**Democratization after Civil War**

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**Abstract**

Why do some states emerging from civil war take significant strides toward democracy while others do not? Why, for example, did Mozambique, Nicaragua, and Peru become more democratic after their civil wars ended, while Angola and Sri Lanka did not? The small but growing literature on this subject comes to several contradictory and puzzling findings. We argue that many of these findings are driven by methodological problems in the existing literature. This paper attempts to remedy these problems. It examines the determinants of postwar democratization in the short, medium, and long term by testing a number of often competing hypotheses with a dataset of all civil wars ending between 1945 and 1999. Our analysis refutes some prominent hypotheses and findings. For example, we find no support for the prominent claim that the outcome of the war shapes the prospects for postwar democratization. Meanwhile, consistent with the more general democratization literature we find that economic development aids democratization while oil wealth hinders it. We also find less democratization after wars fought over identity issues and in countries with higher prewar levels of democracy. However, we find an unexpected relationship between ethnic fractionalization and democratization. We also find intriguing differences between wars that ended during the Cold War and those that ended after 1989. In general, while civil wars appear to provide opportunities for democratization in many places, the factors that determine whether a country becomes more or less democratic are much the same for post-civil war societies as for other societies.

According to the post-conflict democratization literature, civil war is surprisingly good for democracy. A growing body of theoretical and empirical work indicates that democratization can and often does occur in the aftermath of civil war. But less work has examined why some states emerging from internal conflict take significant strides toward democracy, while others do not. Why, for example, did Mozambique, Nicaragua, and Peru become more democratic after their civil wars ended, while Angola and Sri Lanka did not? Why did Thailand move closer to democracy after defeating communist rebels in 1982, when Guatemala became less democratic after victory over communists in 1972?

From the few extant studies that do address this question, a number of contradictory and puzzling findings have emerged. Studies have come to directly opposing findings, for example, about the effect of the war’s outcome on the prospects for democratization. Other findings fly in the face of what the literature on democratization more generally suggests. For example, studies of post-civil war democratization find no, or even a negative, effect of economic development. This paper attempts to clear the considerably tangled brush on the subject of democratization after civil war. It does not present a novel theory, but rather improves on existing research methods, examining the determinants of democratization for all countries emerging from civil wars ending between 1945 and 1999. Contrary to other studies of regime change after intrastate conflict, we find that characteristics of the war itself have relatively little impact on the prospects for democratization. Instead, democratization in societies emerging from civil war is shaped by much the same factors thought to affect democratization in other societies. Patterns of democratization after civil war are not so puzzling after all.

The paper proceeds in five sections. The next section gives a brief overview of existing scholarship on post-war democratization, and describes several methodological issues that we believe contribute to some of the contradictory findings. The following section lays out a number of hypotheses that purport to explain why democratization occurs after some civil wars but not others. The data and research design used to test these hypotheses are then described. The analysis section presents the results of these tests. We find, among other results, that variables such as economic development and oil wealth play out in postwar contexts in ways that are consistent with what is suggested in the democratization literature more generally. On the other hand, we find no support for the notion that the war’s outcome – whether the government or rebels win, or whether the war ends in a settlement or a truce – affects the prospects for democracy. The ethnic fractionalization of the country has a surprising effect: in post-civil war societies it appears that the most diverse and the least diverse are less likely to democratize, while those in the middle range are more likely. The final section presents conclusions and directions for future research.

**The Literature on Democracy after Civil War**

While countries recently wracked by civil war do not, on the face of it, seem like likely candidates for the growth of democracy, a number of theories suggest that civil war can promote democratization by dislodging the old political equilibrium (Weingast 1997); fostering collective action against authoritarian regimes (Robinson 2006; Wood 2001); or by creating incentives for warlords to use citizen rule as an enforcement mechanism for a political deal (Wantchekon 2004; Wantchekon and Neeman 2002; Wantchekon and Jensen 2009). All of these explanations share a sense that civil war can often open up space for political liberalization.

Empirical studies show that a substantial number of countries emerging from civil war experience democratization.[[1]](#footnote-2) The numbers vary across studies, but suggest that somewhere between 35% and 70% of countries that have had a civil war make some move toward democracy in the years following the war (Wantchekon and Neeman 2002; Fortna 2008; Huang 2008).[[2]](#footnote-3) Furthermore, most of the existing democracies that emerged after 1945 were born out of or immediately following interstate or civil war (Bermeo 2003). But these studies do not address why some countries that have recently experienced civil war democratize while others do not.

There is a smaller but growing set of quantitative studies that attempt to answer this question. These studies come to some contradictory and surprising conclusions. Most of these studies examine the effects of the war’s outcome on the prospects for democratization. Gurses and Mason (2008) and Wantchekon and Jensen (2009) find that negotiated settlements are followed by greater democratization and that wars that end with a victory for one side tend to be bad for the growth of democracy. But Toft (2010) argues just the opposite: while negotiated settlements are followed by an uptick in democracy in the very short-term, this quickly dissipates; over the long-term, wars that end in a clear victory, particularly for the rebel side, are more conducive to democratization. For the post-Cold War era Fortna (2008) finds that, relative to wars that end in a truce, those that end in victory are conducive to democracy, and so are negotiated settlements, but to a lesser extent. Huang (2008) finds the opposite pattern during the Cold War.

There are similarly contradictory findings on the effect of the cost of war. Huang (2008) finds more democratization after very deadly wars in the post-Cold War era, at least in the short term, while Fortna (2008) finds the opposite. Gurses and Mason (2008) focus much of their theory on the notion that democratization is more likely after long and costly wars, but do not find empirical support for this, while Sambanis (2000) does find that longer wars lead to greater democratization. Similarly, some studies find that peacekeeping fosters post-war democratization, at least in the short-term (Huang 2008; Wantchekon and Jensen 2009; Doyle and Sambanis 2006), while Fortna (2008) finds no net effect.

Other findings are more consistent within this set of studies, but are puzzling with respect to the more general literature on democratization. While some results are in line with findings in the democratization literature (e.g., on the negative effects of the “oil curse” or of identity conflict – on the former, see Huang 2008, Fortna 2008, and Wantchekon and Jensen 2009; on the latter, Gurses and Mason 2008 and Huang 2008), others run in the opposite direction. For example, rather than fostering post-war democratization, a history of democracy before the war broke out is found to be associated with lower levels of democratization in the aftermath of war (Fortna 2008; Gurses and Mason 2008).

The reported effects of economic development are even more surprising given the prevalent claims made in the general democratization literature. As Geddes (1996) writes in her review of this literature, “one of the few stylized facts to emerge from studies of regime transition is that democracy is more likely in more developed countries.” However, studies of post-civil war democratization see no positive effect of economic development (Gurses and Mason 2008; Sambanis 2000; Wantchekon and Jensen 2009) and even inklings of a negative effect (Huang 2008; Fortna 2008). Similarly, while the general democratization literature suggests that democratization is more likely in countries with larger militaries (Bermeo 2003) and in former colonies of Britain (e.g., Huntington 1991) studies of democratization after civil war find the opposite (Sambanis 2000; Huang 2008; Fortna 2008).

What are we to make of these contradictory and puzzling findings? This paper is intended as a brush-clearing exercise. By improving on existing research methods, we hope to make sense of why some states democratize in the aftermath of civil war, while others do not. Each of the existing studies has significant strengths, and begins to answer the question we address here. However, each (and here we include our own previous studies)) also has methodological limitations that we hope to remedy.

One reason for some of the contradictory and puzzling findings in existing studies has to do with what one counts as the baseline for measuring change in democracy. A number of studies (Gurses and Mason 2008; Huang 2008; Wantchekon and Jensen 2009) measure change as the difference between democracy at some point after the war ends and democracy levels before the war began. This measure thus combines changes in democracy levels that occur **during** the war, with those that occur **afterwards**. This makes sense if the focus is on the impact of war on democracy, but is problematic for assessing the effects of the war’s outcome, because some of the change in levels of democracy (the dependent variable) occurs before the war outcome (the independent variable) is determined. The same is true for assessing the effects of the war’s cost or duration.

If most wars ended quite quickly, or if democracy levels tended to be quite stable during war, this would not be a large problem. Unfortunately, many civil wars last for quite a long time – the mean war duration in the data examined here is six years, and a few wars last over twenty-five years. There are also significant changes in democracy levels over the course of war. In Huang’s (2008) data, for example, there is a difference of at least 1 point between pre- and post-war Polity scores in over half the cases. Argentina’s Polity score dropped 6 points during the course of its civil war, while Cambodia democratized by over 6 points during its war. Whether one counts democratization from before the war begins or once it ends will clearly affect the results.[[3]](#footnote-4)

Other studies do not have this problem, but have others that are likely to affect results. For example, Toft (2010) traces democracy levels before, during, and after the war, but does not employ multivariate analysis in examining postwar democratization. While tracking the trends in democratization over time is illustrative, given the complex nature of the phenomenon and the likelihood of relationships among key independent variables, multivariate analysis is required to assess effects in an unbiased fashion.

Meanwhile, Fortna (2008)’s examination of democratization after civil war focuses on only a limited time period (the post-Cold War period). That her findings differ so much from those that examine the half century since the end of World War II (as do Toft 2010 and Gurses and Mason 2008) is not so surprising. Indeed, as Huang (2008) shows, the effects of some important variables may be quite different during the Cold War and after it ended. Similarly, as Toft (2010) argues, effects on democratization in the short-term (such as those discerned by Fortna 2008, Huang 2008, and Wantchekon and Jensen 2009, who examine no more than five years after the war ends) may not hold up over longer periods (such as the 10 years studied by Gurses and Mason 2008, or the 20 years examined by Toft 2010).[[4]](#footnote-5)

Finally, all of these studies use Polity scores (Marshall and Jaggers 2005) to measure changes in democracy levels.[[5]](#footnote-6) As Vreeland (2008) explains, the Polity measure of democracy is deeply problematic for studies of, or in this case, after civil war, because it incorporates a measure of political instability and violence into the measure of democracy.[[6]](#footnote-7) This makes conclusions about the relationship between democracy and war questionable at best and tautological at worst.

In this paper, we attempt to improve on existing studies by: a) using a measure of post-war democratization that does not conflate post-war changes with those that occur during the war; b) employing multivariate analysis; c) examining democratization (or lack thereof) over both the short and long term, and during the Cold War and the post-Cold War eras; and d) using Vreeland’s correction to the Polity measure, X-Polity, so that the parts of the Polity index that are “contaminated” by measures of domestic instability are removed.

**Hypotheses**

This section lays out the reasoning behind a number of hypotheses explaining why some states democratize after civil war but others do not. As noted above, the existing literature on democratization after war comes to often conflicting conclusions. These are reflected in sometimes directly opposing hypotheses.

War Outcomes

That the way the war ends might affect democratization in its wake seems logical enough. Civil wars end through one of four possible outcomes: military victory for the government, military victory for rebels, a negotiated settlement, or a truce. On the face of it, we would expect wars that end in a negotiated settlement to lead to greater strides toward democracy. Apart from the political compromise that they reflect, many negotiated settlements explicitly call for political liberalization and national elections. For example, the settlement that ended Mozambique’s long-running civil war involved the rebel group, Renamo, giving up its fight in exchange for the government agreeing to multiparty elections in which Renamo could compete for power. Conversely, we would intuitively expect wars that end in a victory for either side not to lead to democratization. It is hard to see why a party that has defeated its opponents in a civil war would be willing to liberalize (Gurses and Mason 2008). Wantchekon and Jensen (2009) argue that warlords will turn to democracy to extricate themselves from costly civil wars when neither side is able to win decisively, implying that military victories should be followed by less democratization. Meanwhile, wars that end with only a truce to halt the fighting but no political settlement seem unlikely candidates for democratization. Democratization requires at least an implicit bargain on who will run the country and how rulers will be selected; this is fundamentally what civil wars are about. Wars that end with only a truce are wars in which there is agreement to stop the fighting, but no agreement on these basic issues of who should rule and how. Together, these conjectures lead to the following hypothesis:

1a. *Wars that end in a negotiated settlement will be followed by greater democratization than will wars that end in other outcomes.*

However, arguments exist for exactly the opposite relationship. Toft (2010) draws on the literature on state formation (including Moore 1966; Rustow 1970; Huntington 1968; Tilly 1999), which argues that violence and war are a key component of the development of political institutions, including democratic institutions. Toft argues that wars that end in victory lead to stronger institutions because they leave resources consolidated in the hands of the winning side. Stronger institutions lead to “a more stable, and perhaps more democratic system of government” (Toft 2010: 40), whereas negotiated settlements are not only more likely to lead to renewed violence, but also “seem to sink precipitously into authoritarianism as governments crack down in an attempt to avert another round of violence” (ibid.: 60). According to this state formation argument,

1b. *Military victories lead to greater post-civil war democratization than do other war outcomes.*

In Toft’s (2010) argument, it also matters crucially which side wins the war; victory for the rebel side is much more likely to lead to democratization than victory by the government. Governments that win are more likely simply to repress the opposition that threatened their existence through rebellion. Meanwhile, rebel groups that prevail have to build effective and often representative institutions of governance in order to do so (see also Weinstein 2005). These institutions then pave the way for a more democratic system once the rebels take power. As Toft puts it, rebels who win have both the ability to harm those who would disrupt the peace and the incentive to provide benefits to the population by democratizing.

