# Chapter 4 Free Markets and Civil Peace

## Some Theory and Empirical Evidence

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Scholars of armed conflict generally focus on *motive* and *opportunity* as analytical categories for narrowing down causes, much the same way as investigators of crime narrow down a list of suspects (Poe, 2004; Gartzke, 2005; Collier, 2000; Most and Starr, 1989; de Soysa, 2002). Social and individual grievances of various sorts, such as the lack of political rights, may provide motive for organizing violence against a state, but opportunity must also exist, whatever the nature and level of grievance, which is a hard concept to measure objectively (Theuerkauf, 2010). Such a perspective has also been salient for understanding revolution, where means and opportunity play a leading role (Tilly, 1978). Recent research on conflict has focused on the capture of natural resources as *motive* but, more importantly, also as *opportunity* because expensive conflict can be financed (means) by looting resources. This article takes a broader perspective on both opportunity and means to argue that economic repression and economic mismanagement supply the "means, motive, and opportunity" for groups to challenge states because economic distortions spawn underground economies that form the "organizational bases" of insurgency that allow groups to succeed and be sustainable in the face of superior state forces. In other words, grievance alone cannot explain successful insurgency. Anti-government individuals in the United States have enough grievances to bomb a federal government building in Oklahoma City, but whether they have the means to sustain a fight against the US government's law enforcement agencies is another matter. This article will first briefly argue why economic governance in a broader sense matters more than simple arguments about feasibility and demonstrate empirically the pacifying effects of economic freedom, or free markets.

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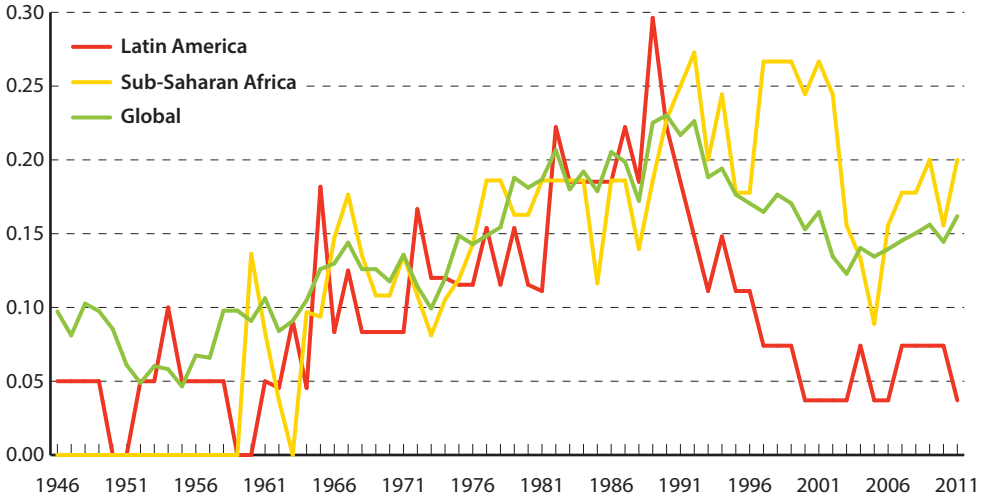
**Figure 4.1: The incidence of civil war with over 25 deaths in a single year, 1946–2011**




Source: Uppsala Conflict Data Project (UCDP), <www.pcr.uu.se>.

Consider figure 4.1, which displays the global risk of civil war between 1946 and 2010. Civil War is defined as organized armed violence between an identifiable rebel group(s) and a government, where at least 25 deaths have occurred in a single year.

The global risk of conflict has declined sharply since the end of the Cold War. Possible explanations for this phenomenon include a decrease in inter-ethnic tensions, a decline in economic inequalities, reductions of various sorts of social injustices and state repression, rising democracy, or other factors singly or in complex, interactive ways.[1] In fact, however, it is highly unlikely that structural factors, often blamed for social grievances, such as inequality, have changed that much that suddenly. In fact, the steepest, sustained decline in conflicts has been in Latin America, where income inequality in terms of a single region is arguably highest. Sub-Saharan Africa saw a steep decline from the late 1990s, and only recently has again shown a rising trend. It is highly unlikely that structural factors alone can explain this general downward trend since the end of the Cold War.

Clearly, superpower proxy wars generated by great power concerns as well as home-grown ideological battles seem to have mattered. More importantly, the means and opportunities for starting and sustaining rebellion were numerous because the superpowers and their allies supplied rebellion-specific capital (finance, materiel, safe-havens, and training). Under such conditions, domestic compromises were likely to be less feasible and local solutions to ethnic or other frictions also less likely. Quite simply, the end of the Cold War has led to the scarcity of "rebellion-specific capital" and increased the opportunity for local, regional, and international peacekeeping efforts and collective action for peace through international institutions (Mack, 2007).

Some, generally opposed to explanations highlighting economic causes and to econometric analyses of hard data, rarely explain how collective action problems are overcome, or how civil wars are funded and supplied. They tend to overemphasize "governance" explanations without identifying the precise mechanisms that really matter beyond what the discourse of grievance supplies (see Zartman, 2011).

