Does Globalization Breed Ethnic Discontent?

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Abstract

This article examines how different components of globalization affect the death toll from internal armed conflict. Conventional wisdom once held that the severity of internal conflict would gradually decline with the spread of globalization, but fatalities still remain high. Moreover, leading theories of civil war sharply disagree about how different aspects of globalization might affect the severity of ethnic and nonethnic armed conflicts. Using arguments from a variety of social science perspectives on globalization, civil war, and ethnic conflict to guide the analysis, this article finds that (I) economic globalization and cultural globalization significantly increase fatalities from ethnic conflicts, supporting arguments from ethnic competition and world-polity perspectives, (2) sociotechnical aspects of globalization increase deaths from ethnic conflict but decrease deaths from nonethnic conflict, and (3) regime corruption increases fatalities from nonethnic conflict, which supports explanations suggesting that the severity of civil war is greater in weak and corrupt states.

Keywords

globalization, ethnic armed conflict, battle deaths

Reports of fatalities from campaigns of ethnic cleansing in Darfur, Iraq, and Bosnia dramatically illustrate the potential for ethnic disputes within countries to turn deadly. Moreover, internal armed conflicts now account for 90 percent of all fatalities from any type of war (Lacina 2006). In response, an enormous literature has

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arisen analyzing the effects on internal armed conflict¹ of ethnic diversity and ethnic polarization, democracy and anocracy, economic growth, income levels, income inequality, vertical versus horizontal inequalities, terrain, political exclusion, corruption and greed, trade openness, and dependence on primary commodities. These studies of the effects of these measures report highly discrepant results.²

Several limitations of the previous research might help explain this lack of consistency. First, though leading scholars implicitly assume that ethnic conflicts have different motives and trajectories from nonethnic conflicts (Reynal-Querol 2002; Wimmer, Cederman, and Min 2009), only a handful of studies have compared the two types of conflict. Second, with several exceptions (Schneider, Barbieri, and Gleditsch 2003; Barbieri and Reuveny 2005; Kahler and Walter 2006; Bussmann and Schneider 2007; Salehyan 2009), most studies of civil war focus only upon the effects of internal characteristics of states, thus overlooking the possibility that global factors may also affect the severity of civil war. Third, because the vast majority of studies examine the onset or presence of civil war in a given year, they treat civil wars of greater and lesser magnitude as having equal weight (Sambanis 2004). I examine the effects of globalization and take the severity of internal armed conflict into account directly.

This article marshals new empirical evidence on globalization and the severity of two types of armed conflict. In particular, I distinguish armed conflicts based on ethnic claims and goals from those that lack these characteristics. I also develop some arguments suggesting that different components of globalization might have differential impacts on the two types of war. Two key questions drive this article: (1) Does overall globalization affect fatalities from ethnic and nonethnic armed conflicts in the same way, net of other factors identified in the literature? and (2) Do the various components of globalization differentially affect fatalities from the two types of conflicts?

I argue that globalization might affect ethnic conflicts quite differently from other types of group conflict. Empirical evidence from the world-polity perspective suggests that a variety of economic, social, and political integrative forces embedded in globalization have opened new opportunities and avenues for mobilization that favor *identity politics* (Meyer 1980; Soysal 1994; Appadurai 1996; Risse, Ropp, and Sikkink 1999; Tilly 2003). This article applies this line of argument to ask whether aspects of globalization also raise the level of severity of ethnic armed conflict, as measured by deaths from ethnic armed conflict.⁴

My goal is to offer and test a set of arguments that specify which dimensions of globalization should be more (or less) likely to increase deaths from ethnic insurgency when compared to insurgency based on Marxist or class-based insurgency. This argument is then evaluated with evidence on the effects of different dimensions of globalization comparing their effects on the severity of ethnic conflict and nonethnic conflicts.

Globalization refers loosely to an increasingly interdependent pattern of relations in which political treaties, media and information flows, negotiations, and economic

and trade exchanges and agreements link regions and states.⁵ Scholars have suggested that regional variation in exposure to globalization might explain why civil war has erupted in both developed and underdeveloped regions, in democratic and authoritarian regimes, and in older as well as newly independent states (Kaldor 1999; Kahler and Walter 2006). Here I pursue this line of research by asking if variation in exposure to different aspects of globalization can explain variation in the severity of armed conflict.

To sharpen the theoretical focus, I first distinguish ethnic from nonethnic armed conflict. I apply Sambanis' definition for civil wars (2001, 272) as those "wars aimed at securing power for a new elite or the acquisition of control of economic resources [and] territories." Ethnic civil wars (here ethnic internal armed conflicts) add the aim of securing power or new advantages for insurgent ethnic communities, nationalities, or tribes, seeking to improve their political and economic status vis-à-vis the state through violent means (Gurr 1993, 2000; Sambanis 2001; Fearon and Laitin 2003; Wimmer, Cederman, and Min 2009). Ethnic armed conflict features claims of historical or current discrimination, victimization, or political exclusion based on ethnicity.

The theoretical arguments offered here extend existing theories of the incidence, outbreak, likelihood, and duration of internal armed conflict to consider *variation in the severity of armed conflict*. Much of the prior research and theory glosses over this crucial aspect of internal armed conflict (but see Lacina 2006). Of course, to examine the severity of conflict, an armed conflict must have occurred. Thus, the two concepts of severity and occurrence are logically and empirically connected. The arguments outlined below use this idea to link globalization to the severity of armed conflict. Specifically, I apply general theories about the underlying causes of ethnic movements, ethnic and nonethnic armed conflict, and civil war to generate specific propositions about the effects of globalization. Implicit in this view is the claim that these arguments apply to both the occurrence and the severity of internal armed conflict.

This research analyzes fatalities from internal armed conflicts as the dependent variable here for several reasons. First, the number of fatalities is a relevant measure of severity (Sambanis 2004). The count of fatalities (controlling for population size) allows for an assessment of the degree of devastation resulting from conflict, independent of the duration and timing of its onset (Lacina 2006). Second, the data on which I build my analysis (Uppsala-PRIO Armed Conflict Dataset) distinguish death tolls from internal armed conflicts broken down by location, timing, allies, and political aims of participants. With some effort, the ethnic character of each internal armed conflict can be determined, so that factors that influence the number of battle deaths from ethnic and nonethnic internal armed conflict can be compared (see Wimmer, Cederman, and Min 2009).

Globalization and Ethnic Discontent

The once popular view that globalization should have the beneficial consequence of deterring civil war has prompted skepticism for at least two reasons. First, there is a

problem of temporal coincidence. Rising integration of world trade, financial, and diplomatic ties occurs at the same time that internal wars have become more important than international wars in producing deaths by armed conflict (Lacina 2006; Kaldor 1999). Second, even countries that are deeply embedded in global trade and diplomatic markets have experienced intense ethnic wars (Tsutsui 2004).

Recent reviews of relevant studies have suggested that ethnicity fosters the tendency to mobilize conflict organized around ethnic identity when ethnic markers such as shared language and culture exist and/or when political exclusion falls along ethnic lines (Blattman and Miguel 2010; Fearon 2006). This is partially due to the fact that ethnicity facilitates in-group cohesion among co-ethnics and lowers costs of recruitment and monitoring (Fearon and Laitin 2003). In their review of the literature on civil war, Blattman and Miguel (2010, 17) note that ethnic identity has a key advantage when it is compared to class identity, because "only ethnic groups exhibit within group economic inequality: inequality allows the rich to supply conflict capital (e.g., guns) while the poor supply conflict labor."