1c. *Military victories by rebels lead to greater post-civil war democratization than other military outcomes.*

The Cost of War

There are similarly contradictory hypotheses relating to the effects of the cost of war and the prospects for democratization. Intuitively, we would expect that the greater the death and destruction wreaked by the war, the less democratization we will see. The hostility and hatred built up in the most deadly wars hampers the trust, compromise, and accommodation necessary for democracy to take root (Huang 2008: 10).

2a. *The more costly the war in terms of human life, the more difficult will be democratization.*

On the other hand, the argument that it takes large-scale and costly violence to open up space for political liberalization implies that we would expect just the opposite relationship to hold. Wantchekon (2004) argues that it is the cost of war that induces warlords to turn to democracy as a way out of their conflict. Similarly, Gurses and Mason (2008: 322) hypothesize that the longer and costlier the war, the more likely it will be to convince protagonists “to agree to a democratic post-civil war order.”[[7]](#footnote-8)

2b. *The deadlier the war, the more likely will be democratization.*

Identity Conflict and War Aims

There is less debate over the expected relationship between conflicts fought along identity lines, where the warring sides are divided along ethnic, religious, or linguistic lines, and the prospects for democratization. Democracy is widely considered to be harder to create and sustain in ethnically divided societies (Horowitz 1985; Horowitz 1993). When these ethnic divisions have either caused civil war, or been hardened by ethnically based violence (Kaufmann 1996), they will make democratization particularly problematic.

3a. *Wars fought along identity lines will be followed by less democratization than wars fought along political or ideological divisions.*

The war aims of rebels may also affect the prospects for democratization. Some wars are fought for secession or increased territorial autonomy, while others are fought for control of the central government. Theories of post-civil war democratization often assume that the war is fought over control of the central government, or at least that it affects the entire country in a way that many separatist conflicts do not.[[8]](#footnote-9) The idea that the war sweeps away the old equilibrium, and leads to democratization of the central government, implies that this is a country-wide experience. However, many conflicts fought for secession or autonomy have relatively little effect on day-to-day life in the rest of the country. Unless these wars succeed in creating a new state (and this is quite rare), we might expect that:

3b. *Wars fought for control of the central government will be followed by more democratization than those fought for autonomy or exit.*

History of Democracy

Conventional wisdom holds that it is difficult to implant democracy where it has no roots. That is, countries with no history or tradition of democracy are less likely to democratize than those that have experienced democracy in the past (Schmitter 1994; Przeworski et al. 1996; Ulfelder and Lustik 2007).

4a. *States that were democracies at some point in their history are more likely to democratize after civil war than those with no such tradition.*

If we look instead at regime levels just prior to the outbreak of war, we expect democracy scores to be inversely related to post-war democratization. In countries that were democratic just prior to the war, the fact that the democratic system could not stave off civil war may lead citizens to view political institutions as a failure. Civil war by definition involves the use of a state’s military muscle against its own population and thus hinders democratic viability. Meanwhile, states that were autocratic before the war are the ones most likely to experience war as a watershed event that opens up political space for reform and democratization. There may also be a simpler statistical explanation for the inverse relationship we posit here. Regression toward the mean will tend to make highly democratic states become less so, and highly autocratic states more democratic. Whether for statistical reasons, or because civil war sweeps away previous institutions and leads to new ones, we expect that,

4b. *Pre-war levels of democracy are inversely related to post-war democratization.*

Note that it is particularly important to control for pre-war democracy levels in any assessment of the effects of war outcomes on post-war democratization, because wars in former autocracies are more likely to end in military victory, particularly rebel victories (Toft 2010: 64).[[9]](#footnote-10) Failure to control for prewar democracy levels could thus lead to omitted variable bias.

Economic Factors

As noted above, there is a long-standing consensus in the democratization literature that richer countries are more likely to democratize. While the causal relationship has been debated at length (e.g. Lerner 1958; Lipset 1959; Deutsch 1961; Przeworski et al. 2000; Boix 2003; Boix and Stokes 2003), the correlation between economic development and democracy is quite robust. Nothing in this theoretical literature suggests that post-civil war states should be different from other states in this regard.

5. *More economically developed countries are more likely to experience democratization.*

There is also a growing consensus in the democratization literature on the negative effects of natural resources, especially oil (Ross 2001; Jensen and Wantchekon 2004; Smith 2004; Wantchekon and Jensen 2009). These studies argue that “oil and democracy don’t mix,” either because states generating rents from oil exports do not need to develop representative institutions in order to collect taxes from their citizens, or because these states can afford to repress or buy off the opposition (or for both reasons). Oil exports and other natural resources have also been explored as a factor contributing to civil war (Collier and Hoeffler 2004; Ross 2004).

6. *Democratization is less likely in oil exporting states.*

Ethnic Heterogeneity

As with oil, the ethnic heterogeneity of a county has been explored as a factor explaining both the outbreak of civil war and democratization. It is thus reasonable to expect that it will affect the prospects for democratization after war. Some have argued that more homogeneous societies provide more fertile ground for democracy (Mill 1958 (1861); Barro 1999).

7a.*More ethnically diverse states are less likely to experience democratization.*

However, others have proposed that social heterogeneity can facilitate, and may even be a requisite for, democratization (Wantchekon and Neeman 2002; Smulovitz 2003). Given these opposing hypotheses, yet others (Reilly 2001) suggest that the relationship may be more complex than is typically supposed – that there is in fact a curvilinear relationship. Democracy may be most likely to sprout either in highly homogeneous countries, or in highly diverse countries. It is only in the middle where there are relatively few ethnic groups that cleavages along identity lines will make democracy difficult to establish and maintain. Thus, a competing hypothesis is that,

7b. *Democratization is most likely at very low and very high levels of heterogeneity, and least likely in the middle range.*

Military Size

Bermeo (2003: 170) argues that the lessons of the democratization literature are drawn primarily from Europe and Latin America, and may not apply as well to Africa. In her explanation of why democratization might be more difficult in Africa, she notes the small size of African militaries relative to population size. This, she contends, makes it harder for governments to establish order and deter violence as a means of settling political issues, and therefore makes democracy, which relies on non-violent methods of dispute resolution, more difficult to establish.

8a. *The larger the per capita size of the government’s military, the more likely is democratization.*

However, after civil wars, in which the government is, by definition, a party to the violence, it is less clear that a strong military will be good for democratization. Rather, greater coercive capacity may be used to repress the opposition (Levitsky and Way 2006). Huang (2008) thus hypothesizes that,

8b *Democratization is less likely in countries with larger per capita militaries.*

Colonial Legacy

Some studies of democratization suggest that having been a colony of Britain is good for democratization: British, but not other, colonies allowed for a gradual introduction of democratic elements into the political system, thereby easing these colonies’ transition to democracy after independence (Huntington 1991; Lipset 1994).

9a. *A former colonial relationship with Britain makes democratization more likely.*

Barro (1999) argues that former colonies of Britain and Spain are more democratic than those of France, Portugal and other colonizers. He suggests, however, that colonial legacy has mainly indirect effects on democracy, by affecting standard of living (GDP and primary schooling).

9b. *Once GDP (and/or literacy) is controlled for, British colonial legacy should have no effect on democratization*.

Peacekeeping

The focus of our own previous studies (Fortna 2008; Huang 2008) on the issue of post-civil war democratization has been on the effects of peacekeeping. Second only to maintaining peace, a key goal of the international peacekeepers is to build democracy in war-torn states. However, we have come to differing conclusions about peacekeeping’s effectiveness in this regard. Huang (2008) finds that peacekeeping often meets this goal (as do Wantchekon and Jensen 2009; and Doyle and Sambanis 2006). Meanwhile, Fortna (2008) argues that while peacekeeping has positive effects on stability and trust, and can help build democratic institutions, it also entails a large role in state-building for foreign actors who are unaccountable and who can crowd out local efforts at democracy-building. We thus investigate the following hypothesis:

10. *Peacekeeping leads to greater democratization.*

**Data and Research Design**

In the analyses that follow, we use data on civil wars from Doyle and Sambanis (2006) (hereafter D&S). The universe of cases is the 128 civil wars that ended between 1945 and 1999.

Dependent Variable: Democratization

As explained above, we measure our dependent variable, democratization, using Vreeland’s (2008) “X-Polity” index, which amends the widely used Polity IV index by leaving out the components that measure the competitiveness of political participation (those that include measures of political instability and violence). The X-Polity index thus relies solely on the Polity components that measure the competitiveness of executive recruitment. Although the degree of political participation captures a critical dimension of democratization, we believe that the problems of the Polity index are significant enough to warrant the tradeoff.[[10]](#footnote-11)

The X-Polity index ranges from -6 (most autocratic) to 7 (most democratic), and we convert this to range from 0 to 13 for easier analysis. The dependent variables, post-civil war democratization 2, 5, 10, and 20 years out, are measured as the difference between the country’s X-Polity score this many years after the war ended and the X-Polity score in the year the war ended.[[11]](#footnote-12) Because a country’s score for the year the war ended may reflect changes that occur immediately after the war, especially if the war ends early in the calendar year, we also calculated our dependent variable using the previous year as the baseline, and check the robustness of our results to this alternative measure. In cases where a territory gains independence some years after civil war, we measure democracy in the contiguous parent-state until independence, and in the new state thereafter. For example, in the Eritrean war of independence we measure X-Polity scores in Ethiopia until Eritrean independence two years after the war.

Democratization, as defined here, encompasses three conceptually distinct types of case: autocratic liberalization; democratic transition; and democratic consolidation.[[12]](#footnote-13) As table 1 indicates, the vast majority of our cases are autocracies that liberalize, but do not cross the threshold to democracy.[[13]](#footnote-14) Tajikistan is an example. There are also some cases of autocracies that transition to democracy (for example, Guatemala), and a very few cases that see the consolidation of already existing democracy.[[14]](#footnote-15) This last category encompasses only four cases: Indonesia - East Timor, Nicaragua, Colombia, and Cyprus (1963-1967). Because it is possible that the processes entailed in democratic consolidation are somewhat different than the processes entailed in autocratic liberalization or democratic transition, we check our results for robustness when these four cases are dropped from the analysis. For a full list of cases and their democratization scores over the various time periods we examine, see appendix 1.

Independent Variables

Data on our independent variables are from D&S unless otherwise noted. War outcomes are denoted with dummy variables marking wars that end with a peace settlement, a truce or cease-fire, or a military victory for one side. This last category is further distinguished in some analyses by separating government from rebel victories.

The cost of war is measured by taking the natural log of the number of people killed or displaced. As alternative measures we also examine the duration of the war, counted in months, and its intensity (deaths divided by duration), on the theory that war-weariness induced by very long or intense wars may have different effects than the overall number killed or displaced. A dummy variable distinguishes wars fought along identity lines (ethnicity, religion, language, etc.) from those fought along ideological or other lines.

