ETHNICITY, INSURGENCY, AND CIVIL WAR[*]

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ABSTRACT

An influential conventional wisdom holds that civil wars proliferated rapidly with the end of the Cold War and that the root cause of many or most of these has been ethnic nationalism. We show that the current prevalence of internal war is mainly the result of a steady accumulation of protracted conflicts since the 50s and 60s rather than a sudden change associated with a new, post-Cold War international system. We also find that after controlling for per capita income, more ethnically or religiously diverse countries have been no more likely to experience significant civil violence in this period. We argue for understanding civil war in this period in terms of *insurgency* or rural guerrilla warfare, a particular form of military practice that can be harnessed to diverse political agendas, including but not limited to ethnic nationalism. The factors that explain which countries have been at risk for civil war are not their ethnic or religious characteristics but rather the conditions that favor insurgency. These include poverty, which marks financially and bureaucratically weak states and also favors rebel recruitment, political instability, rough terrain, and large populations.

Between 1945 and 1999, about 3.33 million battle deaths occurred in the 25 interstate wars that killed at least 1000 and had at least 100 dead on each side. These wars involved just 25 states that suffered casualties of at least 1000, and had a median duration of not quite 3 months. By contrast, in the same period there were roughly 122 civil wars that killed at least 1000. A conservative estimate of the total dead as a direct result of these conflicts is 16.2 million, five times the interstate toll. These civil wars occurred in 73 states – more than a third of the United Nations system – and had a median duration of roughly six years.[1] It is not implausible that the civil conflicts in this period produced refugee flows an order of magnitude greater than their death toll and an order of magnitude greater than the refugee flows associated with interstate wars since 1945. Cases such as Afghanistan, Somalia, and Lebanon testify to the economic devastation that civil wars can produce. By these crude measures, civil war has been a far greater scourge than interstate war in this period, though it has been studied far less.

Twenty-four civil wars were ongoing in 1999. What explains the current prevalence of violent civil conflict around the world? Is it due to the end of the Cold War and associated changes in the international system, or is it the result of longer-term trends? Why have some countries had civil wars while others have not, and why did the wars break out when they did? We address these questions in this article, using data for the period 1945 to 1999 on the 161 countries that had a population of at least a half million in 1990.

Our data cast significant doubt on three influential conventional wisdoms concerning political conflict before and after the Cold War. First, contrary to common opinion, the prevalence of civil war in the 1990s was *not* due to the end of the Cold War and associated changes in the international system. The current level of about one-in-six countries had already been reached prior to the break up of the Soviet Union, and resulted from a steady,

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[1]The interstate war data derives from Singer and Small (1994), updated to include the Kargil and Eritrean wars. The bases for the civil war estimates are discussed below.

gradual accumulation of civil conflicts that began immediately after World War II.

Second, it appears *not* to be true that a greater degree of ethnic or religious diversity – or indeed any particular cultural demography – by itself makes a country more prone to civil war. This finding runs contrary to a common view among journalists, policy makers, and academics, that holds ethnically divided states to be especially conflict-prone due to ethnic tensions and antagonisms.

Third, we find little evidence in favor of the dominant view that one can predict where a civil war will break out by looking for where ethnic or other broad political grievances are strongest. Were this so, one would expect political democracies and states that observe civil liberties to be less civil war-prone than dictatorships. One would further anticipate that state discrimination against minority religions or languages would predict higher risks of civil war. We show that when comparing states at similar levels of per capita income, these expectations are not borne out.

The main factors determining both the secular trend and cross-sectional variation in civil violence in this period are not ethnic or religious differences or broadly held grievances, but rather conditions that favor *insurgency*. Insurgency is a technology of military conflict characterized by small, lightly armed bands practicing guerrilla warfare from rural base areas. As a form of warfare insurgency can be harnessed to diverse political agendas, motivations, and grievances. The concept is most closely associated with communist insurgency, but the methods have equally served Islamic fundamentalists, ethnic nationalists, or "rebels" who focus mainly on traffic in coca or diamonds.

We hypothesize that financially, organizationally, and politically weak central governments render insurgency more feasible and attractive due to weak local policing or inept and corrupt counterinsurgency practices. These often include a propensity for brutal and indiscriminate retaliation that helps drive noncombatant locals into rebel forces. Police and counterinsurgent weakness, we argue, is proxied by low per capita income. Shocks to coun-

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terinsurgent capabilities can arise from political instability at the center or the sudden loss of a foreign patron. On the rebel side, insurgency is favored by rough terrain, rebels with local knowledge of the population superior to the government's, and large population size. All three aid rebels in hiding from superior government forces. Foreign base camps, financial support, and training also favor insurgency.

Our data show that measures of cultural diversity and grievances fail to postdict civil war onset, while measures of conditions that favor insurgency do fairly well. We do not dispute that ethnic antagonism, nationalist sentiment, and group grievance often motivate rebels and their supporters. But such broad factors are too common to distinguish the cases where civil war breaks out. And since in the right conditions insurgency can be successfully practiced by small numbers of rebels, civil war may require only a small number with intense grievances to get going.

Using data on about 45 civil wars since 1960, Collier and Hoeffler (2000, 2001) find similarly that measures of "objective grievance" fare worse as predictors than economic variables, which they initially interpreted as measures of rebel "greed" (i.e., economic motivation).[2] More recently, they argue that rebellion is better explained by "opportunity" than by grievance (cf. Eisinger 1973, Tilly 1978), and that the main determinant of opportunity is the availability of finance and recruits for rebels. They proxy these with measures of primary commodity exports and rates of secondary school enrollment for males. By contrast, while we agree that financing is one determinant of the viability of insurgency, we argue that economic variables such as per capita income matter primarily because they proxy for state administrative, military, and police capabilities. We find no clear impact for primary commodity exports, and none for secondary schooling rates distinct from that of income.

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[2]There are 79 wars in their sample, but they lose about 34 due to missing values on explanatory variables, which are mainly economic. Standard economic data tends to be missing for countries that are poor and civil war-torn. This highly nonrandom list-wise deletion may account for some of the differences between our results, and similarly for some other studies.

Our theoretical interpretation is more Hobbesian than economic. Where states are relatively weak and capricious, both fears and opportunities encourage the rise of local would-be rulers who supply a rough justice while arrogating the power to "tax" for themselves and, often, a larger cause.

Civil war since 1945

Building on similar efforts by other civil war researchers,[3] we constructed a list of violent civil conflicts that we presently believe to meet the following primary criteria: (1) They involved fighting between agents of (or claimants to) a state and organized, non-state groups who sought either to take control of a government, take power in a region, or use violence to change government policies. (2) The conflict killed or has killed at least 1000 over its course, with a yearly average of at least 100. (3) At least 100 were killed on both sides (including civilians attacked by rebels). The last condition is intended to rule out massacres where there is no organized or effective opposition.[4]

These criteria are similar to those stated by the Correlates of War (COW) project, Doyle and Sambanis (2001), and several others. We developed our own list (working from these and other sources) mainly because we wanted data for the whole 1945-99 period and

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[3]In particular, the Correlates of War project (Singer and Small 1994), the Institute for International and Strategic Studies (IISS 2000), Licklider (1995), Sivard (1996), Doyle and Sambanis (2000), the State Failure Project (Esty et al. 1998), Gleditsch et al. (2001) and Valentino (2002).

[4]We used the following secondary criteria to deal with several other coding issues: (4) The start year is the first year in which 100 were killed or in which a violent event occurred that was followed by a sequence of actions that came to satisfy the primary criteria. (5) If a main party to the conflict is defeated or drops out, we code a new war start if the fighting continues (e.g., Somalia gets a new civil war after Siad Barre is defeated in 1991). (6) War ends are coded by observation of either a victory, wholesale demobilization, truce or peace agreement followed at least two years of peace. (7) Involvement by foreign troops does not disqualify a case as a civil war for us, provided the other criteria are satisfied. (8) We code multiple wars in a country when distinct rebel groups with distinct objectives are fighting a coherent central state on distinct fronts with little or no explicit coordination. (9) If a state seeks to incorporate and govern territory that was not a recognized state (e.g., Indonesia v. East Timor 1975, India v. Hyderabad 1947), we consider it a "civil war" only if the fighting continues after the state begins to govern the territory (thus, East Timor, yes, Hyderabad, no).

because of doubts about particular inclusions and exclusions in each list.[5]

In one respect our data differ significantly from most others: we see no reason in principle to exclude anticolonial wars, such as the French versus the FLN in Algeria. We count these as occuring within the colonial empire. Thus, the French state/empire looks highly civil war-prone by our list, with six colonial wars occuring in the 1950s. But to drop such cases would be like dropping the current conflict in Chechnya as a civil war in Russia if the Chechens succeed in gaining independence. Alternatively, it would make even less sense to include them as wars within "states" that did not exist (such as "Algeria" in 1954).

