Abstract

Does a country’s exposure to international investment directly affect its likelihood of falling into civil war? We link standard political economy theories to models of social revolution to explain how different foreign capital strategies affect state policy and substate political actors’ incentives to engage in conflict against the state. Empirically, we note that civil war expectations should reduce inflows of liquid capital from abroad, creating an endogeneity problem that cannot be resolved simply by lagging the endogenous variable. We use an instrumental variables approach to estimate the effects of foreign portfolio and direct investment on civil war onset. The pattern of statistical results strongly supports a model in which different forms of international investment, fixed and liquid, differentially affect the ability and willingness of governments to prevent internal conflict and of individuals to participate in armed insurgency.
Introduction

It is by now well known that intrastate wars kill more people than interstate wars, and that more people have been killed in the last century by their own governments than by private criminals and foreign governments combined. It is no wonder then that the academic literatures on civil conflict and repression are now so voluminous. Within this broad field of inquiry, the role that international business can play in conflict and its prevention has come under growing scrutiny from both scholars and NGOs. However, our understanding of the role that international investors play in either exacerbating or ameliorating conflict is unresolved.

Three distinct political science traditions have explored the links between the international economy and conflict. The regime transition literature, which increasingly has become theoretically linked to earlier work on social revolutions via the inequality-coup nexus, has addressed the role of capital mobility in mediating social conflict (Boix 2003; Acemoglu and Robinson 2006). The “liberal peace” research agenda in international relations has addressed at much length the role of commercial links between states in preventing or promoting interstate conflict (Oneal et al 1996; Oneal and Russett 1997, 1999; Barbieri 1995, 1999, 2002, 2003; Barbieri and Schneider, 1999; Rosecrance and Thompson 2003; Gartzke et al 2001; Gartzke and Li, 2003; Gartzke 2007). Finally, there have been studies that have attempted to extend the international liberal peace argument into the intrastate conflict realm (Richards, Gelleny, and Sacko 2001; Barbieri and Reuveny 2005). These pioneering works have tested empirically the link between globalization and civil war and repression with – we argue – logical and evidentiary limitations.

We, however, bring together developments in two distinct literatures – international political economy and social revolutions – to develop and test a comprehensive theory of the role that international investors play in organized intrastate rebellion. Our principal finding is that different forms of international investment, fixed and liquid, differentially affect the ability and willingness of governments to prevent internal conflict and of individuals to participate in armed insurgency.

The structure of the paper is as follows. In the next section, we develop two complementary arguments about the role of international capital in civil conflict, which we label “structural dependence” and “alienation.” In the third section we discuss our data and methods. The fourth section presents and discusses results of regression models of civil war and armed intrastate conflict onset over a global sample of countries for the years 1970-2003 and an empirical test of a theoretical extension. The fifth and final section concludes with implications for research and practice.

Theory

While the conventional liberal arguments for the benefits of international economic ties in reducing interstate conflict are necessarily dyadic (country-country pairs are the units of analysis), the study of civil war has generally been monadic, i.e., it treats individual countries as the independent units of analysis. However, intrastate conflicts are just as bilateral or multilateral in their basic structure as are interstate conflicts. The differences between inter- and intrastate conflicts are that the latter take place
within the borders of a recognized state, and while a state is almost always one of the actors involved in a civil war, the state’s adversary is a non-state faction or an alliance of factions.

Standard liberal peace logic does not seem to apply to relations between most states and internal opposition factions. The state and opposition factions do not trade with each other, nor do most (potential) rebel groups control large territorial economies from which they can extract revenue and which are dependent on trade with other regions of the country. In Mancur Olson’s (1993) terminology, most rebels are roving rather than stationary bandits.

However, a country’s economic exposure to international markets might well affect opposition factions within the country in predictable ways. A key research program in political economy is the development of theories to explain how different substate groups will benefit or lose from international trade, fixed investment, and liquid investment. Meanwhile, largely separate literatures on social revolution and civil war have explored the conditions under which substate groups opposed to incumbent regimes turn to violence to pursue their political aims. In this paper, we link these bodies of theory to develop a coherent account of the effects of international investment exposure on civil war risk.

To understand civil war, we need to understand the motivations and opportunities of the government as well as domestic factions opposed to the incumbent regime. Globalization, particularly the growing dependence of the domestic economy on international investment, systematically affects those motivations and opportunities. In less developed countries (LDCs), governments that open to international investment become “structurally dependent” on such investment, but this structural dependence takes on different manifestations for direct and indirect (portfolio) investors. While direct investors, i.e., multinational enterprises (MNEs), are more likely to exercise “voice” than “exit” in order to protect their investments, portfolio investors will rely on “exit” rather than “voice” (Hirschman 1970). These strategies of international capital in turn determine whether an alienated “labor pool” is available for service in insurgency. While globalization does not “cause” civil war – the causes of civil war pertain to domestic political conflicts – globalization can either facilitate or inhibit violent intrastate conflict.

The Structural Dependence of the State on International Capital

We begin by noting some well-established facts about the economic consequences of fixed and liquid foreign investment and infer propositions relating country exposure to foreign investment to governmental structural dependence on such investment. Finally, we reason to empirical hypotheses about the consequences of this dependence on conflict probability.