We measure a country’s democratic tradition as the number of years in which its X-Polity score reached 9 (out of 13) or higher in the years between independence (or 1816 for states that existed then) and the start of the war. In an alternative analysis we use the higher threshold of 10 or higher.[[15]](#footnote-16) A separate variable measures the country’s level of democracy in the period immediately preceding the war. This prewar democracy level is an average of the X-Polity scores over the 5 years preceding the start of the war. Since prewar X-Polity scores do not exist for breakaway states that gain independence after the war, we measure democracy in their contiguous metropoles in these cases. Thus, for example, Namibia’s prewar scores are based on those of South Africa.[[16]](#footnote-17) However, for new post-colonial states emerging from Western or Japanese colonialism at the start of the civil war – these include Algeria, Angola, China (1946, 1947), Congo-Zaire (1960), India (1946), Indonesia/East Timor, Kenya (1963), Korea, and Myanmar/Burma (1948) – we code prewar democracy levels as the mean score of all cases, equal to 5.2 on the 0 to 13 scale. In alternative specifications we code these as either 6.5, the midpoint on the scale and often considered “neutral” in the literature, or simply as missing. The assumption behind the different coding rules for contiguous and non-contiguous territories is that the former are likely to have been governed in the same manner as the metropoles themselves, while that is less likely the case with overseas territories (see Gerring et al. 2006: 341).

In our main analyses, we control for the baseline level of democracy – that is, the X-Polity score in the year the war ends. Although our dependent variable measures the change in X-Polity scores from the end of the war, it is also important to capture the baseline level from which the change occurs. For instance, if a state has an X-Polity score of 12 at the end of the war, it cannot take on positive change greater than 1, as 13 is the upper limit on the scale. This baseline variable thus controls for the bounded nature of our dependent variable (see more on this below), and the possibility of regression toward the mean. Including this variable, however, biases our assessment of the effects of prewar democracy because these two variables are highly correlated (.68) with each other. In tests of the effect of prewar democracy on postwar democratization, we therefore drop this baseline variable from the analysis.

We proxy economic development by taking the natural log of the country’s per capita electricity consumption for the year the war ended (or the closest available year). GDP per capita serves as an alternative measure in robustness checks. Oil exporting countries are noted with a dummy coded 1 if oil exports are valued at more than 30% of GDP. Measures of ethnic fractionalization in D&S are taken directly from Fearon’s (2003) index. To test the possibility of a curvilinear relationship, we include both this measure and its square. D&S also contains the oft-used ethnolinguistic fractionalization index (ELF), which we use as an alternative measure. The measure of military size is the natural log of the number of troops per capita at the end of the war or the closest available year. British colonial legacy is denoted with a dummy variable.

A dummy variable denotes cases in which rebels fought for “exit,” that is, autonomy or secession. It is based on Fearon’s (2004) data on rebel aims, and our own research (for cases not included in Fearon’s data).[[17]](#footnote-18) We also coded a variable to denote successful secession, and in robustness checks drop these cases to examine whether they affect the results in significant ways.

We include a dummy variable marking conflicts that saw the deployment of peacekeepers. This includes both UN peacekeeping and peacekeeping by regional organizations or other entities, and combines consent based peacekeeping missions (observation, traditional, and multidimensional missions) with enforcement missions.[[18]](#footnote-19)

Civil wars are fairly likely to resume, and the renewed outbreak of hostilities may affect the prospects for democratization. [[19]](#footnote-20) We therefore control for the resumption of war. For analyses of democratization over the two years following the war, a dummy marks cases in which war has resumed within two years; for analyses of democratization over five years, the relevant dummy variable notes war resumption within five years, and so on.[[20]](#footnote-21) We also analyze the effects of the other independent variables when cases in which war has resumed over the course of the period examined (2, 5, 10 years, etc.) are dropped.[[21]](#footnote-22)

Because there are secular trends in democratization over the 1945-2007 period, we include a dummy variable indicating wars that ended in the post-Cold War period (1989-1999). In fuller models, we use decade dummies (noting the decade in which the war ended) with the post-Cold War period being the comparison category.[[22]](#footnote-23) Furthermore, we also run our base models for the Cold War and the post-Cold War periods separately to see whether the determinants of postwar democratization differ between them.

We test the hypotheses outlined in the previous section using OLS regression. In a robustness check, we use tobit analysis to address the possibility that the bounded nature of our dependent variable is affecting results; that is, the fact that states that are already democratic cannot democratize much farther simply because there is “less room” for improvement on the bounded X-Polity scale, and likewise at the other end of the spectrum. In all analyses, we cluster our cases by country and report robust standard errors in order to address the likelihood that for states that experience multiple civil wars, trends in postwar democratization are not independent of each other.

**Analysis**

Table 2 shows the effects of variables on democratization over 2, 5, 10, and 20 years after the end of the war. This full model indicates that a number of hypotheses do not pass muster. For many key variables, there is simply no significant effect on democratization. Table 3 shows the results of a pared down “base model,” with many of these insignificant variables dropped from the analysis. Table 3 also drops the decade dummies, replacing them with a dummy for the post-Cold War period, as this change does not affect any of the other results. Additional tables show alternative models needed to assess some hypotheses in more detail, and to examine the effects of different time periods. A final table summarizes the substantive results.

In our opinion, one of the most interesting findings in this paper is a non-finding. Much of the literature on democratization in the aftermath of civil conflict has focused on the effect of the war’s military outcome. As Tables 2 and 3 indicate, however, we find that, contrary to hypotheses 1a and 1b, neither peace settlements nor military victories significantly improve the prospects for democratization. While the coefficient for negotiated settlements is positive over the short term, 2 and 5 years out, it turns negative over the longer term. The coefficient for military victory also alternates between positive and negative over the various time periods. Neither effect is significant except over the very long term, 20 years out, and then is in the wrong direction, indicating that settlements and victories, respectively, lead to less democratization relative to the omitted category of truces or cease-fires. When we examine the effect of military victories relative to all other cases, and likewise of settlements relative to all other cases, the results remain insignificant (results not shown).[[23]](#footnote-24) Hypotheses 1a and 1b can thus be soundly rejected.

Hypothesis 1c suggested that it matters not just that one side emerge victorious, but also who wins the war. This argument is tested in Table 4, where the military outcome variable is broken down to distinguish between government and rebel victories, which are then compared to truces and settlements combined. Again, we see no stable or significant effects. These results also hold whether rebel victories are compared to all other outcomes, or only to truces (results not shown). The one exception is that for democratization over 2 years, the coefficient for rebel victories, as compared to all other outcomes combined, is positive and significant. Thus with the possible exception of a very short-term uptick in democratization, rebel victories are no more conducive to democratization than other outcomes.

Hypotheses 2a and 2b fare no better. The cost of the war, measured by the number of deaths and displacements, has no significant bearing on post-war democratization (see Table 2). The results (not shown) are no different if we look at the duration or the intensity of the war – none of these variables have a statistically significant effect over any time period examined here.

Only one aspect of the war itself appears to be relevant for democratization in the war’s aftermath. As expected by hypothesis 3a, wars that pit against each other groups defined by identity characteristics such as ethnicity, language, or religion are followed by lower rates of democratization than are wars among groups based on ideological or other divisions. According to the base model in Table 3, identity-based wars are associated with about a 1-point move toward autocracy compared to non-identity-based wars at two years after the war, and the effect increases over the longer term. Thus, identity-based warfare seems to entrench differences in ways that make democratic compromise difficult to achieve for quite some time.

Whether the war was fought along identity lines is more important than whether rebels fought to achieve “exit” as opposed to control of the central government. Table 5 shows the results when the identity war variable is dropped and replaced with the dummy for exit wars (the two are correlated at .48). The effect of exit wars is consistently negative, as expected by hypothesis 3b, but the effect is not statistically significant. Hypothesis 3b can therefore be rejected.[[24]](#footnote-25)

Overall, then, other than whether the war was fought along identity lines, characteristics of the civil war have relatively little effect on the prospects for postwar democratization. This is a surprising finding given the general expectation in the existing literature that various aspects of the war will have determinate and lingering effects on how regimes develop in the postwar years. The effect of a democratic tradition can be seen in Table 6. Our measure here captures the number of years prior to the war that a country was minimally democratic. This variable has little to no effect in the short term (2 and 5 years out), but its effect grows larger and more significant over time. While the size of the coefficient is quite small, this reflects the scale of the independent variable. By 20 years out, one more year of democratic experience yields a .06-point increase on the 14-point X-Polity scale. There is thus moderate support for hypothesis 4a: a tradition of democracy makes a future of democratization more likely, at least in the long term.

Our control variable for the democracy level at the end of the war is, as expected, consistently negative and significant in all models (see for example, Tables 2 and 3). This reflects the fact that more democratic countries have less room to democratize, and autocracies have less room to autocratize. To test the effect of democracy in the years immediately prior to the war, we drop this control variable as these are obviously highly correlated. This is done in Table 7. As expected by hypothesis 4b, prewar democracy has a consistently negative and significant effect.[[25]](#footnote-26) Whether this reflects a substantive causal relationship in which democracies that fail to stave off civil war are discredited while autocratic regimes tend to get swept away (or at least reformed) by civil war, or whether it simply reflects regression toward the mean is difficult to know. In any case, the more democratic the country immediately before the war, the less it will democratize thereafter.

Hypotheses 5 and 6 receive strong support in the data (see Tables 2 and 3). As the general literature on democracy would predict (but contrary to findings in the post-civil war democratization literature), more economically developed countries are more likely to move toward democracy than are poorer countries. The effect remains when we use GDP at the end of the war rather than electricity consumption as our measure of development. But while wealth in general is good for democracy, oil wealth is not. As expected, countries with large oil exports are much less likely to move toward democracy. This effect is consistently negative and is significant in most models; over the long term (20 years), oil wealth is associated with about a 4 point drop in democratization. Again, this supports findings from the wider democratization literature: oil and democracy don’t mix.

The findings for ethnic diversity are surprising and puzzling, however. Hypothesis 7a suggested that more ethnically diverse countries would be less likely to democratize, and that is not the case. The effect of ethnic fractionalization is positive rather than negative, though when included in the model on its own, not significant (results not shown). The models presented here test for the U-shaped relationship expected by hypothesis 7b. While we find strong and significant effects,[[26]](#footnote-27) they are exactly the opposite of the expected relationship. Democratization is least likely in very homogeneous and very diverse countries and most likely in the middle range. That is, instead of a U-shaped relationship, we see an inverted-U, or a hill-shaped relationship.[[27]](#footnote-28) This finding contradicts both hypotheses pertaining to ethnic heterogeneity.

We explored opposing hypotheses about the relationship between the per capita size of the government’s army and democratization. As Table 2 indicates, the coefficient for this variable is generally negative rather than positive, providing more support for hypothesis 8b than for 8a. However, these coefficients are not significant. We therefore conclude that government army size does not affect the prospects for democratization.

Hypothesis 9a suggests that former colonies of Great Britain would be more likely to democratize. This notion is clearly refuted by the data (see Table 2). If anything the opposite is true; the coefficients are consistently negative rather than positive, though not significant (except marginally so at 20 years out). On the face of it, there is support for hypothesis 9b on the indirect effects of British colonialism; there is no effect, as this hypothesis predicts. However, the logic of this hypothesis is that the effects of a British colonial legacy will be picked up in other variables, most notably economic development. But dropping economic development from the model does not make the British colonial variable positive, much less significant (results not shown). A British colonial legacy has no bearing on post-civil war democratization.

The war resumption controls included in our models have generally negative coefficients, but they are not statistically significant. War resumption apparently does not affect democratization. This is a surprising finding given the political, economic and social consequences of internal warfare on a state, but may be consistent with the finding above that most characteristics of the civil war have no effect on postwar regime trajectories. As a robustness check, we drop cases in which war resumes from the analysis. Our results are no different for the 2, 5, and 10 year analyses, but the results become unreliable in the 20 year analyses due to a small N (results not shown).