There are both practical and theoretical considerations pointing the other way, however. In practical terms, to include the anticolonial wars in the analysis requires that we form estimates of possible explanatory factors for whole empires, such as GDP per capita, ethnic fractionalization, and democracy scores. Further, these estimates must change almost by year, as the colonial empires gradually diminished in size over the post-1945 period. We are able to use country-level data to produce such estimates for ethnic fractionalization, but our estimates for per capita income are more problematic and the question of how to code the empires on a democracy index is vexed. Regarding theory, the colonial empires differed so radically from other independent states, and faced such an inhospitable international environment after the war (with pressure from the U.S. and the new United Nations system), that we need to be cautious about any empirical results that depend wholly on these cases. Thus we analyze the data both with and without the anticolonial wars.

Descriptive statistics. We identified 122 conflicts that meet the above criteria, of which

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[5]As Sambanis (2002) and others note, it is unclear whether the COW list requires 1000 dead total or 1000 dead per year. Ambiguity on this point may help account for why the COW list omits numerous conflicts that would seem to qualify at 1000 total. Nor is it clear what the COW criterion is for "effective resistance," the equivalent of our condition (3). Finally, the official COW list ends in 1992. Collier and Hoeffler (2001) base their list on COW, breaking a number of COW civil wars into multiple wars according to unspecified criteria, and including some colonial wars (coded in non-existent "states," such as Angola 1961) but not others.

13 were anticolonial wars.[6] This makes for 122 civil war starts in a sample of 6,610 country years, for a rate of 1.85 per hundred. The periods following major international systemic change had the highest onset rates. Civil wars broke out in the late 40s and the 1950s at 3.7 and 2.2 per hundred country-years, respectively, followed by the 1990s, at 2.1. In absolute terms, the largest number of civil wars began in the 90s (32), followed by the 60s and 70s (19 and 23).

Omitting the anticolonial wars, the two most civil war-prone regions in this period were Asia (34) and sub-Saharan Africa (33), followed by North Africa/Middle East (17), Latin America (14), Eastern Europe and former Soviet Union (9), and "the West" (2). The rate of onsets by region has a similar pattern. Indonesia is the most civil war-prone country in this sample with six onsets; next come India and China with four each (though we are not sure if one case in China, Xianjiang starting in 1991, meets the threshold requirements).

<u>Trends over time</u>. Figure 1 shows the number of countries with ongoing civil wars by year from 1945 to 1999. Since the number of independent states grew sharply in this period, it also shows the proportion of countries with at least one ongoing war in each year.

The graph indicates that, contrary to popular belief, the prevalence of civil wars in the 1990s is *not* due to effects of the end of the Cold War. The 1999 level of 24 ongoing wars had already been reached by the mid 80s. Conflicts associated with the Soviet collapse were partly responsible for a sharp increase in the early 90s, but a marked *decline* has followed.[7]

One might conjecture that more and more civil wars are breaking out over time, thus producing the secular increase. This is incorrect. The rate of outbreak is 2.2 per year since

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[6]A list of the conflicts is available at http://www ... . The same document includes a set of additional tables reporting logit results that are mentioned in the text below but not included in Table 1 for lack of space.

[7]Gurr (2000) notes the decline in ethnic war in the 1990s and argues that the trend reflects improved management strategies by states and international organizations. The basic pattern observed in Figure 1 is not an artifact of the way we have coded "civil war"; it is observed in a broad range of other data sets on violent domestic conflict for this period (e.g., Gantzell 1997; Gleditsch et al. 2001).

1945, highly variable but showing no significant trend up or down. The secular increase stems from the fact that civil wars have ended at a rate of only about 1.8 per year. The result has been a steady, almost linear accumulation of unresolved conflicts since 1945.

Put differently, states in the international system have been subject to a more-or-less constant risk of violent civil conflict over the period, but the conflicts they suffer have been difficult to end. The average duration of the civil wars in progress has increased steadily from 2 years in 1947 to about 15 years in 1999. From a policy perspective this suggests caution about seeing as a temporary "blip" the sorts of military and political problems Western foreign policy makers have faced recently in Kosovo, Macedonia, Bosnia, Somalia, Haiti, East Timor, Colombia, and elsewhere.

Ethnicity, discrimination and grievances

During the Cold War, political scientists and sociologists often sought to trace rebellion to economic inequality (Russett 1964; Muller 1985); to rapid economic growth said to destabilize traditional rural social systems (Huntington 1968; Paige 1975; Scott 1976); or to frustrations arising from the failure to gain expected benefits of economic modernization (Gurr 1971). A few scholars argued that the real source of rebellion was often ethnic nationalism (Connor 1994), and a rich literature on the sources nationalist mobilization developed in comparative politics (e.g., Anderson 1983, Deutsch 1953, Gellner 1983). With the collapse of the Soviet Union and Yugoslavia, such culturalist perspectives became a dominant frame for interpreting inter- and intranational conflict (e.g., Huntington 1996).

Using a broad brush, we can distinguish between perennialist and modernist (or constructivist) positions on the nature and sources of ethnic nationalism. Given in purest form by nationalist politicians and journalists reporting on nationalist conflicts in progress, perennialist arguments stress long-standing cultural practices said to define and distinguish ethnic groups. Differences between these practices are argued to have made conflict more likely. Academics rarely make such arguments as baldly as do nationalist leaders. But authors

who stress the long-standing, "deep" nature of ethnic differences and suggest that these make domestic peace difficult include Huntington (1996), Ignatieff (1993), Moynihan (1993), Rabushka and Shepsle (1972), and Smith (1986). Arguably, the main message of Horowitz's (1985) influential book on ethnic conflict is that ethnically plural societies face a host of pathologies that render them especially prone to conflict and, at the extreme, violence.

By contrast, modernist theories see the thorough-going politicization of cultural difference that ethnic nationalism represents as a development of the last 200 to 500 years. The core argument is that economic modernization and the development of the modern state make upward social mobility possible, but contingent on sharing the culture of the group that dominates state or society. When state or society pose ascriptive barriers to upward mobility for minority groups, they may develop separatist nationalist movements. All the more so, according to Deutsch (1953), Gellner (1983), and Anderson (1983), the greater the preexisting cultural differences between the minority group and the dominant group. (When preexisting differences are slight, assimilation is more likely.)

The two approaches thus imply the same hypothesis about the relationship between cultural diversity and civil conflict.

H_1: Measures of a country's ethnic or religious diversity should be associated with a higher risk of civil war.

Seeking to explain anti-colonial nationalist movements in countries barely affected by economic modernization, Gellner (1983, 108n1) argued that even "the advance shadow" of economic modernization was sufficient to start nationalist dynamics in motion. For Anderson, nationalism quickly became a "modular form" that could be easily "pirated," even in conditions quite different from its origination. Nonetheless, if one took the modernization approach literally one might infer that more modernization should imply more discrimination and thus more nationalist contention in culturally divided countries.

H_2: The effect of ethnic diversity on the probability of civil war should increase at higher

levels of per capita income (a proxy for economic modernization).

Horowitz (1985) and several others argue that the relationship between ethnic diversity and severe ethnic conflict should be nonmonotonic, with less violence for highly homogenous and highly heterogeneous countries. The politics of a highly heterogeneous country might be strategically similar to those of a highly homogenous one, since small ethnic groups must join coalitions to have political influence, and there are a great many possibilities for cross-cutting and shifts in coalition membership. Horowitz suggests that the most severe ethnic conflicts will arise in countries where a substantial ethnic minority faces an ethnic majority that can, given ethnic voting, win for sure in any national election. Such arguments yield H_3: Countries with an ethnic majority and a significant ethnic minority are at greater risk for civil war.

We consider several measures for these concepts. For H_1 we use (1) the commonly employed ethnolinguistic fractionalization (ELF) index based on data from a Soviet ethnographic index (Sov 1964), which gives the probability that two randomly drawn individuals in a country are from different ethnolinguistic groups;[8] (2) a measure of the share of population belonging to the largest ethnic group that we constructed from the CIA Factbook and other sources; (3) the number of distinct languages spoken by groups exceeding 1% of country population, based on Grimes and Grimes (1996); and (4) a measure of religious fractionalization (analogous to ELF) that we constructed using data from the CIA Factbook and other sources. For H_2 we interact these measures with per capita income. For H_3, we use a dummy variable marking the 73 countries whose largest and second largest ethnic groups exceed 49% and 8% of the population, respectively.[9]

The *mechanism* that gives rise to nationalist contention in modernist arguments is state

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[8]With this and several other variables we filled in values for missing countries or country years whenever possible based on our own research; often the sources were the CIA Factbook, Encyclopedia Brittanica, and the Library of Congress Country Studies, though we used country-specific sources when necessary.

[9]Alternative thresholds for the second largest group, such as 10%, make no difference to the results.

or societal discrimination along the lines of cultural difference, which is thought to create the grievances that motivate rebellions. Grievances are difficult to measure independently of our knowledge of the actions we are trying to explain (rebellions, civil war), but measures of average levels of discrimination are feasible. Other things equal, political democracy should be associated with less discrimination and repression along cultural or other lines, since democracy endows citizens with a political power (the vote) they do not have in dictatorships. Even more directly, measures of state observance of civil rights such as freedom of association, expression, due process, and so on, should be associated with less repression and thus lower grievances. State policies that discriminate in favor of a particular group's language or religion should be associated with greater minority grievances. Finally, it is often argued that greater economic inequality creates broad grievances that favor civil conflict (e.g. Muller 1985). Thus,

H_4: Measures of political democracy and civil liberties should be associated with lower risks of civil war onset.