Numerous studies (e.g., Easterly, King, Levine, and Rebelo 1994; de Mello 1999; Bair and Gereffi 2001) have found that foreign direct investment (FDI) by multinational enterprises (MNEs) boosts human capital in the host country and increases economic growth rates. One important mechanism yielding these effects is technology transfer. Apparently, FDI increases growth rates in host countries regardless of GDP, implying that Ricardian comparative advantage is not the full story. Transaction cost theory and empirical findings support the view that horizontally integrated MNEs, which constitute the greater part of the observed industrial form, are firms that have created impacted knowledge, which
they are then only able to exploit within the firm structure rather than through arm’s-length contracts (Caves 2007). The Heckscher-Ohlin-Stolper-Samuelson framework predicts that in less developed countries (LDCs), capital owners would oppose FDI, while workers, especially the unskilled, would support it. However, transaction-cost economics suggests rather that potential managerial talent and skilled technical labor would benefit most from FDI, as Bair and Gereffi (2001) find in Mexico.

Because FDI has such beneficial consequences for countries’ economies, we would expect that governments would want to attract and retain FDI, rendering them relatively structurally dependent on such investment. One caveat is that FDI attracted solely by targeted subsidies or trade barriers is unlikely to provide the value added that FDI normally does (Fieldhouse 1986; Bhagwati 2004). Studies of the determinants of FDI inflows show that MNEs are attracted to a stable environment for profitable, long-term investment (Li and Resnick 2003; Jensen 2003; Ahlquist 2006). Democracy and the rule of law are important indicators of such an environment. Although not previously measured in empirical studies, we should also expect long-term conflict probabilities to factor into MNEs’ investment decisions. Armed conflict destroys resources, reduces economic growth, and shifts economic activity from “war-vulnerable” into “war-safe” sectors (Collier 1998). Unlike, say, open-pit mines, rebels cannot profitably run complex manufacturing and service operations, and physical and human capital are easily damaged by violence. There are no “conflict widgets.”

In order to attract FDI, then, governments need to create a low, long-term risk of large-scale violence in the areas where investment occurs. Because MNEs invest for the long term, fixed investments being difficult and expensive to liquidate quickly, we should not expect them to disinvest or to delay initiating investment because of a short-term increase in tensions. If MNEs can reasonably accurately calculate the long-term risks to their investment, they should be relatively unconcerned by short-term fluctuations, which are only to be expected. Accordingly, we should not expect FDI inflows to be lower in years prior to conflict onset. Instead, MNEs will exercise their “voice” option to encourage their host governments to avoid potentially damaging violence and to implement reform measures that will release some of the steam of domestic discontent. When governments are unresponsive or resource-constrained, MNEs may even undertake direct collective action aimed at eliminating the sources of insurgency. Examples of the latter phenomenon include the Philippine Business for Social Progress’ (PBSP) development programs in Muslim Mindanao and the Confederation of British Industry’s (CBI) successful attempts to jump-start the Northern Ireland peace process in 1994-1998 (Ben-Porat 2006: 224-59).

1 Of course, not every conflict destroys foreign-owned capital stocks. Small conflicts in remote areas may be of little concern to foreign investors. Additionally, MNEs involved in resource extraction industries, which represent a small proportion of global FDI, may be less interested than others in conflict prevention (Bennett 2002).

2 http://www.pbsp.org.ph/mpdp_intro.htm, accessed September 24, 2009. Tan and Bolante (1997: 5) describe the environment in which the PBSP was founded in 1970: “Deepening poverty drove workers, peasants, and students towards the communist insurgency. Violent demonstrations, political assassinations, and a growing rural insurgency drove fear into the hearts of the rich and powerful Filipino business community.” Today, MNEs such as Dole, Del Monte, and Shell can be found among the PBSP’s members.
Hypothesis 1: Country exposure to FDI is associated with lower risk of civil war and intrastate armed conflict onset.

By contrast with FDI, FPI is not widely believed to increase growth rates. In fact, some economists (e.g., Prasad, Rogoff, Wei, and Kose 2003; Bhagwati 2004) argue that FPI has harmful consequences in less developed countries with shallower financial markets. In theory, FPI can have the same beneficial, comparative-advantage consequences that trade and immigration generally create. However, if moral hazard is rife in financial markets due to a combination of bailout expectations and ineffective regulation or lack of transparency, or if financial markets suffer from irrational “herd behavior,” then a large pool of international finance may simply increase the country’s exposure to financial crisis. Volatility in both output and consumption is thus higher in LDCs with fewer capital controls (Prasad et al. 2003).

Since international finance is not clearly beneficial to host countries’ economies, especially in LDCs, we should expect governments to be relatively structurally independent of foreign financiers, even though such investors can more readily punish governments by withdrawing investments than can direct investors. Interestingly, the empirical research on capital mobility in LDCs supports this contention. For instance, Wibbels and Arce (2003) find that in Latin America, governments with fewer capital controls actually had higher effective tax rates on capital. Because exit is easy for portfolio investors, inward FPI should be lower in years prior to conflict onset, but we do not expect that FPI will reduce conflict through the structural dependence channel. Governments have little incentive to reduce conflict likelihood over the long term in order to attract portfolio investors.

The next argument we consider is the link between foreign investment and social alienation of economically vulnerable populations.

Investment, Alienation, and Conflict

Unlike with FDI, which through a variety of channels drains potential rebel labor pools, foreign portfolio investment has the potential to fill these pools and thus increase the possibility of intrastate conflict. Moreover, the foreign nature of this investment will tend to intensify the appeal of more extreme ideologies. Brinton noted in his seminal work on revolutions that “the conventional and moderately successful member of a society does not commonly revolt against that society” (Brinton 1948). By contrast, poorly educated males between the ages of 18 and 30 are the prime recruiting ground for rebel groups (Humphreys and Weinstein 2008). But how might FPI contribute to the latter rather than the former?