The final hypothesis we test concerns the effects of peacekeeping on the prospects for democratization. As Table 2 shows, peacekeeping has no significant positive effect on democratization. As peacekeeping only became common in civil (as opposed to interstate) wars after the end of the Cold War, it is possible that we would only see an effect of these international missions after 1989. However, Table 9 shows that there is no consistent or significant positive effect on democratization even after the Cold War.

Previous studies have found rather different effects between the Cold War and the post-Cold War eras for other variables as well. Tables 8 and 9 compare the two periods. Note that significance levels will generally be lower simply because there are fewer cases in each of these tables than when we examine all of the cases together. Keeping that it mind, we can see that some of the results reported above hold true both before and after 1989. The generally negative effect of oil wealth continues to hold in both periods, as does the hill-shaped relationship between ethnic fractionalization and democratization. Military victories cannot be said to have any positive effect on democratization in either era.

Other variables show some interesting differences between the two periods, however. Settlements, for example, have a negative (though not always significant) effect during the Cold War, but these coefficients turn positive and significant in the 5-year analysis after the end of the Cold War. The negative effects of identity wars are clear during the Cold War, but fall away in the post-1989 period. Economic development maintains a positive effect during the Cold War, but coefficients are much smaller in the post-Cold War period. Finally, the resumption of war, which has no significant effect during the Cold War, now has the expected negative effect on democratization, at least in the very short term. There are thus several important differences between the two eras.

As noted above, we ran several additional robustness checks to examine whether our statistical model, the measurement of our dependent variable, or the inclusion of consolidating democracies was affecting results (due to space constraints, we do not show these results).[[28]](#footnote-29) First, we checked our base model OLS results against tobit analysis to account for the bounded nature of our data. These results are quite consistent with our OLS base model results, giving us greater confidence in our findings. Second, we recalculated our dependent variable using the year before the war ended rather than the year it ended as our baseline to make sure that changes in regime type that occurred immediately after the war were not missed. Again, our results are quite consistent. The only change here is a slight weakening of the results for ethnic heterogeneity. Finally, we dropped the few cases of consolidating democracies to see whether their inclusion was affecting results. It was not.

The substantive results of our analyses are summarized in Table 10.

**Conclusion**

The motivation for this paper was to make sense of the contradictory and often puzzling findings in the nascent literature on post-conflict democratization (including those in our own previous studies on the subject). We have attempted to correct some of the methodological problems of earlier works to understand why some countries democratize in the aftermath of civil wars while others do not. Having done so, we find that, with the exception of one puzzling result (see below), democratization in post-conflict societies looks much like democratization elsewhere. The characteristics of the war itself have surprisingly little bearing on regime developments after the war is over. Only one aspect of the war, whether it was fought along identity lines, has a significant effect. And this is arguably a characteristic of the society as a whole and the salient cleavages within it as much as the war itself (though the hardening of these differences in the cauldron of civil war may well make them especially potent). Other aspects of the war, most notably how it ended, its cost or duration, and whether peacekeepers are deployed, have no bearing on the prospects for democracy. Even whether the war resumes has not historically affected post-war democratization, except in the most recent past (after the Cold War). These findings run contrary to many prominent arguments in the existing literature, and show the importance of the methodological fixes employed here.

Rather than aspects of the war just fought, it is much the same determinants of democratization as in peaceful societies that affect which states emerging from war will move toward democracy and which will not. Having some experience with democracy in the past is good for democracy, at least in the long run. Economic development promotes the growth of democracy, while oil riches hamper it. While a few hypotheses from the democratization literature are not supported – most notably on the effects of ethnic heterogeneity, but also on government army size and the British colonial legacy – for the most part, hypotheses generated from this literature fare much better than those from the literature on the more specific question of democratization after civil war.

Note that we, like almost all of the literature on conflict and democratization, do not examine directly whether civil war in fact promotes democracy. Like other studies we take our universe of cases to be those in which civil war has occurred, and therefore do not compare democratization rates in these cases to those of other states. Nevertheless, that democratization in post-civil war societies looks so much like democratization in societies that have not been through civil war perhaps casts some doubt on the claim that the occurrence of civil war itself has a positive impact on democratization. One finding presented here, that democracy levels just before the war are inversely related to democratization in its aftermath, suggests that the war may in fact open up space for democracy in previously autocratic societies (though it may also open up space for autocratization in previously democratic societies). But it is possible that this finding represents a statistical artifact of regression toward the mean, so we should not make too much of this finding without further research.

The other, most obvious avenue for future research emerging from this analysis is the surprising finding on ethnic diversity. We do not know why the least diverse and the most diverse countries emerging from war would be less prone to democratization while those in the middle are more prone. It does not appear to be an artifact of outliers, though it may have something to do with the measurement of the dependent variable, as the effect is weaker when we use the year before the end of the war as our baseline for measuring democratization. It may simply reflect the fact that important weaknesses remain in theories and data on ethnic diversity.[[29]](#footnote-30) Further research and theorizing is needed to determine whether this finding is the result of a measurement or methodological problem, or whether it represents a true relationship.

Another aspect of this research that requires more theoretical as well as empirical attention concerns the differences between the Cold War and the Post-Cold War periods. While we find fewer differences between the periods than do previous studies, we continue to find interesting and important differences for some key variables. Two variables that had no significant effect during the Cold War – negotiated settlements and the resumption of war – look to be important determinants of democratization in the post-Cold War era (with positive and negative effects, respectively). Meanwhile, two other variables – economic development and identity conflicts – become less salient. Why these effects differ by time period is an open question. We surmise that the answer might have something to do with changing norms and practices of war termination in the post-Cold War era. Negotiated settlements have become much more common in civil wars after the Cold War (Howard 2003; Fortna 2009), as has international intervention by the international community. This has entailed not only peacekeeping, but also the involvement of organizations promoting democracy and good governance, including human rights and aid groups. If these organizations, both IGOs and NGOs, are having any effect, they should be boosting democratization either directly or indirectly. It is possible (though here we are just speculating) that these organizations have been disproportionately active in poorer countries, after identity conflicts (that tend to shock the conscience of the international community more readily), and after negotiated settlements. These organizations may also be more likely to leave if war breaks out anew. If so, their presence would tend to offset the negative effects of identity conflicts and poverty, and to make negotiated settlements and war resumption appear more consequential for democratization, consistent with the empirical pattern we observe.

More generally, the burgeoning research on post-civil war democratization is in need of deeper theorizing about the incentives of the actors – the state, rebel groups, the domestic population, external actors – that are involved in making choices about postwar regimes. Given that a deadly civil war has occurred, who gains or loses with political liberalization, and why?

Recent studies of post-civil war democratization have generated many plausible hypotheses, but further theoretical development has been hampered by a lack of solid empirical research to adjudicate among them. This has led to many contradictory and puzzling findings in this young literature. Our paper has not attempted to push the theoretical envelope, but rather has tried to clear the empirical brush for future theoretical and empirical progress. Given the salience of the question of post-civil war democratization in current affairs, further scholarly research on the topic is clearly worthwhile. We hope to have helped clear the path forward.

**Table 1: Three Types of Democratization**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Autocratic Liberalization | Democratic Transition | Democratic Consolidation | Total Democratizing / Total Cases |
| 2 Years Out | 13  81% | 3  19% | 0  0% | 16/113  14% |
| 5 Years Out | 22  73% | 6  20% | 2  7% | 30/117  26% |
| 10 Years Out | 23  57.5% | 14  35% | 3  7.5% | 40/111  36% |
| 20 Years Out | 22  73% | 6  20% | 2  7% | 30/63  48% |