1 See the excellent discussion of theory and empirics of various causal factors in Hoeffler, 2011.

Instances of bad governance unfortunately are ubiquitous and could be picked out for explaining just about anything. Why Sri Lankan Tamils rebelled and were successful at it for 30 years whereas Malaysian Tamils have been unsuccessful at rebellion despite official and systematic discrimination cannot be explained by group-grievance-based arguments alone. Nor are explanations based on "cherry picking" cases of events (as we have just done), without systematically examining the events *and* non-events, a sound way to build a general understanding of the causes of conflict where passionate representation is likely to hide relevant fact (de Soysa, 2002).

## Why economic freedom? Some theoretical explanations

While political rights of citizens have increased across the globe, there is very little correlation between the level of democracy and civil peace (Hegre et al., 2001; Ward et al., 2010). If the fight for political rights was a source of violence, particularly for disenfranchised ethnic groups, then opportunity to rebel rather than the lack of rights alone, is what must matter since many find that increasing democracy fuels ethnic war, perhaps reducing the risk when democracy is better established (Jakobsen and de Soysa, 2009; Snyder, 2000). Neither does it seem that violations of people's physical-integrity rights (freedom from torture and imprisonment for political beliefs), or empowerment rights (freedom of religion, language rights, the right to form unions, etc.) also predict the onset of armed violence (Jakobsen and de Soysa, 2009; Jakobsen et al., 2013). Recently, however, there have been enormous improvements in economic governance due largely to the appeal and spread of free-market institutions and policies in many countries (Garrett, 1998; Simmons et al., 2004). Is there a connection?

How might market institutions, the more neglected aspect of the liberal peace, matter? In the eighteenth century, classical liberals such as Adam Smith, David Ricardo, and Bernard Mandeville argued that when individuals pursue self-interest, they serve a higher social purpose "as if by a hidden hand" (Stilwell, 2006). Free markets provide the basis for prosperity—while other desired outcomes, such as peace, arise from cooperation among people acting out of self-interest. In this view, cooperation stems from the expectation of mutual gain, rather than from religious (or other) ethics, or from the inherent feelings of sympathy for others.[2] Classical liberalism also held that self-interested economic activity produces wealth more efficiently and that freer markets could create and distribute goods and services (i.e., wealth) more efficiently, increasing the welfare of *all*—including the state because expanding economic activity increases taxable wealth. Consider the following observation, made in the 1830s by Alexis de Tocqueville, a keen observer of how democracy, rather than chaos, was taking root in the newly formed United States of America:

> You have some difficulty in understanding how men so independent do not constantly fall into the abuse of freedom. If on the other hand, you survey the

2 This is not to say that the writers mentioned above, such as Adam Smith, did not advocate sympathy (charity) towards fellow beings, but they saw self-interest in economic activity rather than a sense of benevolence alone providing a greater good to society by increasing wealth.

> infinite number of trading companies in operation in the United States … you will comprehend why people so well employed are by no means tempted to perturb the state, nor to destroy the public tranquility by which they all profit (de Tocqueville, 1956: 118-119).

The growth of commerce marginalizes violence because it binds people meaningfully in a way suited to addressing the collective dilemmas stemming from violence—theft and deprivation. When Thomas Hobbes, who suffered the consequences of the English Civil War, thought that a "leviathan" was necessary to enforce peace by monopolizing the use of force, John Locke suggested that it was also possible with the "consent of people". As Pugh (2011) has argued, the liberal agenda of bringing top-down democracy high-jacked for convenience by the "aid and development industry" may not nourish the endogenous bases of peace likely to be found in local processes, often in informal settings.

## Why economic repression encourages rebellion-specific capital

We argue for a micro-logic that explains the more narrowly based violence through insurgency such as we see in recent times (Mueller, 2004; King, 2001). The theory that free markets encourage social peace is founded on a single observation: *violent armed conflict has to be feasible to occur*. The question is what renders armed conflict feasible. First, economic freedom encourages private economic activity that increases the returns to peace broadly. However, violence can be organized more narrowly. While for many, such as Collier, Hoeffler and Rohner (2009) feasibility is based on finance from natural resources and the opportunity costs for recruitment into rebellion associated with poverty, we argue that insurgency requires organizational bases that consist of much more than the logic of motive and finance. Further, the sources of loot (finance) come from many sources and not just natural resources: for example, from smuggling drugs, guns, people, and even consumer goods. Moreover, having access to finance alone does not tell us why it was not deployed in a manner other than costly violence, since investment in regular economic activity without the high costs of violence would bring greater returns (loot).[3] Armed conflicts, after all, occur in countless places that lack lootable resources such as oil and diamonds.

First of all, war is a costly endeavor; it will not occur if those who invest in it do not expect the returns from war to be greater than the returns from peace. Thus, grievances alone are unlikely to bring about armed conflict: challenging the state requires significant financing and relatively large numbers of volunteers. But if people are capable of sufficiently organizing human and financial resources to launch a rebellion, why wouldn't they channel that energy to obtain relief from grievances *without* engaging in costly violence? If returns from peace could be higher than for war, why not invest in production over costlier predation? The issue is that the overall conditions of economic governance determine the relative rates of return on violence and peace.

3 For an explication of the proposition that conflict entrepreneurs might start rebellion for private gain, see Hoeffler, 2011.