Social-psychological factors and theories which utilize these variables allow us to link FPI to civil wars and to present a tentative case for some of the microfoundations of armed insurgency. The advantage of this approach is that it provides a mechanism by which the collective action problems that would-be insurgents face are overcome. Specifically, FPI will tend to increase civil war risk as economic volatility due to international finance produces feelings of helplessness, “social disorientation,” and alienation (especially feelings of powerlessness) among marginalized populations and those least buffered from the sways of instability (Skocpol 1979: 14; Seeman, 1959). These psychological sequelae
will be even more pronounced due to FPI than from the normal “creative destruction” of capitalism. The reason is that the crises and booms typically inherent to economies which open themselves to FPI are perceived to be brought on by “out-groups” – far-away financiers of the perceived faceless international financial system – and abetted by the local governments believed to be the lackeys of foreign capitalist overlords. The resultant alienation makes these individuals more susceptible to the appeals of elite revolutionary leaders and more suspicious of conventional paths of redress (as well as undermining broad support for the incumbent government). In particular, social changes leading to "social disorientation" provide both the opportunity for “collective mobilization” and the labor pool to do so for those who can provide a revolutionary theory as a mooring for these alienated individuals or a list of grievances and a strategy for confronting them (Skocpol 1979: 14).

Following Davies (1962; 1969) and his J-curve theory of revolution – not to mention de Tocqueville (1856) – FPI will also have greater impact because it is likely to raise expectations at t₁ that will almost inevitably be dashed down the line at t₂, t₃ and so on, even if only temporarily, by volatility consistent with this type of investment. Mere deprivation is not enough (Davies 1962). It is through the frustration and alienation that results from the process of rising and declining expectations that will, as Davies (1969) argues, lead individuals to seek “outlets in violent action.” At this point, Brinton’s “entrepreneurs of revolution” (1948) will be able to recruit alienated individuals for the hard work of revolution, insurgency, and civil war. And even if only a fraction of the alienated actively fight, many more may come to support the cause given that the insurgency may promise an end to the powerless that they too feel in the face of international forces. Indeed, this larger more inert population may be just as important to revolutionary/insurgent groups arrayed against governments as rebel troops given Mao’s (2005 [1937]: 44, 92-93) key insight about the importance of support from the people at large.

_Hypothesis 2: Inward FPI is associated with higher risk of civil war and armed intrastate conflict onset._

_Hypothesis 3: Inward FPI is associated with anti-global-capitalist ideology in rebel organizations._

**Alternative Causal Channels: Globalization and Conflict**

The structural dependence and alienation mechanisms together imply a negative relationship between FDI and conflict and a positive relationship between FPI and conflict. But we also need to consider whether other causal mechanisms could just as well account for such correlations, if they are observed. In this subsection we briefly consider five additional arguments about the relationship between globalization and conflict: “opportunity costs of conflict,” “dependency theory,” “Panglossianism,” “comparative advantage,” and “cultural backlash.”

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3 However, it should not be assumed that this economic unrest is being manipulated in a pejorative sense by the “entrepreneurs of revolution” (Brinton, 1948). The grievances and causes that motivate these leaders may be worth fighting for and only brought to the attention of the potential insurgent labor pool once alienated by economic unrest.

4 One line of argument not developed here is a possible extension of Boix’s (2003) argument that outward capital mobility diminishes risk of democratic breakdown due to right-wing coups aimed at stopping downward redistribution. To the extent that such coups could become violent intrastate conflicts, then, Boix’s theory predicts...
The opportunity costs of conflict reasoning is similar to that discussed in the “Investment, Alienation, and Conflict” section above, but without the ideological element. The central point is that the more remunerative is productive employment in an economy, the less able are rebel organizations to recruit fighters. This is one explanation for the oft-observed negative correlation between GDP per capita and intrastate conflict onset (Sambanis 2001; Fearon and Laitin 2003; Collier and Hoeffler 2004). For a given level of GDP per capita, it implies that lower levels of inequality should reduce conflict onset, since it is unskilled laborers who are most tempted to join an insurgency as foot soldiers (Humphreys and Weinstein 2008). Previous studies have not found a relationship between inequality and conflict onset (Fearon and Laitin 2003; Collier and Hoeffler 2004). Since inequality data are poor in quality, the lack of a finding may not be definitive. With inequality excluded from the right-hand side of a regression model, we might expect trade to be negatively associated with conflict onset. The reason is that by Heckscher-Ohlin-Stolper-Samuelson logic, trade reduces inequality in capital-poor countries, those countries that are most likely to have conflicts to begin with. The implications for FDI and FPI are less clear, since unskilled labor may not in fact benefit disproportionately from foreign investment.

Dependency theory is a body of political-economic argument holding, most generally, that global capitalism is a mechanism by which governments and firms from developed countries maintain the economies of developing countries in a state of dependence (Prebisch 1950; Galtung 1971; Wallerstein 1974, 2000). Dependency theorists have usually claimed therefore that globalization of markets harms developing countries both politically and economically. In sharp distinction to neoclassical economists, dependency theorists focus their ire on MNEs, who are argued to suppress wages and social spending with the aid of host-country governments (Hymer 1979). This subjugation could lead to alienation and hostility within the economically vulnerable population. Thus, dependency theory implies a positive effect of investment exposure on conflict onset. The prediction about trade is less clear, depending on whether domestic exporters practice the same anti-labor tactics that dependency theorists predict for foreign investors.

