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Economics and Conflict

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Introduction

One of the recurrent themes in the academic as well as popular literature on war is the claim that the prospect of an economic gain motivates small groups of potential profiteers to unleash political violence. "All wars are fought for money" is the anti-war slogan attributed to Socrates, and George Orwell (1998:75) wrote in a 1937 book review that "[War] against a foreign country only happens when the moneyed classes think they are going to profit from it." Recent research on the origins of civil wars has recently reinvigorated the hypothesis that economic incentives are a root cause of armed conflict and that rebel leaders are nothing other than profit-seeking quasi-criminals (cf. Collier and Hoeffler 2004). To illustrate this conjecture, Collier (2007:21) uses the claim attributed to Congolese rebel leader Laurent Kabila that "all you needed was $10,000 and a satellite phone" to instigate a successful military campaign. While the future president of the resource-rich country would use the money to hire a small army, Kabila used the phone to conclude contracts with mining companies: "By the time he reached Kinshasa he reportedly had arranged $500 million worth of deals" (Collier 2007:21).

The thesis that war redistributes income within as well as between societies, and that this creates a destructive, bellicose incentive, has a distinguished idea history in Marxism and other critical approaches. In this essay, I will introduce these and contending theories that help us to understand the economic causes and consequences of violent conflict in general and the empirical evidence that has been assembled in support of, or in contradiction to, these conjectures. My survey starts out with a statement and refinement of the standard opportunity cost arguments that are still used in this century in both political science (e.g. Russett and Oneal 2001) and economics (e.g. Collier and Hoeffler 2004). The opportunity cost argument boils down to the hypothesis that the more promising the economic opportunities are for an individual, in comparison to a career as a soldier, rebel, or terrorist, the smaller the risk of politically motivated violence.

The most prominent expression of this analytical tradition is what Nye (1988) has called "commercial liberalism." Aggregating the opportunity cost argument to the level of political groups and even states, this school of thought advances a double claim. First, commercial liberals maintain that growing economic bonds between people and societies make states internally and externally more peaceful as the social opportunity costs of using force increase in line with a strengthening of economic ties. The second thesis turns this expectation around and assumes that political violence, if policy makers are foolish enough to rely on this means at all, is generally destructive and disrupts economic activities.

I will explore in this essay the potential as well as the limitations of opportunity cost arguments to explain different forms of political violence, ranging from terrorism, over civil to interstate war. The theoretical and empirical problems that the standard opportunity cost argument faces are increasingly recognized; I will detail these analytical challenges below (Morrow 1999; Gartzke et al. 2001; Schneider et al. 2003a; Besley and Persson 2008). To avoid the implicit tautology of the opportunity cost argument, international relations scholars have mainly proposed informational accounts of what Weede (2003, see also Gartzke 2007) has dubbed the "capitalist peace." These models advance the viewpoint that governments of states that are highly integrated into the world economy are better able to signal their resolve than more protectionist states. As these signaling games have, however, shied away from incorporating economic agents as strategic players, we are still quite far away from possessing a rigorous theory of the interrelationship between economic incentives and armed conflict. I will argue in this context that most international relations contributions still overlook the potential that political economy approaches offer for the exploration of the relationship between economics and conflict.

Improved theories would allow us in particular to deal with the challenges that the empirical literature faces, not least the endogeneity problem that has been identified in the literature on civil war (e.g., Besley and Persson 2008; Schneider and Wiesehomeier 2008). This essay will present the core findings and disputes in the literature and also cover some related areas such as the effects of defense spending on the economy. It will conclude with a brief summary and a discussion of the possible lessons that the study of the nexus between economic incentives and political violence has for the scientific analysis of international relations.

Economic Incentives and Conflict: Theoretical Perspectives

The liberal double expectation that economic incentives pacify social relationships and that political violence disrupts economic activities has a distinguished idea history in both political science and economics. In the former field, the peace through trade hypothesis, on which commercial liberalism is mainly founded, maintains that economic interdependence in the form of bilateral or multilateral trade between states reduces the risk of conflict between and within states. This optimistic expectation can be traced back to ancient and medieval philosophers, but is most often associated with the work of Enlightenment philosophers Kant and Montesquieu (Schneider et al. 2003a), as well as leading exponents of the nineteenth-century Manchester school of thought, such as Richard Cobden and John Bright (see Blainey 1973). In the twentieth century, the writings of Nobel Peace Prize laureate Norman Angell (1910) revived the optimistic forecast that in times of closely knit economic ties between states war becomes, to quote the title of his main pamphlet, a "Great Illusion." Angell based this hope on the assumption that military conquest does not pay economically, and that rational decision makers therefore have no incentive to wage war.