In the perspective taken here, viability of conflict is shaped by many factors, including the size and nature of the payoffs for investing in violence rather than in other potentially "profitable" enterprises. In the "loot-seeking" model of rebellion, for example, in which high-value resources render rebellion both attractive and viable, loot is the expected payoff for the "investment" in rebellion (Collier, 2000).

The argument that rebellion is based on opportunistic behavior fails to take into account the "opportunity costs" associated with organized violence. In a globalized world with ample opportunity for profitable investment, any potential rebel could just as easily be a "corporation"—exporting natural resources and paying taxes to the state—instead of a warlord who has to invest much of the loot in continued conflict (not to mention the discomfort of living in the bush). In fact, the extractive sector in relatively strong-state settings, such as Russia, resembles a gang of quasi-criminal corporations. In an environment that provides incentives for investment and enforces rules that safeguard profits, investing in production will be more attractive than investing in war. Indeed, in a number of advanced market economies, such as the United States and Italy, the high cost of remaining illegal have led many "loot-seeking" groups, like the Mafia, to move into the quasi-legitimate business world.

On the other hand, if the state or ruling elite monopolize all economic activity and expropriate the surpluses that are created in an economy—serving, in Mancur Olson's terms, as a "roving" rather than as a "stationary" bandit—there will be few incentives to invest in taxable enterprise and "go legit" (Olson, 1993). Where property rights are insecure and capricious political processes govern economic life, what Adam Smith termed "unnatural laws", productive enterprises are at risk, and there is motivation to organize in the shadows, by capturing rents and defending them, leading to organized violence and "warlordism" (Skaperdas, 2003). In closed, regulated economies, people invest in organizations that capture the "dead weight losses" in the economy as rents since people still demand these goods that are not supplied legitimately by regular businesses. The investment in capturing these dead-weight losses in the shadows forms the organizational bases of violence. In rich countries, violence remains crime, whereas in poor countries with weak states, crime and organized violence resemble rebellion. Moreover, where poverty is rife, ordinary criminals have historically acquired "social rebel" status as champions of the poor (Hobsbawm, 2001).[4]

Although shadow economies are often thought to emerge during war and its aftermath, in all likelihood they exist before full-blown war even begins. Consider the Mexican drug cartels, for example, which are engaged in a lucrative trade that lacks a legal infrastructure for handling transactions. The groups organize and fight in Mexico because violence is more viable there, but the impetus for the killing is the high demand for drugs across the border. Mexican warlordism is born from the illegal super-profits available in the drug market in the United States. Globally, such shadowy groups are now responsible for a large part of violent conflict (Mueller, 2004).[5] These groups survive and thrive because they have "rebellion-specific capital": that is, organizational advantages over states, from armaments and tunnels to sophisticated command and communications networks, supply channels, and logistics. Finance

4 Indeed, Adam Smith did not see smuggling, which brought goods to market, as a "bad" activity but blamed bad laws instead.

5 For a comparative view of warlordism, see Marten, 2006.

alone can explain only some portion of what it takes to survive, which has to be endogenous to the decision to rebel over investing available finance in other potentially profitable enterprises short of violence.

The conflict that plagues northern Mexico, for example, cannot be solved without governance-based efforts to alter the payoffs that accrue to those who invest in conflict-specific capital. In practical terms, there are two ways to address this issue—either militarily (that is, by suppressing the violence)—or legislatively (that is, by legalizing drugs in the United States and thereby eliminating the payoff for smuggling). It is surely not the degree of grievance of the Mexican drug lords that keeps them armed and supplied so they can survive the Mexican army, but it is a well-financed infrastructure of violence. We suggest that the infrastructure of violence, or rebellion-specific capital, builds up under conditions of significant market distortions and becomes insurgency in environments with weak states.

## The empirical evidence

We have already seen (figure 1) that the global risk of civil war has declined sharply since the end of the Cold War. However, to understand how conflict onset might be explained by increasing economic freedom, several other factors will need to be simultaneously accounted for. To determine the "net" effect of economic freedom on civil war—that is, the effect of one variable considered independently of other potentially explanatory variables—one must use multivariate regression models, which make it possible to gauge the size and direction of the impact of any one variable while other variables are held constant. In the analyses described in this section, standard data sets, independently collected by other researchers, were used to measure the phenomena under study; this approach minimizes any biases the authors may have introduced to the coding of data.

The three empirical analyses presented in tables 4.1, 4.2 and 4.3 examine the effect of free markets on three types of outcomes measured differently by three different independent sources: the impact of economic freedom on the onset of civil war; on the degree of respect by governments for the "physical integrity rights of people", a form of one-sided violence; and ethnic tensions short of violence. In fact, assessing the effect of economic freedom against both regime type and income per capita is a useful exercise since they both feature prominently in theoretical and empirical analyses linking poverty to conflict and also in popular wisdom on the causes of civil violence.