“Panglossianism” is the term we use for a certain kind of “pop internationalism” (Krugman 1993), which sees only positive consequences from globalization. While not so common today, this viewpoint sees declining conflict and increasing wealth as the inevitable concomitants of market-driven globalization in all its forms (Friedman 1999).

Comparative advantage arguments are common in previous studies of globalization and conflict or repression (Meyer 1996; Richards, Gelleny, and Sacko 2001; Barbieri and Reuveny 2005). Economic models based on comparative advantage predict that openness to trade, investment, and labor flows will increase both domestic and global income. Domestic income, in turn, reduces conflict through two channels: opportunity costs of conflict and state strength. The problem with this logic is that GDP per capita is a standard right-hand-side variable in models of conflict onset. Controlling for GDP per capita, the comparative advantage argument has no prediction about globalization and conflict.

that outward capital mobility will be negatively associated with this particular kind of conflict in highly unequal democracies.
“Cultural backlash” refers to the logic that globalization irritates non-Western cultures by introducing them to an alien culture embodied in imported products (Barber 2002). Whether this irritation could actually engender feelings of helplessness and alienation is doubtful, but if it did, then we would expect a positive relationship between globalization and conflict. However, the main channel should be trade, since direct and – even more so – portfolio investors do not generally create overt symbols of Western cultural hegemony. It is Western-made imports that presumably should elicit conflict, if this theory is true.

None of the foregoing theories generate precisely the same empirical implications as our structural dependence-alienation theory. Of course, it is possible that some combination of most of these theories is true. Our argument is not inconsistent with opportunity costs of conflict, cultural backlash, and comparative advantage reasoning (although we argue that the last is irrelevant to the question), but it is fundamentally incompatible with dependency theory and Panglossianism. Furthermore, none of these theories predicts a positive relationship between FPI specifically and social alienation, as reflected in anti-global-capitalist ideology.

Table I summarizes the different theoretical approaches and their predictions.

[Table I about here]

Data and Methods

Our theory predicts that inward FDI reduces the likelihood of civil war onset, while inward FPI increases its likelihood. To support our theory over possible alternative explanations of these correlations, should they be found, we also test whether those civil wars that begin in country-years with relatively high levels of liquid capital exposure are more likely to feature rebel groups opposed to the global capitalist system.

To test the predictions of civil war onset, we start with the civil war dataset compiled by Fearon and Laitin (2003) (henceforth, “F&L”) and used by Barbieri and Reuveny (2005) in their study of globalization and civil war. The F&L data only go up to 1999, but we extend them to 2003 using various procedures. For civil war, we followed the F&L criteria: an intra-state conflict exists that kills at least 1,000 people over its course and an average of at least 100 people each year, with deaths on both sides of the conflict. Using the battle deaths data from UCDP-PRIO (Gleditsch, Wallensteen, Eriksson, Sollenberg, and Strand 2002; Harbom, Melander, and Wallensteen 2008), we update the civil war data and code the years in which a civil war begins as “1” on the “civil war onset” variable. All other years are scored “0.” Countries can have multiple ongoing civil wars at the same time. Civil war onset is thus the first dependent variable.

The second dependent variable is “intrastate armed conflict,” defined as a “contested incompatibility that concerns government or territory or both where the use of armed force” between the state and an opposition group results in at least 25 battle-related deaths (Gleditsch et al. 2002: 618-19). The original data are not constructed very well for the determination of “onset” dates. The dataset reports the years in which the “contested incompatibility” first appears and in which a “conflict episode”
begins. The incompatibility can recur periodically over many decades even though there are many intervening years of peace. Thus, the incompatibility start date cannot be used as the sole indicator of conflict onset. On the other hand, conflict episodes can end even when the conflict does not end but simply falls below the annual 25-death threshold – or when the researchers simply lack data on either the number of deaths or some other key attribute of the conflict, in which case the conflict appears only on a “list of unclear cases.” Thus, using conflict episode start dates would give us too many conflict onsets, while using incompatibility start dates would give us too few.

We solve the problem by first including all “unclear cases” as armed conflicts. Then, we count a conflict as continuing over years intervening between conflict episodes if the following criteria are met: 1) the conflict incompatibility is the same between episodes; 2) there is organizational continuity in at least one opposition group over the two episodes (the UCDP-PRIO dataset provides this information); and 3) to our knowledge, no ceasefire or peace agreement held for at least a year during the intervening period. After we then have a list of conflicts and the years over which they occurred, we code the initial year of each conflict as the onset. Because of the more generous threshold for conflict, there are more conflict-years in this variable than the F&L measure of civil war: 22.4% versus 17.3% post-1970.

The key independent variables are foreign direct investment inflows/stocks as a percentage of GDP and foreign portfolio investment inflows as a percentage of GDP, each lagged one year. The inflows data come from World Bank (2008). FDI stocks are a better measure of overall FDI exposure than inflows, but these data (from UNCTAD) are available only from the year 1980. FDI inflows remain the standard measure of globalization of direct investment in the literature (e.g., Jensen 2004; Ahlquist 2006). We try our models with both FDI inflow and stocks data. The FDI inflow and FPI variables are available from 1970 on, and all analyses are thus limited to the post-1970 period. The World Bank measure of FPI, “portfolio investment excluding LCFAR (liabilities constituting foreign authorities’ reserves),” is negative the larger are net portfolio investment inflows, because it is conceived as a balance of payments measure (investment inflows generate liabilities on the national balance sheet). Like Barbieri and Reuveny (2005), we invert the measure so that the highest values represent the largest net inflows and then divide by GDP, multiplying by 100 to create a percentage.