While these studies have documented the link between ethnicity and outbreaks of civil war, they have not yet explained the ubiquitous appearance of ethnic wars in the contemporary period.

The early literature on modernization and the social mobilization of ethnicity offers some relevant insights. According to this view, modernization stimulates competition over power and resources that awaken (or reawaken) conflict based on ethnic nationalism (Gellner 1983; Hechter 2000). As Deutsch (1961) noted, forces of modernization increase the flow of nationalities across state borders, bringing different ethnic groups into direct contact in ways that encourage mobilization based on national or ethnic distinctions. Bates (1983, 152) also suggests that ethnic mobilization arises in competition over "the goods of modernity." To the extent that modernization and globalization are analogous processes (e.g., see Robertson and Lechner 1985), then these arguments apply to globalization and ethnic mobilization. The next section considers *which* aspects of globalization might be most directly linked to the severity of ethnic armed conflict.

Economic Globalization and Ethnic Conflict

Economic globalization commonly refers to increased trade, capital flows, and migration (Barbieri and Reuveny 2005; Schneider, Barbieri, and Gleditsch 2003), which likely affects one geographical area more than others (Alderson and Nielsen 2002). Ethnic groups are also generally distributed heterogeneously over the national territory (Atkinson and Brandolini 2006; Rodrik 1997). This means that globalization likely benefits some ethnic groups more than others in a polyethnic society.

With respect to already industrialized societies, the standard argument is that globalization produces greater income inequality, which most negatively affects the less educated and lower skilled manual workers, as in "sector dualism" (Goldberg and

Pavcnik 2007). If the latter are predominantly drawn from a specific ethnic group, this would produce ethnic inequality, which encourages social conflict based on ethnic identities (Rodrik 1997).⁷

Arguments linking economic globalization to ethnic mobilization also come from social movement theories of resource mobilization (Tilly 1978). To the extent that globalization provides newly available market and trade opportunities, disadvantaged groups will experience increased capacity to mobilize. If they do mobilize, then dominant groups whose power is threatened generally adopt a number of exclusionary tactics (Bonacich 1972; Bookman 2002; Wimmer 2002). Such exclusionary practices would prevent ethnic inequality from lessening, heighten the salience of ethnic boundaries, and aggravate ethnic tensions (Naghshpour and St. Marie 2008; Østby 2008; Wimmer, Cederman, and Min 2009). To the extent that economic globalization differentially privileges some ethnic groups over others, ethnic mobilization is likely to rise.

Economic globalization, especially increases in trade liberalization, has encouraged migration across national borders (Goldberg and Pavenik 2007). Such migrations can increase levels of ethnic heterogeneity and bring formerly separated groups into contact. Two consequences of these trends are that competition among ethnic groups rises as does the salience of ethnic boundaries (Olzak 1992). Globalization also spreads information across borders, potentially raising awareness of resource inequalities (Wimmer, Cederman, and Min 2009). In this way, ethnic inequality, whether real or perceived, generates ethnic discontent, which in turn increases the likelihood that violent insurgent movements will become organized along ethnic lines (Tilly 1993).

Chua (2003) makes a related argument: economic globalization privileges "market dominant minorities," who are better positioned than others to gain from globalization. Other groups are necessarily excluded and experience relatively few benefits. Such deprivation fuels deep resentment against dominant minorities, sometimes resulting in ethnic cleansing and genocide (Bezemer and Jong-A-Pin 2007).

These arguments imply that the occurrence and severity of insurgency movements based on increasing demands for ethnic minority rights ought to increase with economic globalization. In sum, economic globalization increases the severity of internal ethnic wars more than nonethnic wars.

Cultural/Ideological Globalization and Ethnic Conflict

The world-polity perspective focuses attention on the cultural/ideological components of globalization. ¹⁰ It emphasizes the tendency for globalization to produce policies and ideologies supporting minority rights (Soysal 1994; Schofer and Fourcade-Gourinchas 2001). In this view, exposure to cultural globalization fosters identity movements based on claims for self-determination and expanded minority rights. A key mechanism in this world-polity argument is that globalization raises the capacity of excluded groups to mobilize by providing an ideological platform and an international audience that is predisposed to support their claims. Furthermore,

widespread endorsement of principles guaranteeing minority rights to ethnic groups encourages them to mobilize against regimes that deny them these rights.

John Meyer and his collaborators (e.g., Drori, Meyer, and Hwang 2006) provide indirect support for the world-polity argument by documenting rapid growth in the number of human rights organizations over the past 50 years. Related research finds that the diffusion of human rights' ideology has mobilized social categories of all types, creating social movements based on identities and claims for expanded gender, race, ethnic, religious, regional, sexual orientation, and disability rights (Soysal 1994; Frank and McEneaney 1999; Schofer and Fourcade-Gourinchas 2001; Tsutsui 2004; Tsutsui and Wotipka 2004).

Seen from a global perspective, the world-polity argument makes sense of the coincidence of democracy and ethnic mobilization, especially when claims of ethnic nationalism are favored over sovereignty rights in a multiethnic democracy. Accordingly, increasing acceptance of global cultural values supporting human rights has the unintended consequence of mobilizing deadly ethnic conflict (see also Gurr 1993; Wimmer, Cederman, and Min 2009).

In this view, states characterized by economic ethnic disparities or political exclusion of ethnic groups from positions of power and authority have become increasingly more difficult to sustain. This is because globalization processes embedded in world culture have increasingly reinforced the perception that ethnic exclusion is unjust and illegitimate (Frank and Meyer 1998; Risse, Ropp, and Sikkink 1999; Olzak 2006; Koenig 2008). International human rights organizations have grown in number, the scope of international law has expanded its concern with minority rights, and a number of UN declarations mandate that action be taken against states violating the rights of ethnic minorities. ¹¹ This world-polity argument implies that the occurrence of insurgency movements based on increasing demands for ethnic minority rights ought to increase with cultural globalization. Extending this claim, I argue that countries that rank high on cultural globalization ought to experience higher levels of severity of ethnic armed conflict compared to levels of severity of nonethnic armed conflict.

Data and Measures

Dependent Variable: Fatalities from Armed Conflict

A variety of cross-national data sets containing information on armed conflicts and war have been analyzed. These include the most widely cited, the Correlates of War (COW) data set (http://www.correlatesofwar.org/), and the more recent State Failure data set. The COW data set on civil war has many virtues. But it also has short-comings, including its selection criteria of counting only conflicts that have had at least 1,000 battle-related deaths per year (Sambanis 2004).