H_5: Policies that discriminate in favor of a particular language or religion should raise the risk of civil war onset in states with religious or linguistic minorities.

H_6: Greater income inequality should be associated with higher risks of civil war onset.

We consider both the Polity IV and the Przeworski et al. (2001) democracy measures, along with the Freedom House indicator of the observance of civil liberties, which seems particularly apt.[10] For income inequality we interpolated and extended as necessary the Gini coefficients assembled by Deininger and Squire (1996); using the country-average of Gini

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[10]Freedom House codes countries annually from 1972 on a 7-point scale based on a "checklist" that awards points for government observance of a long list of civil liberties and rule of law, including freedom of the press, religion, and association, independent judiciary, equal treatment under the law, civilian control of police, "protection from political terror," secure property rights, and equality of opportunity. "Freedom from war and insurgency" is one element of their checklist, so we are careful to lag this independent variable. For Polity IV, we use the difference between the 11-point democracy and autocracy scales. Following the Polity coders' suggestions, we interpolate values for "transition period" years (-88), treat foreign occupation years (-66) as missing, and "interruptions" (-77) as zeros. See http://www.bsos.umd.edu/cidcm/polity/.

values produced the same results. For policies on religion, we coded, by decade, indicators for whether the state had an official religion, gave resources to one religion not available to others, regulated missionary activities, required religious groups to get official approval for religious activities, or singled out for or permitted harassment of a particular religious group. For policies on language, we coded by year whether a language spoken by at least 5% of the population received no official recognition at any level of government.[11]

One might argue, contrary to H_1 above, that we should expect an association between measures of ethnic diversity and the occurence of *ethnic* strife, but not between ethnic diversity and civil war more broadly. In the limit this argument borders on tautology, since it would not be surprising to find that ethnic wars are rare in countries whose citizens think of themselves as ethnically homogenous. However, one might ask if "ethnic wars" become more likely as ethnic diversity increases *among* those countries that have at least one non-trivial ethnic minority.

H_7: Among countries with an ethnic minority comprising at least five percent of the population, greater ethnic diversity should associate with a higher risk of *ethnic* civil war.

The measurement problem here is to say what an "ethnic" civil war is, and we suspect that under any plausible statement of the concept there will be numerous cases that are mixed or ambiguous. We coded as "ethnic" conflicts where the fighters were mobilized primarily along ethnic lines, marking off 74 (61%) as ethnic, 13 (11%) as mixed or ambiguous, and 35 (27%) as not ethnic.

Insurgency

If many post-1945 civil wars have been "ethnic" or "nationalist" as these terms are usually understood, then even more have been fought as *insurgencies*. Insurgency is a technology of military conflict characterized by small, lightly armed bands practicing guerrilla warfare from

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[11] "Official recognition" implies use by some public, officially sanctioned entity. For language we relied mainly on Asher (1994) and Gunnemark (1992), and for religion, the U.S. State Department's 1999 *Annual Report on Religious Freedom.*

rural base areas. To explain why some countries have experienced civil wars in this period one needs to understand the conditions that favor insurgency, which are largely independent of cultural differences between groups and even group grievances. These conditions are best summarized by way of a brief statement of the logic of insurgency.[12]

The fundamental fact about insurgency is that insurgents are weak relative to the governments they are fighting, at least at the start of operations. If government forces knew who the rebels were and how to find them, they would be fairly easily destroyed or captured. This is true even in states whose military and police capacities are low. The total number of active rebels in many wars in which thousands of civilians have been killed (through the actions of both governments and rebels) is often in the hundreds or low thousands. Even in relatively "big" cases such as Kashmir or Algeria the number of active fighters rarely exceeds 10,000.

The numerical weakness of the insurgents implies that to survive the rebels must be able to hide from government forces. Several hypotheses follow.

H_8: The presence of (a) rough terrain, poorly served by roads, at a distance from the centers of state power should favor insurgency and civil war. So should the availability of (b) foreign, cross-border sanctuaries, and (c) a local population that can be induced not to denounce the insurgents to government agents.

Much scholarly writing holds that ethnic or class solidarity and grievances are necessary for (c), the local population's support of active rebels. In line with some analysts of communist insurgencies (e.g. Leites and Wolf 1970, Thompson 1966, Clutterbuck 1967), we argue that while grievances and ethnic solidarity can be helpful in this regard, they are not necessary. Instead, the key to inducing the local population not to denounce the active rebels is *local knowledge*, or information about who is doing what at the village level. Local knowl-

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[12]Though our formulations often differ, we have been influenced here by Stathis Kalyvas' work on the Greek civil war. The literature on guerrilla warfare is extensive; see, for examples, Griffith (1961), Desai and Eckstein (1990), Laqueur (1976).

edge allows the active rebels to credibly threaten retribution for denunciation.[13] Evidence indicates that ethnic insurgents use this informational advantage to great effect, often threatening and inflicting unimaginably harsh sanctions on "their own" people (Kalyvas 1999). One cannot infer from the presence of an ethnic insurgency that the members of the ethnic group are of one mind in their determination to fight the state till they realize a nationalist dream. The immediate concern is how to survive in between government forces using violence to gain information or punish alleged rebel supporters, and rebel forces using violence to punish alleged informants, "moderates," or government sympathizers.

An empirical implication of the importance of local knowledge is hypothesis H_{8d}: having a *rural base* should greatly favor insurgency. In the city, anonymous denunciation is easier to get away with, giving the government an advantage in its counterinsurgent efforts.

Given the basic constraints posed by numerical weakness – the need to hide and not be denounced – various factors determine insurgents' ability to wage war. To survive, rebels need arms and materiel, money to buy them, or smugglable goods to trade for them. They need a supply of recruits to the insurgent way of life, and they may also need information and instruction in the practical details of running an insurgency.[14]

But the most important determinants of the prospects of an insurgency are most likely *the police and military capabilities of the government, and the reach of government institutions into rural areas.* Simply put, insurgents are better able to survive and prosper if the government and military they oppose is relatively weak – badly financed, organizationally inept, corrupt, politically divided, and poorly informed about goings on at the local level.

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[13]A 'second order' mechanism by which ethnicity may favor insurgency is that ethnic minorities are sometimes marked by dense social networks that are isolated from dominant group networks, thus giving an informational advantage to local rebels (Fearon and Laitin 1996). But such an advantage does not require ethnic difference.

[14]In the case literature on civil war one frequently finds that rebels leaders have either spent time at guerrilla training camps in Libya, Afghanistan, Lebanon, Mozambique (in the 1970s), or that they gained guerrilla experience in one insurgency that they apply in pursuing another.

Effective counterinsurgency requires government forces to distinguish and separate active rebels from noncombatants without destroying the lives and living conditions of the latter. This is an extremely difficult political, military, and organizational problem even for well-equipped and well-paid modern militaries; witness the U.S. military's failures in Vietnam (Krepinevich 1986; Avant 1994), early British efforts in Northern Ireland (Kennedy-Pipe 1997), or Soviet efforts in Afghanistan. It goes far beyond problematic for less well-financed and bureaucratically competent states. These either cannot prevent the abuse of local powers by field commanders, or may even permit these abuses as a sort of tax farming to the military. That is, they "pay" the soldiers with the opportunity to loot and pillage, a practice that tends to sustain rather than end insurgencies (see Keen 1998 for examples).

This analysis suggests that

H_9: Proxies for the relative weakness or strength of the insurgents – that is, their odds of being killed or captured for a given level of counterinsurgent effort by the government – should be associated with the likelihood that a country develops a civil war. In particular, *higher per capita income* should be associated with a lower risk of civil war onset because (a) it is a proxy for a state's overall financial, administrative, police, and military capabilities, and (b) it will mark more developed countries with terrain more "disciplined" by roads and rural society more penetrated by central administration.

Following the arguments given above, there is an additional reason why lower per capita income should favor the technology of insurgency: (c) recruiting young men to the life of a guerrilla is easier when the economic alternatives are worse. Though we try below, it is difficult to find measures to distinguish between these three mechanisms associating low per capita with civil war onset. We believe the strong results for per capita income reported below are due largely to its acting as a proxy for state military and police strength relative to potential insurgents (a and b in H_9). The fact that measures such as the percentage of young males or male secondary schooling rates predict less well than per capita income is

consistent with this conjecture, though not definitive.

Additional factors that would be expected to affect (or proxy) the strength of an insurgent band relative to a state follow.

H_{10}: The political and military technology of insurgency will be favored, and thus civil war made more likely, when potential rebels face or have available:

(a) A newly independent state, which suddenly loses the coercive backing of the former imperial power and whose military capabilities are new and untested (Fearon 1998).

(b) Political instability at the center, which may indicate disorganization and weakness and thus an opportunity for a separatist or center-seeking rebellion.

(c) A government whose form mixes democratic with autocratic features, as this is likely to indicate political contestation among competing forces and, in consequence, state incapacity. (By contrast, pure autocracy tends to reflect the successful monopolization of state coercive and administrative power by an individual or group.)