Polachek (1980) offers the first formalization of this opportunity cost argument. In his words, "The implicit price of being hostile is the diminution of welfare associated with potential trade losses" (Polachek 1980:60). This means that economic bonds, which will be destroyed by war, offer an indirect deterrence mechanism. Interestingly, similar expected utility conjectures have been developed in economics since the pathbreaking contributions of Haavelmo (1954) and Boulding (1962). In a model of civil war onset, Grossmann (1991:920) shows, for instance, how government tax policy influences the risk of civil war: "too high a tax rate would be bad for the ruler both because it would depress the tax rate [...] and because it would increase the probability of a successful insurrection." This reasoning has been taken up by Collier and Hoeffler (1998:565), in whose initial contribution "the probability of the occurrence of war" is a decreasing function of per capita income. This means, at the personal level, that the risk that an individual joins a militia or government troops grows with the deterioration of his or her prospects to succeed in the productive sectors of the economy. Collier and Hoeffler (2004) extended this thesis with the argument that the presence of easily exploitable natural resources attracts the interest of quasi-criminal rebels who ignite a war in order to reap the rents that they could not garner peacefully. The "resource curse," which entices commodity-rich states to make bad investment decisions and to underprovide their population with public goods, therefore translates into an increased risk of civil war.

According to these and similar expected utility arguments, policies that strengthen the development prospect of a country should reduce its internal instability and, by extension, its external aggressiveness. One key success formula for development is economic integration (e.g., Sachs and Warner 1995). Most of the empirical studies that have explored the impact of economic forms of what is called “globalization” since the early 1990s have implicitly or explicitly relied on an expected utility argument that builds on this link between economic interdependence, growth, and peace. A statement by Oneal and Russett (1999:5) illustrates this tendency: “Fearful of the domestic political consequences of losing the benefits of trade, policymakers avoid the use of force against states with which they engage in economically important trade.” In other words, intensive economic interactions are implicitly supposed to work like a deterrent mechanism that prevents governments from using force externally and, by extension, internally (Hegre et al. 2003).

The liberal expectation that free trade and its correlates help bring about peace is a recurrent theme in the idea history of international relations (Schneider et al. 2003a). Marxists were the most radical critics of this hope. This becomes apparent in the “Theory of Imperialism” that Austro-German Marxist Rudolf Hilferding developed and that two leading politicians, Rosa Luxemburg (1913) and Vladimir Ilyich Lenin (1917), later on refined. Hilferding's early anti-globalization study *Das Finanzkapital* (“Finance Capital”) warned of the dangers of “limitless” profit seeking. He states that “Capital becomes the emperor of the world, and it conquers with every new country the new boundary that has to be transcended” (Hilferding 1910/1947:464; my translation).

As no global class conflict took place in the twentieth century, neo-Marxists and dependencia theorists started to revise the “Theory of Imperialism.” The most notable contribution is Galtung's (1971) structuralist interpretation of imperialism. He argued, in line with dependencia theorists, that the division of labor between the industrialized countries and the developing world creates a conflict between the workers in the North and those residing in the South, while capitalists of the center and the periphery of the world economy support each other. This constellation prevents, in his view, a global class conflict. Unsurprisingly, this all-encompassing conjecture did not animate empirical researchers beyond the heyday of neo-Marxian thinking in political science in the 1970s.

Hirschman's classic treatise on *National Power and the Structure of Foreign Trade* (1945/1980), on which some dependencia theorists relied, seemed to be a more promising avenue for critical research on the nexus between the economy and war. Perceiving economic interactions as implicit bargaining games, Hirschman proposed that asymmetric trading relationships establish dependencies that the more powerful state in a bilateral situation could use to maximize its influence. As Hirschman wrote (1945/1980:45), “superior bargaining power enables one monopolist [...] to increase his gain at the expense of that of his partner.” The interpretation that unequal exchange fuels political tensions and, ultimately, increases the risk of war did not, however, escape criticism at the theoretical level. Wagner (1988:462) showed that asymmetries do not easily translate into bargaining advantages: “asymmetrical economic interdependence does not imply that one bargainer will be able to exercise political influence over another.” Moreover, it is not clear why the privileged side in an asymmetric relationship should consider the use of force at all (Barbieri 2002:31). Coercion seems to be the cheaper and therefore more convincing policy choice in this respect.

Even if one follows in Hirschman's footsteps and models trade interactions as a bargaining game, one does not need to discard the liberal hope completely. Relying on a Nash bargaining game, Martin et al. (2008a) show that the deterrent mechanism that liberals attach to trade works for bilateral relationships on which the asymmetry argument has mainly focused. These authors show, however, both formally and empirically, that pairs of trading states that are not economically well integrated face a higher risk of conflict as their indirect economic costs of conflict become smaller. In this way, globalization increases the risk of conflict in rivalries.

