

11-2005

Economic Globalization and Civil War

Katherine Barbieri

University of South Carolina - Columbia, katherine.barbieri@sc.edu

Rafael Reuveny

University of Indiana - Bloomington

Follow this and additional works at: https://scholarcommons.sc.edu/poli_facpub



Part of the [Political Science Commons](#)

Publication Info

Published in *Journal of Politics*, Volume 67, Issue 4, 2005, pages 1228-1248.

This Article is brought to you by the Political Science, Department of at Scholar Commons. It has been accepted for inclusion in Faculty Publications by an authorized administrator of Scholar Commons. For more information, please contact digres@mailbox.sc.edu.

Economic Globalization and Civil War

Katherine Barbieri
University of South Carolina

Rafael Reuveny
Indiana University

In recent decades, the number of countries with ongoing civil wars and the share of these countries in the international system have increased dramatically. At the same time, the scope of economic globalization has also increased. Are these trends related? The theoretical literature on the determinants of civil wars presents conflicting views about the effects of globalization on such wars. One view expects economic globalization to reduce the likelihood of civil wars, *ceteris paribus*. A second view expects the opposite. A third view implies that globalization does not necessarily affect the likelihood of civil war. Progress in assessing the validity of these arguments requires confronting them with data. However, so far economic globalization has been included as a control variable in a very small number of studies, and only trade was inspected. This paper statistically investigates the effect of several aspects of globalization on civil war from a large-N, time-series, cross-sectional sample. The occurrence of civil war is measured in two ways: the presence of civil war (or civil war prevalence) and the breakdown of civil war (or civil war onset). Economic globalization is measured by the flows of trade, foreign direct investment, portfolio investment, and Internet use. We find that economic forms of globalization reduce the likelihood of civil war, but that Internet use does not affect its likelihood. We conclude the paper with a discussion of the implications of these findings for public policy and for future research.

In recent years, many governments and international institutions have adopted policies designed to increase national integration into the global economy. People have reacted with great passion to these policies, at times violently. Whether or not one supports it, most would agree that the scope of economic globalization has expanded in recent decades. At the same time, the number of countries with ongoing civil wars and the proportion of these states in the system have increased. Are these two developments related? The civil war literature presents competing theoretical expectations about the effects of globalization on civil wars. One set of theories expects globalization to reduce the likelihood of civil wars. A second set expects the opposite. A third view implies that globalization should have a negligible effect on civil wars.

This paper addresses the question of whether states that are more integrated into the global economy are less likely than others to face civil war. This question has important policy implications, since globalization is expected to con-

tinue and grow. Thus far, alternative views about the effect of globalization on civil war have been subject to almost no large-N empirical investigations. We seek to contribute to the literature by investigating hypotheses on some of the covariates of civil war within the context of the debate over globalization.

In our analysis, the unit of analysis is the country-year. The dependent variable, civil war, is measured in two ways: its presence and onset. Globalization is measured from international trade, foreign direct investment (FDI), foreign portfolio investment (FPI), and Internet use. These forces are considered along with other variables the literature identifies as potential determinants of civil war. The analysis includes countries with available data for the period 1970–99. Our results reveal that states that are more open to the flow of trade, FDI, and FPI are less likely to experience civil war. Internet use, in general, does not affect the likelihood of civil war.

In the next section, we discuss conflicting theories on why and how globalization affects civil war. Next, we present our research design. This is followed by a discussion of our findings. We conclude by discussing the implications of our results for policymaking and future research.

Theories of Economic Globalization and Civil War

The effect of economic globalization on civil war has recently become a subject of theoretical debate. In one set of theories, globalization promotes peace. In a second set, it promotes civil war. A third view implies that globalization may not affect civil war.

Globalization Reduces the Risk of Civil War

Globalization is said to reduce the risk of civil war through seven channels.

PROMOTING DEVELOPMENT. Neoclassical economics argues that free markets promote economic development. Globalization simply entails the global spread of free markets. Openness to trade, FDI, and FPI enables allocation of production factors to their most efficient uses, promoting development, which strengthens the government, providing it with more revenues as the tax base is larger. Richer states, in turn, can have stronger police and military, deterring potential rebels. Richer countries also can have better infrastructure and administrative capacity, strengthening central control. In addition, richer people should have fewer grievances toward governments than poor and should be less likely to revolt. Lastly, civil wars entail opportunity costs that should be higher for rich states (e.g., income that rebels could earn in the labor force, fighting expenses that could be utilized for growth). Development, therefore, should deter rebellions, thus promoting peace (Fearon and Laitin 2003; Mason 2003; World Bank 2002, 2003).

REDUCING INCOME INEQUALITY. Trade, FDI, and FPI are said to reduce income inequality in several ways (Held et al. 1999; Reuveny and Li 2003; World Bank 2000, 2002). According to neoclassical economics, trade benefits owners of abundant factors of production and harms owners of scarce factors. Lesser developed countries (LDCs) are relatively more endowed with labor, while developed countries (DCs) are relatively more endowed with capital. Thus, trade will reduce the earnings of capital and raise the earnings of labor in LDCs, promoting equality.¹ Trade also raises productivity since it promotes competition and since workers that earn more acquire more education. The competition reduces prices and diminishes monopolies, benefiting the poor. FDI inflows transfer capital, technology, and management skills, promoting growth and reducing inequality. FPI inflows allow nations to invest and consume more, promoting growth and reducing poverty. Regimes become more efficient to attract investments, because markets penalize bad economic performance. More efficient public policy reduces inequality by improving tax and welfare systems. Income equality will promote peace since it reduces the grievances that incite poor people to rebel.²

REDUCING STATE CONTROL OVER THE ECONOMY. States with open economies are less able to affect domestic economic performance, since they have limited control over external forces. For example, seeking higher profits, traders may move their businesses, investors and multinational corporations (MNCs) may leave, and currency traders may dump the local currency. Government's reduced ability to extract revenues from business should promote intrastate peace, since it makes the state less of a prize for rebels. That is, under globalization the benefits from taking over the state seem smaller than the costs of a rebellion (Goodwin 2001; Snyder 1999).

INCREASING COMMUNICATION AND INFORMATION FLOWS. International business requires communication and information flows. Once these channels are open they also provide information on domestic politics, increase international contacts, and transmit foreign pressures on governments and rebels to resolve conflicts peacefully. Open information and communication channels enable international organizations and governments to expand their activities overseas, mediate potential civil wars before they erupt, and resolve existing wars. The channels should also facilitate the spread of democratic norms respecting peaceful conflict resolution (Goodwin 2001; Mason 2003. On international organizations, see also Russett and Oneal 2001).