For the main variable of interest, economic freedom, the analysis relies on data from the Fraser Institute that measure the extent to which an economy is (1) free from state interference and (2) allows private economic activity that is supported by impartial institutions (Gwartney and Lawson, 2005). Economic freedom is judged according to 42 criteria, both objective (e.g., the government's share of the economy, trade openness, restrictions on capital) and subjective (e.g., the level of independence of the judiciary).[6] The index ranges from 0 (total repression) to 10 (totally free). For example, the free-trade port of Hong Kong scores the highest in 2010 with

6 These data, which were obtained from the Fraser Institute, are available for five-year intervals until 2000 and at one-year intervals thereafter. For the period between 1970 and 2000, interpolations were made for the time between the five-year intervals. For full details on the data, see Gwartney, Lawson, and Hall, 2011.

a score of 9.05 whereas Zimbabwe is last with a score of 3.57. The main dependent variable (i.e., the outcome to be explained) in this analysis is the onset of civil war; the onset of conflict is relevant because one purpose of the analysis is to determine whether countries with high levels of economic freedom can maintain peace. The data used to measure armed conflict were obtained from the UCDP/PRIO Armed Conflict Dataset v4-2008 (Gleditsch et al., 2002).[7]

The second dependent variable is an indicator of "physical integrity rights" that measures the degree to which governments refrain from political violence against its citizens (Cingranelli and Richards, 1999). The third outcome is "ethnic tension" derived from subjective observations of the degree of ethnic recrimination among groups within countries collected by a leading international business risk agency. The ethnic peace data are based on qualitative observations gathered by PRS experts and then crosschecked with country experts on the basis of

> … an assessment of the degree of tension within a country attributable to racial, nationality, or language divisions. Lower ratings are given to countries where racial and nationality tensions are high because opposing groups are intolerant and unwilling to compromise. Higher ratings are given to countries where tensions are minimal, even though such differences may still exist.[8]

The ethnic tension index goes from 1 to 6 as a continuous measure with lower values denoting high tension and higher values denoting ethnic calm. We label this variable ethnic peace.

We rely on the extant literature about civil war for the control variables. First, we control for per-capita income level and population size, which are robustly related to conflict and found to be the only strong predictors of conflict onset from a host of variables assessed by researchers (Ward et al., 2010; Hegre and Sambanis, 2006). Next, we control for ethnic heterogeneity and its squared term to model the quadratic effect between ethnic heterogeneity and conflict since low heterogeneity and high heterogeneity may both be peace inducing.[9] We also control for democracy by generating a discrete variable taking the value 1 if the Polity score is above 6 and 0 if not.[10] Likewise, we generate a discrete variable capturing autocracy, which takes the value 1 if the Polity score is below –6 and 0 if not. The left-out category will naturally be anocracies, which lie between –6 and 6 on the polity scale. We also include a count of peace years, or the number of years a country has been at peace since the last conflict plus three natural cubic splines to model the long-run effect of peace on subsequent peace.

The estimations of human rights and ethnic peace use the same variables with some very slight differences for brevity. However, previous studies on human rights also use these very same variables with slight alterations (Cingranelli and Richards,

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7 A conflict onset is an armed conflict involving an organized rebel group (or groups) and a state where at least 25 battle deaths have occurred in a single year. I use the category for civil war that is also internationalized.

8 See *International Country Risk Guide Methodology*, available at <https://www.prsgroup.com/about-us/our-two-methodologies/icrg>.

9 The data are from Fearon and Laitin (2003) and is presented as the probability that two randomly drawn people will belong to a different ethnic or linguistic group.

10 The Polity scale is a measure of democracy based on the degree of constraints on the executive power of government, see <http://www.systemicpeace.org> and Gurr and Jaggers, 1995.

1999; de Soysa and Nordås, 2007).[11] The statistical techniques for estimating the different dependent variables, however, differ since the civil-war variable is a discrete variable, which requires logistic regression. The human rights and ethnic peace variables are generally normally distributed scales on which ordinary least-square techniques may be used. Further, time series cross-sectional data pose problems associated with autocorrelation and heteroscedasticity, which are important premises for an OLS regression (Singer and Willett, 2003). Autocorrelation (when residuals are correlated) and heteroscedasticity (when residuals are not normally distributed) creates biases in the regression estimations because of the violations of regression assumptions (Hamilton, 1992). Proper estimation of standard errors are problematic because of the complicated correlation structures in time-series-cross-section (TSCS) data because observations are not independent across and within units (Beck and Katz, 1995). To account for these problems, we use the Newey-West standard errors because they are robust to both serial correlation and heteroscedasticity (StataCorp, 2005; Gerring, et al., 2005; Gerring, Thacker, and Moreno, 2005).

## Empirical results

### Onset of civil war

In table 4.1, column 1, we present results of economic freedom on the onset of civil war computed in a reduced-form model where per-capita income, the ethnic composition of a country and the history of peace are controlled. In column 2, we enter regime-type variables defined as autocracy and democracy. In column 3, the test is restricted to the period after the Cold War (1989–2010), and column 4 presents results leaving out 19 rich industrial democracies. As shown in table 1, countries with higher levels of economic freedom have a lower risk of civil war onset (as is indicated by the negative sign of the coefficient); moreover, this result is highly statistically significant.