**Table 2: Full Model**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 2 years | 5 years | 10 years | 20 years |
|  |  |  |  |  |
| Victory | 0.01 | -0.73 | -0.21 | -3.19\* |
|  | (0.42) | (0.66) | (1.12) | (1.57) |
| Negotiated settlement | 0.14 | 0.71 | -0.98 | -4.06\* |
|  | (0.50) | (0.62) | (1.28) | (2.36) |
| Identity war | -1.03\*\* | -1.25\*\*\* | -1.48\*\* | -1.97\* |
|  | (0.41) | (0.44) | (0.71) | (1.12) |
| Cost of war | -0.00 | -0.06 | 0.06 | -0.25\* |
|  | (0.06) | (0.10) | (0.20) | (0.14) |
| Prewar X-Polity | -0.06 | -0.06 | 0.11 | 0.05 |
|  | (0.06) | (0.07) | (0.20) | (0.15) |
| X-Polity at end of war | -0.17\*\*\* | -0.34\*\*\* | -0.57\*\*\* | -0.78\*\*\* |
|  | (0.05) | (0.09) | (0.18) | (0.12) |
| Development | 0.18\* | 0.49\*\*\* | 0.71\*\* | 0.98\*\* |
|  | (0.10) | (0.16) | (0.30) | (0.41) |
| Oil | -0.67\* | -0.78 | -1.67\*\* | -4.17\*\*\* |
|  | (0.40) | (0.56) | (0.81) | (1.35) |
| Ethnic heterogeneity | 4.93\*\* | 8.42\*\* | 7.26\* | 18.39\* |
|  | (2.34) | (3.63) | (4.29) | (10.79) |
| Ethnic het. (squared) | -4.15\* | -7.42\*\* | -5.78 | -17.97\* |
|  | (2.08) | (3.31) | (4.16) | (9.26) |
| Military size per cap. | -0.12 | -0.29 | -0.66 | 0.67 |
|  | (0.12) | (0.23) | (0.40) | (0.44) |
| Former British colony | -0.14 | -0.28 | -0.78 | -1.75\* |
|  | (0.34) | (0.44) | (0.63) | (0.97) |
| Peacekeeping | 0.39 | 0.03 | 0.10 | -0.47 |
|  | (0.31) | (0.53) | (0.80) | (1.31) |
| Forties | -0.26 | 0.03 | -1.61 | -1.27 |
|  | (0.47) | (1.21) | (1.79) | (2.37) |
| Fifties | 0.39 | 0.21 | -1.14 | -1.66 |
|  | (0.56) | (0.76) | (1.12) | (1.71) |
| Sixties | -1.56\* | -1.82\*\* | -3.18\*\* | 1.41 |
|  | (0.80) | (0.85) | (1.31) | (1.46) |
| Seventies | -0.34 | -1.04 | -1.29 | 1.98 |
|  | (0.47) | (0.65) | (1.02) | (1.54) |
| Eighties | -0.47 | -0.59 | -0.51 |  |
|  | (0.33) | (0.53) | (1.25) |  |
| War by 2 years out | -0.18 |  |  |  |
|  | (0.38) |  |  |  |
| War by 5 years out |  | -0.06 |  |  |
|  |  | (0.51) |  |  |
| War by 10 years out |  |  | -1.00 |  |
|  |  |  | (0.81) |  |
| War by 20 years out |  |  |  | 1.21 |
|  |  |  |  | (0.96) |
| Constant | -0.23 | -0.96 | -3.09 | 6.63 |
|  | (1.41) | (2.23) | (3.32) | (5.76) |
|  |  |  |  |  |
| Observations | 108 | 112 | 90 | 51 |
| R-squared | 0.323 | 0.428 | 0.437 | 0.784 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 3: Base Model**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  | 2 years | 5 years | 10 years | 20 years |
|  |  |  |  |  |
| Victory | 0.12 | -0.43 | 0.12 | -3.77\*\*\* |
|  | (0.38) | (0.59) | (0.98) | (1.19) |
| Negotiated settlement | 0.26 | 0.70 | -0.91 | -4.41\*\* |
|  | (0.46) | (0.54) | (1.05) | (1.71) |
| Identity war | -1.00\*\* | -1.29\*\*\* | -1.40\* | -2.39\*\* |
|  | (0.41) | (0.45) | (0.71) | (1.01) |
| Prewar X-Polity | -0.09\* | -0.08 | 0.04 | 0.17 |
|  | (0.05) | (0.06) | (0.18) | (0.15) |
| X-Polity at end of war | -0.13\*\* | -0.30\*\*\* | -0.51\*\*\* | -1.02\*\*\* |
|  | (0.05) | (0.09) | (0.17) | (0.14) |
| Development | 0.20\*\* | 0.49\*\*\* | 0.60\*\* | 1.10\*\*\* |
|  | (0.09) | (0.15) | (0.27) | (0.36) |
| Oil | -0.73\* | -0.91 | -2.16\*\*\* | -3.87\*\*\* |
|  | (0.38) | (0.57) | (0.74) | (1.19) |
| Ethnic heterogeneity | 4.78\*\* | 6.74\*\* | 8.87\* | 22.84\*\* |
|  | (1.98) | (3.22) | (4.65) | (8.95) |
| Ethnic het. (squared) | -4.18\*\* | -5.77\* | -7.19 | -21.45\*\* |
|  | (1.74) | (2.97) | (4.58) | (7.93) |
| Post-Cold War | 0.67\*\* | 0.89\* | 1.90\*\* |  |
|  | (0.31) | (0.51) | (0.71) |  |
| War by 2 years out | 0.02 |  |  |  |
|  | (0.37) |  |  |  |
| War by 5 years out |  | 0.11 |  |  |
|  |  | (0.48) |  |  |
| War by 10 years out |  |  | -0.66 |  |
|  |  |  | (0.72) |  |
| War by 20 years out |  |  |  | 0.57 |
|  |  |  |  | (0.83) |
| Constant | -0.22 | -0.97 | -0.81 | 0.32 |
|  | (0.63) | (1.05) | (1.65) | (3.19) |
|  |  |  |  |  |
| Observations | 109 | 113 | 91 | 52 |
| R-squared | 0.260 | 0.382 | 0.383 | 0.722 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 4: Disaggregating Victory**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  | 2 years | 5 years | 10 years | 20 years |
|  |  |  |  |  |
| Government victory | -0.59 | -0.64 | 0.73 | -0.98 |
|  | (0.43) | (0.60) | (0.87) | (1.17) |
| Rebel victory | 0.46 | -0.97 | 0.48 | 0.19 |
|  | (0.37) | (0.68) | (0.79) | (1.33) |
| Identity war | -0.85\*\* | -1.37\*\*\* | -1.39\* | -1.46 |
|  | (0.38) | (0.47) | (0.80) | (1.09) |
| Prewar X-Polity | -0.09\* | -0.09 | 0.05 | 0.25 |
|  | (0.05) | (0.06) | (0.18) | (0.15) |
| X-Polity at end of war | -0.13\*\* | -0.30\*\*\* | -0.52\*\*\* | -1.01\*\*\* |
|  | (0.05) | (0.09) | (0.17) | (0.12) |
| Development | 0.19\*\* | 0.52\*\*\* | 0.61\*\* | 1.09\*\* |
|  | (0.08) | (0.16) | (0.28) | (0.40) |
| Oil | -0.60\* | -1.07\* | -2.17\*\*\* | -3.47\*\* |
|  | (0.34) | (0.57) | (0.76) | (1.33) |
| Ethnic heterogeneity | 3.69\* | 7.14\*\* | 9.01\* | 19.34\*\* |
|  | (1.85) | (3.20) | (4.62) | (8.12) |
| Ethnic het. (squared) | -3.22\* | -6.04\*\* | -7.37 | -18.73\*\* |
|  | (1.63) | (2.92) | (4.50) | (7.19) |
| Post-Cold War | 0.40 | 0.93\* | 2.02\*\*\* |  |
|  | (0.28) | (0.51) | (0.73) |  |
| War by 2 years out | -0.22 |  |  |  |
|  | (0.38) |  |  |  |
| War by 5 years out |  | 0.08 |  |  |
|  |  | (0.46) |  |  |
| War by 10 years out |  |  | -0.54 |  |
|  |  |  | (0.71) |  |
| War by 20 years out |  |  |  | 0.65 |
|  |  |  |  | (0.84) |
| Constant | 0.34 | -0.78 | -1.45 | -2.96 |
|  | (0.61) | (1.06) | (1.51) | (2.78) |
|  |  |  |  |  |
| Observations | 109 | 113 | 91 | 52 |
| R-squared | 0.303 | 0.378 | 0.378 | 0.698 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 5: War Aims**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  | 2 years | 5 years | 10 years | 20 years |
|  |  |  |  |  |
| Victory | 0.29 | -0.20 | 0.74 | -0.04 |
|  | (0.35) | (0.50) | (0.88) | (2.25) |
| Negotiated settlement | 0.44 | 0.88 | -0.26 | -0.71 |
|  | (0.38) | (0.56) | (0.94) | (2.66) |
| Rebel aim = exit | -0.48 | -0.52 | -0.28 | -1.10 |
|  | (0.35) | (0.48) | (0.96) | (1.08) |
| Prewar X-Polity | -0.08\* | -0.08 | 0.06 | 0.29\* |
|  | (0.05) | (0.06) | (0.19) | (0.17) |
| X-Polity at end of war | -0.10\*\* | -0.26\*\*\* | -0.47\*\*\* | -0.93\*\*\* |
|  | (0.04) | (0.09) | (0.17) | (0.14) |
| Development | 0.14 | 0.41\*\*\* | 0.43 | 0.75 |
|  | (0.09) | (0.14) | (0.29) | (0.48) |
| Oil | -0.48 | -0.71 | -1.96\*\*\* | -2.53\* |
|  | (0.33) | (0.53) | (0.72) | (1.29) |
| Ethnic heterogeneity | 3.32\* | 5.06 | 7.25 | 16.95\* |
|  | (1.76) | (3.33) | (5.00) | (9.03) |
| Ethnic het. (squared) | -3.40\*\* | -4.81 | -6.72 | -18.61\*\* |
|  | (1.68) | (3.13) | (5.04) | (8.36) |
| Post-Cold War | 0.79\*\* | 1.07\*\* | 2.23\*\*\* |  |
|  | (0.33) | (0.49) | (0.69) |  |
| War by 2 years out | 0.29 |  |  |  |
|  | (0.42) |  |  |  |
| War by 5 years out |  | 0.17 |  |  |
|  |  | (0.49) |  |  |
| War by 10 years out |  |  | -0.69 |  |
|  |  |  | (0.74) |  |
| War by 20 years out |  |  |  | 0.94 |
|  |  |  |  | (0.94) |
| Constant | -0.45 | -1.17 | -1.15 | -2.37 |
|  | (0.67) | (1.08) | (1.84) | (4.50) |
|  |  |  |  |  |
| Observations | 113 | 117 | 95 | 56 |
| R-squared | 0.207 | 0.334 | 0.344 | 0.614 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 6: Democratic Tradition**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  | 2 years | 5 years | 10 years | 20 years |
|  |  |  |  |  |
| Victory | 0.25 | -0.38 | -0.10 | -4.52\*\*\* |
|  | (0.40) | (0.63) | (1.07) | (1.30) |
| Negotiated settlement | 0.38 | 0.74 | -0.95 | -4.92\*\*\* |
|  | (0.44) | (0.56) | (1.04) | (1.52) |
| Identity war | -1.02\*\* | -1.31\*\*\* | -1.35\* | -2.17\*\* |
|  | (0.42) | (0.45) | (0.71) | (0.96) |
| Democratic tradition | 0.00 | 0.01 | 0.02\* | 0.06\*\* |
|  | (0.00) | (0.01) | (0.01) | (0.03) |
| X-Polity at end of war | -0.19\*\* | -0.37\*\*\* | -0.52\*\*\* | -1.03\*\*\* |
|  | (0.07) | (0.10) | (0.11) | (0.14) |
| Development | 0.17\*\* | 0.45\*\*\* | 0.62\*\* | 1.09\*\*\* |
|  | (0.08) | (0.14) | (0.28) | (0.36) |
| Oil | -0.66\* | -0.83 | -2.10\*\*\* | -4.29\*\*\* |
|  | (0.36) | (0.56) | (0.78) | (1.22) |
| Ethnic heterogeneity | 4.72\*\* | 6.77\*\* | 8.87\* | 24.77\*\* |
|  | (1.95) | (3.24) | (4.44) | (9.67) |
| Ethnic het. (squared) | -4.31\*\* | -6.01\*\* | -7.32 | -22.86\*\* |
|  | (1.73) | (3.00) | (4.37) | (8.77) |
| Post-Cold War | 0.72\*\* | 0.88\* | 1.69\*\* |  |
|  | (0.33) | (0.51) | (0.78) |  |
| War by 2 years out | 0.13 |  |  |  |
|  | (0.36) |  |  |  |
| War by 5 years out |  | 0.21 |  |  |
|  |  | (0.49) |  |  |
| War by 10 years out |  |  | -0.61 |  |
|  |  |  | (0.72) |  |
| War by 20 years out |  |  |  | 0.98 |
|  |  |  |  | (0.78) |
| Constant | -0.31 | -0.89 | -0.65 | 0.87 |
|  | (0.71) | (1.15) | (1.72) | (2.93) |
|  |  |  |  |  |
| Observations | 109 | 113 | 91 | 52 |
| R-squared | 0.242 | 0.383 | 0.390 | 0.737 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 7: Prewar Democracy**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  | 2 years | 5 years | 10 years | 20 years |
|  |  |  |  |  |
| Victory | 0.10 | -0.37 | 0.33 | -2.61\* |
|  | (0.37) | (0.54) | (0.92) | (1.36) |
| Negotiated settlement | 0.10 | 0.36 | -1.29 | -4.27\* |
|  | (0.46) | (0.54) | (1.09) | (2.35) |
| Identity war | -0.88\*\* | -1.07\*\* | -1.16 | -2.11 |
|  | (0.39) | (0.45) | (0.72) | (1.43) |
| Prewar X-Polity | -0.17\*\* | -0.27\*\*\* | -0.34\*\*\* | -0.63\*\*\* |
|  | (0.07) | (0.08) | (0.13) | (0.14) |
| Development | 0.18\* | 0.45\*\*\* | 0.51 | 1.20\*\* |
|  | (0.10) | (0.16) | (0.33) | (0.59) |
| Oil | -0.55 | -0.53 | -1.56\*\* | -3.01\*\* |
|  | (0.34) | (0.49) | (0.63) | (1.32) |
| Ethnic heterogeneity | 4.62\*\* | 6.63\*\* | 7.26\* | 20.58 |
|  | (1.95) | (3.10) | (4.16) | (13.94) |
| Ethnic het. (squared) | -4.01\*\* | -5.55\*\* | -5.02 | -18.92 |
|  | (1.69) | (2.72) | (4.09) | (12.75) |
| Post-Cold War | 0.57\* | 0.68 | 1.52\*\* |  |
|  | (0.30) | (0.57) | (0.73) |  |
| War by 2 years out | 0.10 |  |  |  |
|  | (0.40) |  |  |  |
| War by 5 years out |  | 0.14 |  |  |
|  |  | (0.50) |  |  |
| War by 10 years out |  |  | -0.78 |  |
|  |  |  | (0.82) |  |
| War by 20 years out |  |  |  | 1.15 |
|  |  |  |  | (1.21) |
| Constant | -0.46 | -1.60 | -1.35 | -2.88 |
|  | (0.61) | (1.07) | (1.62) | (4.23) |
|  |  |  |  |  |
| Observations | 109 | 113 | 91 | 52 |
| R-squared | 0.214 | 0.266 | 0.234 | 0.341 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 8: Cold War Analysis**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  | 2 years | 5 years | 10 years | 20 years |
|  |  |  |  |  |
| Victory | -0.65 | -1.37 | -1.39 | -3.77\*\*\* |
|  | (0.95) | (1.37) | (1.57) | (1.19) |
| Negotiated settlement | -1.01 | -1.38 | -3.02\* | -4.41\*\* |
|  | (0.99) | (1.34) | (1.76) | (1.71) |
| Identity war | -1.55\*\*\* | -1.99\*\*\* | -2.01\*\* | -2.39\*\* |
|  | (0.57) | (0.57) | (0.81) | (1.01) |
| Prewar X-Polity | -0.11 | -0.06 | 0.03 | 0.17 |
|  | (0.10) | (0.12) | (0.26) | (0.15) |
| X-Polity at end of war | -0.17\*\* | -0.31\*\* | -0.54\*\* | -1.02\*\*\* |
|  | (0.08) | (0.13) | (0.22) | (0.14) |
| Development | 0.36\*\* | 0.49\*\* | 0.61 | 1.10\*\*\* |
|  | (0.14) | (0.19) | (0.38) | (0.36) |
| Oil | -0.42 | -0.55 | -2.38\*\*\* | -3.87\*\*\* |
|  | (0.52) | (0.47) | (0.80) | (1.19) |
| Ethnic heterogeneity | 5.50\* | 2.91 | 12.16\* | 22.84\*\* |
|  | (2.87) | (3.93) | (6.05) | (8.95) |
| Ethnic het. (squared) | -4.70\* | -2.11 | -10.55\* | -21.45\*\* |
|  | (2.40) | (3.61) | (5.75) | (7.93) |
| War by 2 years out | 0.36 |  |  |  |
|  | (0.45) |  |  |  |
| War by 5 years out |  | 0.91 |  |  |
|  |  | (0.56) |  |  |
| War by 10 years out |  |  | -0.52 |  |
|  |  |  | (0.85) |  |
| War by 20 years out |  |  |  | 0.57 |
|  |  |  |  | (0.83) |