REDUCING EXPORT OF PRIMARY PRODUCTS. Dependence on exports of primary goods is said to promote civil war through several channels discussed shortly.

¹ The opposite is expected to occur in the DCs, promoting inequality. However, governmental institutions in DCs are generally able to ameliorate this effect by transferring income from capital owners to labor in various ways (e.g., progressive taxation, employment benefits).

² On the role of inequality in promoting intrastate conflict, see the next subsection.

Economic globalization is expected to promote intrastate peace since it reduces this dependence. Trade, FDI, and FPI bring technology and knowledge to a country, promoting industrialization. Countries dependent on exports of primary goods such as timber, oil, and diamonds can reduce their dependency, diversifying their income sources (*The Economist* 2003; Mason 2003; World Bank 2003).

INCREASING THE SIZE OF SECURITY FORCES. Free Trade Agreements (FTAs) limit government spending on protectionism. However, FTAs do not restrict military spending. Governments signing FTAs may increase military spending to create jobs or promote growth. The result is larger and stronger security forces. In addition, economic openness creates winners and losers. The losers may challenge the state to remedy their grievances. Seeking to squash dissent in order to promote trade and attract foreign business, the state employs more security forces. This reinforces state power and reduces the risk of civil war (IPN 2003; Martin and Schumann 1998).

GENERATING ECONOMIC BENEFITS. Trade, FDI, and FPI benefit countries, while conflict is likely to harm these activities. The potential loss of economic benefits due to conflict is said to moderate a government's conflictive responses, promoting international peace (Polachek 1980; Russett and Oneal 2001). Similarly, civil war should lead to reduced trade and reduced foreign investments. Economic openness is expected to reduce intrastate violence, as actors seek to avoid these losses. A strong state response to rebels, for example, might temporarily stop a rebellion, but could lead to further unrest as the rebels regroup, raising losses from forfeited international business. Thus, states and rebels should have greater incentive to accommodate each other peacefully and public support for rebels should be smaller in open, rather than closed, economies (Mason 2003; Wager and Shulz 1995).

Globalization Raises the Risk of Civil War

Globalization is said to raise the likelihood of civil war through several channels.

PROMOTING UNDERDEVELOPMENT. According to dependency theory, trade and foreign investment harm LDCs. The world economy consists of a developed core, which includes a few countries, and an underdeveloped periphery, which includes most other countries. The core is capital intensive. The periphery has a dual economy, including a small, relatively developed sector controlled by foreign interests and local elites who export labor-intensive goods to the core. The rest of the economy is underdeveloped. The core exports capital-intensive goods to the periphery. The core-periphery terms of trade harm the periphery. The periphery's development is distorted: industrialization is limited, and the masses remain poor. The setup is kept in place through explicit or implicit coalitions between

the elites in the core and the periphery (Amin 1990; dos Santos 1970; Rapley 2002). Distorted development promotes dissent, since the masses in the periphery resent the status quo. The dissent is countered with state repression. A cycle of violence ensues, making rebellion and civil war more likely (Boswell and Dixon 1990, 1993; Russett, Starr, and Kinsella 2002). As order deteriorates, MNCs pressure host governments to defend their investments. If MNCs feel that the state does not serve their interests, they may hire private armies, fund rebels, or lobby their home state to support rebels. The resulting social chaos weakens the state and reduces its perceived legitimacy, raising the likelihood of civil war (Duffield 2000; Hawley 2000; Reno 2000; Winters 1999).

RAISING INCOME INEQUALITY. Globalization is said to raise inequality in several ways. First, it favors elites at the expense of the masses, as dependency theory argues. Second, the argument that trade reduces inequality in LDCs assumes that markets are free, but rent seeking is prevalent in LDCs, labor is weaker than land and capital owners, and wages fall behind (IADB 1998; Rapley 2002; Robbins 1996; Tullock 1980). Third, as LDCs open up to the world economy and begin to modernize, inequality rises since wages in more developed sectors are higher than those in other sectors (Nielson and Alderson 1995). Fourth, MNCs push local suppliers and governments to cut employment benefits and wages. Their threat to leave weakens labor's bargaining position. MNCs promote a dual economy and employ capital-intensive techniques that marginalize workers. They also evade paying local taxes, reducing state revenues and, therefore, welfare programs, which hurts the masses more than the elites (Bornschier and Chase-Dunn 1985; Dixon and Boswell 1996; Firebaugh 1992; Held et al. 1999; Reuveny and Li 2003). Fifth, to attract foreign investment, states reduce public employment and privatize, raising unemployment and inequality. Sixth, financial openness is prone to crises due to volatile money movements across countries. In crises, the economy contracts, the tax base shrinks, welfare programs decline or cease, and many lose their jobs. The poor suffer more than the rich, and inequality rises (Germain 1997; Held et al. 1999; Reuveny and Li 2003; Strange 1996; UNDP 1999).

The link from inequality to civil war begins with a sense of deprivation when economic conditions differ from expectations. Deprived people feel that some groups succeed since they are favored unfairly by the government. The grievance provides fertile recruiting grounds for rebels who depict the regime as promoting the interests of some groups at the expense of others (Boswell and Dixon 1990; Mason 2003; Muller 1985; Muller and Seligson 1987; Selbin 2001).

REDUCING STATE CONTROL OF THE ECONOMY. State control of an open economy is harder than control of a closed economy. Foreign interests may override local needs. Investors may move money in and out of the country. Commodity prices may fluctuate in world markets. Facing these forces, the state is less able to compensate the losers from openness. Disputes over who should bear the costs of

adjustment may lead to calls for a retrenchment to liberalization. Sensing state weakness, the opposition may protest, strike, riot, and even rebel (Adams, Dev Gupta, and Mengisteab 1999; Hoogvelt 2001; IPN 2003; Martin and Schumann 1998). Growing economic openness also typically involves deregulation of electronic commerce and communications, which eases the ability of rebels and arms dealers to evade state control. Deregulation of transportation sectors, flags of convenience, and offshore registration of companies make it harder for states to monitor freight traffic. Rebels are thus better able to acquire external supplies needed to wage war against the state (Berdal 2003; Duffield 2000; SAS 2001; Wood and Peleman 1999).

INCREASING COMMUNICATION AND INFORMATION FLOWS. The globalization-induced expansion of communication and information networks facilitates rebels' organizational activities. The media helps spread the rebels' cause, which assists in recruitment, fund raising, and mobilization of the masses. Cross border information flows raise expectations about ethnic sovereignty through demonstration. Electronic networks help finance rebels' activities, including acquiring arms. Market deregulation also may ease the creation of business alliances among rebels, warlords, foreign mercenaries, organized crime syndicates, and arms dealers. All of these activities assist the rebellion, increasing the likelihood of civil war (Berdal 2003; de Zeeuw and Frerks 2000; Mason 2003; United Nations 2001).