Interestingly, per-capita income, which is often touted as one of the most robust explanations for the onset of civil war (Hegre and Sambanis, 2006), is not statistically significant, so the result on economic freedom is independently explained from effects of wealth. The effect of economic freedom becomes progressively stronger across the columns as time and sample relevance more closely matches the theoretical story. In robustness checks, which are designed to determine whether results are sensitive to changes in the models, the inclusion of measures of good institutions (such as lack of corruption) made no difference to the effects of economic freedom on the risk of civil war.[12]

Since economic freedom data are only collected for a limited number of countries, we used multiple imputation methods to impute values of economic freedom for the missing countries based on the patterns of association between the other variables within the existing sample of countries used.[13] Using the imputed data, the basic model of conflict was estimated for 146 developing countries, an addition of 40 countries. The result on economic freedom remained negative and statistically highly significant. This suggests that the association between economic freedom and peace is likely not due to a "fortunate" sample of countries in the estimations.

11 See de Soysa and Nordås, 2007 for discussion.

12 For all technical details and data sources, please see de Soysa and Fjelde, 2010.

13 For a detailed explanation of multiple imputation methods, see Jakobsen, de Soysa and Jakobsen, 2013.

**Table 4.1: Economic freedom and the onset of civil war, 1970–2010**

| Dependent variable | Independent variables | (1) Global sample | (2) With regime type | (3) Post-Cold-War era | (4) Post-Cold-War era |
|---|---|---|---|---|---|
| Onset of civil war > 25 deaths | | | | Full sample | LDCs only |
| | Econ. freedom | −0.23* | −0.25* | −0.43** | −0.44** |
| | | (0.133) | (0.130) | (0.187) | (0.185) |
| | Income/pc | −0.11 | −0.12 | −0.12 | −0.08 |
| | | (0.180) | (0.180) | (0.251) | (0.258) |
| | Population | 0.45*** | 0.45*** | 0.48*** | 0.45*** |
| | | (0.097) | (0.093) | (0.116) | (0.115) |
| | Eth. Fraction. | 5.52*** | 5.33*** | 4.38* | 3.74 |
| | | (1.973) | (1.957) | (2.635) | (2.625) |
| | Eth. fraction$^2$ | −4.12** | −3.96** | −2.54 | −1.90 |
| | | (1.939) | (1.944) | (2.549) | (2.557) |
| | Democracy | | −0.10 | 0.35 | 0.37 |
| | | | (0.267) | (0.351) | (0.350) |
| | Autocracy | | −0.45 | −0.13 | −0.13 |
| | | | (0.323) | (0.527) | (0.525) |
| | Peaceyrs | 0.19* | 0.21** | 0.32** | 0.29** |
| | | (0.099) | (0.103) | (0.123) | (0.125) |
| | _spline1 | 0.01** | 0.01** | 0.01*** | 0.01*** |
| | | (0.003) | (0.003) | (0.004) | (0.004) |
| | _spline2 | −0.00** | −0.00** | −0.00*** | −0.01*** |
| | | (0.001) | (0.001) | (0.001) | (0.002) |
| | _spline3 | 0.00* | 0.00** | 0.00*** | 0.00*** |
| | | (0.000) | (0.000) | (0.000) | (0.000) |
| | Constant | −7.11*** | −6.79*** | −6.10*** | −5.90*** |
| | | (1.661) | (1.696) | (1.793) | (1.841) |
| | Observations | 3,673 | 3,652 | 2,217 | 1,855 |
| | Countries | 115 | 114 | 114 | 96 |

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1; all variables lagged 1 year.

Sources: for all technical details and data sources, please see de Soysa and Fjelde, 2010.

But in real-world terms, what is the magnitude of the effect of economic freedom on the risk of civil war? Holding all variables at their mean values, raising economic freedom alone by one standard deviation above its mean value reduces the model's overall prediction of civil war risk at the mean values of all variables by 375%, which is substantively quite large.[14] In other words, if a country such as

14 Marginal effects were computed as follows: (1) starting with a predicted probability for the model (at the value of 5 on the CIRI scale, which is roughly the mean of the sample); (2) holding all the control variables at their mean values; (3) re-computing the original prediction, using the maximum value of economic freedom while holding all other variables at their means; then (4) examining the differences between the two predictions.

Pakistan, which has an economic freedom score close to the average, increases its economic freedom to the level close to Singapore's or Chile's, it would reduce the chance of civil war occurring by roughly four times its current risk. Contrarily, a country that raises its income by one standard deviation about the mean value would only reduce its risk of a civil war onset by 1.07 times on average, a much smaller impact comparatively.

Although the war-averting effect of greater economic freedom is comparable to that of higher per-capita income, it is presumably much easier for a country to reduce the risk of war by improving policies and building institutions, such as instituting proper macro-economic management by independent central banks, organizing a credible commitment to property rights, and ensuring the freedom of markets for trade and investment from endogenous sources. Notice, however, that the type of political regime does not explain the risk of civil war onset when economic governance is included in the model.

### Respect for human rights

Next, we examine the effect of economic freedom on the level of respect for people's rights by governments, an indirect indicator of the level of social dissent in a country because political repression rises with rising dissent within society. As well, it may well be that economic freedom changes social dynamics in a way that promotes respect for the rights of individuals and ethnic peace. When the economy is under the thumb of government or cronies connected to powerful interests, groups may compete against others, as groups, for power and influence and the wealth these deliver in this closed economic setting. This can set group against group, often with one group gaining only at another's expense, creating tensions among groups. With economic freedom, people gain when they produce goods and services others desire in mutually beneficial exchange. People from other groups become customers, employees, employers, suppliers, and other business people often with similar interests.