To begin addressing some of the critiques of coding decisions in COW, Gleditsch et al. (2002) created the Uppsala/PRIO Armed Conflict Database. The Uppsala/PRIO

Armed Conflict Codebook (Uppsala Conflict Data Program 2009, 4) defines an armed conflict as "a contested incompatibility that concerns government or territory over which the use of armed force between two parties, of which at least one is the government of a state, has resulted in at least 25 battle-related deaths each year." Furthermore, a state is defined as a sovereign entity whose boundaries and authority are internationally recognized and not disputed by another sovereign entity.¹³

The dependent variable is number of fatalities from internal conflicts listed in the Armed Conflict Database, where combatants are from the same country. Because the database does not distinguish ethnic and nonethnic wars, I used six sources to distinguish between the two categories. These sources include (1) The Department of Peace and Conflict's "Conflict Database," which gives a brief history of each conflict contained in the armed conflict database (http://www.pcr.uu.se/database/basic Search.php); (2) various narratives describing conflicts and ethnic minority challenges by over 200 minority groups, published in *Minorities at Risk* (Gurr 1993); (3) the continuously updated and online Central Intelligence Agency (CIA) Factbook (https://www.cia.gov/library/publications/the-world-factbook/); and (4) *New York Times* reports of various insurgency events identified by date and location, available online; (5) insurgent Web sites that articulate ethnic claims or goals (or not); and (6) consultation with Andreas Wimmer, who also used the Uppsala-Prio Armed Conflict data set (Wimmer et al. 2009, private communication). 14

Ethnic fatalities are coded as such if insurgents articulate distinctly ethnic claims (such as redress of grievances, retaliation from victimization, etc.), pursue ethnic goals (including expansion of control over territory, secession, or separatism), and if rebels claim to be fighting on behalf of a specific ethnic community. Examples of ethnic conflicts include Karen tribal warfare in Myanmar and Thailand and the Tamil Separatist movement in Sri Lanka. Examples of nonethnic insurgency include leftist guerilla warfare in the Philippines and both leftist and right-wing insurgencies in Colombia. A major advantage of the Armed Conflict Database is that the number of fatalities from each type of conflict can be tallied independently. Around 12 percent of countries with fatalities from nonethnic insurgencies also had deaths from ethnic armed conflict in the same year.

Globalization Measures

Scholars exploring the impact of globalization on civil war often rely on measures of economic globalization, such as foreign direct investment, trade openness, preferred trading arrangements, or an export/import ratio (Fearon and Laitin 2003; Hegre, Gissinger, and Gleditsch 2003; Bussmann and Schneider 2007). Other indicators of globalization include the levels of adoption of information technologies, including media, Internet, and cell phone penetration. Barbieri and Reuveny (2005) argue that these measures are relevant to the study of armed conflict because technology facilitates network ties, lowers mobilization costs, and helps coordinate insurgencies.

Two additional indices of globalization, measuring the cultural and political dimensions, have proven useful to the study of globalization and demographic change (Blossfeld and Hofmeister 2006). By comparing the effects of empirically different aspects of globalization, my goal is to provide a more nuanced picture of the consequences of globalization.

The analysis examined two slightly different indexes of globalization. Each disaggregates globalization into various dimensions, which allows for a more precise test of the globalization hypotheses. Such disaggregation turns out to be important for understanding the potentially differential effects of the economic, political, social, and cultural dimensions of globalization.

The first measure explored was the KOF Index of Globalization (Dreher 2006; Dreher, Gaston, and Martens 2008). Building on initial work done by AT Kearney in 2006, ¹⁶ Dreher, Gaston, and Martens (2008) used principal component analysis to weight three dimensions of globalization: (1) economic globalization (e.g., measures of international trade flows and restrictions), (2) social globalization (e.g., international tourism and outgoing telephone traffic), and (3) political globalization (e.g., embassies established, membership in international governmental organizations and participation in UN security organizations). ¹⁷

The second measure also builds on principal component analysis to produce a combined index (known as "Globalindex"), which can be disaggregated as follows: (1) Economic globalization includes trade as percentage of gross domestic product (GDP), foreign direct investment, portfolio investment, and income payments to foreign nationals, hidden import barriers, mean tariff rate, and taxes on international trade; (2) Sociotechnical globalization includes measures of personal contact such as telephone lines and international tourism, as well as information flows (number of radios, televisions, and Internet users); (3) Cultural globalization includes two submeasures of (a) the logic of expansion (urban population, high technology exports, and total expenditures on research and development) and (b) Cultural values and standards (measures include the Freedom House Index of civil liberties, primary and female school enrollments, public spending on education, and number of McDonald's restaurants); and (4) Political globalization includes numbers of embassies, memberships in International Governmental Organizations (IGOs) and participation in UN Security Council Missions. 18

The Globalindex's distinction between cultural globalization and sociotechnical globalization is in contrast to the KOF index, which combines cultural and sociotechnical indicators into a single "social globalization" component. This seemingly minor difference in conceptualizing and measuring the disaggregated component parts of globalization turns out to be theoretically important. Specifically, the dimension of cultural globalization highlights the arguments about cultural diffusion offered by key proponents of the world-polity perspective (e.g., Soysal 1994). Thus, the Globalindex allows for a more precise test of the claims that cultural globalization increases the severity of ethnic armed conflict.¹⁹

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Other Country-Level Measures

To isolate the effects of globalization, a number of country-level measures identified in the quantitative literature on civil war need to be considered. In particular, I include measures of democratic regimes, corruption, population size, GDP per capita, ethnic-linguistic and religious fractionalization, and newly independent states (Ross 2006; Walter 2009).

Democratic regime. Because democratic and competitive political systems have open opportunity structures that can respond to ethnic demands, democratic regimes have been expected to reduce fatalities from armed conflict generally (Lacina 2006); or reduce deaths from ethnic conflict specifically (Horowitz 2001). Despite widespread policy support for this claim (Diamond and Plattner 1994), research findings on civil war have been inconclusive (Sambanis 2001; Reynal-Querol 2002) and isolating the influence of democracy on civil war has proven difficult. Some find that democratic institutions are likely dependent on economic growth and stable institutional routines, which provide buffers against civil war (Fearon and Laitin 2003; Hegre, Gissinger, and Gleditsch 2003). However, Elbadawi and Sambanis (2002) do not find an effect of democracy on civil war when specifying models that include the potential effects of endogenous processes (but see Mitchell, Gates, and Hegre 1999). Others have observed that some democratic countries are characterized by seemingly intractable episodes of ethnic conflict, as illustrated by the case of India (Varshney 2002; Wilkinson 2004).

Some time ago, Ted Gurr and his associates (Gurr, Jaggers, and Moore 1989; Marshall and Jaggers 2005) compiled a major cross-national data set, now called Polity IV, which aimed at producing a comprehensive source of data chronicling a number of key dimensions of governance structures: weak versus strong, authoritarian versus democratic, competitive versus preordained, monopolistic versus inclusive, inclusive versus exclusive cabinet membership, and so on.

Polity IV's measure of democracy has its critics (Hegre et al. 2001; Fearon and Laitin 2003). In particular, Vreeland (2008, 401) warns that two components of the polity index include measures of political competition "where political competition is intense, hostile, and frequently violent." Thus, using the full composite measure in an analysis of political violence seems problematic. I recalculated a new measure, X-polity, which removes the confounding components from the composite polity index (Vreeland 2008). Where the polity measure ranged from -10 to +10, X-polity now ranges from -6 to 7.20

Questions about endogeneity naturally arise when trying to assess the direction of the relationship between democracy and ethnic conflict (Sambanis 2004; Olzak 2006). Without strong theoretical assumptions, it is difficult to find appropriate instruments for identifying models of two-way causation (as is necessary). Nevertheless, following other researchers, I reversed the causal ordering here and found that ethnic conflict lagged either one or two years did not significantly diminish levels of democracy. Despite this finding, readers should keep these problems in mind when

considering the results for democracy (and other measures) that raise questions of endogeneity.