This differentiation moves the globalization skeptic view beyond the encompassing relative gains argument that structural realists have advanced to ridicule the peace through trade hope of commercial liberalism. In Waltz's (1979:158) prose, “the myth of interdependence both obscures the realities of international politics and asserts a false belief about the conditions that promote peace.” The realist antidote to the liberal optimism builds on the assumption, first propagated by German historicism in the nineteenth century, that “politics prevails, as usual, over economics” (Waltz 1999:700). In the expectation of structural liberals, the fear of arming one's own enemy prevents lasting cooperation between states across contending alliances. Gowa (1994) offered the most precise formulation of this thesis that the security externalities of economic exchange can be used to arm against trading partners. However, Morrow (1997) showed, against this revisionist backdrop, within a completely realist analytical framework, that states can continue to trade even in times of war. Economic exchange is thus not completely endogenous to politics or, as structural realism makes us believe, to the polarity of the world system.

The realist failure to refute commercial liberalism theoretically did not alter the need within this school of thought at least to refine the foundations of this key proposition. Gartzke et al. (2001; see also Morrow 1999) contend, based on a signaling model, that the opportunity costs that increased trade between states creates do not lift the uncertainty that is traditionally seen as a key impediment to the peaceful resolution of military crises. They believe rather, and show empirically, that movements on financial markets are much more helpful in this regard. Their model, however, does not explicitly include these economic incentives as the economic agents do not take part in the underlying crisis bargaining game. Schneider and Schulze (2003, 2008) disaggregate the domestic economic interests that disagree over the trade and military policies of their country. While the import competing sector is against increased military involvement by their government, the export sector accepts such adventures up to the point where the costs of conflict start to outweigh the gains that a simultaneous liberalization of the economy brings about. They contend that opportunistic governments of states in which military interests play a considerable role will opt for both economic liberalization and low-level military involvements. The empirical tests support the argument that multilateral economic interdependence can go hand in hand with increased hostility in the world system, but that the costs of war soon outweigh its benefits.

Such restatements of the standard opportunity cost arguments have only recently started to appear in the quickly growing literature on civil war. Most of the theoretical models of civil war build on the rent-seeking models that have been introduced into the analytical literature by Tullock (1974, 1980), as well as Hirshleifer (1989), and have been generalized by Skaperdas (1996). In a model inspired by work on the resource curse (e.g., Sachs and Warner 2001), Garfinkel et al. (2007) demonstrate that globalization can decrease social welfare if a government cannot enforce property rights and if two groups fight violently over the possession of an exportable resource like oil. This is especially the case for exporters for whom the welfare enhancing effect of free trade might be offset by the growing costs of conflict that the opening of borders and the increased exportability of the good bring about.

Another possibility for modeling social conflict follows the Marxian tradition of separating societies according to the factor endowment of the various relevant groups. Based on their groundbreaking work on polarization and conflict, Esteban and Ray (2008) model the interactions within a society that falls victim to both a class and an ethnic conflict. The authors are able to show that increased class conflict within the contending ethnicities fuels the intensity of ethnic conflict. The empirical implication of this formal result is that we should observe more ethnic than class conflict. The finding that conflicting economic incentives do not necessarily translate into clashes between contending economic groups has its counterpart in Azam's (2002, 2006) studies on the strategic use of looting. If one side suffers under looting and its complement, one-sided violence against civilians, it will be more likely to engage in these activities as the destruction of production possibilities makes the use of force and raiding more attractive. Moreover, some war leaders will attack their own civilian support base to turn farmers into soldiers by destroying the incentives to work in the civilian sector.

The theoretical recognition of these theoretical contributions that group poverty is an important indirect source of conflict can be seen as an antidote to the polemic assertion of Collier (2007) that economic deprivation of certain groups is not systematically linked to the risk of civil war. At the empirical level, Østby (2008), for instance, adds strong support to the general hypothesis of Esteban and Ray (1999) that the risk of conflict is largest in societies that are extremely polarized or, in her terminology, in which strong horizontal inequalities exist. This empirical result shows that the refutation by empirical studies of the thesis that inequality is a major source of conflict (e.g., Fearon and Laitin 2003; Collier and Hoeffler 2004) has been accepted too prematurely in the literature on civil war.