Moreover, since some have criticized quantitative analyses for using civil war data that are defined as contests between rebels and governments using arbitrary thresholds of battle deaths, we use a measure of political repression for testing the arguments even further. As can be seen in table 4.2, economic freedom has a statistically significant positive effect on respect for the rights of citizens to physical integrity—a result that is unaffected by per-capita income or other relevant controls.[15] And, as in the previous analysis, the presence of good institutions had no effect on economic freedom's impact on human rights.[16]

15 There are many studies on the determinants of human rights violations. See Cingranelli and Richards, 1999 and de Soysa and Nordås, 2007 for review of this literature. We stay as close as possible to the standard models explaining political repression. The alternative to the CIRI data, the political terror scale (PTS), yields exactly the same results. For details on CIRI, see Cingranelli and Richards, 1999, and for PTS, see <http://www.politicalterrorscale.org/> and Gibney and Dalton, 1996.

16 Most of the results confirm previous findings. Per-capita income has a strong negative effect on repression, as does democracy. Population size and ongoing civil war, on the other hand, show positive effects on repression, as reported also by others (see, e.g., Landman, 2005). Adding a plethora of other variables, such as a British legal system, made little difference to the result on economic freedom.

**Table 4.2: Economic freedom and government respect for human rights, 1981–2010**

| Dependent variable | Independent variables | (1) Global | (2) LDCs | (3) LDCs | (4) With country FE |
|---|---|---|---|---|---|
| Respect for human rights | | | | | |
| | Econ. Freedom | 0.43*** | 0.26*** | 0.24*** | 0.33*** |
| | | (0.045) | (0.052) | (0.051) | (0.066) |
| | Income/pc | 0.18*** | 0.10** | 0.14*** | −0.13 |
| | | (0.043) | (0.044) | (0.049) | (0.160) |
| | Population | −0.42*** | −0.51*** | −0.50*** | 0.23 |
| | | (0.022) | (0.023) | (0.025) | (0.369) |
| | Democracy | 0.91*** | 0.81*** | 0.84*** | 0.94*** |
| | | (0.091) | (0.087) | (0.087) | (0.109) |
| | Autocracy | −0.19 | −0.10 | −0.10 | −0.25* |
| | | (0.117) | (0.118) | (0.117) | (0.147) |
| | Civil War | −1.93*** | −1.99*** | −1.99*** | −1.62*** |
| | | (0.119) | (0.120) | (0.120) | (0.128) |
| | peaceyrs | 0.02*** | 0.02*** | 0.02*** | 0.02*** |
| | | (0.002) | (0.003) | (0.003) | (0.004) |
| | Eth. Fraction | | | 1.48** | 5.25** |
| | | | | (0.634) | (2.564) |
| | Eth. fraction$^2$ | | | −1.07 | −0.08 |
| | | | | (0.711) | (4.295) |
| | Constant | 5.16*** | 7.28*** | 6.50*** | 0.83 |
| | | (0.385) | (0.451) | (0.496) | (3.747) |
| | Observations | 3,044 | 2,513 | 2,513 | 2,513 |
| | Countries | 115 | 96 | 96 | 96 |

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1; year dummies computed in all tests (not shown): all variables lagged 1 year.

Sources: for all technical details and data sources, please see de Soysa and Vadlamannati, 2013.

The direct substantive effects of economic freedom are large. For comparison's sake, if all the other variables were at their mean values and if economic freedom alone were changed to its maximum value, one could expect a 0.79 increase in respect for rights, which is 36% of the standard deviation of the rights index. Remarkably, if the same were done with per-capita income, the impact would be roughly a 22% increase of a standard deviation of the human rights index. Interestingly, the inclusion of country-fixed effects, which takes each country's unique characteristics into account, also reveals a positive effect of higher economic freedom on higher respect for human rights. Again, a number of different factors, such as the lack of corruption and bureaucratic quality were added to the model but economic freedom's effect remained unchanged. Estimations after imputation of the missing values for economic freedom in a sample of 146 countries still yielded a positive and significant effect of economic freedom on human rights, suggesting that missing values do not systematically explain the main result.

**Table 4.3: Economic freedom and ethnic peace, 1985–2010**

| Dependent variable | | (1) Global | (2) Only LDCs | (3) With country FE |
|---|---|---|---|---|
| Ethnic peace | | | | |
| | Econ.Freedom | 0.15*** | 0.07* | 0.06 |
| | | (0.039) | (0.043) | (0.040) |
| | Income/pc | 0.09** | 0.11** | 0.61*** |
| | | (0.044) | (0.045) | (0.112) |
| | Population | 0.01 | 0.01 | 2.54*** |
| | | (0.021) | (0.023) | (0.258) |
| | Civil War | −0.73*** | −0.75*** | −0.46*** |
| | | (0.103) | (0.109) | (0.079) |
| | peaceyrs | 0.01*** | 0.01*** | 0.00 |
| | | (0.002) | (0.002) | (0.003) |
| | Eth. Fraction | −2.90*** | −2.41*** | 6,166.64*** |
| | | (0.414) | (0.501) | (662.564) |
| | Eth. fraction2 | 1.11** | 0.73 | −7,550.86*** |
| | | (0.470) | (0.543) | (810.477) |
| | Democracy | 0.08 | 0.06 | 0.20*** |
| | | (0.079) | (0.080) | (0.073) |
| | Autocracy | −0.11 | −0.03 | 0.09 |
| | | (0.091) | (0.090) | (0.100) |
| | Constant | 3.06*** | 3.03*** | −1,271.92*** |
| | | (0.358) | (0.439) | (136.633) |
| | Observations | 2,576 | 2,107 | 2,576 |
| | Countries | 107 | 88 | 107 |

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1; year dummies computed in all tests (not shown); all variables are lagged 1 year.