| Constant | 0.11 | 0.82 | 0.61 | 0.32 |
|  | (1.14) | (1.67) | (2.73) | (3.19) |
|  |  |  |  |  |
| Observations | 61 | 61 | 61 | 52 |
| R-squared | 0.404 | 0.480 | 0.434 | 0.722 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 9: Post-Cold War Analysis**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Without Peacekeeping | | With Peacekeeping | |
|  | 2 years | 5 years | 2 years | 5 years |
|  |  |  |  |  |
| Victory | 0.18 | -0.73 | 0.14 | -0.77 |
|  | (0.38) | (0.78) | (0.38) | (0.75) |
| Negotiated settlement | 0.49 | 1.32\*\* | 0.34 | 1.59\*\* |
|  | (0.55) | (0.64) | (0.55) | (0.65) |
| Identity war | 0.01 | -0.43 | -0.00 | -0.33 |
|  | (0.51) | (0.65) | (0.52) | (0.65) |
| Prewar X-Polity | -0.11\*\* | -0.12 | -0.08\* | -0.19\* |
|  | (0.05) | (0.08) | (0.05) | (0.09) |
| X-Polity at end of war | -0.08 | -0.26\*\* | -0.08 | -0.24\* |
|  | (0.06) | (0.11) | (0.06) | (0.12) |
| Development | 0.06 | 0.40\* | 0.03 | 0.45\* |
|  | (0.11) | (0.21) | (0.11) | (0.23) |
| Oil | -0.93\* | -0.52 | -0.88\* | -0.50 |
|  | (0.48) | (0.90) | (0.47) | (0.90) |
| Ethnic heterogeneity | 2.92 | 13.30\*\* | 3.47 | 12.31\*\* |
|  | (3.06) | (6.12) | (3.38) | (5.96) |
| Ethnic het. (squared) | -2.20 | -11.19\*\* | -2.65 | -10.35\* |
|  | (2.74) | (5.34) | (3.01) | (5.25) |
| War by 2 years out | -0.94\*\* |  | -1.01\* |  |
|  | (0.46) |  | (0.51) |  |
| War by 5 years out |  | -1.07 |  | -1.06 |
|  |  | (0.72) |  | (0.72) |
| Peacekeeping |  |  | 0.44 | -0.96 |
|  |  |  | (0.36) | (0.83) |
| Constant | 0.67 | -1.61 | 0.41 | -1.00 |
|  | (0.68) | (1.96) | (0.74) | (1.87) |
|  |  |  |  |  |
| Observations | 48 | 52 | 48 | 52 |
| R-squared | 0.246 | 0.423 | 0.261 | 0.450 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 10: Summary of Results**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| H# | Variable | Hypothesized  effect | Hypothesis supported? | Notes |
| 1a | Negotiated settlement | **+** | No | Becomes more important after Cold War |
| 1b | Victory | **+** | No |  |
| 1c | Rebel victory | **+** | No |  |
| 2a | Cost of war | **–** | No |  |
| 2b | Cost of war | **+** | No |  |
| 3a | Identity war | **–** | Yes | Less important after Cold War |
| 3b | Rebel aim = exit | **–** | No | Correct sign but not significant |
| 4a | Democratic tradition | **+** | Yes | Long term only |
| 4b | Prewar democracy | **–** | Yes |  |
| 5 | Economic development | **+** | Yes | Less important after Cold War |
| 6 | Oil | **–** | Yes |  |
| 7a | Ethnic heterogeneity | **–** | No |  |
| 7b | Ethnic heterogeneity | U-shape | No | Inverted-U shape |
| 8a | Military size/capita | **+** | No |  |
| 8b | Military size/capita | **–** | No | Correct sign but not significant |
| 9a | Former British colony | **+** | No |  |
| 9b | Former British colony | No effect | ? | No effect, but logic doesn’t hold |
| 10 | Peacekeeping | **+** | No |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Appendix 1: List of Cases** | | | | | | | |
|  |  |  | **Score at** | **Democratization Scores at** | | | |
| **Country** | **Conflict** | **War Years** | **War End** | **2 years** | **5 years** | **10 years** | **20 years** |
| Afghanistan | Mujahideen, PDPA | 1978-1992 | 3 | . | 0 | 0 | . |
| Afghanistan | Taliban v. Burhanuddin Rabbani | 1992-1996 | 3 | 0 | 0 | . | . |
| Algeria | Post-independence strife | 1962-1963 | 3 | 0 | -1 | -1 | -1 |
| Angola | UNITA | 1992-1994 | . | . | . | . | . |
| Angola | UNITA | 1975-1991 | 4 | . | 0 | 0 | . |
| Argentina | Montoneros, ERP, Dirty War | 1975-1977 | 2 | 0 | 0 | 11 | 9 |
| Argentina | Peron v. military | 1955-1955 | 2 | 6 | 6 | 6 | 9 |
| Azerbaijan | Nagorno-Karabakh | 1991-1994 | 4 | -1 | -1 | -1 | . |
| Bangladesh | Chittagong Hills/Shanti Bahini | 1974-1997 | 11 | 0 | 0 | -8 | . |
| Bolivia | MNR rebellion in La Paz | 1952-1952 | 2 | . | 2 | 2 | 1 |
| Bosnia | Rep. Srpska/Croats | 1992-1995 | . | . | . | . | . |
| Burundi | Hutu uprising | 1972-1972 | 3 | 0 | 0 | 0 | 0 |
| Burundi | Org. massacres on both sides | 1988-1988 | 3 | 0 | 0 | 0 | . |
| Burundi | Hutu uprising | 1965-1969 | 3 | 0 | 0 | 0 | 0 |
| Cambodia | FUNK; Khmer | 1970-1975 | 3 | 0 | 0 | . | 4 |
| Cambodia | Khmer Rouge, FUNCINPEC, etc | 1975-1991 | . | . | . | . | . |
| Central African Republic | Factional fighting | 1996-1997 | 10 | 0 | 0 | -5 | . |
| Chad | FARF; FROLINAT | 1980-1994 | 4 | 0 | 0 | 0 | . |
| Chad | FARF; FROLINAT | 1994-1997 | 4 | 0 | 0 | 0 | . |
| Chad | FROLINAT, various ... | 1965-1979 | . | . | . | . | . |
| China | Red Guards | 1967-1968 | 2 | 1 | 1 | 2 | 2 |
| China | Re-annexation of Tibet | 1950-1951 | 3 | 0 | 0 | 0 | 0 |
| China | China (KMT) vs. Taiwanese | 1947-1947 | 2 | 1 | 1 | 1 | 0 |
| China | PLA | 1946-1949 | 3 | 0 | 0 | 0 | 0 |
| China | Tibetan uprising | 1956-1959 | 3 | 0 | 0 | 0 | 1 |
| Colombia | La Violencia | 1948-1966 | 11 | 0 | 0 | 1 | 1 |
|  |  |  | **Score at** | **Democratization Scores at** | | | |
| **Country** | **Conflict** | **War Years** | **War End** | **2 years** | **5 years** | **10 years** | **20 years** |
| Congo-Brazzaville | Cobras v. Ninjas | 1998-1999 | 3 | 0 | 1 | . | . |
| Congo-Zaire | FLNC; Shabba 1 & 2 | 1977-1978 | 2 | 0 | 0 | 0 | . |
| Congo-Zaire | Kisangani mutiny | 1967-1967 | 2 | 0 | 0 | 0 | 0 |
| Congo-Zaire | AFDL (Kabila) | 1996-1997 | . | . | . | . | . |
| Congo-Zaire | Katanga, Kasai, Kwilu, Eastern | 1960-1965 | 2 | 0 | 0 | 0 | 0 |
| Costa Rica | NLA | 1948-1948 | 13 | 0 | 0 | 0 | 0 |
| Croatia | Krajina, Medak, Western Slavonia | 1992-1995 | 4 | 0 | 8 | 9 | . |
| Cuba | Castro revolution | 1958-1959 | 2 | 1 | 1 | 1 | 1 |
| Cyprus | GC-TC civil war | 1963-1967 | 12 | 0 | 0 | 1 | 1 |
| Cyprus | TCs; GCs; Turkish invasion | 1974-1974 | 13 | 0 | 0 | 0 | 0 |
| Djibouti | FRUD | 1991-1994 | 3 | 0 | 4 | 4 | . |
| Dominican Republic | Military coup | 1965-1965 | 4 | 0 | 0 | 0 | 7 |
| El Salvador | FMLN | 1979-1992 | 11 | 0 | 0 | 0 | . |
| Ethiopia | Ideological; Tigrean | 1978-1991 | 3 | . | 4 | 4 | . |
| Ethiopia | Ogaden; Somalis | 1976-1988 | 3 | 0 | . | 4 | 4 |
| Ethiopia | Eritrean war of independence | 1974-1991 | 3 | 1 | 1 | 0 | . |
| Georgia | South Ossetia | 1991-1992 | 10 | 0 | 0 | 0 | . |
| Georgia | Abkhazia (& Gamsakhurdia) | 1992-1994 | 10 | 0 | 0 | 1 | . |
| Greece | EDES/ELAS; EAM | 1944-1949 | 13 | 0 | 0 | 0 | -10 |
| Guatemala | Communists; Indigenous | 1978-1994 | 8 | 4 | 4 | 4 | . |
| Guatemala | Communists | 1966-1972 | 7 | -3 | -3 | -4 | 1 |
| Guinea-Bissau | Vieira v. Mane mutiny | 1998-1999 | 10 | 0 | -6 | . | . |
| Haiti | Cedras v. Aristide | 1991-1995 | 12 | 0 | -8 | -1 | . |
| India | Sikhs | 1984-1993 | 13 | 0 | 0 | 0 | . |
| India | Partition and ethnic rioting | 1946-1948 | . | . | . | . | . |
| Indonesia | Aceh | 1990-1991 | 3 | 0 | 0 | 8 | . |
| Indonesia | Darul Islam | 1953-1953 | 7 | 0 | -1 | -3 | -4 |
|  |  |  | **Score at** | **Democratization Scores at** | | | |
| **Country** | **Conflict** | **War Years** | **War End** | **2 years** | **5 years** | **10 years** | **20 years** |
| Indonesia | East Timor | 1975-1999 | 11 | 0 | 1 | . | . |
| Indonesia | OPM (West Papua) | 1976-1978 | 3 | 0 | 0 | 0 | 1 |
| Indonesia | Darul Islam, PRRI, Permesta | 1956-1960 | 4 | 0 | 0 | -1 | -1 |
| Iran | Khomeini | 1978-1979 | 0 | 4 | 4 | 4 | 9 |
| Iran | KDPI (Kurds) | 1979-1984 | 4 | 0 | 0 | 0 | -1 |
| Iraq | Kurds; Anfal | 1985-1996 | 2 | 0 | 0 | . | . |
| Iraq | KDP, PUK (Kurds) | 1974-1975 | 3 | 0 | -1 | -1 | -1 |
| Iraq | KDP, PUK (Kurds) | 1961-1970 | 3 | 0 | 0 | -1 | -1 |
| Iraq | Shiite uprising | 1991-1993 | 2 | 0 | 0 | 0 | . |
| Iraq | Shammar | 1959-1959 | 3 | 0 | 0 | 0 | -1 |
| Israel | Intifada; Palestinian conflict | 1987-1997 | 13 | 0 | 0 | 0 | . |
| Jordan | Fedeyeen/Syria v. govt | 1970-1971 | 1 | 0 | -1 | -1 | 1 |
| Kenya | Shifta war (Somalis) | 1963-1967 | 9 | -5 | -5 | -5 | -5 |
| Kenya | Rift valley ethnic violence | 1991-1993 | 4 | 0 | 0 | 8 | . |
| Korea | Yosu Rebellion | 1948-1949 | 4 | 0 | -1 | -1 | 4 |
| Laos | Pathet Lao | 1960-1973 | . | . | . | . | . |
| Lebanon | Aoun; militias; PLO; Israel | 1975-1991 | . | . | . | . | . |
| Lebanon | Nasserites v. Chamoun | 1958-1958 | 8 | 0 | 0 | 0 | . |
| Liberia | NPLF; ULIMO; NPF; LPC; LDF | 1992-1997 | 6 | 0 | 0 | 5 | . |
| Liberia | Doe v. rebels | 1989-1990 | 3 | . | . | 3 | . |
| Mali | Tuaregs; Maurs | 1990-1995 | 11 | 0 | 0 | 0 | . |
| Moldova | Transdniestria | 1991-1992 | 10 | 2 | 2 | 3 | . |
| Morocco/Western Sahara | Polisario | 1975-1991 | 1 | 1 | 1 | 1 | . |
| Myanmar/Burma | Various ethnic groups; Karen rebellion 2 | 1960-1995 | 4 | 0 | 0 | -1 | . |
| Myanmar/Burma | Communist insurgency | 1948-1988 | 4 | 0 | 0 | 0 | -1 |
| Myanmar/Burma | Karen rebellion 1 | 1948-1951 | 13 | 0 | 0 | 0 | -10 |
| Namibia | SWAPO; SWANU; SWATF | 1973-1989 | 10 | 0 | 0 | 0 | . |
|  |  |  | **Score at** | **Democratization Scores at** | | | |
| **Country** | **Conflict** | **War Years** | **War End** | **2 years** | **5 years** | **10 years** | **20 years** |
| Nicaragua | Contras & Miskitos | 1981-1990 | 11 | 0 | 2 | 2 | . |
| Nigeria | Muslims; Maitatsine rebellion | 1980-1985 | 3 | 0 | 0 | 0 | 7 |
| Oman | Dhofar rebellion | 1971-1975 | 0 | 0 | 0 | 0 | 1 |
| Pakistan | Baluchistan | 1973-1977 | 3 | 0 | 0 | 2 | 9 |
| Pakistan | MQM:Sindhis v. Mohajirs | 1994-1999 | 3 | 0 | 1 | . | . |
| Pakistan | Bangladesh secession | 1971-1971 | 13 | 0 | -10 | -9 | -2 |
| Papua New Guinea | BRA (Bougainville) | 1988-1998 | 13 | 0 | 0 | 0 | . |
| Paraguay | Febreristas, Libs, Comms | 1947-1947 | 2 | 0 | 0 | 0 | 0 |
| Peru | Sendero Luminoso, Tupac Amaru | 1980-1996 | 7 | 0 | 6 | 6 | . |
| Philippines | Huks | 1950-1952 | 11 | 0 | 0 | 0 | -9 |
| Philippines | NPA | 1972-1992 | 12 | 0 | 0 | 0 | . |
| Russia | Chechnya 1 | 1994-1996 | 8 | 0 | 3 | 3 | . |
| Rwanda | Tutsi uprising | 1963-1964 | 2 | 0 | 0 | 1 | 1 |
| Rwanda | Hutu vs. Tutsi groups | 1990-1993 | 3 | 1 | 1 | 2 | . |
| Rwanda | RPF; genocide | 1994-1994 | 4 | 0 | 0 | 1 | . |
| Sierra Leone | RUF, AFRC, etc. | 1991-1996 | 10 | . | 0 | 0 | . |
| Somalia | SSDF, SNM (Isaaqs) | 1988-1991 | 3 | . | . | . | . |
| South Africa | ANC, PAC, Azapo | 1976-1994 | 13 | 0 | 0 | 0 | . |
| Sri Lanka | JVP | 1971-1971 | 13 | 0 | 0 | -2 | -2 |
| Sri Lanka | JVP II | 1987-1989 | 11 | 0 | 0 | 0 | . |
| Sudan | Anya Nya | 1963-1972 | 4 | 0 | 0 | 0 | -1 |
| Syria | Muslim Brotherhood | 1979-1982 | 2 | 0 | 0 | 0 | 2 |
| Tajikistan | Popular Democratic Army; UTO | 1992-1997 | 4 | 2 | 2 | 0 | . |
| Thailand | Communists (CPT) | 1966-1982 | 7 | 0 | 0 | 6 | 6 |
| USSR | Latvia/LTSPA, etc. | 1944-1947 | 2 | 0 | 0 | 2 | 2 |
| USSR | Estonia/Forest Brothers | 1944-1948 | 2 | 0 | 2 | 2 | 2 |
| USSR | Lithuania/BDPS | 1944-1948 | 2 | 0 | 2 | 2 | 2 |
|  |  |  | **Score at** | **Democratization Scores at** | | | |
| **Country** | **Conflict** | **War Years** | **War End** | **2 years** | **5 years** | **10 years** | **20 years** |
| USSR | Ukraine/UPA | 1944-1950 | 2 | 0 | 2 | 2 | 2 |
| Uganda | NRA/Museveni, etc | 1981-1987 | 3 | 0 | 0 | 2 | 2 |
| Uganda | Baganda rebellion | 1966-1966 | 13 | -9 | -10 | -10 | -10 |
| Uganda | Tanzanian war | 1978-1979 | 3 | 6 | 6 | 0 | 2 |
| United Kingdom | Northern Ireland | 1971-1998 | 13 | 0 | 0 | 0 | . |
| Yemen | South Yemen | 1994-1994 | 4 | 0 | 0 | 0 | . |
| Yemen AR | Yahaya rebellion | 1948-1948 | 0 | 0 | 0 | 0 | 5 |
| Yemen AR | Royalists | 1962-1970 | 5 | 0 | 0 | -1 | -1 |
| Yemen PR | Faction of Socialist Party | 1986-1986 | 4 | 0 | 0 | 0 | 0 |
| Yugoslavia | Kosovo | 1998-1999 | 4 | 7 | 7 | . | . |
| Yugoslavia | Croatia/Krajina | 1991-1991 | 4 | 0 | 0 | 8 | . |
| Zimbabwe | ZANU, ZAPU | 1972-1979 | 13 | -3 | -4 | -9 | -9 |
| Zimbabwe | Ndebele guerillas | 1983-1987 | 4 | 0 | 0 | 0 | -1 |