Empirics I: Interstate War

As is the case in the literature on the democratic peace, empirical studies on the nexus between economic factors and the outbreak of war can be largely divided according to the level of analysis to which they subscribe. Following Bremer's (1992) pioneering study, most research designs use a dyadic setup. This is somewhat puzzling because the theoretical arguments that are tested at least with regards to commercial liberalism are most often formulated at the monadic level of analysis (Schneider and Schulze 2003). Moreover, the dyadic view also implicitly assumes that economic agents discriminate between countries when they have to decide with whom they would like to trade and that they are therefore willing to pay a political premium on their economically efficient bargains. Technically, the dyadic setup assumes that the international trading system consists of a bunch of bilateral relations which one can consider to be independent of one other. While this makes sense for tests of the democratic peace thesis, the reliance on pairs of states as units of analysis is an inadequate testing strategy for commercial liberalism (Schneider and Schulze 2008).

Theoretically, liberal scholars advance, as indicated, the double claim that economic interactions create peace, but that war destroys these very foundations of cooperation. The following section will discuss this double hypothesis and also evaluate the realist counterargument that political factors determine the shape of international trade and investment patterns. As economic wealth is often only used as a control variable in studies on the peace through trade relationship, I will only address the studies that explicitly discuss the role of economic wealth on the risk of interstate war.

The Link from Economic Factors to Conflict

In a concise treatise, Rosecrance (1986) popularized the liberal hope that "trading states" are less war prone than economically closed nations. This thesis, masterfully summarized in Russett and Oneal (2001), has found considerable support in the quantitative studies of Domke (1988), Benoit (1996), Schneider and Schulze (2003, 2008), as well as McDonald and Sweeney (2007). Barbieri (2002:104, italics suppressed) qualifies this liberal argument through an empirical study of the post-World War II period and writes: "it is the importance of trade for a country's economy, rather than the mere volume of trade, that determines whether trade is an effective deterrent to conflict." McDonald and Sweeney (2007) nevertheless show that policy variables – the tariff level before world war – influenced state behavior significantly. According to their calculation, protectionist states were more involved in militarized states in the first era of globalization than free trading nations. Yet, a strong export orientation does not necessarily go hand in hand with a more prudent foreign policy stance. As Fordham (2008) shows, US senators from states with a strong export sector are much more likely to support interventionist foreign policies than their counterparts from states with a strong import competing sector.

The dyadic evidence in favor of commercial liberalism is, by contrast, more mixed. The controversial studies of Barbieri (1996, 2002) tried to show that economic interdependence – the saliency of the trading relationships as well as the asymmetry of these relations – increases the risk of militarized interstate disputes. Replications and extensions of her work show, however, that the measure of trade asymmetry is highly collinear with conventional measures of economic interdependence (Oneal and Russett 1999) and that the inclusion of variables measuring the power of dyad members into empirical models re-establishes the major tenet of "commercial liberalism" (Xiang et al. 2007). Differentiating between the initiator and the target of a dispute, Bennett and Stam's (2004) encompassing analysis supports the liberal cause. It remains, however, theoretically unclear why the reported peace effect of trade is stronger for the victim than for aggressor states. Dorussen's (2006) disaggregation of trade also shows that the effect of commercial interactions varies with the kind of traded commodity. While trade generally deters conflict, this effect is stronger for manufactured goods than for food and non-manufactured goods and thus lootable products. A theoretical argument that would link this qualifying finding to the resource curse literature or related conjectures is nevertheless missing.

The conclusion of the debate over whether or not interdependence and its correlates increase the risk of war has recently given way to careful evaluations of whether or not the liberal thesis is just an artifact of statistical models that are improperly specified and in which the reported significant correlations do therefore not exist. According to Keshk et al. (2004), the use of simultaneous equation models shows that there is no impact of war on trade, while conflict reduces trade. Hegre et al. (forthcoming) have taken up this challenge and show, based on a gravity model of conflict, that the liberal double claim holds even if one relies on the modeling technique suggested by Keshk et al. (2004), while Keshk et al. (2008), controlling for geographic distance, present evidence in support of their original skeptical claim. However, the position advanced by these authors and by realist scholars that politics shapes trade relationships might be overstated. A gravity model by Ward and Hoff (2007) that accounts for the hierarchy of international trade suggests that the negative impact of conflict in trade lessens in dyads that rely on common exporters or importers. This also supports the claim by Schneider and Schulze (2008) that dyadic research designs are inappropriate on both theoretical and empirical grounds. One possible escape route for the empirical analysis of commercial liberalism is offered by the network techniques that have recently been imported to international relations research and that mainly support the main conjecture of the liberal research program (cf. Maoz 2009). These advances, which are linked to more encompassing operational definitions of economic interdependence, are very promising. They do not yet, however, solve the underlying theoretical problem as to why business leaders should be concerned at all by the overall trade relationships of their country instead of the balance sheet of the enterprise for which they are working. As long as we do not assume that managers behave patriotically (which would in the long run drive them out of business), their only concern should be the competitiveness of the products that they seek to sell. This means politically that firms and their interest groups will withdraw their support in any case where a political leader engages in economically wasteful policy adventures.