(d) A large country population, which makes it necessary for the center to multiply layers of agents to keep tabs on who is doing what at the local level, and also increases the number of potential recruits to an insurgency for a given level of income.

(e) A territorial base separated from the territory of the center by water or distance – for example, East Pakistan (now Bangladesh) from West Pakistan, or Angola from Portugal.

(f) Foreign governments or diasporas willing and able to supply weapons, money, or training.

(g) Land that supports the production of high-value, low-weight goods such as coca, opium, diamonds, and other contraband, which can be used to finance an insurgency.

(h) A state whose revenues derive primarily from oil exports. Oil producers tend to have weaker state apparatuses than one would expect given their level of income because the rulers have less need of a socially intrusive and elaborate bureaucratic system to raise revenues – a political "Dutch disease" (Chaudhry 1989; Karl 1997; Wantchekon 2000). At the same time, oil revenues raise the value of the "prize" of controlling state power.

Partially excepting (f), none of these conditions crucially involves cultural differences, ethnic minority status, or group grievances. We do not claim that these factors provide no help to would-be insurgents in specific cases. But, to reiterate, grievances and ethnic differences are too common to help distinguish the countries and years that see civil wars, and in any event the technology of insurgency does not require strong popular grievances or ethnic solidarities to operate effectively. This latter point suggests a contrast to H_{4-6}:

H_{11}: After controlling for per capita income (or other measures of state strength), neither political democracy, the presence of civil liberties, higher income inequality, nor nondiscriminatory linguistic or religious policies should associate strongly with lower odds of civil war.

Given the right environmental conditions, insurgencies can thrive on the basis of small numbers of rebels without strong, widespread, freely-granted popular support rooted in grievances – hence even in democracies.

As to measures, for "rough terrain" we use the proportion of the country that is "mountainous" according to the codings of geographer A.J. Gerard.[15] This does not pick up other sorts of rough terrain that can be favorable to guerrillas such as swamps and jungle, and it takes no account of population distributions or food availability in relation to mountains; but it is the best we have been able to do at present for H_{8a}. For H_9 we use Penn World Tables and World Bank data on per capita income, estimating missing values using data on per capita energy consumption.[16] For H_{10a} (new states) we mark countries

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[15]Gerard produced this measure for Paul Collier's project on civil wars at the World Bank. Our sample of countries differs slightly from Collier's. We estimated values for the 21 missing countries by using the difference between the highest and lowest point of elevation in each country, which is well correlated with the mountains measure (.78 in logs).

[16]Estimates of growth rates from the World Development Indicators 2000 were first used to extend the Penn World Tables income estimates (which cover 1950 to 1992) wherever possible. For countries with at least 12 common observations on this estimate and the COW estimate of energy consumption, we took the predicted values from the regression of log(income) on a model that included country dummies, the interaction of country dummies and year, and the interaction of country dummies and the log of energy consumption per capita, in effect fitting country-specific growth rates adjusted by country-specific evidence on energy per consumption ($R^2 = .993$). For countries with more than zero but fewer than 12 common observations we took the predicted values from the same regression but used the average rather than country-specific

in their first and second years of independence; for H_{10b} (political instability) we use a dummy variable indicating whether the country had a 3-or-greater change on the Polity IV regime index in any of the three years prior to the country-year in question.[17] For countries that mix democratic and autocratic features (called "anocracies" or "semidemocracies in the IR literature, and "praetorian regimes" by Huntington 1968) we mark regimes that score between -5 and 5 on the difference between the Polity IV democracy and autocracy measures (which ranges from -10 to 10).[18] Country population (H_{10d}) is based largely on World Bank figures. For oil exporters we marked country years in which fuel exports exceeded one third of export revenues, using World Bank data.[19] We coded a dummy variable for states with noncontiguous territory ourselves (H_{10e}).[20]

The remaining hypotheses (H_{8b-d}, H_{10f-g}) present more difficult measurement challenges. Whether availability of a rural base favors civil war (H_{8d}) is better tested in a research design where ethnic groups are the unit of analysis, so that groups with different geographic concentrations and locations can be compared.[21]

Although it is possible to code rebellions in progress for whether the rebels receive

estimated impact of energy consumption (if these cases are included in the first set, bizarrely low estimates for a few Eastern European countries in the 40s and 50s result). For countries with no income data, we use the predicted values based on the regression of log(income) on log(per capita energy consumption).

[17]For this variable, "transition periods" and "interruptions" (which indicate a "complete collapse of central authority") are coded as cases of instability; foreign occupations are treated as missing.

[18]We use the values suggested by Polity 4 coders for "transition periods" and "interruptions.

[19]The data is for five-year intervals beginning in 1960; we interpolated for years after 1960, set the value to that in 1960 for years prior to 1960, and used country-specific sources for a few countries without World Bank coverage.

[20]Countries with territory holding at least 10,000 people and separated from the land area containing the capitol city either by land or by 100 kilometers of water were coded as "non-contiguous." Ignoring the colonial empires, 25 of our 161 countries meet this criterion at some time since 1945.

[21]Using the Phase III Minorities at Risk data, Fearon and Laitin (1999) found that groups without a rural base area were far less likely to be engaged in violent conflict with the state, even after controlling for a range of country and group-specific factors (and including measures of relative group deprivation). Toft (1996) was the first to note and examine the strong bivariate relationship in the MAR data.

shelter and support from foreign countries (H_{8b}, H_{10f}) the potential availability of these aids to rebel strength is difficult to observe *prior* to the onset of fighting. In two special cases, the potential availability of support from a foreign power to *governments* is observable – in Soviet policy (the "Brezhnev doctrine") in Eastern Europe and French policy with regard to its former colonies in subSaharan Africa (at least until the late 1980s).[22] We would expect such support to increase the relative advantage of government forces against potential insurgents and thus associate with lower rates of civil war onset. We also consider a more tenuous measure of potential support to rebels – the number of civil wars on-going in neighboring countries – which might associate with more easily available weapons, training, or the presence of experienced guerrillas.[23]

Empirical Analysis

Our central hypotheses concern the relationship between ethnic and religious diversity or structure, on the one hand, and the susceptibility of a country to civil war on the other. Several multivariate analyses of the country-year data are presented below, but the main story emerging from them can be made clear by the contour plot in Figure 2.

Are More Diverse Countries Prone to Civil War?

The plot shows how probabilities of civil war onset vary at different percentiles for country income (on the x-axis, measured in 1985 dollars) and ethnic homogeneity (on the y-axis, measured by the population share of the largest ethnic group). The lines in the plot show the probability of war onset in the next five years for a country at the given level of income and ethnic homogeneity. For example, countries at the 20th percentile in terms of the size of their largest ethnic group – thus fairly ethnically *diverse* – but at the 80th percentile

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[22]U.S. support to rightist regimes in Latin America during the Cold War might also qualify, although this was perhaps more offset by support for armed insurgency in this area from the Soviet Union and Cuba.

[23]The presence of valuable minerals or the suitability of land for the cultivation of narcotics is also codeable in principle; but at present we lack such measures (H_{10e}). Nor do we have measures for the comparative disadvantage of governments in access to village-level information (H_{8c}).

on income have had about a .05 chance of civil war outbreak in the next five years. By contrast, countries at the 80th percentile on ethnic homogeneity and at the 20th percentile on income had close to a .18 chance of war in the next five years.[24]

Note that *for any level of ethnic diversity*, as one moves up the income scale (to the right on the figure) the odds of civil war decrease, by substantial factors in all cases and dramatically among the most homogeneous countries. The richest fifth are practically immune regardless of ethnic composition. By contrast, for given levels of country income, no consistent effect is associated with variation in ethnic homogeneity (i.e., moving up or down the figure). Among the poorest countries where we observe the highest rates of civil war, the data indicates a tendency for *more homogenous* countries to be more civil war prone. Among the richest countries there may be a weak tendency for the most homogenous countries to have fewer civil wars, but the size of the effect, if any, is small.

The empirical pattern is thus inconsistent with H_1, the common expectation that ethnic diversity is a major and direct cause of civil violence. Nor is there strong evidence in favor of H_2, which expects ethnic strife to be activated as modernization advances. Ethnic diversity could still cause civil war *indirectly*, if it causes low per capita income (Easterly and Levine 1997) or a weak state. But then the mechanisms that actually produce the violence would more likely be those of the insurgency perspective than the culturalist arguments in either perennialist or modernist forms.

The data for Figure 2 omit the anti-colonial wars, and the analysis does not control for other possible influences on civil strife enumerated earlier. We consider these issues next.

Multivariate Results

We coded a variable *onset* as '1' for all country years in which a civil war started and

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[24]The figure was produced using R's locfit package, with a smoothing parameter of .9, and transforming annual probabilities of outbreak to five-year equivalents. The figure looks highly similar if we use other measures of ethnic diversity, such as fractionalization. The income data is lagged one-year except for the first year of a country's existence, for which we use the estimate for that year.