PROMOTING EXPORT OF PRIMARY PRODUCTS. International markets force LDCs to focus on their comparative advantage in producing primary goods, which raises the likelihood of civil war due to several forces. Leaders may amass personal wealth by siphoning off export earnings and ignoring society's needs. Corrupt leaders may share profits with support bases, angering other groups. Moreover, when primary products are found in a region dominated by one ethnic group, that group may wish to secede from the home country. The state is likely to react with force. Controlling primary goods also can provide rebels with funds to finance their activities. When the production and transport of primary resources are complex (e.g., oil), rebels can extort money from firms through kidnappings and threats to damage economic installations, unless ransoms are paid (Berdal 2003; *The Economist* 2003; Wood 2003; World Bank 2003).

STIMULATING ALLIANCES BETWEEN REBELS AND ORGANIZED CRIME. Rebellions typically begin with a political goal. Over time, some rebellions acquire attributes of criminal ventures, appropriating resources and wealth. As intrastate violence centered on appropriation rises, the state becomes more oppressive. Globalization weakens state legitimacy, as it cannot shield people from external economic shocks. The combination of a weaker state and stronger rebel-organized crime alliances raises the risk of attempts to take over the state (Duffield 2000; *The Economist* 2003; FBI 2004; Kaldor and Luckham 2001).

GENERATING UNEQUAL ECONOMIC BENEFITS. One argument in the previous subsection was that the fear of forfeiting the economic benefits of globalization prevents civil war. This logic assumes implicitly that all groups benefit equally from economic openness and are, therefore, similarly motivated to refrain from violence. In international relations, some studies reason that since two states do not necessarily equally share the gains from economic interaction, globalization may not promote peace, and may even promote conflict (see Barbieri 2002 for review). Similarly, the gains and losses from globalization are distributed unequally among domestic actors. While neoclassical economics envisions the benefits of openness outweighing its costs, stylized observations suggest that winners typically do not compensate the losers unless compelled to do so by the government. When compensation is imperfect, the gap between winners and losers widens. Consequently, it is possible to argue that the fear of economic losses may not deter the losers of globalization.

Globalization Does Not Affect the Likelihood of Civil War

The argument that globalization has no effect on civil war is not explicit in the literature, but rather follows from studies arguing that economic globalization is not an important force for most countries. These arguments can be categorized into three groups. One group argues that the alleged extent of globalization is exaggerated, particularly for LDCs. A second group disputes the claim that the state is powerless relative to foreign economic forces or is unable to compensate losers. A third group argues that the effects of globalization vary across countries, depending upon the identity of losers and winners, and the nature of the local institutions.³

Implications and Previous Empirical Treatments

It is clear that the literature has conflicting expectations about the effect of globalization on civil war. All the views discussed above present face validity. Based on theoretical arguments alone, it is not possible to decide which of these sets of theories is most accurate. The expectations, therefore, need to be evaluated empirically. As it happens, the issue has not received much empirical-statistical attention so far. When the role of economic openness in civil war has been examined empirically, it has been treated as one of many control variables. To our knowledge, only two studies estimate the effect of globalization on civil war and they focus only on trade. Esty et al. (1998) report that trade reduces the likelihood of civil war onset, while Fearon and Laitin (2003) report that trade does not affect civil war onset. Clearly, there is room for additional empirical analysis of the effect of globalization on civil war.

³ For group 1, see Hirst (1997), group 2, see Garrett (1998), group 3, see Longworth (1998).

Research Design

In designing our statistical analysis, we consider several issues. First, what constitutes a civil war? We use the list of wars compiled by Fearon and Laitin (2003) in their well-received study. It includes all the intrastate conflicts during the period 1945–99 that meet four criteria: (1) the conflict involved fighting between a state and a nonstate group who seeks to take control in a region, seeks to topple the government, or use violence in order to achieve some goal; (2) the conflict killed at least 1,000 people overall, from either side; (3) the conflict killed at least 100 people per year on average, from either side; and (4) the conflict killed at least 100 people on each side of the fight.

Second, two variables are employed in the literature to measure civil war. Many studies focus on the onset of civil war, which is set to 1 in the first year of a war and 0 otherwise (e.g., Esty et al. 1998; Fearon and Laitin 2003). Other studies focus on the presence (also termed prevalence or incidence) of civil war, which is set to 1 during each year of a war and 0 otherwise (e.g., Elbadawi and Sambanis 2002; Reynal-Querol 2002). In our context, focusing on the onset of civil war suggests an implied assumption that globalization only enters actors' decisions about starting civil wars. Examining the presence of civil war suggests that actors consider the role of globalization in each year of the war. Both the presence and onset of civil war are important measures, and each will be considered here.

Third, as a multidimensional concept, we need to measure economic globalization with several indicators. At the state level, economic globalization implies openness to the world economy and its associated communication and information flows. We will employ indicators of trade, FDI, FPI, and Internet use. While other forms of communication and information flows seem relevant, they are not used here, as will be discussed shortly.

Fourth, since all nations are affected by economic globalization, we include all states for which data are available. The unit of analysis is the state-year. The number of states per year varies over time due to missing data and changes in the international system, ranging from 121 to 156. This variation is typical of large-N, pooled designs. The sample covers the period 1970–99; the start date was dictated by the availability of globalization data, while the end date coincided with the end of the civil war data. The pooled design enables assessment of the effect of globalization on civil war across nations and over time.

Fifth, in our 1970–99 period, almost all civil wars occurred in the LDCs, which also tend to be less globalized than the DCs. While globalization's influence on civil war may not be related to development, there may be differential effects of globalization in LDCs than in other states. To assess this possibility, we first investigate the effects of globalization for all countries and then focus exclusively on the LDCs, as measured by nonmembership in the Organization for Economic Development and Cooperation (OECD).

Sixth, control variables need to be added to ensure that our results are not spurious. Recently, civil war scholars have used several common control variables, which we also employ here, including income per capita, population, democracy, political stability, ethno-religious structures, and natural resource exports (see, e.g., Fearon and Laitin 2003; Elbadawi and Sambanis 2002). To these, we add geographical attributes and temporal dependence variables.