The impact that economic development should have on the risk of conflict is theoretically equally ambiguous. While economically powerful states have the resources to buy security, they also become more attractive targets for military attacks. In an encompassing empirical evaluation, Gartzke (2007) nevertheless finds strong support for what he calls "capitalist peace" and thus the notion that economic openness and development in contiguous dyads reduce the risk of conflict. The analysis also reveals that the peacefulness of capitalism is not universal and stops beyond pairs of neighboring states. If one combines these two effects, development is, nevertheless, a pacifying force. These results, however, so far lack a strong theoretical foundation; this is especially the case for the supposed tension between contiguous and noncontiguous dyads. Moreover, as Dafoe (2008) shows, Gartzke's results are to some extent the byproduct of the deletion of communist countries from the analysis and the inclusion of regional dummies.

The effect of economic growth on the risk of interstate war is, from a theoretical vantage point, also not completely clear. A broad empirical literature suggests that economic shocks are a key motive for a government to divert the attention of the public and to engage into hostile behavior with other nations. This thesis finds some support in the empirical literature. Hess and Orphanides (1995) argue that economic recessions entice US presidents to build a reputation for military leadership during the first term; they present empirical evidence that the number of dispute initiations coincides with the onset of recessions. Brulé (2006) shows, more recently, that the diversionary tendency during economic downturns is larger for presidents who face opposition from Congress. However, other research designs do not demonstrate a major impact by economic variables on the unilateral use of force (e.g., Davies 2002). Oneal and Tir (2006) contend, in an encompassing analysis, that economic downturns do not pose sufficient incentives for democratically elected leaders to engage in militarized disputes. This divergence of findings suggests that researchers should explore the theoretical foundations of the diversionary argument more deeply and that this area of research would profit from the kind of meta-evaluation that has been conducted in the study of intrastate (Hegre and Sambanis 2006) and interstate war (Bennett and Stam 2004).

Economic growth has also played an important role in studies that explore the impact of systemic factors on the risk of war. One school of thought has examined whether war contributes to the long cycles that Kondratieff (1926, 1935) identified in his analyses of the turn between expansion and stagnation in the world economy. Goldstein (1985, 1988) argues, and demonstrates through multiple sources and techniques, that economic upswings make major wars affordable, but that these conflicts disrupt long-term economic growth. However, while the number and size of wars follow the power law (cf. Cederman 2003), Beck (1991) cannot identify through the use of spectral analysis a fixed periodicity in which the most fatal forms of interstate conflict recur in the international system.

Systemic theories that at least attenuate the assumption of a fixed wave length are more promising. Modelski and Thompson (1996) add to the cycle theories the concept of economic leaders, and demonstrate that innovation peaks immediately before and after the outbreak of major wars; Rasler and Thompson (1989) sketch how major war, economic development, and state formation are intertwined. Yet these sophisticated macro-sociological analyses cannot solve the problem that besets systemic arguments about the causes of war. These complex models are not motivated through an incentive-based explanation at the level of the individual actor or of a specific homogeneous social group. Although systemic approaches offer the "big" picture of interstate relations, they are almost necessarily so complicated that a simultaneous test of all their implications seems daunting at best.

The Link from the Economy to Conflict

The claim that political conflict will disrupt trade has found an eloquent illustration in Keynes (1919:1–7; see also McDonald and Sweeney 2007). In his view, "insane delusion and reckless self-regard" allowed Germany to destroy the "nearly complete" internationalization of social and economic life that was present in Europe around 1914. The thesis did not find much empirical scrutiny until the publication of a provocative article by Barbieri and Levy (1999). According to these authors, war did not often affect trade between war parties in a significant fashion. Relying on an extended sample, Anderton and Carter (2001a, 2001b) conversely demonstrated that in most cases conflict shaped the international trading system severely. An encompassing overview by two economic historians bolsters the view that international conflict has indeed often hampered all forms of economic exchange and, through this, profoundly shaped the international economic system over the past few centuries:

> Eurasian trade flows increased as a result of the *Pax Mongolica*, before diminishing again in the sixteenth century as a result of political turmoil; the comparatively peaceful nineteenth century saw an unprecedented trade expansion; World War I, World War II, and the Cold War had all large, negative, long-run effects on trade.
>
> (Findlay and O'Rourke 2007:539, italic in original)

Although the long-term impact of interstate war on economic interactions is negative, we frequently encounter "war rallies" on financial markets. Schneider and Troeger (2006; see also Bueno de Mesquita 1990) attribute this behavior to the rational expectations held by investors who believe, correctly or incorrectly, that the impending or already started violence does not hurt the economy as badly as the alternative scenario originally suggested. They find evidence for this in the positive reactions of the Dow Jones Industrial Index to intensifications in the confrontation between Iraq and the US-led alliance during the 1990s. A rich empirical literature furthermore suggests that interstate war has considerable redistributive consequences. Schneider and Troeger (2008) find in this vein evidence that in some instances the tourism sector suffered under an intensification of hostilities in three conflicts, while the oil sector partly profited from this. Studies on the redistributive effects of violent conflict within societies are, however, relatively rare.