'0' for all others.[25] Equation 1 in Table 1 shows the results of a logit analysis using *onset* as the dependent variable and a fairly full specification of independent variables discussed above. *Prior War* is a control variable indexing whether the country had a civil war ongoing in the previous year.[26]

Per Capita Income. Per capita income (measured in thousands of 1985 U.S. dollars and lagged one year) is strongly significant in both a statistical and substantive sense. $1,000 less in per capita income is associated with 45% greater annual odds of civil war onset, on average. Holding other variables at their median values, a country in the 10th percentile on income has a 17.7% chance of a civil war outbreak over a decade, as compared to a 10.7% chance for a country at the median income and not even a 1% chance at the 90th percentile ($579, $2,043, and $9,466). The income variable is not just a proxy for "the West," whose states might have low rates of civil war for reasons of culture or history that have little to do with income. The estimated coefficient drops only to -.33 when a dummy for the West is included, and remains strongly significant despite the high correlation between the two variables. The relationship even holds within the poorest regions. Among the (mainly) former colonies of Africa, the Middle East, and Asia, we estimate that $1,000 less in income corresponds to 36% greater annual odds of outbreak.[27]

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[25]We do not code as '1's years in which a civil war continues, which would be relevant if we were focusing on causes of war duration and rather than onset. Nor do we drop country years that have an ongoing war (as in Collier and Hoeffler 2001), because this would omit the 14 wars in our data that start while another war is in progress. Other approaches to the dependent variable and estimation – such as making the dependent variable '1' for all war years and using dynamic probit and Poisson models that interact independent variables with a lagged dependent variable (Jackman 2001, Przeworski et al. 2001) – produce virtually identical results.

[26]When **onset** is taken as the dependent variable, the data is structured as grouped duration data and we need to consider the possibility of temporal dependence between observations. One approach is dynamic probit; see the last footnote. We also tried Beck et al.'s (1998) method of including dummies for each successive "peace year" prior to an onset, or fitting natural cubic splines. This had no appreciable effect on the estimates, and the splines were jointly insignificant.

[27]Contrary to Hibbs (1973) and Hegre et al. (2001), adding the square of per capita income does not significantly improve the fit of the model. Regarding H_2, the interaction of income and **ELF** has the expected sign, but is not significant.

<u>Ethnic and Religious Composition</u>. The estimates for the effect of ethnic and religious fractionalization are substantively and statistically insignificant. Alternative measures of ethnic and religious diversity – such as the proportion of the largest group and the log of the number of languages spoken by at least 1% – are just as unrelated as these more commonly used measures. The ethnic diversity measures show a strong bivariate relationship with civil war onset (not so for the religion measures), but this evaporates when we control for income.[28]

Nor are countries that are ethnically or religiously polarized in the sense of H_3 more likely to experience major civil violence. When we add dummy variables for countries that have an ethnic or religious majority and a minority of at least 8% of country population, religious polarization is incorrectly signed and neither comes close to statistical significance. This finding does not depend on what other variables are included in the model.

<u>Ethnic War</u>. The strong effect of per capita income remains even when we restrict attention to "ethnic wars," while evidence of an independent effect of cultural diversity is surprisingly weak. In equation 2, the dependent variable marks the onset of civil wars that we coded as "ethnic" or partially "ethnic," and we consider only countries with at least a 5% ethnic minority. The coefficient for ethnic fractionalization increases but remains statistically insignificant. The same is true for our other measures of ethnic diversity. Our two measures for religious diversity give weak and inconsistent results, and support for H_7 diminishes further if we code the "partially" or "ambiguously" ethnic war as nonethnic.[29]

<u>Democracy and Civil Liberties</u>. Broad social and political grievances should be lower, on average, in political democracies. But contrary to H_4 and consistent with H_{11}, civil war on-

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[28]Collier and Hoeffler (2001) find the interaction of ethnic and religious fractionalization to be negatively related to onset. Others find that fractionalization has a non-monotonic relation to conflict. Neither relationship appears in these data; we suspect that one reason may be listwise deletion on missing economic data in other data sets.

[29]Coefficients diminish for political instability and mountains in this subsample, partly because the associations appear to have been weaker for ethnic wars, and partly due to the omission of highly homogenous countries.

sets are no less frequent in democracies after controlling for income, as shown by the positive and statistically insignificant coefficient for *Democracy*, the (lagged) Polity 4 measure. The results are the same if we use Przeworski et al.'s dichotomous measure instead (available for 1950-91), *or* the lag of Freedom House's measure of observance of civil liberties (available 1972-99). In the former case the sign is "wrong," while in the latter the sign is consistent with H_4 but the coefficient on civil liberties is thoroughly insignificant.

Some past studies of civil strife found an "inverted U" relationship with democracy, and sought to explain this with the observation that the most autocratic regimes successfully repress dissent and thus avoid civil violence despite facing the highest levels of popular grievance (Hegre et al. 2001, Muller and Weede 1990). This observation does not explain why the leaders of a partially democratic regime are not able to implement full autocracy or democracy in order to avoid conflict and opposition. As suggested in H_{10c}, we suspect that the answer is often that "anocracies" are weak regimes, lacking the resources to be successful autocrats or containing an unstable mix of political forces that makes them unable to move to crush nascent rebel groups. Consistent with this hypothesis and with the prior studies, equation 3 shows that a dummy variable marking anocracies takes a positive coefficient. In substantive terms the estimate suggests that these regimes have about 81% greater odds of civil war outbreak in any given year than would a full autocracy. This is so despite the fact that we are controlling for recent political instability (see below), which is much more common in anocracies.[30]

Linguistic and Religious Discrimination. Added to equation 3 our measures of state dis-

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[30]In equation 3 *Democracy* is a dichotomous variable marking marks regimes that scored greater than five on the Polity scale; the excluded category is autocracies. For equation 3 we followed Polity 4's suggestion in coding regime "interruptions" as anocracies; if these values are instead interpolated, the resulting anocracy indicator gets a smaller estimated coefficient that is not quite significant at the 5% level, while that for political instability increases. Another issue, raised by Hegre et al., is that the observation of some violence may lead Polity 4 to code democracies as less "democratic" and autocracies as less autocratic (since there is mobilized opposition). So if there is low level violence preceding the reaching of our thresholds, some of the effect of "anocracy" may be that it is picking up nascent civil war.

crimination against regional languages or against minority religions are not associated with systematically higher risks of civil war onset.[31] This nonresult persists when we restrict the sample to those countries with at least a 5% religious or ethnic minority.

Inequality. Whether in a bivariate model or added to equation 3, the Gini coefficient estimates of income inequality do not come close to either statistical or substantive significance. The poor quality of the inequality data, available for only 108 countries, does not allow us to go beyond the claim that there appears to be no powerful cross-national relationship between inequality and civil war onset, which is consistent with the insurgency perspective (H_{11}).

New States and Political Instability. Consistent with H_{10a}, the odds of civil war onset are estimated as 5.4 times greater in the first two years of a state's independent existence than in other years, a huge effect (equation 3). For the "median country," this translates to a 10% percent chance in its first two years. Political instability at the center matters in other years as well; the odds of onset in a given year are estimated to increase by 70% if there was instability in governing arrangements in any of the previous three years.[32]

Mountains and Noncontiguous Territory. Percentage of mountainous terrain is significantly related to higher rates of civil war. A country that is about half "mountainous" (90th percentile) and otherwise at the median has an estimated 12.4% chance of civil war over the course of a decade. A similar country that is not mountainous at all (10th percentile) has a 6.0% risk. The estimated sign for states with noncontiguous territory is consistent with H_{10e}, but its 95% confidence interval includes the possibility of no effect.[33]

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[31]We tried the several religion indicators both separately and as a single measure based on a factor analysis of the components.

[32]Snyder (2000) argues that democratization puts states at greater risk for civil war, ethnic in particular. Coding variables for 3-or-greater moves toward and away from democracy on the Polity index, we find in these data that moves *away* from democracy are much more strongly associated with civil war onset in the next year than moves toward it, though both forms of instability elevate the risk. Hegre et al. (2001) found the same thing using COW civil war data.

[33]Dropping this or other "insignificant" variables from equation 3 barely affects the remaining estimated coefficients.

<u>Population</u>. Holding other variables at medians, the estimated risk of civil war over the course of a decade for a country at 10th percentile in population is 6.0%, versus 14.7% for a country at the 90th percentile (1.4 versus 56.3 million, e.g., Botswana versus Iran). This effect is *not* due to large states being more ethnically diverse. We are controlling for ethnic diversity, and in any event it turns out that there is essentially no correlation between diversity measures and log of size, even if we omit relatively homogenous China.[34]

<u>Oil, Islam, Young Males</u>. Consistent with H_{10h}, deriving at least one third of export revenues from fossil fuels is estimated to more than double a country's odds. Based on equation 3, the "median country" had a 9.2% chance of civil war over a decade, whereas the same country as an oil exporter would have an estimated 19.1% chance.