Seventh, civil war and some of our right hand side variables may affect each other. For example, democracy may affect civil war, but civil war may also be affected by conflict, an argument that goes back to Tocqueville. Trade and investment may affect civil war, but war may also affect trade and investment. Some firms will avoid states with civil strife, while others may seek to meet the demand of warring parties (e.g., Barbieri and Levy 1999; Pollins 1989). Similar arguments apply to per capita income and population. While one cannot model all the possible interactions, one should not ignore the risk posed by simultaneity bias. One way to address this issue is by lagging the right-hand-side variables (e.g., Li and Reuveny 2003; Muller and Seligson 1994; Oneal and Russett 1999). While this is an imperfect solution, we adopt it.

Eighth, we study some of the covariates of civil war in the context of the globalization discourse. We have discussed two sets of theories. One set argues that globalization raises the risk of civil war; a second set argues the opposite. Given their assumptions, we cannot reject these sets of theories on theoretical grounds. Each of these sets expects a certain sign for the effect of globalization on civil war. We test each sign against the null hypothesis that globalization has no effect on civil war, by employing a one-tail test in reporting the results (for studies taking a similar approach see, e.g., Morrow, Siverson, and Tabares (1998), Li and Reuveny (2003), Oneal and Russett (1999), and Reuveny and Li (2003)).

Finally, pooled designs such as ours may exhibit temporal dependence from the predominance of peace. Ignoring this issue can lead to a missing variable bias and serial correlation. With serial correlation, estimated coefficients are unbiased, but their standard errors are biased. We employ Beck, Katz, and Tucker's (1998) method to model the temporal dependence.⁴ We also confront the possibilities of heteroskedasticity and serial correlation (whether or not temporal dependence is present). With heteroskedasticity, the estimated coefficients also are not biased, but their standard errors are. We deal with these risks by using White's (1980) estimator, to which we add the option of clustering over countries, generating consistent and robust standard errors under general conditions of serial correlation, and heteroskedasticity (Wiggins 1999).

The dependent variable, civil war, is measured in two ways. *War* is coded 1 when a country has a civil war in a given year and 0 otherwise. *Onset* is coded 1 the year a civil war begins and 0 otherwise. Data for both variables come from Fearon and Laitin (2003). Their sample includes 127 civil wars during the period 1945–99, while ours includes 74 wars during the period 1970–99.

⁴ The technique employs a counter of years of peace and three cubic spline terms.

Globalization is measured from the yearly levels of trade, FDI, FPI, and Internet use. The data for all these variables come from the World Bank (2004). *Trade* is equal to the sum of a state's total imports plus exports, divided by its GDP, per year. *FDI* involve two activities of firms in countries other than their own: creation of subsidiaries and purchasing of at least 10% of the voting stocks of foreign firms (giving the buyer management power). It is given by the sum of the net inflow of FDI into a country (inflow minus outflow) divided by GDP. *FPI* denotes the ratio between the net inflow of portfolio investment (inflow minus outflow) and GDP. It measures private transactions in stocks and bonds. *Internet* measures the number of Internet users per 1000 people in a country. These data are not available prior to 1990. We believe it is safe to assume that Internet use was virtually zero prior to 1990.⁵ While it would be useful to include measures of other forms of communication and information flows, measures of radio, television, phone, and newspaper use are all highly correlated with GDP per capita, another variable employed, and with each other ($r < .85$). *Internet* does not pose this problem of collinearity. To the extent that GDP per capita serves as a proxy for these other variables, their effect on civil war can be said to be included in the model.⁶

The data for the control variables, other than the temporal dependence measures, come from Fearon and Laitin (2003). Beginning with *GDP Per Capita*, it is generally expected that increases in this variable will reduce the grievances that make civil war more likely. Richer states are also able to allocate more resources to security, which reduces the risk of attack by rebels. *Oil State* is coded as 1 if a country's fuel exports are greater than one third of its total export, and zero otherwise. Vast oil reserves may create grievances over the distribution of benefits, financial incentives for rebels to gain power, targets for extortion, and funds to finance war, all of which should increase the likelihood of civil war.

Mountainous indicates the share of national areas that are mountainous. The assumption is that difficult terrains provide an advantage to rebels over government forces, raising the likelihood of civil war. *Noncontiguous Territory* is coded as 1 when national territories with at least 10,000 people are geographically separated from the capital city and 0 otherwise. Noncontiguous territories are thought to aid rebel efforts, since they make it more difficult for governments to service and monitor people, raising the likelihood of civil war.

Democracy measures the difference between the democratic and autocratic attributes of a state, reported in the Polity IV data set. On the one hand, democratic states are believed to be more responsive to the people's demands and less

⁵ See Internet Society at <http://www.isoc.org/internet/history>. Beginning in 1990, there are no states with missing data once they begin reporting Internet use, except Haiti in 1997. We code this point as missing. Using values from 1996, 1998, and their average did not change our result.

⁶ Internet use may not be an ideal measure of the ability of international organizations and other states to manage internal conflicts within another country. That said, the Internet has become a medium of communication and data transfer for some organizations and governments, as well as a source of information on other countries, which can enhance conflict resolution activities.

likely to experience civil war. On the other hand, freedom creates opportunities of association and movement that would make rebellion easier. Some believe there is a curvilinear relationship (or an inverted U shape) between democracy and civil war. *Political Instability* is coded as 1 if the Polity IV regime scores changes at least three points during a three-year period, and 0 otherwise. Unstable states may appear weak and become the target of attack, increasing the likelihood of civil war.

Population denotes the logged population size, per year. It is generally argued that it is more difficult to govern and meet the demands of large populations, which raises the risk of civil war. *Ethnic Fractionalization* measures national ethnic homogeneity. It is an index that gives the likelihood of two randomly drawn people in a country belonging to different ethno-linguistic groups. *Religious Fractionalization* is analogous to the measure of ethnic homogeneity, but it focuses on the degree of religious homogeneity in a country. Both these variables are generally expected to raise the likelihood of civil war.⁷

Finally, *Peace Years* counts the number of years since the last civil war and is set to 0 during war. We also include three cubic spline variables. These controls for temporal dependence are generated by a program created by Tucker (1999).

Empirical Results

Table 1 presents results for civil war presence and Table 2 for civil war onset. In each Table, we first present the results for all the countries, and then for the LDCs. This is followed by a summary of related analyses reported in Appendix A.⁸

In Table 1, Models 1–3 report the results for all the countries, and Models 4–5 report the results for the LDCs. Model 1 includes all the variables described above, while Model 2 adds another variable related to temporal dependence. Model 3 excludes statistically insignificant variables. Model 4 applies Model 2 to the LDCs, and Model 5 excludes the insignificant variables for LDCs. Across models, the results for the control variables generally agree with those reported by Fearon and Laitin (2003), which mirrors those reported in other studies. Hence, our primary investigation rests on a robust statistical platform.