A partial exception is the case study by Nincic (1980) who used the cleavage between capital and labor to uncover the profiteers from US military interventions. Referring to the support of the American Federation of Labor and Congress of Industrial Organizations (AFL-CIO) for the Vietnam War, he concludes that labor rather than capital derives gains from war and argues that:

> faced with eroding rates of profit, due in part to rising labor costs, and with actual or feared governmental regulation, business is not likely to support a lengthy war. Organized labor, on the other hand, tends to be a reliable backer of military intervention – presumably because of its effects on wages, employment, and the redistribution of national income from capital to labor.
>
> (Nincic 1980:114)

Most studies of the economic effect of international war show that participating countries typically need some time until they are ready to grow again (Koubi 2005). If they have regained their competitive level, wartorn economies have sometimes a tendency to grow faster than nonbelligerent states. Olson (1982) has famously attributed this puzzling underperformance to the destruction of the close-knit networks of vested interests, dubbed “distributional coalitions,” that the defeat in a war brings about internally. While a reform of interest group arrangements did not seem necessary among the winners of World War II, the political reforms brought about in postwar Japan and Germany relied to a considerable extent on the recruitment of new elites that had not yet such a developed sense for redistribution. (Olson [1982:65] writes that “Distributional coalitions slow down a society's capacity to adopt new technologies and reallocate resources in response to changing conditions, and they reduce the rate of economic growth.”) Organski and Kugler (1980) link the “Phoenix factor” to neoclassical growth theory and argue that the destruction of parts of industry allows nations to invest more and to profit from the technological improvements that have happened during the war. Koubi (2005) finds evidence for the arguments made by Olson (1982) and Organski and Kugler (1980) that growth rates will differ across the winners and losers of war. Somewhat surprisingly, she detects that the growth effect is larger after civil than after interstate wars.

Empirics II: Civil War, Terrorism, and State Repression

Economic factors have played a key role in recent studies that have explored the risk of civil war and terrorism; studies on the economic origins of state repression are, by contrast, relatively rare. I start the discussion of the empirical literature in this area by first presenting the contributions to the civil war literature.

Civil Wars

An upsurge in the economic analysis of domestic conflict was partly fueled by the interest that the World Bank acquired in this area of research for its development strategy. One of the key recommendations derived from this literature is that developing countries – or, to use Collier's (2007) term, the “bottom billion” of the world – need development, economic openness, and targeted foreign aid to avoid or to escape from the “conflict trap” (Collier et al. 2003). However, although these recommendations are straightforward, the theoretical plausibility and robustness of their foundations appear much less convincing at second glance. To start with, the role of economic growth and development in the internal stability of states is much less clear than the positive correlations between GDP per capita and the risk of civil war reported in two influential studies suggest (Fearon and Laitin 2003; Collier and Hoeffler 2004). As Besley and Persson (2008) contend, and the duration models of Schneider and Wiesehomeier (2008) suggest, the empirical literature has so far not yet fully considered the recursive effect of war on economic growth and development. However, empirical models that correct for the endogeneity of the economic variables are rare. Using rainfall as an instrumental variable, Miguel et al. (2004) show that severe economic crises indeed trigger civil wars, a result which is clearly in line with the opportunity cost argument popularized by Collier and Hoeffler (2004). This does not, however, mean that positive economic growth is a pure blessing. Harms and Zink (2005) show in a dynamic model, a model of growth and distributional conflict, that the relationship between the level of development and the risk of social conflict is curvilinear. In their view, the demand by the working class for a substantive reform of the economy, which might be associated with public unrest, is more likely to occur at intermediate levels of economic development. This supports Huntington's famous expectation that “people who are poor are too poor for politics and too poor for protest” (Huntington 1968:40).