Oil producers are disproportionately Middle Eastern, which raises the question of whether this variable might proxy for some other relevant attribute of these countries. But a dummy for the North Africa/Middle East region is insignificant when added to equation 1, while the estimate for *Oil* is barely affected. Huntington (1996) argues that "Islam has bloody borders" and "bloody innards" because Islamic societies have cultural and demographic features that make them violence-prone. When we add a variable measuring the percentage of Muslims in each country to our main specification,[35] it takes a positive sign but is not statistically significant. The effect of oil remains.

Huntington also argues that societies with a surfeit of young males will be prone to civil violence. Noting their large numbers in many predominantly Muslim countries, he suggests this as a part of the explanation for "Islam's bloody borders." Given that young males have physical and perhaps psychological characteristics that make them apt guerrillas, our arguments on insurgency point in the same general direction. If we include a lagged measure

[34]Huntington (1996) argues that rapid population growth puts states at greater risk for civil war. Using the average growth rate for the three prior years, we find no clear association with onset.

[35]Coded from the CIA Factbook and a variety of country-specific sources.

of the proportion of males aged 15 to 24 in the population in equation 3 it has the expected positive sign,[36] but the estimate is highly uncertain ($p = .25$); one problem is that percentage of young males is strongly negatively related per capita income, and income gets the better of it when both are included. The same is true for male secondary schooling rates (cf. Collier and Hoeffler 2001).

Foreign Support. One determinant of the prospects for insurgency is the availability of third-party support to either the rebels or the government of the state in question. "Availability" is difficult to observe ex ante, however. A possible proxy is the number of civil wars ongoing in neighboring countries in the previous year, which might increase availability of arms, support, and seasoned guerrillas. Adding the lagged version of this variable to equation 3 its sign is as predicted, but it is not significant ($p = .25$). Civil-war-next-door is too common, occuring in 44% of the country years in the sample (as compared to 14% within countries).

Another possible proxy is foreign support to *governments* against domestic challengers. A dummy variable for "Soviet bloc" prior to 1991 cannot be included in the logit analysis because it perfectly predicts civil peace. But by itself this observation is consistent with our argument.[37]

In the late 1980s, Mitterand's government departed from long-standing French foreign policy by supporting, to a limited extent, democratization in some of its former sub-Saharan colonies. This involved encouraging "national conferences," elections, and some political opposition, which all suggested that the prior policy of immediate military support for French-speaking dictators might have changed. Civil war rates for former French African colonies had been much lower than those for other subSaharan states. The 25 others saw 16 civil war onsets before 1990, a rate of 2.3 per 100 country years. The 16 former French colonies had

[36]Data from the World Bank, linearly interpolated for missing years within countries.

[37]Foreign support may be at least as important as communist party structure in explaining Huntington's (1968) observation that the communist countries rarely faced insurrections.

only two onsets in the same period, for a rate of .4 per 100 country years (Chad in 1965 and Mali in 1989, the latter a case that that really belongs with those of the 1990s). If a variable marking former French colonies in sub-Saharan Africa prior to 1990 is included in the model of equation 3, its estimated coefficient is -1.41, which implies a four-fold reduction in the annual odds of civil war onset ($p = .058$; the other estimates remain stable). A dummy variable for *all* former French colonies is unrelated to civil war onset, which suggests that the observed effect in sub-Saharan Africa is due to the mechanism behind H_{10f} rather than the effects of French colonial administration or law.

Other variables and robustness checks

<u>Anticolonial Wars</u>. Figure 2 and the multivariate analyses above omitted the 13 anticolonial wars in five colonial empires (Britain, France, Belgium, Portugal, and the Netherlands). Including them is problematic for both theoretical and empirical reasons, but so is ignoring them. The main practical obstacle is lack of comparable data. However, by using the ethnic fractionalization, population, and income data for each colony in its first year of independence, we were able to produce annual estimates of these variables for each empire. The income estimates are systematically too high – we use, for example, Nigerian GDP per capita in 1962 as an estimate of its income as a British colony in 1945. This creates some bias against the income variable and in favor of ELF, which has a median value of .82 for the 114 "empire years" as compared to .33 for non-empire years.

Equation 4 reports a logit analysis parallel to our specification in equation 1, omitting only the democracy variable and religious fractionalization (which is hard to estimate for the empires due to common religions between colonies and metropoles). Given that the empires were quite civil war-prone and also highly diverse, it is not surprising that the estimated coefficient for ELF increases. Surprisingly, though, it remains statistically indistinguishable from zero, while, excepting *Oil* and *Noncontiguous*, the others change little. Noncontiguous states are now estimated to have had 2.2 times the odds of civil war in this period, other

things equal. Because the empires are all noncontiguous and because noncontiguity otherwise does a better job than ELF at picking out civil wars onsets, it is given greater substantive and statistical significance by the logit. If we drop *Noncontiguous*, the estimate for ELF increases to .58 – which corresponds to a 50% increase in risk moving from the 10th to the 90th percentile – but *still* fails statistical significance at the 5% level ($p = .09$). Thus even if we include the anticolonial wars, the evidence that ethnic diversity directly causes states to be more civil war prone remains slim at best.[38]

Stepping back from the statistical analysis, we observe that these five imperial states managed their empires for many years before World War II with fairly little active rebellion despite the same levels of ethnic fractionalization, noncontiguity, and mountainousness. Nor did discrimination and oppression suddenly increase in the empires after the war, causing anticolonial movements as a response. Rather, the war greatly weakened the main imperial states materially, and the new international legal order (the U.N. system) gave support to anticolonial movements. These shocks to the relative power of the metropoles help explain "civil war onset" in these cases.

Regional Effects. Different regions of the world share a variety of historical, cultural, and economic traits. It is reasonable to wonder if any of the variables considered in the multivariate analysis are just proxing for such factors. Further, if regional dummy variables do not add to the model's explanatory power, then we have managed to account for the influence of regional characteristics with our more general independent variables. We find that when we add all (but one) regional dummies to equation 1 or 3, the coefficients and significance levels for our other variables are little affected. A likelihood-ratio test fails to reject the null hypothesis that "regions do not matter" beyond the included variables ($p = .30$). Including

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[38]We created a democracy estimate for the empires by taking a weighted average of the metropole's lagged Polity democracy score and -10, with the weight on the former equal to the share of total imperial population in the metropole. Adding this or dummies for "anocracy" and democracy to equation 5 has no substantive impact.

region dummies individually reveals that none have a rate of civil war onset significantly different from what one would expect on the basis of the country characteristics already included in the model.

Primary Commodity Exports. Using an "expanded" version of the Correlates of War data, Collier and Hoeffler (2000, 2001) find that the risk of civil war onset is maximized when primary commodity exports comprise about 32% of country GDP, with risk declining on either side of this figure. They propose that, up to a point, higher levels of primary commodity exports provide more motivation and opportunity for rebels to support themselves through "looting." Beyond this point, the revenue gains available to the state are said to be large enough to make civil war less likely.

We find little evidence of such a parabolic relationship in our data. Neither the share of primary commodity exports in GDP nor its square are remotely significant when added to the model in equation 3.[39]

We agree with the general argument behind Collier and Hoeffler's hypothesis. In our terms, insurgency should be more feasible if sources of financing are readily available. But we doubt that primary commodity exports are a good measure of financing potential for rebels. This measure seems to combine mainly cash crop and oil exports, both of which are hard to exploit without control of a national distribution system and ports. Oil exports may be relevant not so much because they finance rebel groups but, as we argued, because they mark relative state weakness at a given level of income.[40] A better measure for financing potential would focus on the presence of minerals or contrabands that can reward control of

[39]The data series on primary commodity exports begins in 1960 and is available only at five-year intervals. We interpolated missing values and extended the 1995 values through 1999. We also tried Collier and Hoeffler's procedure of grouping the data by five-year periods beginning in 1960. In this case, the estimates imply a "right-side up U" relationship between civil war odds and GDP share of primary commodities, but the coefficients are even farther from significance.

[40]Our *Oil* variable is moderately correlated with the primary commodities measure at $r = .46$, but the latter and its square remain insignificant when *Oil* is dropped from the model.

a small enclave with huge profits (Leonard and Strauss 2001).

Trade Openness. Using a measure of "state failure" that includes both civil war and "disruptive regime transitions," Esty et al. (1998) found that trade share of GDP strongly predicted civil peace. Using the Penn World Tables measure of trade as a share of GDP, we find no such relationship in our data. Trade is related to civil peace in a bivariate logit, but this is because smaller countries have more trade and less civil war.

Alternative Definitions and Coding for "Civil War". Our coding rules admit civil conflicts in which at least 1000 have been killed. Some might argue this threshold is too low to distinguish properly between "civil war" and, say, terrorism. When we recode the 30 conflicts in our sample estimated to have killed fewer than 5000 as zeros, the results for equation 3 are virtually identical.[41]

We also checked to see how our results differed if we based the coding of civil war onset on the lists given by the Correlates of War project, Doyle and Sambanis (2000), and Collier and Hoeffler (2001). As shown in equation 5, which bases **onset** on the COW data (1945-92), the coefficients and significance levels for the "insurgency" variables are remarkably stable.[42] We obtain quite similar results for the other two coding schemes. This stability may at first seem surprising, given that the four lists differ often on specific start dates and to some extent on what cases constitute "civil wars" at all. Despite these differences, it turns out that there is a considerable level of agreement on which countries had civil wars and how many they had in this period. The bivariate correlation between our estimate of the total number of civil wars in each country and the equivalent for the other data sets ranges from .72 with Collier and Hoeffler to .88 with Sambanis and Doyle. Since about 55%

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[41]We coded total deaths ourselves, working from and revising the estimates in Sivard (1996), Brogan (1998), IISS (2000), Valentino (2002), and using country-specific sources. This data on civil war magnitude is the subject of work in progress.