Lootable resources and corruption. According to recent accounts, deadly violence of all types flourishes in regimes characterized by the existence of lootable resources. Collier and Hoeffler (2004) find that a positive relationship between their indicator of lootable resources, the ratio of primary commodity exports to GDP, and rebellion is "due to the opportunities such commodities provide for extortion." In his analysis of civil war, Fearon (2005) argues that extortion opportunities are better specified by including a measure of a country's economic dependence on oil exports. Related research efforts argue that these economies provide increasing opportunities to join campaigns fueled by "blood diamonds," oil, and other natural resource commodities (Ross 2006).

Other findings suggest that the presence of specific types of lootable resources (such as secondary diamonds) is more likely to encourage ethnic conflict compared to nonethnic conflict (Lujala, Gleditsch, and Gilmore 2005, but see Ross 2006). In this view, political and economic corruption opportunities increase where lootable resources exist and state regimes have little control over ethnically identified regions. According to this view, once corruption becomes widespread, local ethnic warlords continue to plunder profits from natural resources that become the basis of sustained ethnic insurgent movements. Following this line of research, I expect that countries with higher levels of corruption will have higher fatalities from both ethnic and nonethnic civil war than countries with lower levels of corruption. I also explore measures of primary commodity export ratios and oil producing countries.

While the arguments about corruption and weak states are compelling, most of the measures of corruption have been indirect. Recently, the International Country Risk Guide (ICRG 2005) has made summary corruption measures at the country level available to researchers over the 1984-2002 period. I recalculated these measures (weighted by the number of months of data that were available) to indicate annual averages and reversed the ordering of the index so that a level of six here indicates the highest possible level of corruption in a year within a country (see also Bezemer and Jong-A-Pin 2007).

Ethnic diversity. Conventional arguments for including measures of ethnic diversity in models of armed conflict suggest that having more ethnic groups impedes nation-building efforts, weakens nationalist sentiment, and increases the risk of internal conflict (Horowitz 2001). Others have argued that ethnic polarization or that ethnic domination of political regimes matters more to armed conflict than does ethnic diversity (Bhavnani and Miodownik 2009; Cederman and Girardin 2007). In all of these views, the salience of ethnic identity becomes a potent mobilizing force when insurgents invoke claims regarding past slights, retaliation, or discrimination that resonate with prior historical circumstances (Horowitz 1985). To the extent that states resist or ignore these claims, the potential for armed conflict increases.²²

Some researchers argue that religious fragmentation is inherently more divisive than ethnic diversity because religious identity is more exclusive and membership is more zero-sum, when compared with ethnic identity. In this view, religious fragmentation raises the likelihood that intractable cleavages based on religious hostilities will result (Reynal-Querol 2002; Fox 2004; Svensson 2008). To assess these arguments, I use Fearon's ethnic fractionalization measure (Fearon 2003) and Reynal-Querol's (2002) indicator of religious fractionalization.

GDP per capita. While poverty has usually been found to be related to the onset, duration, and magnitude of ethnic war (Fearon and Laitin 2003; Ross 2006), it remains perplexing that economic grievances alone do not instigate ethnic and nonethnic civil war (Sambanis 2001). Moreover, a country's wealth or resource base does not inoculate it against communal conflict, as the cases of Northern Ireland and Canada can attest. Still other theories predict that severe poverty in a country encourages widespread discontent leading to wars of long duration (Hironaka 2005, but see Hegre et al. 2001). Battle deaths are also likely to be a function of population size, and so controls for this are needed. Population measures and GDP data were obtained from the Penn World Table.²³

Frailty of new states. One more country-level control variable requires discussion. Since 1984, many new states have joined the international stage, and some scholars have suggested that new states are institutionally frail and thus more vulnerable to armed challenges (Fearon and Laitin 2003). Here this frailty is gauged by calculating the number of years since a state became independent. The implication is that new states will have significantly higher death rates from armed conflict, net of the effects of other factors.

Methods of Analysis

The dependent variables analyzed here are annual counts of fatalities from ethnic and nonethnic conflicts, respectively. Ethnic conflicts include all forms of communal/ethno-regional/ethno-religious conflicts, while nonethnic conflicts lack these distinguishing features. The data are arrayed in a longitudinal panel design, where the panel waves are constrained by the availability of corruption data (beginning in 1984), fatalities from armed conflict data (available from 1946 to 2002), globalization indexes (available from 1970 to 2002), cross-sectional data on religious fractionalization index (Reynal-Querol 2002) and ethnic fractionalization characteristics (Penn World Tables, available for most countries from 1970 onward).

The data on fatalities from armed conflict present a number of methodological challenges when trying to estimate the effects of globalization, poverty, and corruption. First, the data on battle deaths are truncated—they contain nonzero counts only if the annual tally of fatalities reaches twenty-five or more. Second, the count of fatalities is zero for most countries in any given year, raising skepticism about usual methods of analysis (such as ordinary least squares [OLS] regression) that rely on assumptions

that the disturbance term is normally distributed.²⁵ Third, as with most collective action data, there is significant evidence of overdispersion in the count of battle deaths (where the standard deviation is larger than the mean values).²⁶

To gain leverage over these constraints, I use negative binomial regression to analyze a pooled cross-sectional time-series model that accounts for overdispersion (using xtnbreg in STATA 10). The model specification improves over the standard Poisson regression analysis for count data when there is overdispersion and it allows the rate of fatalities to vary across individuals and time. Diagnostics (including comparison of the log likelihood ratios and Bayesian information criterion [BIC] measures) indicate that the negative binomial random effect models outperform alternative specifications, such as Poisson regression and ordinary panel regression analyses (and the exponentiated dispersion parameters are significantly different from zero in all cases). To control for stability or state dependence in the rate of fatalities, I include a lagged dependent variable. Each model reported here also includes a correction for nonindependence (or clustering) among events at the country level (Guo 1996).

Results

Globalization and the Severity of Armed Conflict

Table 1 highlights the effects of globalization on the rate of deaths from armed conflict.²⁷ Columns 1 and 2 examine the effects on fatalities from ethnic conflict while columns 3 and 4 report the effects of these measures on fatalities from other types of internal warfare. As predicted, the composite measure of globalization has a strong positive and significant effect on the rate of fatalities from ethnic conflict (column 2 vs. 1), but no such effect for fatalities from other types of warfare (column 4 vs. 3).²⁸ These results support the globalization and ethnic discontent argument and they provide counterevidence for perspectives expecting that exposure to globalization will have a beneficial effect on deaths from ethnic armed conflict.

Some of the patterns of effects of the control variables address existing theoretical debates. Recall that the greed/opportunity hypothesis suggests that lootable commodities provide resources obtained through corruption, bribery, and extortion (Collier and Hoeffler 2004).²⁹ Table 1 shows powerful evidence suggesting that deaths from nonethnic conflicts increase significantly, as corruption levels rise. The effect of corruption in column 4 of Table 1 implies that as the average annual corruption levels rise from a low of 1 to a peak level of 6, the rate of fatalities from nonethnic war rises over seven-fold (739 percent). Moreover, this impact of corrupt regimes is powerful even when the effects of globalization and economic well-being are taken into account.