One key thesis in the recent literature on civil war is the argument, advocated repeatedly by a World Bank research team headed by Collier (2007; see also Collier and Hoeffler 1998, 2004; Collier et al. 2003), is the claim that “greed” is a key explanation for civil wars in the developing world. In their view, the access to primary commodities offers economic rents that opportunistic rebel leaders try to grab with resort to violence as a "weapon" of last resort. Collier and Hoeffler (2004) measure the endowment of an economy with natural resource exports as a percentage of GDP and expect that countries with intermediate levels of exportable primary commodities to be most at risk. According to Collier and Hoeffler's calculation, the "risk of conflict peaks when they constitute around 33% percent of GDP" (2004:574). Collier and Hoeffler (2004) are careful to argue that this relationship is not ultimate proof that resource-rich economies always fall victim to greedy "criminals." However, their research design does not reflect the subtleties of the theoretical literature. They control for institutions that might help to mitigate the problems that resource dependence creates as a simple independent factor, although most contributions to the "resource curse" thesis perceive poor governance to be a consequence rather than a cause of high primary commodity exports (Sachs and Warner 2001; but see also Mehlum et al. 2006). Furthermore, it should be noted that the early tests of the audience-grabbing "greed" thesis suffer under other research design problems too. This becomes clear in the thorough replication study of Fearon (2005; see also Hegre and Sambanis 2006) whose use of an alternative level of temporal aggregation and the imputation of missing values render the influence of the primary commodity export indicators insignificant.

What has been largely overlooked in the political science literature in this context is how the presence of international firms alters the incentive structure and, in some cases, helps to instigate, or at least to prolong, conflicts. Guidolin and La Ferrara (2007) find evidence, in an event study, that those firms that possessed diamond mining licenses in Angola reacted adversely to the death of rebel leader Jonas Savimbi and thus the event that heralded the end of this internationalized civil war. In the aggregate, the economic consequences of civil war are, however, disastrous and contribute to the "conflict trap" in which, according to Collier et al. (2003; see also Collier 2007), many developing countries are caught. Murdoch and Sandler (2002) demonstrate that the "public bad" that political violence creates also contracts economic growth in neighboring countries. A pioneering case study of the Basque conflict by Abadie and Gardeazabal (2003) demonstrates that even civil wars of medium magnitude severely affect an economy. They estimate that the Franco-Spanish borderline region experienced a GDP gap of 10 percent in comparison to a "constructed" control region.

Development economists have advanced economic openness as a key remedy for the developing world with which the risk of civil war could be reduced. An initial evaluation of this thesis by Hegre et al. (2003) showed that globalization in the form of trade openness is indeed a pacifying factor. Bussmann et al. (2005), as well as Bussmann and Schneider (2007), replicate this result, but also point out that liberalization, and thus the steps taken toward a higher level of economic integration, might be hazardous. They find some support for the thesis that opening up an economy to foreign competition creates losers within a society at least in the short term. If these affected groups do not dispose over alternative political instruments to voice their "globalization discontent," they might turn to the use of political violence to prevent or slow down the implementation of liberalizing policies. As Martin et al. (2008a) correctly note, the literature that explores the nexus between the result of economic processes, such as globalization, and conflict suffer from a potential endogeneity bias. They argue, and empirically demonstrate, that trade only deters the massive usage of political violence, while, according to their instrumental variable models, integration into world markets, which can be used as a substitute for internal trade, increases the risk of low-scale civil wars.

State Repression and Terrorism

The mixed findings that the empirical literature on the economics of civil war offers might partly be due to the fact that it does not properly model the political options that the political actors possess. Governments, in particular, can resort to repression if they believe that some groups might rebel against the unfavorable economic or political conditions that the political regime creates for them. Interestingly, the economic causes of human rights violations have not yet been fully explored. This becomes evident in the important article by Harff (2003), who demonstrates that economic protectionism goes hand in hand with the risk of genocide and mass killings. She does not, however, discuss whether the closing of the economic and political system is just an attribute rather than a cause of the necessarily sinister and secretive political environment in which some leaders perceive the extermination of a specific group to be a viable option. One potential explanation for the negative linkage between economic integration and state repression is that sanctions will hurt economically integrated regimes much more than autarkic ones. In the view of Duvall and Stohl (1986:61), the cruelest human rights violations occur in countries that have a "peripheral status in the world system" and that are therefore immune to external pressure. Cohen and Corrado (2005) argue along this line that economic globalization in the post-Cold War period has started to reduce the utility of state torture policies on a worldwide scale. Cingranelli and Richards (1999) lend some support to this conjecure and show that increasing participation in the global economy after 1990 is associated with less politically motivated imprisonment. Hafner-Burton (2005) further shows that the commitment to human rights agreements does not reduce state repression per se, but that preferential trade agreements, which often demand the fulfilment of political conditions from signatories, have the desired effect (Hafner-Burton 2005:594).