[42]The one exception is religious fractionalization, which just manages significance at the 5% level here. However, this does not occur in any of the other data sets, and even with the COW data the estimate for religious fractionalization is highly sensitive to what other variables are in the model.

of the variation in onsets (using our data) is cross-country rather than within country over time, there is a substantial amount of common variation across data sets despite differences in coding.

Conclusion

The prevalence of internal war in the 1990s is mainly the result of an accumulation of protracted conflicts since the 1950s rather than a sudden change associated with a new, post-Cold War international system. Decolonization from the 40s through the 70s gave birth to a large number of financially, bureaucratically, and militarily weak states. These states have been at risk for civil violence for the whole period, almost entirely in the form of insurgency, or rural guerrilla warfare. Insurgency is a mode of military practice that can be harnessed to various political agendas, be it communism in Southeast Asia and Latin America, Islamic fundamentalism in Afghanistan, Algeria, or Kashmir, right-wing "reaction" in Nicaragua, or ethnic nationalism in a great many states. The conditions that favor insurgency – and in particular state weakness marked by poverty, large size, and instability – are better predictors of which countries are at risk for civil war than are indicators of ethnic and religious diversity, or measures of grievances such as economic inequality, lack of democracy or civil liberties, or state discrimination against minority religions or languages.

How could democracy and cultural or religious homogeneity fail to associate with civil peace across countries? Viewing "ethnic wars" as a species of insurgency may help explain this paradoxical result. If, under the right environmental conditions, just 500 to 2000 active guerrillas can make for a long-running, destructive internal war, then the average level of grievance in a group may not matter that much. What matters is whether active rebels can hide from government forces and whether economic opportunities are so poor that the life of a rebel is attractive to 500 or 2000 young men. Grievance may favor rebellion by leading nonactive rebels to help in hiding the active rebels. But all the guerrillas really need is superior local knowledge, which enables them to threaten reprisal for denunciation.

If our analysis is correct, then policy makers should not assume that civil wars and the "failed states" they sometimes produce are temporary phenomena of the immediate post-Cold War world. Nor should policy makers or academics infer that ethnic diversity is the root cause of civil conflict when they observe insurgents in a poor country who mobilize fighters along ethnic lines. Instead, the civil wars of the period have structural roots, in the combination of a simple, robust military technology and decolonization, which created an international system numerically dominated by fragile states with limited administrative control of their peripheries.

Regarding policy implications, the spread of democracy and tolerance for ethnic and religious minorities should be major foreign policy goals because they are desirable for their own sake, but not in the expectation that they are "magic bullets" for the prevention or resolution of civil war. Sometimes recommended as a general international policy for resolving ethnic civil wars (e.g., Kaufmann 1996), ethnic partitions should be viewed as having large international implications and costs. International support for partition would increase the expected benefits for rebels who, we have argued, may be able to get a nasty civil war going on the basis of small numbers when the conditions for insurgency are right.

Policies to redress grievances or, in the limit, partition, *could* be important or even necessary to resolve an ongoing conflict. We cannot say on the basis of the research presented here, which focused on civil war onset rather than termination. We find little evidence that civil wars occur where there are unusually large cultural divisions or grievances. But it seems quite clear that broad and powerful grievances *are produced by* civil war – indeed, this is often a central objective of rebel strategy. These could well pose obstacles to settlement.

Regarding prevention, our analysis suggests that while economic growth may correlate with fewer civil wars, the causal mechanism is more likely well-financed and administratively competent government. In specific terms, international and non-governmental organizations should develop programs that improve legal accountability within developing world militaries

and police, and make aid to governments fighting civil wars conditional on the state observing counterinsurgency practices that do not help rebels recruit militias. Governments that follow horrible, war-perpetuating counterinsurgency practices or are so corrupt and inept as to be hopeless should be left on their own, or, when there are major implications for regional stability or international terrorism, be viewed as candidates "neo-trusteeship" under the United Nations or regional military and political organizations such as Nato or the EU. This latter system, which we already see operating, in effect, in Bosnia, Kosovo, and East Timor, should be increasingly rationalized so as to improve internal coordination among the many players involved in such operations.

References

Anderson, Benedict. 1983. *Imagined Communities.* London: Verso.

Asher, R.E., ed. 1994. *The Encyclopedia of Language and Linguistics.* Oxford: Pergamon Press.

Avant, Deborah D. 1994. *Political Institutions and Military Change.* Ithaca: Cornell University Press.

Beck, Neal, Jonathan N. Katz and Richard Tucker. 1998. "Taking Time Seriously: Time-Series-Cross-Section Analysis with a Binary Dependent Variable." *American Journal of Political Science* 42(4):1260–1288.

Brogan, Patrick. 1998. *World Conflicts.* 3rd ed. Lanham, Md.: Scarecrow Press.

Chaudhry, Kiren Aziz. 1989. "The Price of Wealth: Business and State in Labor Remittance and Oil Economies." *International Organization* 43(1):101–145.

Clutterbuck, Richard L. 1967. *The Long, Long War: The Emergency in Malaya.* London: Cassell.

Collier, Paul and Anke Hoeffler. 2001. "Greed and Grievance in Civil War." World Bank, DECRG.

Connor, Walker. 1994. *Ethnonationalism.* Princeton, NJ: Princeton University Press.

Deininger, Claus and Lyn Squire. 1996. "A New Data Set Measuring Income Inequality." *The World Bank Economic Review* 10(3).

Desai, Raj and Harry Eckstein. 1990. "Insurgency: The Transformation of Peasant Rebellion." *World Politics* 42(4):441–66.

Deutsch, Karl W. 1953. *Nationalism and Social Communication.* Cambridge, MA: M.I.T. Press.

Doyle, Michael W. and Nicholas Sambanis. 2000. "International Peacebuilding: A Theoretical and Quantitative Analysis." *American Political Science Review* 94(4):778–801.

Easterly, William and Ross Levine. 1997. "Africa's Growth Tragedy: Policies and Ethnic Divisions." *Quarterly Journal of Economics* 112(4):1203–50.

Eisinger, Peter. 1973. "The Conditions of Protest Behavior in American Cities." *American Political Science Review* 67:11–28.

Esty, Daniel C., Jack A. Goldstone, Ted R. Gurr, Barbara Harff, Marc Levy, Geoffrey D. Dabelko, Pamela T. Surko and Alan N. Unger. 1998. *State Failure Task Force Report: Phase II Findings.* McLean, VA: Science Applications International Corporation.

Fearon, James D. 1998. "Commitment Problems and the Spread of Ethnic Conflict." In *The International Spread of Ethnic Conflict*, ed. David A. Lake and Donald Rothchild. Princeton, NJ: Princeton University Press.

Fearon, James D. and David D. Laitin. 1996. "Explaining Interethnic Cooperation." *American Political Science Review* 4:715–35.

Fearon, James D. and David D. Laitin. 1999. "Weak States, Rough Terrain, and Large-Scale Ethnic Violence since 1945." Presented at the Annual Meetings of the American Political Science Association, Atlanta, GA, 2-5 September 1999.

Gantzell, Klaus Jurgen. 1997. "War in the Post-World War II World." In *War and Ethnicity: Global Connections and Local Violence*, ed. David Turton. Rochester, NY: University of Rochester Press.

Gellner, Ernest. 1983. *Nations and Nationalism.* Ithaca, NY: Cornell University Press.

Gleditsch, Nils, Havard Strand, Mikael Eriksson, Margareta Sollenberg and Peter Wallensteen. 2001. "Armed Conflict 1946-99: A New Dataset." http://hypatia.ss.uci.edu/gpacs/newpages/agenda.htm.

Griffith, Samuel B., ed. 1961. *Mao Tse-Tung on Guerrilla Warfare.* New York: Praeger.

Grimes, Joseph E. and Barbara F. Grimes. 1996. *Ethnologue: Languages of the World.* Thirteenth ed. Dallas, TX: Summer Institute of Linguistics.

Gunnemark, Erik V. 1992. *Countries, Peoples and their Languages.* Gothenburg: Geolingua.

Gurr, Ted R. 1971. *Why Men Rebel.* Princeton, N.J.: Princeton University Press.

Gurr, Ted R. 2000. "Ethnic Warfare on the Wane." *Foreign Affairs* 79(3):52ff.

Hibbs, Douglas A. 1973. *Mass Political Violence.* New York: Wiley.

Horowitz, Donald L. 1985. *Ethnic Groups in Conflict.* Berkeley, CA: University of California Press.

Huntington, Samuel. 1996. *The Clash of Civilizations and the Remaking of World Order.* New York: Simon and Shuster.