The democratization scores in the last four columns show moves toward democracy (positive numbers), away from democracy (negative numbers) or no change (zeros) since the end of the war.

**Appendix 2:** **Descriptive Statistics**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variable** | **Mean** | **SD** | **Min** | **Max** |
| Prewar X-Polity  X-Polity at end of war  X-Polity level (2 yrs. out) | 5.20  5.56  5.92 | 3.71  4.00  3.94 | 0  0  0 | 13  13  13 |
| X-Polity level (5) | 5.93 | 3.92 | 0 | 13 |
| X-Polity level (10) | 6.41 | 4.16 | 0 | 13 |
| X-Polity level (20) | 5.39 | 3.75 | 1 | 13 |
| X-Polity change (2) | 0.23 | 1.72 | -9 | 7 |
| X-Polity change (5) | 0.3 | 2.5 | -10 | 8 |
| X-Polity change (10) | 0.76 | 3.4 | -10 | 11 |
| X-Polity change (20) | 0.56 | 4.42 | -10 | 11 |
| Victory | 0.59 | 0.49 | 0 | 1 |
| Victory – Government | 0.34 | 0.47 | 0 | 1 |
| Victory – Rebels | 0.25 | 0.43 | 0 | 1 |
| Negotiated settlement | 0.21 | 0.41 | 0 | 1 |
| Truce/ceasefire | 0.16 | 0.36 | 0 | 1 |
| Identity war | 0.64 | 0.48 | 0 | 1 |
| Rebel aim = exit | 0.34 | 0.48 | 0 | 1 |
| Deaths/displacement (ln) | 11.52 | 2.38 | 6.91 | 15.67 |
| Duration | 71.8 | 85.3 | 1 | 478 |
| Intensity | 1.01 | 1.96 | 0.02 | 13.59 |
| X-Polity at end of war | 5.56 | 3.99 | 0 | 13 |
| Prewar X-Polity | 5.2 | 3.72 | 0 | 13 |
| Democratic tradition | 8.7 | 20.71 | 0 | 133 |
| Development (ln) | 5.15 | 1.60 | 2.30 | 8.59 |
| Oil | 0.2 | 0.4 | 0 | 1 |
| Ethnic heterogeneity | 0.54 | 0.27 | 0 | 1 |
| Peacekeeping | 0.38 | 0.49 | 0 | 1 |
| Military size per cap. (ln) | -5.55 | 1.09 | -8.15 | -3.14 |
| Former British colony | 0.32 | 0.47 | 0 | 1 |
| Forties | 0.09 | 0.28 | 0 | 1 |
| Fifties | 0.09 | 0.29 | 0 | 1 |
| Sixties | 0.09 | 0.29 | 0 | 1 |
| Seventies | 0.19 | 0.39 | 0 | 1 |
| Eighties | 0.08 | 0.27 | 0 | 1 |
| Post-Cold War | 0.46 | 0.5 | 0 | 1 |
| War by 2 years out | 0.2 | 0.4 | 0 | 1 |
| War by 5 years out | 0.3 | 0.46 | 0 | 1 |
| War by 10 years out | 0.38 | 0.49 | 0 | 1 |
| War by 20 years out | 0.56 | 0.5 | 0 | 1 |