In Model 1, the effects of *Trade*, *FDI* and *FPI* on civil war presence (*War*) are negative and statistically significant. Hence, trade, FDI and FPI reduce the likelihood of war. Recalling the definitions of these variables, our results imply that as *Trade*, *FDI* and *FPI* become more economically important to a country, the likelihood of civil war presence falls. *Internet* has no significant effect on *War*.⁹

⁷ We did not include Fearon and Laitin's "new state" variable, because there were no new states with complete data that experienced civil wars, making it a perfect predictor of peace.

⁸ The Appendix is available on the *Journal of Politics* website <http://www.journalofpolitics.org/>.

⁹ One might assume that this results from *Internet*'s high correlation with *GDP Per Capita*, but that is not the case ($r = .36$). Rather, it reflects the lack of variation in *Internet* prior to 1990. Our results do not change when we remove *Internet* from the model.

TABLE 1
Globalization and Civil War Presence

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
	All States			Developing States	
Trade _{<i>t-1</i>}	-.013** (.008)	-.012* (.008)	-.013** (.008)	-.011* (.008)	-.012* (.008)
FDI _{<i>t-1</i>}	-.063* (.048)	-.075** (.047)	-.067* (.047)	-.078** (.045)	-.070* (.047)
FPI _{<i>t-1</i>}	-.170*** (.047)	-.164*** (.046)	-.162*** (.043)	-.163*** (.057)	-.156*** (.054)
Internet _{<i>t-1</i>}	.003 (.004)	-.000 (.005)		-.179* (.131)	-.158* (.116)
GDP per capita _{<i>t-1</i>}	-.227*** (.078)	-.227*** (.077)	-.222*** (.066)	-.386*** (.121)	-.331*** (.112)
Population _{<i>t-1</i>}	.179** (.110)	.170* (.109)	.186** (.106)	.168* (.113)	.180** (.103)
Mountainous _{<i>t-1</i>}	.041 (.098)	.047 (.100)		.145* (.096)	.125* (.097)
Noncontiguous Territory _{<i>t-1</i>}	1.450*** (.438)	1.243*** (.462)	1.413*** (.413)	1.181*** (.541)	1.348*** (.466)
Oil State _{<i>t-1</i>}	.135 (.421)	.178 (.404)		.352 (.381)	
Political Instability	-.798* (.531)	-.722* (.535)	-.687* (.525)	-.681* (.515)	-.637* (.507)
Democracy _{<i>t-1</i>}	.016 (.041)	.013 (.041)		.026 (.041)	
Ethnic Fractionalization	-.220 (.459)	-.404 (.481)		-.296 (.422)	
Religious Fractionalization	.176 (.647)	.034 (.636)		-.491 (.696)	
War Count		.053** (.027)	.045** (.026)	.039** (.024)	.033* (.023)
Peace Years	-2.104*** (.248)	-1.887*** (.275)	-1.892*** (.283)	-1.828*** (.260)	-1.840*** (.269)
Constant	1.852* (1.392)	1.549 (1.424)	1.407 (1.334)	1.732* (1.474)	1.274 (1.392)
N	2,361	2,361	2,364	1,892	1,895
Log pseudo-likelihood	-232.93	-230.51	-232.86	-221.66	-224.42

Notes: White robust standard errors adjusted for clustering over country appear in parentheses.

***significant at 1 percent, **significant at 5 percent, *significant at 10 percent.

The cubic spline variables are included in the analyses, but not reported here.

Turning to the control variables, the effect of *GDP Per Capita* is significant and negative, suggesting that we are less likely to see civil war in rich countries than in poor ones. We are also more likely to witness civil war in states with large, rather than small, populations, as given by the statistically significant and positive coefficient for *Population*.

Mountainous is found to be unrelated to *War*, while *Noncontiguous Territory* has a statistically significant and positive effect on civil war. Hence, having sections of the populations separated from central control raises the likelihood of civil war. *Oil State* lacks statistical significance, meaning that oil exporters are no more or less likely than others to experience a civil war.

The effect of *Political Instability* on *War* is negative and significant. While this result may appear counterintuitive, recall that this variable indicates that the Polity regime score has changed in recent years. That change may mean the state has become more or less democratic; it may also mean the government has more or less support. Our finding implies that post-change states may be better supported, better able to fend off attacks, or better able to satisfy people and prevent grievances that produce civil wars. The effects of *Democracy*, *Ethnic Fractionalization*, and *Religious Fractionalization* on civil war are not statistically significant, which mirrors the findings of others.

The coefficients of *Peace Years* and the three cubic spline variables (not reported here) are all statistically significant, indicating that temporal dependence is present in our sample. The negative coefficient for *Peace Years* tells us that states that enjoy a history of peace are less likely to experience civil war.

The *Peace Years* counter treats all civil war years as equal. In other words, a one-year war is treated the same as a 30-year war; both receive zeros for *Peace Years*. However, we may need to differentiate short and long periods of war, just as we differentiate short and long periods of peace. *War Count* in Model 2 counts the number of years that civil war has lasted, beginning with a 1 in the year after the war outbreak. It is reset to zero once peace has lasted for more than one year.¹⁰ We find that *War Count* has a statistically significant and positive effect on *War*. The longer the civil war, the more likely a state is to experience a civil war. Including this variable does not change any of our results. Hence, *War Count* should be included in the model. Model 3 excludes statistically insignificant control variables from Model 2. Our results are unaltered.

Models 4 and 5 focus on the LDCs. The effects of the control variables in this case are similar to those obtained for all the countries, except that the effect of *Mountainous*, which is positive before, is now statistically significant. The effects of *Trade*, *FDI* and *FPI* in Models 4 and 5 are virtually the same as those obtained for all countries. The effect of *Internet* use also is negative and statistically significant. Hence, economic openness and information flows reduce the likelihood of civil war presence for the LDCs.

Table 2 focuses on civil war *Onset*. Model 1 employs the same variables as Model 1 in Table 1. Model 2 excludes the insignificant variables. Models 3 and 4 focus on the LDCs.¹¹

Beginning with the control variables, our findings in Table 2 are consistent with the results obtained by Fearon and Laitin (2003). The effects of *GDP Per Capita*,

¹⁰ The war dates from Fearon and Laitin (2003) are used to construct this variable.

¹¹ Model 1 in Table 1 is used and not Model 2, since *War Count* is not relevant to onset.