Because endogeneity is a possible problem in this model of corruption and conflict (and reliable instruments are few and far between), I explore a reverse causal argument that asks whether corruption itself is a consequence of prior conflicts and devastating death tolls. To address this alternative, I analyzed the reverse causation

Table 1. Negative Binomial Effects of Globalization on Deaths from Armed Conflicts, 1984-2002

	Ethnic	Ethnic conflict	Nonethnic conflict	c conflict
	(1)	(2)	(3)	(4)
Deaths from prior armed	.137*** (.013)	.144*** (.013)	.615*** (.062)	.638*** (.064)
conflict in 1000s $(t-1)$				
Democracy level (X-polity) $(t-1)$.108*** (.021)	.081*** (.022)	007 (.043)	.003 (.044)
Log population size $(t-1)$.545*** (.099)	.395*** (.091)	.286 (.169)	.321 (.166)
$Log\ GDPC\ (t-I)$.784** (.233)	876* (.347)	.079 (.510)	.438 (.586)
Corruption level (ICRG) $(t-1)$.129 (.103)	(100)	.417** (.160)	.400** (.150)
Ethnic fractionalization	-1.04* (.443)	536 (.430)	3.54*** (1.00)	3.14** (1.05)
Religious fractionalization	1.74*** (.465)	1.09* (.501)	-8.33*** (1.91)	-8.65 *** (1.89)
Globalization Composite Index		1.83*** (.301)		–.729 (.599)
(Globalindex) $(t-1)$				
Years since independence (t)	008*** (.002)	009*** (.002)	004 (.006)	004 (.006)
Time trend	(810.) ***160	—.081*** (.017)	073** (.024)	058*(.027)
Constant	-13.5*** (2.64)	-2.93(2.91)	-6.83* (4.05)	-8.26 (4.26)
Dispersion parameter	.130*** (.030)	.126*** (.029)	.136*** (.037)	.138*** (.037)
Log likelihood	-1624.3	-1606.9	-883.2	-882.4
Likelihood ratio test versus		34.8***	1	9.1
Baseline model (1 df)				
Number of observations	1,383	1,383	1,383	1,383
Note: GDPC = gross domestic product per capita. Standard errors in parentheses. $^*p < .05$. $^{**}p < .01$. $^{**}p < .01$. $^{**}p < .001$.	er capita. Standard errors in p	arentheses.		

using previous battle deaths to predict corruption level but did not find significant evidence of this reverse causal relation once democracy (X-polity) and GDP per capita were included in the models (and democracy and GDP per capita decrease corruption). Contrary to expectations, adding the conventional measures of "greed" (economic reliance on oil and/or primary commodities) from Collier and Hoeffler (2004) and Fearon (2005) to these models does not reveal any significant relationship with the ICRG corruption measure, and they did not have an independent effect on battle deaths.

The effects of measures of the strength of communal cleavages related to religious and ethnic diversity are decidedly mixed. As others have found, ethnic fractionalization has no positive effect on battle deaths from ethnic armed conflict once globalization is included in the model (Fearon and Laitin 2003, but see Wimmer, Cederman, and Min 2009). But ethnic fractionalization raises fatalities from nonethnic armed conflict significantly, which is puzzling. Further adding to the mystery, religious fractionalization significantly increases fatalities from ethnic wars (in columns 1 and 2), but it significantly decreases fatalities from nonethnic wars (in columns 3 and 4).³⁰ These results suggest that measures of religious fractionalization may be becoming a more relevant factor in ethnic war and that the label of "ethnic" war requires a broader interpretation that includes the mobilization of religious identity (Gurr 1993; Fearon and Laitin 2003; Koenig 2008).

Table 1 shows that democracy has no deterrent effect on fatalities from either type of conflict, and it actually raises the severity of levels of ethnic conflict as measured by battle deaths. Such findings run counter to long-standing beliefs that democracy promotes stability within and between nations (Russett 1993). How should these results be interpreted? In addition to the nontrivial endogeneity problem raised earlier, it seems reasonable to assume that not all democracies are alike in their ability to respond to ethnic insurgency. Pushing this line of reasoning further, it seems plausible that the effect of democracy also depends on state capacity (or state strength). In this view, strong states have the capacity to suppress civil wars, due to superior military strength, strong bureaucratic administrations, and the ability to deliver resources to an aggrieved population (Fearon and Laitin 2003; Lacina 2006).

Using the National Material Capabilities data set, I explored this alternative hypothesis, reanalyzing each model in all three tables. Adding the "national capacity" measured as a composite index³¹ raised the number of battle deaths from ethnic armed conflict, but it did not diminish the positive and significant effect of democratic regimes on battle deaths from ethnic conflict seen in Tables 1 and 2. Interestingly, state strength *did* significantly decrease the number of battle deaths from insurgencies *not* based on ethnicity, while no other major changes in the patterns of results were found (these results are available on request). Contrary to the state capacity argument, the effect of democratic polities remained positive and significant in all models of fatalities from ethnic conflict when state capacity is taken

Table 2. Negative Binomial Estimates of Effects of Four Dimensions of Globalization on Deaths from Ethnic Armed Conflict, 1984-2002

	(1)	(2)	(3)	(4)
Deaths from prior armed conflict in $1000s (t-1)$.144*** (.013)	.141% (.014)	.144*** (.014)	.136*** (.013)
Democracy level (X-Polity) $(t-1)$.091*** (.022)	.101*** (.022)	.104*** (.022)	.082*** (.022)
Log population size $(t-1)$.543*** (.093)	.622*** (.113)	.644*** (.104)	.264* (.106)
$Log\:GDPC\:(t-I)$	216 (.323)	.809** (.237)	.675** (.231)	715*(.351)
Corruption level (ICRG) $(t-1)$.174 (.104)	.133 (.104)	.154 (.103)	.162 (.101)
Ethnic fractionalization	-1.30** (.435)	-1.20** (.454)	-1.01* (.449)	168 (.444)
Religious fractionalization	1.51*** (.476)	1.75*** (.464)	1.79*** (.475)	.933 (.505)
Globalization dimensions				
Economic $(t-1)$	1.01*** (.227)			
Political dimension $(t-1)$		223 (.156)		
Sociotechnical $(t-1)$.760** (.291)	
Cultural $(t-1)$.840*** (.159)
Years since independence (t)	−.009*** (.002)	007*** (.002)	—.009*** (.002)	005** (.002)
Time trend	—.107*** (.018)	079*** (.020)	095*** (.018)	050** (.018)
Constant	-7.76*** (2.84)	-14.14*** (2.69)	-14.02*** (2.57)	-2.44 (3.14)
Dispersion parameter	.127*** (.029)	.130*** (.030)	.128*** (.029)	.129*** (.030)
Log likelihood	-1613.9	-1623.3	-1621.2	-1610.3
Likelihood ratio test versus Baseline	20.8***	2.0	6.2*	28.0***
Number of observations	1,383	1,383	1,383	1,383

Note: $\mathsf{GDPC} = \mathsf{gross}$ domestic product per capita. Standard errors in parentheses.