Sources: for technical details and data sources, please see de Soysa and Vadlamannati, 2013; data on ethnic peace from International Country Risk Guide's Researcher Dataset, <www.prsgroup.com>.

## Ethnic peace

In table 4.3, we present results of the effects of economic freedom on ethnic peace. As seen there, economic freedom continues to have a positive and statistically significant effect on ethnic peace. Only when country-fixed effects are introduced in column 3 does economic freedom's effect on ethnic peace just miss statistical significance at the 10% level. In substantive terms, again, moving from the mean value of economic freedom to its maximum gains greater ethnic peace than if the same were true for per-capita income, holding all the control variables at their means. Estimations after imputing the missing values for economic freedom and then re-estimating the results for a sample of 125 countries still yielded a positive and significant effect of economic freedom on ethnic calm, which suggests that missing values do not systematically explain the main result.

## Is economic freedom endogenous to the outbreak of civil wars?

It is quite possible that our key explanatory variable—the economic freedom index—is endogenous to the outbreak of civil wars. It might be that our results are capturing the negative effects of civil war on economic freedom. Not taking reverse causality into account would induce bias in our estimate of the effect of economic freedom on the risk of civil war. This issue is not trivial because those who argue that economic freedom can reduce civil violence also make causal claims about conflicts significantly affecting economic freedom. To circumvent this problem, we use System-GMM estimator suggested by Arellano and Bond (1991), Arellano and Bover (1995), and Blundell and Bond (1998). However, we are not aware of an IV estimator (with internal instruments) for a binary dependent variable when the error term is serially correlated and heteroscedastic. Following Eichengreen and Leblang (2008), we estimate the linear probability models, which provide consistent estimates. The System-GMM estimator uses the lagged levels and the lagged differences of the variables (in this case, economic freedom) as instruments of the endogenous since they are not correlated with the error term. Implemented by Roodman (2006) in Stata, the GMM results are based on the two-step estimator, which weights the instruments asymptotically by efficiently using the first-step estimates. We apply the Hansen J-statistic test on the validity of the instruments often used to test for the exogeneity of the covariates and the Arellano-Bond test of second order autocorrelation, which must be absent from the data in order for the estimator to be consistent. We treat the lagged dependent variable and both economic freedom and per-capita income as endogenous and all other variables as strictly exogenous. Both endogenous variables are lagged by three years. As suggested by Roodman (2006), we also collapse the instruments matrix in order to minimize the number of instruments used, which could inflate the Hansen J-statistics.

The results addressing reverse causality using system GMM are displayed in table 4.4, which clearly shows that the baseline results (in table 1) are not affected by the choice of estimator. Note that the Hansen J-statistic test and the Arellano-Bond test do not reject the GMM specifications at conventional levels of significance across the columns. The Hansen J-statistic shows that the null-hypothesis of exogeneity of the (internal) instruments cannot be rejected at the conventional level of significance. Our main variable of interest—economic freedom—remains negative and significantly different from zero at 5% level across the columns. Thus, irrespective of the sample size (global sample or a sample of developing countries), in the post-Cold-War period of analysis the results for economic freedom remain robust. The coefficients on economic freedom in our SGMM increase marginally when examining the sample of developing countries alone (see column 4). On average, a point increase in the economic freedom index is associated with a decline in the probability of an outbreak of civil conflict by roughly 6%. This is not trivial given that the chance of seeing a civil war outbreak in any given year is very small. Note that our results remain robust to the inclusion of a lagged dependent variable. The results also remain relatively stable with respect to other control variables.

In summary, economic freedom lowers the risk of an onset of conflict. The statistical effect remains robust to a number of specification changes, and the net effect of economic freedom is larger than it is for per-capita income level and regime type.