Against this relatively optimistic backdrop, it is not surprising that one of the consequences of economic openness – development – is also associated with a reduced incidence of human rights violations. A rich empirical literature supports this claim (e.g., Poe et al. 1999; Hafner-Burton 2005). However, economic development does not necessarily reduce income inequality. Controlling for this grievance factor, Fein (1995) shows that highly unequal societies are twice as likely to experience severe human rights violations as the most equal states.

The role that poverty has as a cause of terrorism is more controversial. Based on a range of sources, Krueger and Malerkova (2003) and Krueger (2007) reject this popular notion and demonstrate that terrorism is rather a middle-class phenomenon than an instrument that the most marginal social groups would rely on. It remains, however, unclear whether this relationship is not at least partly due to the oversupply of well educated middle-class terrorists on which "booming" terrorist networks will be able to count for some time (Bueno de Mesquita 2005). Furthermore, dyadic development inequality is a main source of transnational terrorism, as the empirical evaluation of Blomberg and Hess (2008:132) shows: "This result could indicate that terrorism is the unfortunate consequence of a widening divide between rich and poor countries." They also demonstrate convincingly that one has to distinguish between target and sender countries if one wants to understand the impact of globalization on the incidence of transnational terrorism. While Li and Schaub (2004) show that, from a unilateral perspective, economically highly integrated countries are not more vulnerable than less globalized ones in this respect, highly integrated states are, from a bilateral perspective, more at risk than more protectionist states (Blomberg and Hess 2008). The reverse is true for the source country of terrorists. Liberal economies are thus less likely to be recruiting grounds for transnationally active terrorists. Similar results are observable for development. According to Krueger and Laitin (2008:172), "suicide attackers go after the rich and the powerful." It should be noted that these statistical results have only been derived from informal models of terrorist activity and that the literature on the economics of terrorism faces, like the other research topics discussed in this essay, severe endogeneity problems (cf. Sandler and Enders 2008).

Conclusion

The literature on the nexus between economic factors and violent forms of conflict has for a long time been influenced by the opportunity cost argument that can be derived from classical economics. Many empirical studies support the claim that the growing incentives derived from productive economic activities lessen the usefulness of using force to achieve a particular goal. By extension, policy measures such as foreign economic liberalization that stimulate growth act, according to this liberal worldview, as an important deterrence mechanism. In this perspective, war, be it domestic or interstate, becomes increasingly costly the better integrated the contending parties are into the world economy.

This essay has evaluated the theoretical and empirical merits of this key proposition and believes that it needs to be seriously refined. There are a number of conceptual and methodological challenges that the literature on the interrelationship between economic incentives and political violence has to seriously consider. First, the analytical literature needs to develop models which include economic agents and their special incentives. Admittedly, economic models of conflict, which build largely on the rent seeking tradition, only include unproductive armament decisions, but not the steps toward conflict, like the crisis bargaining literature does. However, to simply rely on the extant economy free models in political science to explain the interactions between politicians and economic agents is not a fruitful way to go; these models do not allow us to endogenize the economic motives of conflict.

Second, models that take these incentives seriously might help us to deal conceptually with the related problems of endogeneity and simultaneity that empirically oriented studies face. A sensible economic model could start out with actors who have different endowments and who can decide how much they would like to invest in economic and conflict activities. It would then become clear that the outcomes of these decisions in the form of economic integration, development, and economic inequality are right-hand side variables and should be modeled as such in studies of economics and conflicts. Many of these future empirical studies will rely on an instrumental variable approach or related means to deal with the endogeneity issue.

Third, a particularly promising approach is to move to lower levels of aggregation. This is particularly the case for studies of civil war where the contending social interests of a country are represented through aggregate diversity measures (cf. Schneider and Wiesehomeier 2008). It seems more promising to identify dyads of contending social groups within countries and to collect information at this level to understand how much some of the conflicts around the world are really influenced by economic variables, a lack of sound institutions, or the ethnic identity of the combatants.

Fourth, some of the economic indicators that are used to study the economic causes of violence are only slowly changing over time. If one wants to attribute economic factors to the quick escalation of a conflict, one needs to include indicators that change at least as fast as the military action unfolds; economic variables such as trade that remain constant during the escalatory process cannot explain why certain crises lead to war and others do not (cf. Morrow 1999). If one searches for quickly changing economic variables, financial markets are the most promising but still underutilized resource (cf. Bueno de Mesquita 1990; Schneider and Troeger 2006).

Many scholars have started to take seriously the challenges that this essay has singled out. The next generation of studies on the nexus between economic incentives and conflict will surely be based on sounder analytical footings, be empirically disaggregated to more appropriate levels of analysis, and be conducted with more adequate econometric tools.

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