Missing data are a problem with all the globalization variables, but especially FPI. Two other indicators of portfolio inflows are available from the World Bank: “portfolio investment, bonds” and “portfolio investment, equity.” We can sum these to obtain a measure of portfolio inflows in cases where the normal measure is missing. Next, cases in which foreign investment is zero but World Bank GDP data are missing are coded as zero on foreign investment as a percentage of GDP.

Nevertheless, many missing cases remain, and we take seriously the problem of non-random selection bias created by listwise deletion of such cases. Poor countries, command economies, very

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5 These cases are “unclear” not because it is unclear whether fighting occurred, but because researchers could not code one of the following key conflict attributes: nature of incompatibility, number of deaths, or rebel organizations.

6 In a few cases, the initial year of onset is prior to the first year in which a conflict episode occurs, because the first battle deaths occur then.
small jurisdictions, and countries in the grip of internal turmoil are less likely to report economic data. Because the likelihood of reporting data correlates strongly with the likelihood of civil war, this procedure effectively selects on the dependent variable, a well-known source of attenuation bias in regression coefficients (Dubin and Rivers 1989; King, Honaker, Joseph, and Scheve 2001). For instance, Afghanistan, Bosnia, Croatia, Eritrea, Iraq, Lebanon, Somalia, and Yugoslavia are all missing from Barbieri and Reuveny’s (2005) analysis for virtually all of the 1990s. Thus, we also perform linear interpolation for missing in-series cases of FDI, FPI, and trade (described below).

The control variables are derived from F&L. We expand F&L’s GDP data by using World Bank (2008)-derived real GDP per capita growth rates to extend series where possible, and where F&L lack data altogether on a country, we regress F&L’s GDP data on the World Bank’s GDP (PPP) data and use the resulting model to impute values of GDP for observations for which F&L’s GDP variable is missing. The log of country population, likewise lagged, is updated with the 1999-2002 figures from World Bank (2008). Log of percentage of country territory that is mountainous is carried forward from 1999, as are dummy variables for territorial noncontiguity and oil exporting and ethnic and religious fractionalization indices. The updated, 21-point Polity IV measure of regime type (democracy minus authoritarianism) is included on a one-year lag. A dummy variable for regime changes (shifts of ±3 points on the regime scale) is included on a one-year lag. We follow the recommendations of Beck, Katz, and Tucker (1998) for duration dependence in binary outcome models and create three cubic spline variables and a counter of peace years to control for the effect of peace duration on civil war/intrastate armed conflict outbreak. Finally, like Barbieri and Reuveny (2005), we include a measure of trade, exports plus imports divided by GDP, lagged one year (World Bank 2008).

Since the dependent variable is dichotomous and civil war onset is rare, the linear probability model is inappropriate, generating many predicted probabilities below zero. F&L thus use logit regression to test the determinants of civil war onset. However, we expect FPI inflows to be endogenous to civil war in the immediate future, since portfolio investors have both the opportunity and incentive to liquidate investments prior to a potentially economically damaging, violent conflict. Thus, a negative correlation between lagged FPI and civil war onset may even emerge in the data, even if FPI actually increased the likelihood of civil war.

Indeed, when we examine the post-1970 data, we find that in years of civil war onset, average lagged FPI is just 0.11% of GDP, while in years of no civil war onset, average lagged FPI is 1.17% of GDP. In years of intrastate armed conflict onset, average lagged FPI is -0.08% of GDP, while in years of no intrastate armed conflict onset, average lagged FPI is 1.21% of GDP. Thus, portfolio investors seem able to anticipate conflict and willing to withdraw or to withhold their investments.

FDI displays no such pattern. In civil war onset years, FDI inflows are on average 2.45% of GDP, while in other years the figure is actually lower: 2.09% of GDP. The split for intrastate armed conflict onset is 2.31% to 2.09%. This fits with standard IPE theory and findings. FDI generally is based on long-term considerations and is extremely costly to liquidate on short notice (Jensen 2004; Ahlquist 2006).

7 World Bank (2008) in turn lacks GDP data for many country-years for which F&L does not, so we cannot simply use the World Bank data instead.
Since conflict can easily destroy valuable investments, we should indeed expect direct investors to consider a country’s long-term conflict prospects quite seriously before investing, but what we should not see is changes to direct investment plans due to short-term fluctuations in conflict propensity. Unlike FPI, FDI is not likely to prove endogenous to conflict onset.

We adjust for endogeneity by employing instrumental-variables probit – specifically, a conditional maximum-likelihood estimation in which the endogenous variable is instrumented by exogenous variables that predict the endogenous variable, as well as the other variables in the model. As instruments we selected two variables: Internet users per 1,000 population from World Bank (2008) and an index of capital controls from Chinn and Ito (2008). The capital controls index takes on lower, negative values for more regulations on international financial transactions, and higher, positive values for fewer regulations. Theoretically, these variables should be related to FPI, because electronic trading has dramatically increased the volume of trading activity in international markets, and because regulations on international capital flows should reduce their volume. Statistically, we find that both variables are highly statistically significant and positive in an OLS regression of FPI on these variables and the other exogenous variables in the model. They are insignificant as predictors of civil war and intrastate armed conflict onset. Therefore, they meet the two criteria for good instruments: exogeneity and strong predictive value for the endogenous variable.