 $^{^*}p < .05.$ $^{**}p < .01.$ $^{***}p < .001.$

into account. Because military expenditures are a significant portion of this index, however, endogeneity remains a potential problem in these models, and so it was dropped.

Effects of Four Different Dimensions of Globalization

I next explore whether each of the four dimensions of globalization also produces a different impact on fatalities from each type of war. Several opposing theoretical perspectives guide this specific analysis. In particular, if the reasoning from the world-polity perspective is correct, cultural indicators of globalization would raise the incidence of ethnic insurgencies that turn deadly. If economic globalization increases levels of ethnic competition, ethnic inequality, or resentment, then economic globalization breeds ethnic discontent and raises the death toll from ethnic conflict. However, if nonethnic wars are driven mainly by class-based deprivation, then the benefits from economic globalization could potentially decrease deaths from nonethnic war (Barbieri and Reuveny 2005). Political globalization—including the interconnections among states—could have both positive and negative effects, suggesting a more neutral impact of what is often referred to as an ever-increasing interconnected pattern among intergovernmental associations, coordination of treaties and economic agreements, and other properties that link the fates of countries. Tables 2 and 3 explore the empirical implications of each argument.

Tables 2 and 3 present estimates of parallel models of fatalities from ethnic and nonethnic war that include all the measures found in Table 1, but they disaggregate the Globalindex into four separate indexes: economic, political, sociotechnical, and cultural (see page XXX for a listing of the components of each index).

Table 2 shows a positive and significant effect (in column 1) of economic globalization on fatalities from ethnic conflict. As economic globalization increases from its mean level (3.6) by one standard deviation (4.8), the coefficient of 1.01 indicates a 127-fold increase in the rate of fatalities from ethnic conflict. This finding is consistent with the argument that ethnic wars will become more deadly to the extent to which economic globalization raises levels of ethnic competition, stirs resentment, and increases inequality among ethnic groups (Chua 2003; Olzak 2006; Harrison 2006). Table 3 shows no significant effect of economic globalization on fatalities from nonethnic war. These findings are, of course, inconsistent with the economic dividend argument.

In Table 2, exposure to political globalization (measured by membership in international governmental organizations (IGOs), embassies, and UN Security Council participation) decreases the rate of deaths from ethnic conflicts, but this effect is not significant.³² The impact of this political dimension on fatalities from nonethnic conflicts is also negative in Table 3, but here it is significant. This suggests that political ties to an international structure of treaties, organizations, and other connections have a deterrent effect on the severity of nonethnic insurgencies.

Table 3. Negative Binomial Estimates of the Effects of Dimensions of Globalization on Deaths from Nonethnic Conflicts, 1984-2002

	(I)	(2)	(3)	(4)
Deaths from previous armed conflict in 1000s $(t-1)$.614*** (.061)	.643*** (.064)	.756*** (.070)	.572*** (.066)
Democracy Level (X-Polity) $(t-1)$	007 (.043)	009 (.042)	.077 (.040)	018 (.042)
Log Population Size $(t-1)$.257 (.169)	.796** (.251)	(171) 600.	.190 (187)
$\log GDPC\left(t-I ight)$.258 (.529)	.620 (.534)	.385 (.502)	—.576 (.619)
Corruption level (ICRG) $(t-1)$.394** (.152)	.363* (.156)	.292* (.136)	.418* (.166)
Ethnic fractionalization	3.29** (1.02)	3.25** (.964)	1.75 (.944)	3.93* (1.04)
Religious fractionalization	-8.63***(1.89)	-6.90*** (1.84)	$-7.08^{*\!*\!*}$ (1.86)	-7.37*** (2.00)
Globalization dimensions				
Economic $(t-1)$	382 (.300)			
Political $(t-1)$		910* (.354)		
Sociotechnical $(t-1)$			-6.53 *** (1.30)	
Cultural $(t-1)$.603 (.334)
Years since independence (t)	004 (.006)	004-e-03 (.006)	005 (.006)	003 (.005)
Time trend	046 (.033)	074** (.024)	023 $(.026)$	065* $(.024)$
Constant	-6.89*** (4.09)	-I5.30*** (5.05)	-3.75(4.37)	-3.53 (4.43)
Dispersion parameter	.137*** (.037)	.142*** (038)	.141*** (.038)	.137*** (.037)
Wald chi-square	-882.4	-879.8	-866.3	-881.6
Likelihood ratio test versus Baseline	9:1	**8.9	33.8***	3.2
Number of observations	1,383	1,383	1,383	1,383

Note: Standard errors in parentheses. *p < .05. **p < .01. **p < .001.

Recall that one implication of the world-polity perspective is that countries more embedded in a globally shared culture would experience more violent ethnic insurgencies and that this effect would be greatest for ethnic civil wars. Table 2 shows that countries that score high on the cultural globalization dimension incur significantly more fatalities from ethnic civil war. In Table 3, the effect of cultural globalization on fatalities from nonethnic civil wars is positive but not significant. Evidently, the diffusion of a broad global culture is more likely to encourage bloody battles that are ethnic in character, as predicted.

Table 2 also shows a significant positive effect of sociotechnical globalization on fatalities from ethnic conflict, as one aspect of Chua's "world's on fire" argument holds. In contrast, in Table 3, countries higher in exposure to sociotechnical globalization have significantly lower death counts from nonethnic conflict. These divergent patterns only partially support Chua's (2003) claim, by specifying that the adoption of sociotechnical innovations increase deaths from ethnic tensions but they decrease deaths from nonethnic conflicts significantly.

Looking across the pattern of effects for all other measures in Tables 2 and 3, we see that most of the effects of internal factors remain similar when the dimensions of globalization are analyzed separately.³⁴ Democratic regimes have a significantly higher rate of fatalities from ethnic civil war, but this measure does not have a significant effect on fatalities from nonethnic civil wars. Religious fractionalization raises the death toll from ethnic armed insurgencies, but it significantly decreases deaths from nonethnic conflicts. Corruption levels raise rates of fatalities from nonethnic conflict but not from ethnic conflict. Finally, there is a strong "liability of newness" effect for fatalities, but only for the severity of ethnic conflicts. Older, established states have a significantly lower rate of fatalities from ethnic conflicts but this benefit from aging does not translate to nonethnic conflict.

While most of the results found for these economic measures are likely to disappoint some policy makers, there is also some positive news here as well. Contrary to the "world on fire" warning, Tables 1-3 show a generally negative (but not always significant) effect of a time trend for deaths from ethnic armed conflict over this period (see also Fearon 2004).

Discussion

For some time, scholars have argued that globalization has influenced armed conflict around the world, but they have not considered the possibility that the distinctive dimensions of globalization might affect the severity of ethnic and nonethnic civil wars in different ways. Using a variety of global approaches and applying them to newly available data on the dimensions of globalization, armed conflict, and corruption, this research has uncovered some results that were anticipated by the literature on globalization and some that were surprising.