TABLE 2
Globalization and Civil War Onset

Variables	Model 1	Model 2	Model 3	Model 4
	All States		Developing States	
Trade _{<i>t-1</i>}	-.003 (.008)	-.003 (.007)	-.003 (.008)	-.003 (.007)
FDI _{<i>t-1</i>}	-.069* (.055)	-.059 (.054)	-.069 (.056)	-.059 (.055)
FPI _{<i>t-1</i>}	-.042 (.080)	-.049 (.073)	-.044 (.073)	-.050 (.068)
Internet _{<i>t-1</i>}	-.001 (.054)	-.010 (.064)	-.004 (.068)	-.012 (.074)
GDP per capita _{<i>t-1</i>}	-.396*** (.162)	-.371*** (.117)	-.333** (.198)	-.328*** (.144)
Population _{<i>t-1</i>}	.187** (.110)	.200** (.094)	.181** (.110)	.198** (.094)
Mountainous _{<i>t-1</i>}	.252** (.121)	.244** (.113)	.248** (.120)	.252** (.121)
Noncontiguous Territory _{<i>t-1</i>}	.330 (.521)		.370 (.530)	
Oil State _{<i>t-1</i>}	.829** (.417)	.791** (.387)	.763** (.419)	.739** (.391)
Political Instability	.440 (.385)		.447 (.383)	
Democracy _{<i>t-1</i>}	.021 (.036)		.019 (.036)	
Ethnic Fractionalization	-.138 (.697)		-.118 (.706)	
Religious Fractionalization	.361 (.909)		.470 (.918)	
Peace Years	.091 (.188)		.090 (.186)	
Constant	-6.138*** (1.521)	-5.598*** (1.276)	-6.207*** (1.531)	-5.616*** (1.287)
N	2,361	2,361	1,892	1,892
Log pseudo-likelihood	-157.89	-159.89	-157.45	-159.57

Notes: White robust standard errors adjusted for clustering over country appear in parentheses.

*** significant at 1 percent, ** significant at 5 percent, * significant at 10 percent.

The cubic spline variables are included in the analyses, but not reported here.

Population, *Mountainous*, *Oil State* are significant and have the same signs as found in their study. The variables they deem insignificant—*Noncontiguous Territory*, *Democracy*, *Peace Years*, the splines, and *Ethnic* and *Religious Fractionalization*—are also insignificant here. The effect of *Instability* is positive, as in Fearon and Laitin's model, but is not significant, which is probably due to our smaller sample.

With the control variables behaving as expected, we turn to globalization. The results in Table 2 differ from those in Table 1. Globalization has negligible effects on the onset of civil war. As Fearon and Laitin (2003) find, *Trade* does not affect the likelihood of civil war *Onset*. Other aspects of globalization also have no effect. The exception is found for *FDI*, which has a significant negative effect in Model 1. Yet, that effect disappears under further scrutiny. Models 3 and 4 reveal that globalization does affect the likelihood of civil war *Onset*.

The finding that globalization reduces the risk of civil war presence but does not affect the likelihood of civil war onset is intuitively appealing. The outbreak of civil war often reflects an intense state of emotions, anger, and a deep conviction that goals can only be achieved through force. The opposing side is equally resolved to respond in kind. In this atmosphere, actors may fail to allocate sufficient weight to the consequence of war, including economic losses. As the war continues, however, business will be disrupted, foreign investors will flee, and trade will decline. Losses will mount on both sides. As Oneal and Russett (2003) remind us recently, most theories of war assume that actors are rational. This means that actors continue to evaluate their decisions to wage war as new information becomes available. Our results are consistent with the notion that people will find civil war less desirable when faced with mounting losses due to the adverse effects of civil war on a country's ties to the world economy.

How large is the effect of globalization in reducing the risk of civil war presence? To answer this question, we estimate how much the probability that a state will experience civil war would change if it moved from the average level of some attribute of globalization to one standard deviation above average, holding all other variables at their mean values. We find that states with high *Trade* are about 28% less likely to experience *War* than those with average *Trade*; LDCs with high *Trade* are 29% less likely. States with high *FDI* are 14% less likely to experience *War* than those with average *FDI* (17% for LDC). High *FPI* reduces the likelihood of *War* by 29% (27% for LDCs) compared to the average level of *FPI*. For LDCs with high *Internet*, the likelihood of *War* is 52% less than with average *Internet*.¹²

Finally, we summarize related analyses discussed in Appendix A. First, we examine if the globalization results hold when a curvilinear relationship between *Democracy* and *War* is included in the model. We find that the results in Table 1 still hold. Second, we examine if changes in globalization, rather than levels, affect *War*. We find no significant effect from changes in *Trade* or *FDI*. Positive changes in *FPI* reduce the likelihood of *War* for both samples. Positive changes in *Internet* reduce the likelihood of *War* only for the LDCs. Third, we combine the curvilinear democracy measure and the changes in globalization. We find no difference in results for the changes in globalization relative to the previous results as well as no significant curvilinear democracy effects. Fourth, we exclude

¹² We use Models 2 and 4 in Table 1 to perform these estimates (see Tomz, Wittenberg, and King 2003).

Peace Years and the splines from Models 2 and 4 in Table 1. Our findings for globalization do not change relative to Table 1, except that the negative effect of *Internet* is now significant.

Conclusion

The literature has presented conflicting theoretical views on the effect of globalization on civil war. To the best of our knowledge, our analysis is the first attempt to assess statistically the debate from a large N sample. Globalization was measured from *Trade*, *FDI*, *FPI*, and *Internet* use. Civil war was measured as presence and onset. The analysis was conducted for all countries with available data, and for the LDCs alone. We covered the period 1970–99.

The results show that trade, FDI, and FPI reduce the likelihood of civil war presence for all states. Internet use reduces the likelihood of civil war presence only for the LDCs. Globalization does not affect the likelihood of civil war onset. These findings are found to be robust across different sensitivity analyses. Taken as a whole, our results suggest that actors initiating civil war do not consider globalization. However, they reassess their decisions about the civil war over time, as the losses that come with lost global ties mount.

Our results have important policy implications. In recent decades, nearly all civil wars have taken place in the LDCs. These countries tend to be less open to the world economy. We find that economic openness reduces the likelihood that civil war will be present in LDCs, but not the likelihood of its onset. Policies that raise per capita income, reduce population size, and reduce dependence on oil exports are likely to be the most effective strategies to reduce the risk of civil war outbreak. Economic openness is nevertheless recommended since it reduces the likelihood of ongoing civil war.