The data and methods for the testing of Hypothesis 3 will be described in the next section.

**Results and Discussion**

Table II presents the results on civil war onset. The first column of results show the estimates derived from a logit model of civil war onset, 1971-2003, ignoring the endogeneity problem. The second set of results are estimates from an instrumental variables regression on all available data for 1971-2003. The next column presents results from a model with inward FDI stock replacing FDI inflows and covering the years 1981-2003.

[Table II about here]

The importance of endogeneity is evident from the results. The simple logit model reports a negative and almost statistically significant (at $p < 0.05$) coefficient on FPI, while FDI is totally insignificant. Once endogeneity is corrected, lagged FPI becomes statistically significant and positive, while FDI is statistically significant and negative, whether measured as inflows or stocks. Trade is negative but not statistically significant, which may in part be a result of multicollinearity, since trade is strongly correlated with FDI, FPI, GDP, and population. Wald tests of exogeneity yield $p = 0.15$ and $p = 0.06$ in the two instrumental-variables regressions, indicating a high degree of confidence that FPI is

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8 Conditional maximum likelihood estimation is more efficient than the simpler, two-step estimator (Wooldridge 1998: 476).

9 We assume that the number of Internet users prior to 1990 is zero. We linearly interpolate missing in-series values for both variables, and both are lagged a year in the regressions.

10 We also tried sovereign default, inflation rate, and squared inflation rate as instruments for FPI, but none of these were statistically significant predictors of FPI.
endogenous. The results of the first-stage regressions are not reported here for reasons of space but are available on request.\textsuperscript{11}

The following substantive interpretations are based on the last model. A one-standard deviation increase in FPI from its mean, 8 percentage points of GDP, increases the probability of civil war onset by 19 percentage points, from 7.1% to 26%, when other variables are held at their means. A one-standard deviation increase in FDI stock from its mean, 25.2 percentage points of GDP, more than halves the probability of civil war, down to 3.3%, while zero FDI is associated with a 10.8% annual risk of new civil war, under the same condition.

The next step is to check the robustness of the results by using a very different dependent variable, the indicator of armed conflict described in the previous section. New variables for peace years and the cubic splines must be created. The results of the instrumental variables probit of armed conflict onset are presented in Table III. The first set of results is for a model with FDI inflows, and the second is for a model with FDI stock.\textsuperscript{12} In both models, FPI is statistically significant and positive, while trade and FDI are negative but not quite statistically significant. Since the coefficients are larger than the standard errors, some allowance should be made for multicollinearity: the correlations between FDI inflows and FPI inflows and between FDI and trade are $r = 0.21$ and $r = 0.38$, respectively (virtually the same for FDI stock). The substantive impacts of FPI are even larger on all armed conflict than civil war more narrowly defined. A one-standard-deviation increase in FPI from its mean increases the risk of new armed conflict from 11.7% to 30.6%.

[Table III about here]

To summarize our results, then, we have strong evidence that international financial investment is endogenous to the onset of civil war or armed conflict in the next year, and that once this phenomenon is corrected for, international finance is associated with significantly higher risk of civil war and armed conflict, while direct investment is associated with significantly lower risk of civil war but not internal conflict in general.

To support our argument that FPI increases civil war risk in developing countries by generating alienation among economically vulnerable parts of the population, who then become more willing to join an anti-state insurgency, we conduct additional empirical tests. We argue that insurgent leaders in such environments will develop anti-capitalist and anti-Western programs to appeal to their alienated recruits. If we find that under conditions of high exposure to FPI, rebel movements are more likely to adopt such extremist ideologies, it would be a strong piece of evidence in favor of our theoretical position and against alternative causal mechanisms.

\textsuperscript{11} In the conditional maximum likelihood framework, Internet users remains a strongly significant predictor of FPI, while capital account openness remains positive but falls from significance.

\textsuperscript{12} We have also tried interacting trade with GDP per capita. The results showed no statistically significant interaction effect. FPI fell below significance in the post-1970 model. Because the samples are the same as the civil war results', multicollinearity remains a problem.
To test the argument, we take all intrastate armed conflict onsets between 1981 and 2003 and code a dependent variable for anti-global-capitalist ideology through the following procedure. The UCDP-PRIO armed conflict dataset reports the identities of organized rebel groups. We then look up these rebel groups’ stated aims and ideologies on both the UCDP qualitative database at http://www.pcr.uu.se/database/ and the paramilitary organization reports from international security information website globalsecurity.org. If any named rebel group at the date of conflict onset officially espoused a Marxist-Leninist or Islamist program, whatever other objectives they may also have had, the conflict is coded “1” on anti-global-capitalist ideology, “0” otherwise.

The key independent variable is “exogenous lagged FPI,” which is calculated from the coefficient estimates from the first stage of the 1981-2003 regression of armed conflict onset in order to purge the endogenous element. Intuitively, this variable represents our best estimate of what lagged FPI would have been in each country-year had there been zero probability of conflict onset. The three control variables are Muslim percentage of the country population (Fearon and Laitin 2003), its square, and a dummy variable for 1989-2003 country-years (post-Cold War). There are 105 intrastate armed conflict onsets between 1981 and 2003 for which data are available on all variables. However, 19 of these conflicts are military coups or mutinies, and we do not believe that our theory applies to such conflicts, as they do not involve insurgents recruiting from a mass civilian base. Therefore, we conduct the analysis on both samples: all conflicts and non-military-rebel conflicts only. The estimation procedure is logit since the dependent variable is dichotomous. Table IV presents the results.

