac{c_a(1-\alpha)c_b(Y+\alpha\Delta) - c_b(Y+S^*_b+(1-\alpha)\Delta)c_a}{[c_b(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)]^2} \right\} (S^*_b + (1-2\alpha)\Delta) \]

\[ = \frac{c_a(Y+S^*_b+(1-\alpha)\Delta)c_b(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)}{c_b(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)}(1-2\alpha) + \left\{ \frac{c_a(1-\alpha)c_b(Y+\alpha\Delta) - c_b(Y+S^*_b+(1-\alpha)\Delta)c_a}{[c_b(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)]^2} \right\} (S^*_b + (1-2\alpha)\Delta) \]

\[ = \frac{c_a(Y+S^*_b+(1-\alpha)\Delta)c_b(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)}{c_b(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)}(1-2\alpha) + \left\{ \frac{c_a(1-\alpha)c_b(Y+\alpha\Delta) - c_b(Y+S^*_b+(1-\alpha)\Delta)c_a}{[c_b(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)]^2} \right\} (S^*_b + (1-2\alpha)\Delta) \]

\[ = \frac{c_a(Y+S^*_b+(1-\alpha)\Delta)c_b(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)}{c_b(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)}(1-2\alpha) + \left\{ \frac{c_a(1-\alpha)c_b(Y+\alpha\Delta) - c_b(Y+S^*_b+(1-\alpha)\Delta)c_a}{[c_b(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)]^2} \right\} (S^*_b + (1-2\alpha)\Delta) \]

\[ = \frac{c_a(Y+S^*_b+(1-\alpha)\Delta)c_b(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)}{c_b(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)}(1-2\alpha) + \left\{ \frac{c_a(1-\alpha)c_b(Y+\alpha\Delta) - c_b(Y+S^*_b+(1-\alpha)\Delta)c_a}{[c_b(Y+\alpha\Delta)+c_a(Y+S^*_b+(1-\alpha)\Delta)]^2} \right\} (S^*_b + (1-2\alpha)\Delta) \]

For \( \alpha < 1/2 \), all the terms in the numerator except for \( -\alpha S^*_b \) (multiplied by \( c_a c_b S^*_b \)).

Since \( Y > S^*_b \), we can easily find other positive terms that overwhelm that negative term.

Given that the denominator is positive, then \( \frac{\partial D}{\partial \Delta} > 0 \) for \( \alpha < 1/2 \) as stated in the Proposition.

Whereas the effect of the relative size of the two groups (\( \alpha \)) is the same as when the rebels seek government or secession, in this case the effect of the distance cost \( \Delta \) is assured to hold when the government is a minority one (\( \alpha < 1/2 \)). When the government is a majority one (\( \alpha > 1/2 \)), the effect of \( \Delta \) is ambiguous because an increase in \( \Delta \) makes War ever less attractive to the government because it loses more under War.

We next consider the outcome that involves rebellion followed by Settlement. Under such an outcome, in stage 2 the Government makes an offer of \( \eta^* \) (\( \eta \) satisfies (21) as an equality) and that offer is accepted provided (23) is satisfied under the ensuing probability of winning.

It can be shown that the payoff functions under such an outcome are the following:

\[ U^*_a = p_a(Y+S^*_b+(1-\alpha)\Delta) - (S^*_b + (1-\alpha)\Delta) + F - c_a m_a \]

\[ U^*_b = p_a(-(1-\alpha)\Delta) + (1-p_a)(Y+S^*_b) - F - c_b m_b \] (28)

It turns out that these two payoff functions under Settlement are the same as those under Settlement in the Autonomy model of the main text (same as in equation (12). This is true
because the Government is assumed to have all the bargaining power in bargaining over Settlement which implies that the loss of $-\alpha \Delta$ if the government were to lose in the event of War (the sole difference in the two models) does not present a disadvantage in bargaining.

Therefore, the equilibrium under rebellion followed by Settlement is identical to that in the Autonomy model. Then, the equilibrium payoffs for the rebels under rebellion followed by War or by Settlement are also described by those in, respectively, (11) and (13). Consequently, inequality (14) is the one that would determine whether rebellion occurs and the results of Proposition 3 follow for the case of the rebels seeking the overthrow the government and not just, as in the main text, of the rebels seeking autonomy or secession.

Deriving military expenditures under endogenous identities and in the case of War

The payoff functions under War in (3) are modified as follows:

$$U_a^{w'} = p_a Y + (1 - p_a)0 - F - c_a m_a$$

$$U_b^{w'} = p_a [-(1 - \alpha)(\Delta' + \delta(m_a + m_b)) + (1 - p_a)(Y + S_b^*) - F - c_b m_b$$

Using (2), the first-order conditions for an equilibrium are then the following:

$$\frac{\partial U_a^{w'}(m_a^{w'}, m_b^{w'})}{\partial m_a} = \frac{m_b^{w'}}{(m_a^{w'} + m_b^{w'})^2} Y - c_a = 0$$

$$\frac{\partial U_b^{w'}(m_a^{w'}, m_b^{w'})}{\partial m_b} = \frac{m_a^{w'}}{(m_a^{w'} + m_b^{w'})^2} (Y + S_b^* + (1 - \alpha)\Delta') + \frac{m_a^{w'}}{(m_a^{w'} + m_b^{w'})^2} (1 - \alpha)\delta(m_a^{w'} + m_b^{w'})$$

$$- \frac{m_a^{w'}}{(m_a^{w'} + m_b^{w'})^2} (1 - \alpha)\delta - c_b = 0$$

Note that the second and third terms of $\frac{\partial U_b^{w'}(m_a^{w'}, m_b^{w'})}{\partial m_b}$ cancel each other out, eventually yielding the same terms as in (7) except that the originally exogenous $\Delta$ is replaced by the constant $\Delta'$. This implies that the military expenditures are similar to (8) with the original $\Delta$ replaced by the constant $\Delta'$ or

$$m_a^{w'} = \frac{c_b (Y + S_b^* + (1 - \alpha)\Delta') Y^2}{[c_b Y + c_a (Y + S_b^* + (1 - \alpha)\Delta')]^2}$$

$$m_b^{w'} = \frac{c_a Y (Y + S_b^* + (1 - \alpha)\Delta')}{[c_b Y + c_a (Y + S_b^* + (1 - \alpha)\Delta')]^2}$$

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Table 1: Core Results of Montalvo & Reynal-Querol (2005) and Extensions to Assess the Effect of the Cold War

<table>
<thead>
<tr>
<th></th>
<th>1. PRIOcw</th>
<th>2. PRIOcw</th>
<th>3. PRIOcw</th>
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Robust standard errors in brackets. Coefficient estimates referred to as statistically significant in the text are significant at least at the 0.05 level.

NOTE: Column 5 uses different data: war coding is extended to 2015 and different sources of data are used for several explanatory variables to ensure that substantive conclusions from this analysis are not sensitive to these changes. See supplement for details. In column 5, the measure of resource dependence is not primary commodity exports; we use instead a binary variable identifying countries with oil exports greater than 1/3 of GDP. Regime type is measured using the Polity index with interpolated missing values during periods of instability.
Table A1: Effects of Intervention on Civil War Onset

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<th></th>
<th>1. All wars</th>
<th>2. Ethnic Wars</th>
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<th>4. Ethnic Wars</th>
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Standard errors in parentheses; constant omitted
* p<.10, ** p<.05, *** p<.01