That said, efforts to integrate LDCs into the global economy must be done cautiously. All the arguments about the possible consequences of globalization for civil war have merits. While the pacifying forces of globalization are more apparent in our large N sample, it is still possible that globalization will worsen civil strife in individual cases, making civil war more likely.

Our paper, like all studies, must be viewed as the start of a journey, not its end. Future research may extend this analysis. For example, it would be beneficial to expand the historical domain of the study. Our preliminary research suggests that this would be a difficult project involving a large data collection effort from individual country sources.

Future research also may explore the reciprocal relationship between civil war and some of its determinants. So far, this issue has generally been handled by lagging the right hand side variables, as was done here. Estimating the reciprocal relationship within our context is likely to be difficult. The simultaneity of globalization and civil war involves at least four continuous variables and one dichotomous variable. To our best knowledge, the estimation algorithms required for this analysis are not yet available. Madalla's (1983) method comes closest,

but his solution only works for models involving one dichotomous variable and one continuous variable.

Finally, future research may study microlevel processes within the state to understand the linkages between globalization and civil war. For example, we might imagine that globalization creates or diffuses tensions over the distribution of benefits within society. This paper has employed a nation-year level of analysis, which is the norm in the statistical civil war literature. New insights might be gained from going deeper into the national box.

Acknowledgments

We would like to thank William Jacoby and our anonymous reviewers for their helpful advice on revising this manuscript; James Fearon, for his assistance; Fearon and David Laitin, for making their civil war data available; Neal Beck, Gary King, and Richard Tucker, for answering methodological questions; and Christian Davenport, Håvard Hegre, Omar Keshk, Quan Li, Manus Midlarsky, Richard Alan Peters II, Solomon Polachek, Brian Pollins, James Lee Ray, and Harvey Starr for their insightful comments on this research.

Manuscript submitted September 17, 2004

Final manuscript received June 8, 2005

References

- Adams, Francis, Satya Dev Gupta, and Kidane Mengisteab. 1999. "Globalization and the Developing World: An Introduction." In *Globalization and the Dilemmas of the State in the South*, eds. Francis Adams, Satya Dev Gupta, and Kidane Mengisteab. London: Macmillan, pp. 5–15.
- Amin, Shamir. 1990. *Maldevelopment*. London: Zed Books.
- Barbieri, Katherine. 2002. *The Liberal Illusion: Does Trade Promote Peace?* Ann Arbor: University of Michigan Press.
- Barbieri, Katherine, and Jack S. Levy. 1999. "Sleeping with the Enemy: The Impact of War on Trade." *Journal of Peace Research* 36(4): 463–80.
- Beck, Nathaniel, 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): 1260–88.
- Berdal, Mats. 2003. "How 'New' Are 'New Wars'? Global Economic Change and the Study of Civil War." *Global Governance* 9(4): 477–502.
- Bornschier, V., and Chase-Dunn, C. 1985. *Transnational Corporations and Underdevelopment*. New York: Praeger.
- Boswell, Terry, and William J. Dixon. 1990. "Dependency and Rebellion: A Cross-National Analysis." *American Sociological Review* 55(4): 540–59.
- Boswell Terry, and William J. Dixon. 1993. "Marx's Theory of Rebellion: A Cross-National Analysis of Class Exploitation, Economic Development, and Violent Revolt." *American Sociological Review* 58(5): 681–702.
- de Zeeuw, Jeroen, and Georg Frerks. 2000. "Proceedings: Seminar on the Political Economy of Internal Conflict." The Netherlands Institute of International Relations, The Netherlands.

- Dixon, William J., and Terry Boswell. 1996. "Dependency, Disarticulation, and Denominator Effects: Another Look at Foreign Capital Penetration." *American Journal of Sociology* 102(2): 543–62.
- dos Santos, Theotonio. 1970. "The Structure of Dependence." *American Economic Review* 60(2): 231–36.
- Duffield, Mark. 2000. "Globalization, Transborder Trade and War Economies." In *Greed and Grievance: Economic Agendas in Civil Wars*, eds. Mats Berdal and David M. Malone. Boulder: Lynne Rienner, pp. 69–90.
- The Economist*. 2003. "The Global Menace of Local Strife," 23–25, May 24.
- Elbadawi, Ibrahim, and Nicholas Sambanis. 2002. "How Much War Will We See? Explaining the Prevalence of Civil War." *Journal of Conflict Resolution* 46(3): 307–34.
- 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.
- FBI. 2004. "About Organized Crime." Federal Bureau of Investigation, United States. <http://www.fbi.gov/hq/cid/orgcrime/aboutocs.htm>.
- Fearon, James D., and David D. Laitin. 2003. "Ethnicity, Insurgency, and Civil War." *American Political Science Review* 97(1): 75–90.
- Firebaugh, Glenn. 1992. "Growth Effects of Foreign and Domestic Investment." *American Journal of Sociology* 98(1): 105–30.
- Garrett, Geoffrey. 1998. "Global Markets and National Politics: Collision Course or Virtuous Circle?" *International Organization* 52(4): 787–824.
- Germain, R. 1997. *The International Organization of Credit*. Cambridge: Cambridge University Press.
- Goodwin, Jeff. 2001. "Is the Age of Revolution Over?" In *Revolution: International Dimensions*, ed. Mark N. Katz. Washington: Congressional Quarterly Press.
- Hawley, Susan. 2000. *Exporting Corruption, Privatization, Multinationals and Bribery*. Dorset: The Corner House.
- Held, David, Anthony McGrew, David Goldblat, and Jonathan Perraton. 1999. *Global Transformations: Politics, Economics and Culture*. Stanford: Stanford University Press.
- Hirst, Paul. 1997. "The Global Economy: Myth and Realities." *International Affairs* 73(3): 409–25.
- Hoogvelt, Ankie. 2001. "Globalization and the Post Colonial World." In *The Global Transformation Reader: An Introduction to the Globalization Debate*, eds. David Held and Anthony McGrew. Cambridge, UK: Polity Press, pp. 355–60.
- IPN. 2003. "How Globalization Promotes War." *Independent Politics News* 7–8, October 31.
- IADB. 1998. *Facing Up to Inequality in Latin America*. Washington: Inter-American Development Bank.
- Kaldor, Mary, and Robin Luckham. 2001. "Global Transformations and New Conflicts." *IDS Bulletin* 32(1): 48–69.
- Li, Quan, and Rafael Reuveny. 2003. "Economic Globalization and Democracy: An Empirical Analysis." *British Journal of Political Science* 33(1): 29–54.
- Longworth, Richard C. 1998. *Global Squeeze: The Coming Crisis for First World Nations*. Chicago: Contemporary Books.
- Madalla, G. S. 1983. *Limited Dependent and Qualitative Variables in Econometrics*. Cambridge: Cambridge University Press.
- Martin, Hans-Peter, and Harald Schumann. 1998. *The Global Trade: Globalization and the Assault on Democracy and Prosperity*. London: Zed Books.
- Mason, T. David. 2003. "Globalization, Democratization, and the Prospects for Civil War in the New Millennium." *International Studies Review* 5(4): 19–35.
- Morrow, James, Randolph D. Siverson, and Teresa E. Tabares. 1998. "The Political Determinants of International Trade: The Major Powers 1907–1990." *American Political Science Review* 92(3): 649–61.