**Appendix 3: Bivariate Correlations (using X-Polity change at 5 years out)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | X-Polity change | Victory | Settlement | Truce | Identity war | Exit aims | Deaths/ displaced | Duration | Intensity | X-Polity war end | Prewar X-Polity | Dem.  tradition |
| X-Polity change | 1 |  |  |  |  |  |  |  |  |  |  |  |
| Victory | -0.1535 | 1 |  |  |  |  |  |  |  |  |  |  |
| Settlement | 0.1344 | -0.6151 | 1 |  |  |  |  |  |  |  |  |  |
| Truce | 0.0154 | -0.5119 | -0.2225 | 1 |  |  |  |  |  |  |  |  |
| Identity war | -0.1444 | -0.0611 | -0.0082 | 0.0574 | 1 |  |  |  |  |  |  |  |
| Exit aims | -0.0738 | -0.1597 | -0.0113 | 0.0963 | 0.4849 | 1 |  |  |  |  |  |  |
| Deaths/displaced | 0.0388 | -0.2788 | 0.216 | 0.1468 | 0.0479 | 0.085 | 1 |  |  |  |  |  |
| Duration | 0.0877 | -0.341 | 0.3046 | 0.1476 | -0.0024 | 0.0635 | 0.2445 | 1 |  |  |  |  |
| Intensity | -0.061 | 0.2414 | -0.1904 | -0.0891 | -0.1106 | -0.1304 | -0.1058 | -0.3721 | 1 |  |  |  |
| X-Polity war end | -0.3479 | -0.2826 | 0.3283 | 0.1172 | -0.0435 | 0.1959 | 0.0235 | 0.2218 | -0.0686 | 1 |  |  |
| Prewar X-Polity | -0.2808 | -0.2262 | 0.2208 | 0.1645 | 0.0687 | 0.1625 | -0.0912 | 0.2138 | -0.0433 | 0.6718 | 1 |  |
| Dem. tradition | 0.0147 | -0.037 | 0.1394 | -0.0562 | -0.0137 | 0.0936 | -0.1088 | 0.3188 | -0.0815 | 0.3464 | 0.3617 | 1 |
| Development | 0.2258 | -0.2409 | 0.1711 | 0.0263 | 0.1212 | 0.3355 | -0.0201 | -0.0286 | -0.1064 | 0.1559 | 0.1887 | 0.1067 |
| Oil | -0.0124 | 0.109 | -0.2134 | 0.1036 | 0.0591 | 0.0843 | -0.1525 | -0.126 | 0.011 | -0.2322 | -0.1503 | -0.1648 |
| Ethnic het. | 0.0272 | -0.132 | 0.0141 | 0.0717 | 0.3061 | 0.1334 | -0.0063 | 0.0564 | -0.2227 | -0.0274 | 0.0579 | 0.0614 |
| Peacekeeping | 0.07 | -0.3317 | 0.3511 | 0.1111 | 0.0144 | -0.051 | 0.2729 | 0.1115 | -0.1134 | 0.2399 | 0.0801 | -0.0011 |
| Military size | 0.1413 | -0.0214 | 0.0095 | 0.036 | -0.0732 | -0.0273 | 0.0449 | 0.0198 | -0.0106 | -0.2036 | -0.0643 | 0.0199 |
| British colony | -0.245 | -0.0008 | -0.0266 | 0.1196 | 0.1383 | 0.1377 | -0.0462 | 0.0241 | 0.0443 | 0.1587 | 0.2873 | -0.0037 |
| Forties | 0.0124 | 0.0314 | -0.1585 | -0.0552 | -0.2114 | 0.0128 | -0.0953 | -0.1897 | 0.1789 | -0.0955 | -0.1014 | 0.0802 |
| Fifties | 0.0725 | 0.1615 | -0.1006 | -0.1384 | -0.0595 | 0.0494 | -0.1868 | -0.21 | 0.1359 | -0.0259 | -0.075 | -0.1252 |
| Sixties | -0.2102 | 0.1071 | -0.0349 | -0.0646 | 0.0201 | -0.0635 | -0.1675 | -0.1066 | 0.0114 | 0.0021 | 0.0835 | -0.0966 |
| Seventies | -0.1104 | 0.1194 | -0.0521 | -0.1516 | -0.0123 | -0.0105 | 0.0168 | -0.097 | -0.0293 | -0.1045 | -0.0609 | -0.1336 |
| Eighties | -0.0347 | 0.1856 | -0.1505 | -0.0451 | 0.1003 | -0.0881 | -0.1142 | 0.1368 | 0.2382 | -0.1411 | -0.0988 | 0.0297 |
| Post-Cold War | 0.1825 | -0.3682 | 0.2902 | 0.2927 | 0.081 | 0.0567 | 0.3013 | 0.2941 | -0.2788 | 0.2271 | 0.1535 | 0.1732 |
| War by 5 years | 0.0391 | -0.0293 | -0.0926 | 0.1359 | 0.0778 | -0.1217 | 0.167 | -0.057 | -0.0394 | -0.1241 | -0.1501 | -0.0791 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Develop. | Oil | Ethnic het. | Peace-keeping | Military size | British colony | Forties | Fifties | Sixties | Seventies | Eighties | Post-  C. War | War by 5 years |
| Development | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| Oil | 0.0653 | 1 |  |  |  |  |  |  |  |  |  |  |  |
| Ethnic het. | -0.1003 | 0.0619 | 1 |  |  |  |  |  |  |  |  |  |  |
| Peacekeeping | 0.1532 | -0.1103 | -0.028 | 1 |  |  |  |  |  |  |  |  |  |
| Military size | 0.3218 | 0.2735 | -0.2629 | 0.2075 | 1 |  |  |  |  |  |  |  |  |
| British colony | -0.0652 | 0.0696 | 0.0627 | -0.1513 | -0.025 | 1 |  |  |  |  |  |  |  |
| Forties | 0.1725 | -0.1548 | -0.2302 | -0.1224 | 0.1232 | -0.091 | 1 |  |  |  |  |  |  |
| Fifties | 0.0311 | 0.0375 | -0.0734 | -0.1938 | 0.0437 | -0.1059 | -0.0986 | 1 |  |  |  |  |  |
| Sixties | -0.1237 | -0.0291 | 0.0298 | -0.083 | -0.3146 | -0.0485 | -0.0986 | -0.1034 | 1 |  |  |  |  |
| Seventies | -0.1706 | 0.0062 | -0.0524 | -0.124 | 0.1068 | 0.2279 | -0.1473 | -0.1545 | -0.1545 | 1 |  |  |  |
| Eighties | -0.0911 | 0.1425 | 0.0056 | -0.1654 | 0.055 | 0.1121 | -0.0893 | -0.0936 | -0.0936 | -0.1398 | 1 |  |  |
| Post-Cold War | 0.1398 | 0.0006 | 0.193 | 0.4168 | -0.01 | -0.0974 | -0.2835 | -0.2974 | -0.2974 | -0.4442 | -0.2692 | 1 |  |
| War by 5 yrs. | -0.2316 | 0.1299 | 0.2415 | -0.057 | -0.0476 | -0.0179 | -0.1424 | 0.0782 | -0.0964 | 0.0299 | 0.0603 | 0.0348 | 1 |

**Appendix 3: Bivariate Correlations (continued)**

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1. We use this term to mean moves toward democracy, not necessarily to convey the crossing of a threshold to democracy. [↑](#footnote-ref-2)
2. Note that in our data, the numbers are somewhat lower because we use Polity scores corrected to remove the influence of political violence (see below). Nonetheless, 26% of wars in our data set are followed by at least a small shift toward democracy over the 5 years after the war, while only 11% of civil wars are followed by moves away from democracy. Over 10 years, 36% shift toward democracy, while 18% move away from democracy. [↑](#footnote-ref-3)
3. The issue of why some countries see such changes during the war is an interesting one, but it is not the one we are concerned with here. [↑](#footnote-ref-4)
4. Another reason for discrepant findings is that different data sets are being used. Huang (2008) and Gurses and Mason (2008) use the Doyle and Sambanis data (2006) (as we do here), while Fortna (2008) uses data based on the Doyle and Sambanis list but with many cases of short-lived cease-fires added. Toft (2010) uses her own data, which include a number of colonial wars of independence that are treated as “extra-systemic” in other data sets. This is likely to affect results on the effects of rebel victory (something which is true by definition in wars of independence). [↑](#footnote-ref-5)
5. Or in the case of Fortna (2008), Polity and Freedom House, which is arguably even more problematic. [↑](#footnote-ref-6)
6. For a quick explanation of the problem, told as a fairly tale, see <http://www9.georgetown.edu/faculty/jrv24/goldindex.html>. For other critiques of Polity as an index of political regimes, see for example, Munck and Verkuilen (2002); and Treier and Jackman (2008). [↑](#footnote-ref-7)
7. They argue that longer and costlier wars provide the protagonists with more information about each other’s capabilities, although why this should be so is not entirely clear. Very short wars tend to be very decisively won, providing clear information about capabilities. [↑](#footnote-ref-8)
8. This assumption is most explicit in Wantchekon and Jensen (2009). [↑](#footnote-ref-9)
9. Toft does not explore the reason for this relationship, but it may reflect a selection effect. It may be harder to launch an effective rebellion against more repressive states, so that only rebellions with a higher chance of victory are launched. Alternatively, rebels may calculate that the punishment for anything short of victory is higher in more repressive states, and may thus choose to fight on until eventual victory or defeat rather than risk a negotiated settlement. [↑](#footnote-ref-10)
10. An even better alternative to the Polity index is the Scalar Index of Polities (SIP) (Gates et al. 2006), which substitutes Vanhanen’s (2000) measure of political participation for Polity’s participation components. Unfortunately, SIP only covers up to the year 2000, which, if used here, would eliminate a large number of data points in the dependent variable. [↑](#footnote-ref-11)
11. We cannot generate interpolated scores for periods of foreign occupation, interregnum, and transition (-66, -77, and -88 in Polity) in X-Polity because the Polity index only provides interpolation for the overall index, not for its individual components. We therefore deal with missing observations in the following manner. For X-Polity scores at 0 or 2 years out, use the previous year’s score, and if the previous year is missing, use the following year; if both are missing, code as missing. For X-Polity scores at 5, 10, and 20 years out, use the closest available year within two years. Otherwise, code as missing. [↑](#footnote-ref-12)
12. Thanks to Nancy Bermeo for pointing out these distinctions. [↑](#footnote-ref-13)
13. For the purposes of this table, we define democracy as a state with an X-Polity score of 11 or higher (equivalent to 16.9 on the “uncorrected” Polity scale ranging from 0 to 20). [↑](#footnote-ref-14)
14. Note that our dependent variable can also take on negative values as some states move toward autocracy after civil war. While we discuss effects on democratization, positive effects in our analyses may reflect less movement toward autocracy rather than more movement toward democracy. [↑](#footnote-ref-15)
15. An X-Polity score of 9 is equivalent to 13.8 on the Polity scale. A 10 on X-Polity is equivalent to 15.4 on Polity. While these are relatively low bars for democracy, setting them higher curtails variation because relatively few countries that experience civil war have ever met the criteria for full-blown democracy. [↑](#footnote-ref-16)
16. This applies to: Azerbaijan (USSR), Bangladesh (Pakistan), Bosnia (Yugoslavia), Croatia (Yugoslavia), Eritrea (Ethiopia), East Timor (Indonesia), Georgia (USSR), Moldova (USSR), Namibia (South Africa), and Tajikistan (USSR). [↑](#footnote-ref-17)
17. There were 33 such cases. Coding notes available from the authors upon request. Cases coded by Fearon as mixed or ambiguous (of which there are 10) are included in the comparison category, but as a robustness check we also try including them in the “exit” dummy. [↑](#footnote-ref-18)
18. For analysis of the effects of these various types of missions, see Huang (2008) and Fortna (2008). [↑](#footnote-ref-19)
19. Further complicating matters, there is reason to believe that states that begin to democratize are more likely to experience civil war (Mansfield and Snyder 2008), and this may be especially true for states emerging from civil conflict. [↑](#footnote-ref-20)
20. We used UCDP/PRIO Armed Conflict Data (v.8) to identify war recurrence after 1999 (up to 20 years out). [↑](#footnote-ref-21)
21. However, an increasingly small number of cases makes analysis of long-term effects difficult when this method is used. [↑](#footnote-ref-22)
22. For analyses of democratization 20 years out, the eighties decade dummy is dropped, and becomes the comparison category, because war ended by 1987 for all cases in these models. [↑](#footnote-ref-23)
23. In one model specification, democratization over 5 years, settlements have a marginally significant effect (p. =.07). [↑](#footnote-ref-24)
24. Dropping cases of successful secession did not alter results (not shown). Since there are only five such cases and several of them (Namibia, East Timor, and Bangladesh) emerge from very democratic baselines, we cannot make much of the fact that these successful secessionist cases have generally lower levels of democratization than do other cases. [↑](#footnote-ref-25)
25. Results are substantively the same when we use the two alternative ways of accounting for missing data for newly independent states (see above). [↑](#footnote-ref-26)
26. The large coefficients of the fractionalization variables are a result of their scale, which ranges from 0 to 1. [↑](#footnote-ref-27)
27. Removing four outlier cases based on a leverage vs. residual plot and the DFbeta function in Stata did not alter the results. We also ran the base model using the alternative measure of ethnic fractionalization, the ELF index. The variable and its square maintain a statistically significant hill-shaped curve at 2 and 5 years out, and in other years are not significant. Our measure of ethnic heterogeneity is also correlated with the identity war variable (coefficient is 0.3). When the latter is replaced by the “exit” dummy, which is less correlated with heterogeneity (0.13), we continue to see the hill-curved relationship at 2 and 20 years out (see Table 5). [↑](#footnote-ref-28)
28. All results discussed but not shown are available at [add URL]. [↑](#footnote-ref-29)
29. Scholars continue to debate the effects of ethnic heterogeneity on a range of issues including political stability, civil war onset, economic development, and democracy. Scholars agree, however, that existing studies suffer from weak theories and data. For a review of this literature, see Alesina and La Ferrara (2005) and Fish and Brooks (2004). [↑](#footnote-ref-30)