First, as hypothesized, the effects of different dimensions of globalization on fatalities from armed conflict diverge. Indicators of economic and sociotechnical

globalization significantly increase deaths from ethnic armed conflict but they decrease deaths from nonethnic armed conflict (but this is significant only for sociotechnical globalization). The political globalization dimension decreases deaths from nonethnic armed conflict but has no effect on deaths from ethnic armed conflict. Thus, the results cast doubt on the characterization of globalization as a unified process.

Moreover, the patterns reported in the analysis on ethnic armed conflict run counter to the argument that economic globalization has mainly beneficial effects on armed conflict. No support is found for the claim that economic globalization lowers the rate of fatalities from ethnic or nonethnic conflict. In fact, as the economic competition and the "world on fire" perspectives propose, economic globalization actually *raises* the rate of fatalities from ethnic civil war. In addition, corruption measured directly at the country level systematically raises the costs from nonethnic internal armed conflict in terms of loss of human life. Indeed, deaths from nonethnic internal wars rise consistently with corruption in every single model.

The failure of economic globalization to reduce deaths from ethnic conflict is troubling on several grounds. While economic globalization might well raise the standard of living as it gradually diffuses from core to peripheral regions of the world, the results shown here suggest that it does not diminish the number of deaths from either ethnic or nonethnic civil war. Indeed, to the extent that economic globalization raises levels of corruption, in the future it may indirectly raise the capacity of insurgents to wage war funded by new economic opportunities. The hope that economic globalization brings new resources that diffuse broadly across populations in poorer regions may eventually be realized, but it has not yet had the effect of reducing the number of deaths from internal wars.

This analysis adds another layer of complexity to previous research that found little impact of measures of ethnic and cultural diversity: ethnic fractionalization decreases the number of fatalities in ethnic insurgencies, but religious fractionalization increases the number of deaths from ethnic strife. In contrast, religious fractionalization significantly lowers deaths from nonethnic insurgencies. In the context of the current fears of rising communal violence, these findings suggest that ethnic and nonethnic wars follow divergent trajectories. The findings suggest that understanding the nature of mobilization along religious lines might offer some clues for understanding the dynamics of large-scale insurgency movements. Clearly, more work needs to be done to tease out the implications of different types of cultural boundaries for different types of civil war.

Conclusion

Given the rising importance of globalization, the pattern of factors related to deaths from internal conflict provides ammunition for those who fear that armed conflict will continue to fuel many intractable conflicts and kill many victims. The findings also cast doubt on claims that deadly warfare is driven solely by internal features of states.

There are several theoretical payoffs to analyzing the component parts of globalization separately. In particular, the world-polity perspective finds considerable support from a strategy used here that separates out the cultural/ideological dimension of globalization. This result is consistent with earlier findings, but it includes a broader number of cultural/ideological components than have been analyzed previously. It also suggests that the implications of the world-polity argument extend well beyond the politics of incorporation and human rights.

The finding that political and sociotechnical indicators of globalization significantly decrease fatalities from nonethnic conflict opens new research avenues. For those interested in pursuing this line of reasoning, these sociotechnical integration measures might be further disaggregated to uncover which components of this indicator matter most (and why). Such efforts would go far in untangling the specific strategies that may have been successful in dampening the fires of conflict and reducing death tolls.

Finally, there are many policy implications embedded in all of the findings reported here. Deaths from armed conflict continue to wreak havoc around the world, aggravating problems of refugee settlements and internal displacement communities that are often populated by aggrieved victims from previous wars. Where deadly civil wars have occurred, many other harmful consequences follow, including environmental disasters, widespread illnesses and health problems, and a deterioration of infrastructure in transportation, building, and housing. All of these by-products of civil war inhibit a regime's future ability to confront other challenges, both internal and external. Without more research on the outbreak, duration, and severity of civil wars, policies aimed at defusing such conflicts cannot hope to succeed.

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Notes

Civil wars are internal conflicts with an annual death toll that reaches at least 1,000 persons, while the label of internal armed conflict refers to a lower threshold of fatalities (Uppsala Conflict Data Program 2009). In practice, many scholars use these terms interchangeably (e.g., see Wimmer, Cederman, and Min 2009). For a thorough discussion of these issues, see Sambanis (2004).

- For reviews of the literature on ethnicity and civil war, see Brubaker and Laitin (1998), Hegre et al. (2001), Collier and Sambanis (2002), Varshney (2003), Olzak (2004), Hironaka (2005), Sambanis (2004), Chandra (2006), Kalyvas (2006), Ross (2006), Wimmer, Cederman, and Min (2009), Cederman, Buhuag, and Rød (2009), and Walter (2009).
- 3. For examples of studies that have made this comparison, see Sambanis (2001), Fearon and Laitin (2003), Lujala, Gleditsch, and Gilmore (2005), and Cederman and Girardin (2007).
- 4. Other analyses have compared dyadic interstate war (Gleditsch and Hegre 1997; Russett, Oneal, and Cox 2000), the likelihood of interstate war (Oneal and Russett 1999), the duration of civil war (Collier, Hoeffler, and Söderbom 2004; Fearon 2004), the prevalence of civil war (Elbadawi and Sambanis 2002), and the onset of civil war (Fearon and Laitin 2003).
- 5. A large debate in the literature exists over when globalization started. For examples, see Wallerstein (1974), Soysal (1994), and Blossfeld and Hofmeister (2006), among many others. The key assumption made here is that, while processes of globalization undoubtedly began long ago, the concept itself and research on its effect on civil war are relatively recent (Hegre, Gissinger, and Gleditsch 2003).
- 6. The argument that globalization has mainly positive consequences for international and internal peace emphasizes the idea that economic development resulting from globalization increases chances for political and social stability, which reduces armed conflict. For discussions of this issue, see Russett and Oneal (2001), Hegre et al. (2001), and Hegre, Gissinger, and Gleditsch (2003).
- 7. An exhaustive search found no studies that have investigated whether globalization, ethnic inequality, and armed conflict are related. This is in part because few reliable measures of ethnic inequality exist (see Goldberg and Pavcnik 2007). There are several studies exploring whether there is an association between ethnic inequality and (undifferentiated) armed conflict. Using survey data on household educational attainment by ethnicity to calculate measures of "horizontal inequalities" in thirty-nine developing countries, Østby (2008) finds that this measure is related to the onset of armed conflict in general. However, using the State Failure data set, Besançon (2005) finds that economic inequality increases deaths from revolution, but that the effect of inequality on deaths from ethnic wars is much weaker (and in some cases, negative).
- 8. See also Harrison's (2006) analysis of potentially destabilizing effects of foreign investment on the poor.
- 9. Similarly, Naghshpour and St. Marie (2008) found that economic globalization raises likelihood of ethnic protest significantly, which they claim is a precursor to conflict.
- The "cultural clash" perspective explains a variety of ethnic and fundamentalist movements as caused by exposure to Western-based globalization ("Jihad vs. McWorld"),