- Muller, Edward N. 1985. "Income Inequality, Regime Repressions and Political Violence." *American Sociological Review* 50(1): 47–67.
- Muller, Edward N., and Mitchell A. Seligson. 1987. "Inequality and Insurgency." *American Political Science Review* 82(2): 425–51.
- Nielson, Francois, and Arthur S. Alderson. 1995. "Income Inequality, Development and Dualism: Results from an Unbalanced Cross-National Panel." *American Sociological Review* 60(5): 674–710.
- Oneal, John R., and Bruce M. Russett. 1999. "Assessing the Liberal Peace with Alternative Specifications: Trade Still Reduces Conflict." *Journal of Peace Research* 36(4): 423–42.
- Oneal, John R., and Bruce Russett. 2003. "Assessing the Liberal Peace with Alternative Specifications: Trade Still Reduces Conflict." In *Globalization and Armed Conflict*, eds. Gerald Schneider, Katherine Barbieri, and Nils Petter Gleditsch. Lanham, MD: Rowman and Littlefield, pp. 143–63.
- Polachek, Solomon W. 1980. "Conflict and Trade." *Journal of Conflict Resolution* 24(1): 55–78.
- Pollins, Brian M. 1989. "Does Trade Still Follow the Flag?" *American Political Science Review* 83(2): 465–80.
- Rapley, John. 2002. *Understanding Development: Theory and Practice in the Third World*. Boulder: Lynne Rienner.
- Reno, William. 2000. "Shadow States and the Political Economy of Civil Wars." In *Greed and Grievance: Economic Agendas in Civil Wars*, eds. Mats Berdal and David M. Malone. Boulder, CO: Lynne Rienner, pp. 43–68.
- Reuveny, Rafael, and Quan Li. 2003. "Economic Openness, Democracy and Income Inequality: An Empirical Analysis." *Comparative Political Studies* 36(5): 575–601.
- Reynal-Querol, Marta. 2002. "Ethnicity, Political Systems, and Civil Wars." *Journal of Conflict Resolution* 46(1): 29–54.
- Robbins, D. 1996. *Evidence of Trade and Wages in the Developing World*. OECD Development Center Technical Papers, 119. Paris: Organization for Economic Cooperation and Development.
- Russett, Bruce, and John Oneal. 2001. *Triangular Peace: Democracy, Interdependence, and International Organizations*. New York: W. W. Norton.
- Russett, Bruce, Harvey Starr, and David Kinsella. 2002. *World Politics: The Menu for Choice*. New York: Wadsworth.
- Selbin, Eric. 2001. "Same as It Ever Was: The Future of Revolution at the End of the Century." In *Revolution: International Dimensions*, ed. Mark N. Katz. Washington: Congressional Quarterly Press, pp. 280–95.
- SAS. 2001. *Small Arms Survey*. Oxford: Oxford University Press.
- Snyder, Robert A. 1999. "The End of Revolution?" *Review of Politics* 61(1): 5–28.
- Strange, Susan. 1996. *The Retreat of the State: The Diffusion of Power in the World Economy*. Cambridge: Cambridge University Press.
- Tomz, Michael, Jason Wittenberg, and Gary King. 2003. CLARIFY: Software for Interpreting and Presenting Statistical Results. Version: 2.1.
- Tucker, Richard. 1999. BTSCS: A Binary Time-Series–Cross-Section Data Analysis Utility. Version 4.0.4. Cambridge: Harvard University. www.vanderbilt.edu/~rtucker/
- Tullock, Gordon. 1980. "Rent Seeking as a Negative-Sum Game." In *Toward a Theory of the Rent Seeking Society*, eds. James M. Buchanan, Robert D. Tollison, and Gordon Tullock. College Station: Texas A&M University Press, pp. 16–36.
- United Nations. 2001. "About the Conference." United Nations Conference on the Illicit Trade in Small Arms and Light Weapons in All Its Aspects. New York, July. <http://disarmament.un.org:8080/cab/smallarms/about.htm>.
- UNDP. 1999. *Human Development Report*. United Nations Development Program. New York: Oxford University Press.
- Wager, Stephen J., and Donald E. Shulz. 1995. "Civil-Military Relations in Mexico: The Zapatista Revolt and Its Implications." *Journal of Interamerican Studies and World Affairs* 37(1): 1–42.
- White, H. 1980. "A Heteroskedasticity-Consistent Covariance Matrix Estimator and a Direct Test for Heteroskedasticity." *Econometrica* 48(4): 817–38.

- Wiggins, V. 1999. "Comparing XTGLS with Regress Cluster ()." STATA Corporation. http://www.stata.com/support/faqs/stat/xtgls_rob.html.
- Winters, Jeffrey A. 1999. "Indonesia: On the Mostly Negative Role of Transnational Capital in Democratization." In *Financial Globalization and Democracy in Emerging Markets*, ed. L. E. Armijo. Basingstoke, UK: Palgrave, pp. 233–50.
- Wood, Brian, and Johan Peleman. 1999. *The Arms Fixers: Controlling the Brokers and Shipping Agents*. PRIO Report 3/99. Oslo, Norway: Peace Research Institute.
- Wood, Elisabeth J. 2003. "Civil Wars: What We Don't Know." *Global Governance* 9(2): 247–60.
- World Bank. 2000. *World Development Report*. Washington: World Bank.
- World Bank. 2002. *Globalization, Growth and Poverty: Building an Inclusive World Economy*. New York: Oxford University Press.
- World Bank. 2003. *Breaking the Conflict Trap: Civil War and Development Policy*. New York: Oxford University Press.
- World Bank. 2004. *World Development Indicators 2004*. Washington: World Bank.

Katherine Barbieri (katherine.barbieri@sc.edu) is associate professor of political science, University of South Carolina, Columbia, SC 29208.

Rafael Reuveny (rreuveny@indiana.edu) is associate professor of political economy, Indiana University, Bloomington, IN 47405-1701.