Huntington, Samuel P. 1968. *Political Order in Changing Societies.* New Haven, CT: Yale University Press.

Ignatieff, Michael. 1993. *Blood and Belonging.* London: Noonday Press.

IISS. 2000. *The Military Balance, 2000.* London: Institute for International and Strategic Studies.

Jackman, Simon. 2001. "In and Out of War and Peace: the Statistical Analysis of Discrete Serial Data on International Conflict." Ms., Stanford University.

Kalyvas, Stathis N. 1999. "Violence in Civil War: Is Discrimination between Ethnic and Non-Ethnic Cleavages Useful?" Ms., University of Chicago.

Karl, Terry L. 1997. *The Paradox of Plenty.* Berkeley, CA: University of California Press.

Kaufmann, Chaim. 1996. "Possible and Impossible Solutions to Ethnic Civil Wars." *International Security* 20(4):136–175.

Keen, David. 1998. *The Economic Functions of Violence in Civil Wars.* London: Oxford University Press.

Kennedy-Pipe, Caroline. 1997. *The Origins of the Present Troubles in Northern Ireland.* London: Longman.

Krepinevich, Andrew F. 1986. *The Army and Vietnam.* Baltimore, MD: Johns Hopkins University Press.

Laqueur, Walter. 1976. *Guerrilla Warfare.* New Brunswick, NJ: Transaction Books.

Leites, Nathan and Charles Wolf. 1970. *Rebellion and Authority*. Chicago, IL: Markham.

Leonard, David K. and Scott Strauss. 2001. "Power Without Responsibility: The International Community and Africa's Failed Development." Book ms., U.C. Berkeley.

Licklider, Roy A. 1995. "The Consequences of Negotiated Settlement in Civil Wars, 1945-93." *American Political Science Review* 89(3):681–90.

Moynihan, Daniel P. 1993. *Pandaemonium: Ethnicity in International Politics*. New York: Oxford University Press.

Muller, Edward N. 1985. "Income Inequality, Regime Repressiveness, and Political Violence." *American Sociological Review* 50:47–61.

Muller, Edward N. and Erich Weede. 1990. "Cross-National Variations in Political Violence: A Rational Action Approach." *Journal of Conflict Resolution* 34:624–51.

Paige, Jeffery M. 1975. *Agrarian Revolution*. New York: Free Press.

Rabushka, Alvin and Kenneth A. Shepsle. 1972. *Politics in Plural Societies: A Theory of Democratic Instability*. Columbus, OH: Merrill.

Russett, Bruce M. 1964. "Inequality and Instability." *World Politics* 16:442–54.

Sambanis, Nicholas. 2002. "Defining and Measuring Civil War: Conceptual and Empirical Complexities." Ms., Yale University.

Scott, James C. 1976. *The Moral Economy of the Peasant*. New Haven: Yale University Press.

Singer, J. David and Melvin H. Small. 1994. "Correlates of War Project: International and Civil War Data, 1816-1992." ICPSR 9905, April.

Sivard, Ruth Leger. 1996. *World Military and Social Expenditures, 1996*. Washington, DC: Global Priorities.

Smith, Anthony. 1986. *The Ethnic Origins of Nations*. Oxford: Blackwell.

Snyder, Jack. 2000. *From Voting to Violence*. New York: Norton.

Sov. 1964. *Atlas Narodov Mira*.

Thompson, Robert G. 1966. *Defeating Communist Insurgency.* London: Chatto and Windus.

Tilly, Charles. 1978. *From Mobilization to Revolution.* Reading, MA: Addison-Wesley.

Toft, Monica Duffy. 1996. The Geography of Ethnic Conflict: Do Settlement Patterns Matter? Presented at the Annual Meeting of the Midwest Political Science Association, Chicago, Illinois, April, 1996.

Valentino, Benjamin A. 2002. *Final Solutions.* Ithaca: Cornell University Press.

Wantchekon, Leonard. 2000. "Why Do Resource Dependent States have Authoritarian Governments?" February 6. Yale University.

Table 1: Logit analysis of determinants of civil war onset, 1945-99

| Dep. Var. = 1 in years with civ. war onset	(1) Civil war	(2) "Ethnic" war	(3) Civil war	(4) Civil war (plus empires)	(5) Civil war (COW)
Prior War	-0.898**	-0.806*	-0.863**	-0.601*	-.556
	(0.314)	(0.396)	(0.312)	(0.266)	(0.374)
GDP/cap (lagged)	-0.377**	-0.345**	-0.349**	-0.336**	-0.305**
	(0.076)	(0.099)	(0.075)	(0.067)	(0.080)
Log(Pop.) (lagged)	0.247**	0.372**	0.256**	0.254**	0.233**
	(0.074)	(0.119)	(0.075)	(0.069)	(0.079)
%Mountainous	0.222**	0.125	0.201*	0.196*	0.416**
	(0.086)	(0.114)	(0.085)	(0.083)	(0.103)
Noncontiguous State	0.411	0.402	0.400	0.810**	-0.255
	(0.278)	(0.407)	(0.276)	(0.245)	(0.336)
Oil exporter	0.957**	0.871*	0.841**	0.569*	1.282**
	(0.280)	(0.353)	(0.280)	(0.268)	(0.298)
New State	1.740**	1.783**	1.686**	1.539**	1.186**
	(0.340)	(0.416)	(0.343)	(0.319)	(0.414)
Instability	0.643**	0.298	0.534*		0.605*
	(0.236)	(0.323)	(0.244)		(0.269)
Democracy (Polity IV)	0.028	0.023			
	(0.017)	(0.023)			
ELF	0.044	0.391	0.044	0.403	-0.085
	(0.379)	(0.622)	(0.373)	(0.348)	(0.399)
Relig. Frac.	0.315	1.255	0.357		1.282*
	(0.517)	(0.709)	(0.513)		(0.567)
Anocracy			0.591*		0.610*
			(0.240)		(0.261)
Democracy (dichotomous)			0.237		0.150
			(0.306)		(0.363)
Constant	-6.527**	-8.345**	-6.877**	-6.524**	-7.650**
	(0.746)	(1.121)	(0.762)	(0.674)	(0.858)
Observations	6327	4925	6327	6373	5378
Standard errors in parentheses. * significant at 5%; ** significant at 1%					

Figure 1
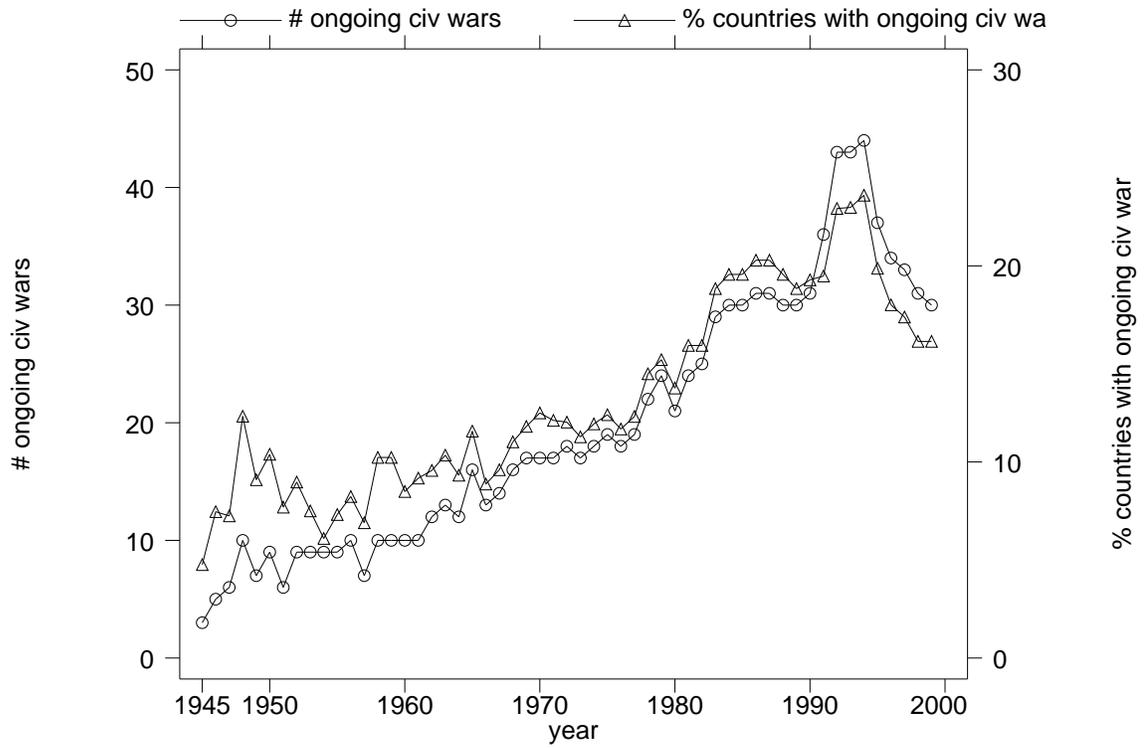
Figure 2: Prob. of civil war onset/5 year period

GDP/capita in 1985 U.S. dollars