Table IV presents odds ratios for ease of interpretation. In both samples, exogenous lagged FPI is extremely strongly, positively correlated with adoption of anti-global-capitalist ideology. A one-percentage-point increase in exogenous lagged FPI roughly doubles the chance of ideologically extremist rebellions, with a slightly larger estimated effect when military coups and mutinies are excluded (as we would also expect). The range of exogenous lagged FPI in this sample is 18 percentage points (Rwanda 1990: -2.4% of GDP, USA 2001: 15.8% of GDP), so this is a substantively massive effect. Dropping the USA 2001 case as an outlier does not noticeably affect the estimates.

Conclusion

This pattern of results matches remarkably well with economic theorizing about the effects of these three forms of globalization on economic volatility and human capital. FPI is generally held to foster volatility in LDCs, while FDI has been consistently linked to upgrades in human capital. These two phenomena – economic volatility and labor productivity – have also found importance in the literature on intrastate conflict, social instability, and regime transitions. The fact that FPI increases civil war risk, while FDI reduces it, lends credibility to the notion that economic volatility and human capital are the channels from globalization to conflict (or lack thereof). At the same time, greater FDI means a stronger economic presence of MNEs, who should also have some political influence on host governments. To the extent that governments wish to attract FDI, they will try to adopt policies that will reduce the likelihood of civil war, since civil war can easily damage or destroy investment.
investors, by contrast, are largely anonymous and lack long-term economic presence in the country. They are more likely to exercise “exit” rather than “voice” when facing the prospect of civil war (Hirschman 1970). This logic might also explain why FDI holds less, if any, importance for preventing minor armed conflicts, since these conflicts are presumably less damaging to investments than full-blown civil wars. Data limitations prevent global quantitative studies on these channels, but future qualitative research may be the best way to tease out these links in different political contexts.

There are a number of policy implications that flow from these findings. Given the increased risk of domestic conflict as a result of FPI-induced volatility, conflict-prone states have yet another reason to install restrictions or breaks on the ability of international investors quickly to move liquid investments in and out of countries. Capital controls, such as those imposed by Malaysia during the 1997 Asian financial crisis, may help states avoid seriously destabilizing political and economic problems due to portfolio shifts and short-term speculation (Bhagwati 2004; Rosecrance and Thompson 2003). Increasing FDI may also help a state avoid some of the problems associated with FPI shifts, as many countries with high levels of FDI such as China demonstrated during 1997-1998 (Rosecrance and Thompson 2003).

Another implication is that developing states should be wary of development strategies (rooted in the dependency theory of yore) that would restrict FDI. Since the human capital improving and government dependence features of FDI have been shown here to be conflict reducing, these states should open themselves to FDI for their economic and political effects. In addition, states can make themselves more attractive to FDI by focusing attention on human capital formation since businesses are more likely to invest in places that enjoy the advantages that accrue from it (Ahlquist 2006).

The international community should also encourage FDI in those states that might be at risk for civil wars or are underground homes to global terrorist groups. Indeed, FDI could be a potent weapon in counterinsurgency (COIN), especially as a prophylactic device in places like the countries of AFRICOM where the United States and other states hope to stop trouble before its starts. Indeed, by drying up the labor pool available to insurgents and inducing governments to self-interestedly make reforms to avoid conflict, FDI can be seen as part of an economically-viable development strategy that provides an alternative or annex to the more expensive, larger footprint, and politically complicated COIN tactics frequently used (FM 3-24).

The international political economy of civil war remains an under-investigated area, relative to topics such as the interstate liberal peace. Barbieri and Reuveny’s (2005) pioneering study was our starting point, and by making important methodological improvements we were able to discover findings in which we have much greater confidence. Nevertheless, we do not claim to have discovered all the possible channels by which globalization might influence intrastate conflict, either directly or indirectly. We have developed a specific theory of the ways in which foreign investors’ strategies in the face of potential conflict affect the likelihood of conflict. The evidence supports the theory’s empirical implications not only with respect to civil war and intrastate conflict onset, but also with respect to rebel
movement ideology. These results are inconsistent with several other theoretical approaches to globalization conflict, such as dependency theory, “Panglossianism,” and cultural backlash. Nevertheless, we welcome further research on the ways in which growing cross-border market integration can affect conflict directly or indirectly, especially through the relatively neglected “opportunity costs of conflict” mechanism.

References


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Table I
Theoretical Explanations of Globalization-Civil War Linkages

<table>
<thead>
<tr>
<th>Theory</th>
<th>Causal Channel</th>
<th>Effects on Conflict Onset</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural dependence</td>
<td>MNEs use “voice” strategy to reduce long-run probability of destructive conflict</td>
<td>FDI: negative</td>
</tr>
<tr>
<td>Social alienation</td>
<td>FPI increases GDP volatility &amp; ease of exit can make conflict self-fulfilling, generating social alienation in population most likely to be recruited for insurgency</td>
<td>FPI: positive FPI: anti-global-capitalist ideology</td>
</tr>
<tr>
<td>Opportunity costs of conflict</td>
<td>Trade (especially) reduces inequality in LDCs, making rebel recruitment more difficult</td>
<td>Trade: negative in LDCs if inequality not controlled</td>
</tr>
<tr>
<td>Dependency theory</td>
<td>International investors crush labor, generating alienation and conflict</td>
<td>FPI: positive in LDCs FDI: positive in LDCs</td>
</tr>
<tr>
<td>Panglossianism</td>
<td>Globalization changes values in a pacific direction</td>
<td>Trade, FDI, and FPI: negative</td>
</tr>
<tr>
<td>Comparative advantage</td>
<td>Globalization increases GDPPC, which reduces conflict</td>
<td>N/A (if GDPPC controlled)</td>
</tr>
<tr>
<td>Cultural backlash</td>
<td>Western products foster alienation and conflict</td>
<td>Trade (esp. imports from West): positive in non-Western countries</td>
</tr>
</tbody>
</table>
Table II