**Table 4.4: Testing for reverse causality between economic freedom and civil war**

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | **SGMM** | **SGMM** | **SGMM** | **SGMM** |
| | Civil war | Civil war | Civil war | **Civil war** |
| Lagged Dependent Variable | −0.608 | −0.455 | −0.183 | −0.133 |
| | (0.909) | (0.903) | (0.194) | (0.214) |
| Economic Freedom Index t-1 | −0.0493** | −0.0512** | −0.0533** | −0.0536** |
| | (0.0245) | (0.0242) | (0.0241) | (0.0270) |
| Per capita GDP (log) t-1 | 0.0314 | 0.0317 | 0.0436 | 0.0391 |
| | (0.0273) | (0.0274) | (0.0297) | (0.0320) |
| Population (log) t-1 | 0.0128* | 0.0130* | 0.0127** | 0.0132* |
| | (0.00694) | (0.00771) | (0.00629) | (0.00774) |
| Ethnic Fractionalization t-1 | 0.119 | 0.116 | −0.0212 | −0.0187 |
| | (0.119) | (0.113) | (0.145) | (0.170) |
| Ethnic Fractionalization Squared t-1 | −0.0104 | −0.0128 | 0.171 | 0.167 |
| | (0.170) | (0.159) | (0.210) | (0.235) |
| Democracy t-1 | | −0.00714 | −0.00436 | 0.00207 |
| | | (0.0266) | (0.0201) | (0.0186) |
| Autocracy t-1 | | −0.0182 | 0.0263 | 0.0291 |
| | | (0.0179) | (0.0253) | (0.0259) |
| Civil Peace Years t-1 | −0.00277 | 0.00855 | 0.0171 | 0.0172 |
| | (0.0633) | (0.0629) | (0.0114) | (0.0125) |
| Cubic Spline1 | −3.24e-05 | 0.000142 | 0.000270 | 0.000261 |
| | (0.000968) | (0.000964) | (0.000187) | (0.000204) |
| Cubic Spline2 | 8.61e-06 | −3.99e-05 | −7.51e-05 | −7.21e-05 |
| | (0.000269) | (0.000268) | (5.28e-05) | (5.75e-05) |
| Constant | −0.0676 | −0.0886 | -0.193 | -0.170 |
| | (0.323) | (0.329) | (0.142) | (0.159) |
| Number of Countries | 115 | 115 | 115 | 96 |
| Total Observations | 3673 | 3652 | 2217 | 1855 |
| Sample | Global | Global | post-1991 | post-1991 & developing nations |
| Number of Instruments | 13 | 15 | 21 | 21 |
| Arellano-Bond test for AR(2) | 0.488 | 0.588 | 0.274 | 0.456 |
| Hansen Test (J-statistic) | 0.19 | 0.191 | 0.44 | 0.434 |

Economic freedom also reduces political repression, which suggests that the peace effect of economic freedom is not working through a repression effect since rulers can suppress violence by using a heavy hand against the mobilization of dissent. Moreover, economic freedom seems to dampen ethnic tensions. Importantly, the results hold when accounting for possible endogeneity, or reverse causality. Under conditions of fewer market distortions, thus, and fairer economic governance that reflects liberal values of free-market competition and respect for property, people's rights as well as their social relations with other distinct groups within society seems less likely to be laden with conflict.

## Conclusion

Scholars of the economics of civil war, such as Paul Collier (2000) argue that finance for organizing violence is critical to understanding why it occurs. This article argues that "rebellion-specific capital" is more than finance, and a broader perspective of how an economy is governed is necessary to understand the nature of insurgency because the payoffs to whether or not potential rebels start violence or legitimate businesses are dependent on factors governing economic life. We have argued from a micro perspective that economic repression leads to the build-up of rebellion-specific capital that is destabilizing because it makes conflict more feasible in a broader sense. Indeed, the correlation between oil wealth and conflict is likely due to the fact that oil wealth is associated with top-heavy, distorted economies that lead to thin market integration of regions and peoples where private economic activity is constrained.[17] The empirical results show that economic freedom has a statistically significant negative effect on the onset of conflict, the violation by states of rights of people to physical integrity, and greater calm between distinct ethno-linguistic and religious groups within countries, net of good institutions and per-capita income, proxies often used to measure state capacity for deterring costly violence.

A number of observers have rejected the idea of using economic liberalization as a blueprint for building better states, principally because such freedoms may be temporarily destabilizing, even if they are desirable in the long run (Cramer, 2009; Paris, 2004). The critics of "liberal peace" argue that nascent state institutions should be allowed to become "institutionalized" before economic liberalization. The dilemma is that such institutionalization can occur only *after* institutions that would serve particular functions—such as ensuring the enforcement of the proper "rules of the game" within the polity and economy—are put in place. Privatization, for example, should *begin* at some point *before* it becomes institutionalized: it is the very success of nascent institutions that allows them to develop legitimacy—and, eventually, to become institutionalized. Germany and Japan, for example, still cleave to many of the institutions that were imported (and even imposed) during the post-war years for one simple reason: they worked, particularly in terms of economic growth and development.

It might very well be that impartial, market-supporting institutions are hard to establish under the lawless conditions that characterize post-conflict societies, but to assume that market-supporting institutions should therefore not be established would be to confuse the symptoms of the disease with its cause. Where rent seeking is the norm, powerful actors will naturally resist the creation of impartial institutions that support markets, but the end of conflict certainly offers a great opportunity to impose such institutions from outside, as was the case with Germany and Japan. Fairer economic governance, as Adam Smith and other liberals noticed centuries earlier, increases social wealth and reduces costly social behavior at the same time as it increases state capacity in a virtuous cycle—as if by a hidden hand. Contrarily, economic repression promotes rent-seeking, economic decline, and the build-up of rebellion-specific capital that is often mobilized for larger-scale violence.

17 For an excellent discussion of how good institutions of governance emerge under conditions of private ownership of natural resources, which in turn mitigates the "resource curse", see Weinthal and Luong, 2006.

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