- whose actions threaten the persistence of local ethnic or religious cultures (Barber 1996; Huntington 1993, 1996; Roeder 2003).
- 11. For example, Koenig (2008, 100) reports that the International Convention on the Elimination of All Forms of Racial Discrimination (ICERD) was adopted by UN members in 1965. Koenig's point is not that international declarations are necessarily effective, but rather they have been widely endorsed.
- 12. See also Marshall, Gurr, and Harff (2009). These data build on the COW data set, using the same set of criteria for a variety of different types of state failure outcomes (ranging from state failure related to violent overthrow of a government to peaceable evolution to democracy). These data are available from http://globalpolicy.gmu.edu/pitf/pitfcode.htm.
- 13. I focus specifically on internal wars, to ensure that conflicts from battle deaths were not inflated by the involvement of the international community (and because deaths from international wars are likely to be driven by different types of causes than those hypothesized here).
- 14. Codes of ethnic and nonethnic battles were remarkably consistent across research teams. Two sources of remaining discrepancies (*N* = 3) include (1) Wimmer, Cederman, and Min (2009) analyze ethnic conflict (only), whereas I analyze death counts from all types of internal armed conflicts in the data set, (2) Wimmer, Cederman, and Min omit battles in disputed territories (e.g., the Western Sahara in Morocco), while I include them. In my analysis, deaths from ethnic armed conflicts were judged as such if the battle showed evidence of at least two of the four coding criteria provided by Wimmer, Cederman, and Min: ethnic recruitment, ethnic aims, ethnic war, or ethnic secessionist goals.
- 15. I also explored a conventional measure of economic globalization available from the Penn World Table, trade openness (openk), calculated as exports plus imports divided by real GDP, lagged one year, in constant dollars. It had no effect in any of the models (see also Fearon and Laitin 2003).
- 16. See the ATKearney Web site: http://www.atkearney.com/main.taf?p=5,4,1,127 (accessed September 1, 2009).
- See http://globalization.kof.ethz.ch/static/pdf/method_2007.pdf (accessed September 15, 2008). See Naghshpour and St. Marie (2008) for analysis of ethnic protest using the KOF measure
- 18. For data and definitions, see http://www.transeuropeproject.org/page.php?id=356 (accessed September 29, 2008). For details on the Globalindex, see Raab et al. (2008).
- 19. Tsutsui and Wotipka (2004) use a country's number of memberships in human rights organizations as an indicator of world integration. I used their country-level data on 1978 memberships and found it was weakly but positively related to higher fatalities from nonethnic civil wars, but it was unrelated to fatalities from ethnic conflicts. However, because the use of this variable in models of ethnic conflict raises the very real possibility of endogeneity, results using it are not reported.
- 20. I also followed Vreeland's (personal communication) recommendation to recode the original measures of "interregnum" (-77) to a neutral polity score (.5), and cases of foreign interruption (-66) were recoded as missing. Cases of transition (-88) were prorated for that interval using values from the beginning and end of the transition interval.

21. International County Risk Guide, published by the PRS Group, Table 3B, "Political Risk Points by Components, 1984-2002 (available on CD-ROM, University Library system). These data sets include separate indexes of government stability, socioeconomic conditions, investment profile, internal and external conflict, military in politics, religious tensions, ethnic tensions, law and order, democratic accountability, bureaucracy quality, and corruption. I only used the specific index on corruption (and none of the confounding indexes on turmoil, conflict, and religious and ethnic tensions are included this measure).

- 22. Recent empirical evidence has prompted a reconsideration of this view (e.g., see Wimmer et al. 2009; Fearon and Laitin 2003; Mousseau 2001; Toft 2003).
- 23. See Heston, Summers, and Aten (2006).
- 24. Others have argued that ethnic tensions are greatest when the ethnic groups are few in number but constitute large proportions of the population. To tap this idea, I used the ethnic polarization measure published by Esteban and Ray (2008). In contrast to the ethnic polarization hypothesis, I found a significant negative effect of ethnic polarization on fatalities from ethnic conflict (results available on request). See also Esteban and Schneider (2008) and Bhavnani and Miodownik (2009).
- 25. The fact prompted the exploration of alternative methods of estimation using zero-inflated negative binomial models. Unfortunately, these models did not converge. There are many possible sources of estimation problems here. Because the zero-inflated negative binomial estimation routines in STATA are not available for panel models, the models used may not be appropriate or may produce biased results. Second, because the lagged dependent variables are included in each model shown here, the "inflate" option applied to both lagged and contemporaneous dependent variables could create further problems. Any or all of these issues may have contributed to the lack of convergence.
- 26. For a variety of reasons, I used the raw estimates ("best estimates") of battle deaths from these data. The Armed Conflict data set also provides a measure of "intensity," which collapses the numerical counts of fatalities into two categories: 25-999 annual deaths from a given conflict; and 1,000 deaths or higher. Adding a zero-count for zero or less than 25 fatalities, I replicated the analysis using multinomial logit estimation methods. Most results were the same as reported in the tables. However, because the intensity measures were highly skewed (with a very small number of country-years at the highest intensity level), I chose to rely on the counts of fatalities.
- 27. This journal's online data replication supplement contains Appendices B and C, which report the means, standard deviations, and correlation matrix for all independent variables in the models. In Tables 2 and 3, the baseline model is one that omits the particular globalization measure.
- 28. I also explored models where I replaced all globalization measures with other commonly used measures: world-systems categories (core, semiperiphery, and periphery) and lagged number of memberships in nongovernmental organizations. Membership in nongovernmental organizations had a positive and significant effect on battle deaths from ethnic conflicts, none of the other measures were significant and none had any effects on any of the other measures in the models (Olzak 2006). To explore sources of measurement error, I used GLLAMM and CME (covariate measurement error) software to estimate

- models of the effect of globalization, which incorporate measurement error and missing data (MAR models). While the overdispersion parameter could not easily be incorporated into the CME model, it was reassuring that the effect of lagged globalization was indeed positive and significant using these techniques (see Rabe-Hesketh and Skrondal 2005).
- I reanalyzed these models using Fearon's (2005) primary commodity dominance and oil export dominance measures but found no significant effects.
- 30. Exploration of an interaction effect between religious and ethnic fractionalization proved difficult, due to multicollinearity between parent and interaction terms. Such models would directly examine whether deaths from armed conflict peak when both measures are high.
- 31. Data are from Correlates of War, National Material Capabilities Dataset (NMC v.3.02.). These data provided a combined index ("cinc") indicating state capacity: tons of iron and steel production, military expenditures, military personnel, total and urban population size, and energy consumption (See Singer, Bremer, and Stuckey 1972; and Singer 1987. For data, see http/www.correlatesofwar.org/). Because of multicollinearity with the parent terms, including an interaction term for state capacity and the X-polity democracy index was problematic.
- 32. A reverse causal argument is also plausible. In this view, rising deaths from ethnic warfare might induce countries to seek assistance and membership in intergovernmental agencies. This hypothesis was explored, but the effect of deaths on political globalization was not significant.
- 33. I also ran these same models with the three disaggregated measures of the KOF index of globalization. Although the KOF runs are not strictly comparable with mine, it is interesting to note that for both the social and the political dimensions, the KOF measure of social globalization had mainly negative effects (especially on deaths from nonethnic conflicts). Several KOF social globalization components were not found in the Globalindex (e.g., Numbers of hit songs in English, movies in English, and Ikea stores). The substantive interpretation of these particular components of KOF social globalization seem more consistent with the anti-globalization movement, which is distinct from claims usually voiced by those involved in ethnic and nonethnic armed civil war.
- 34. For a summary of the results, see Appendix—Table A in the online replication supplement.

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