Models of Civil War Onset

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coef. (Std. Err.)</td>
<td>Coef. (Std. Err.)</td>
<td>Coef. (Std. Err.)</td>
</tr>
<tr>
<td>FDI inflows</td>
<td>-0.046 (0.057)</td>
<td>-0.050 (0.023)**</td>
<td>-0.014 (0.005)*****</td>
</tr>
<tr>
<td>FPI inflows</td>
<td>-0.045 (0.026)*</td>
<td>0.094 (0.040)**</td>
<td>0.104 (0.027)******</td>
</tr>
<tr>
<td>FDI stock</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP per cap</td>
<td>-0.296 (0.086)**</td>
<td>-0.127 (0.030)*****</td>
<td>-0.144 (0.043)******</td>
</tr>
<tr>
<td>Population</td>
<td>0.243 (0.081)**</td>
<td>0.068 (0.052)</td>
<td>0.031 (0.046)</td>
</tr>
<tr>
<td>Mountainous</td>
<td>0.163 (0.088)*</td>
<td>0.076 (0.033)**</td>
<td>0.019 (0.028)</td>
</tr>
<tr>
<td>Noncontiguity</td>
<td>0.910 (0.339)**</td>
<td>0.288 (0.148)*</td>
<td>0.423 (0.151)*****</td>
</tr>
<tr>
<td>Oil exporter</td>
<td>0.451 (0.315)</td>
<td>0.157 (0.131)</td>
<td>0.096 (0.136)</td>
</tr>
<tr>
<td>Instability</td>
<td>0.761 (0.251)**</td>
<td>0.186 (0.125)</td>
<td>0.149 (0.146)</td>
</tr>
<tr>
<td>Trade</td>
<td>-0.006 (0.006)</td>
<td>-0.002 (0.002)</td>
<td>-0.002 (0.002)</td>
</tr>
<tr>
<td>N</td>
<td>3682</td>
<td>3507</td>
<td>2777</td>
</tr>
</tbody>
</table>

Notes: Constant and four temporal controls not reported. All tests two-tailed. * p<0.1 ** p<0.05 *** p<0.01 **** p<0.001 a lagged b logged
### Table III

Models of Intrastate Armed Conflict Onset

<table>
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<tr>
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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI inflows&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-0.031 (0.027)</td>
<td></td>
<td>0.085 (0.033)&lt;sup&gt;***&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>FPI inflows&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.097 (0.039)&lt;sup&gt;**&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FDI stock&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td>-0.004 (0.003)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP per cap&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-0.097 (0.023)&lt;sup&gt;****&lt;/sup&gt;</td>
<td></td>
<td>-0.096 (0.023)&lt;sup&gt;****&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Population&lt;sup&gt;ab&lt;/sup&gt;</td>
<td>0.038 (0.048)</td>
<td></td>
<td>0.029 (0.045)</td>
<td></td>
</tr>
<tr>
<td>Mountainous&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.040 (0.022)&lt;sup&gt;*&lt;/sup&gt;</td>
<td></td>
<td>0.031 (0.024)</td>
<td></td>
</tr>
<tr>
<td>Noncontiguity</td>
<td>0.21 (0.12)&lt;sup&gt;*&lt;/sup&gt;</td>
<td></td>
<td>0.26 (0.13)&lt;sup&gt;*&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Oil exporter&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.17 (0.09)&lt;sup&gt;**&lt;/sup&gt;</td>
<td></td>
<td>0.09 (0.13)</td>
<td></td>
</tr>
<tr>
<td>Instability&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.09 (0.08)</td>
<td></td>
<td>0.07 (0.10)</td>
<td></td>
</tr>
<tr>
<td>Trade&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-0.002 (0.002)</td>
<td></td>
<td>-0.002 (0.002)</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>3507</td>
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<td>2777</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Constant and four temporal controls not reported. Robust standard errors clustered on countries. All tests two-tailed. * p<0.1 ** p<0.05 *** p<0.01 **** p<0.001 <sup>a</sup>lagged <sup>b</sup>logged
Table IV

Models of Insurgent Anti-Global-Capitalist Ideology

<table>
<thead>
<tr>
<th>Variable</th>
<th>All Conflicts</th>
<th></th>
<th>No Military Coups</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Odds Ratio (z stat)</td>
<td>Odds Ratio (z-stat)</td>
<td>Odds Ratio (z-stat)</td>
<td></td>
</tr>
<tr>
<td>Exogenous lagged FPI</td>
<td>2.03 (3.94)*</td>
<td>2.41 (3.76)*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muslim % of population</td>
<td>0.960 (-1.04)</td>
<td>0.969 (-0.80)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-Cold War</td>
<td>1.001 (1.38)</td>
<td>1.000 (1.07)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>1.08 (0.908)</td>
<td>0.525 (-0.91)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>105</td>
<td>86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pseudo-R²</td>
<td>27.0%</td>
<td>29.5%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p<0.001, two-tailed tests