Optimal War and Jus Ad Bellum

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Abstract. The laws of war forbid states to use force against each other except in self-defense or with the authorization of the United Nations Security Council. Self-defense is usually understood to mean self-defense against an imminent threat. We model the decisions of states to use force against "rogue" states and argue that under certain conditions, it may be proper to expand the self-defense exception to preemptive self-defense. We also consider related issues such as humanitarian intervention, collective security, and the role of the Security Council.

The President always has the right, and always has had the right, for preemptive strike. That was a great doctrine throughout the Cold War. And it was always one of the things we argued about with respect to arms control. No president, through all of American history, has ever ceded, and nor would I, the right to preempt in any way necessary to protect the United States of America.

-Senator John Kerry¹

In the past fifteen years, the United States has launched military interventions in Panama (1989), Iraq (1991), Somalia (1993), Kosovo (1997), and Iraq again (2003). In theory, these wars, and many others involving other states during this period, are governed by the use of force, or *jus ad bellum*, rules of international law.

The use of force rules are straightforward. Under the United Nations Charter, states may use force against other states only under two conditions. First, a state may use force if authorized to do so by the United Nations Security Council.² Because the Security Council can act only if the five permanent members—the United States, Russia, Britain, France, and China—agree, however, and because these five members rarely agree on anything, the Security Council has authorized war only twice, the first time (Korea) because of a tactical error by the Soviet Union in failing to exercise its veto.³

Second, a state may use force in self-defense.⁴ Self-defense is understood in

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^{1.} Presidential Debate in Coral Gables, Florida, 40 Weekly Comp. Pres. Doc. 2175, 2188 (Sept. 30, 2004).

^{2.} U.N. CHARTER art. 42.

^{3.} Louis Henkin et al., International Law 968 (3d ed.1993).

^{4.} U.N. Charter art. 51.

the narrowest terms: the state using force must either be under attack or under threat of "imminent" attack.⁵ And even when there is a threat or incursion, the state invoking the right of self-defense must exercise restraint and use only "proportionate" force to counter the attack.⁶ It cannot use a small border incursion as an excuse for launching a full-scale invasion.

Because the U.N. Security Council so rarely authorizes wars, and because self-defense cannot be invoked by both sides to a dispute,⁷ there should be few legal wars. Yet there have been dozens of wars among states that have ratified the U.N. Charter.⁸ When states routinely violate international law, the question arises as to whether the law should change. The question for us is, what should happen to the use of force rules?

Today, we can see three possible answers to this question. The first is a reversion to the nineteenth-century system, which, according to most contemporary authorities, placed no restrictions on the use of force. The second is a reassertion of the United Nations system, perhaps with some modifications. European condemnation of the American-led invasion of Iraq in 2003¹⁰ reflects such an effort to preserve the United Nations system. The third is the evolution of a wholly new system, or new exceptions to the United Nations system. One frequently discussed possibility is that states will acquire legal authority to launch preemptive invasions in response to long-term (that is, non-imminent) threats and immediate humanitarian crises. The purpose of this paper is to evaluate these options from a rational choice perspective. We conclude that the third of these options holds the most promise, although the issue is a difficult one.

At the outset, we should make clear that we focus narrowly on the rules governing the legality of the use of force (jus ad bellum), and not on the laws of war or humanitarian law (jus in bello), which is the body of law governing the

^{5.} For a discussion, see Yoram Dinstein, War, Aggression and Self-Defence 165-91 (3d ed. 2001).

^{6.} See id.

^{7.} Someone must be the aggressor, though occasionally the identity of the aggressor will be ambiguous.

^{8.} See Michael J. Glennon, Limits of Law, Prerogatives of Power: Interventionism After Kosovo (2001). Glennon concludes that the U.N. rules are therefore a dead letter. For a contrasting view, see Thomas M. Franck, Recourse to Force: State Action Against Threats and Armed Attacks (2002) (arguing that use of force rules remain valid); for an intermediate position, see A. Mark Weisburd, Use of Force: The Practice of States Since World War II (1997).

^{9.} See, e.g., 2 L. Oppenheim, International Law: A Treatise 178 (H. Lauterpacht ed., 7th ed. 1952). The just war tradition, though advanced by international lawyers such as Grotius, see Hugo Grotius, 2 De Jure Belli Ac Pacis Libri Tres [On the Law of War and Peace, Book Three] (Francis W. Kelsey trans., Clarendon Press 1925) (1646), is best understood as a moral rather than legal tradition, as it was never reflected in state practice.

^{10.} See, e.g., Marc Champion et al., Allies at Odds: Behind U.S. Rift with Europeans: Slights and Politics, Wall St. J., Mar. 27, 2003, at A1.

^{11.} Britain's foreign minister, Jack Straw, has suggested that the U.N. Charter be amended to allow for these exceptions; more recently, he has argued that the exceptions will have to evolve as customary exceptions. See Straw: War Won't Change UN Charter, Press Ass'n, Mar. 30, 2004, available at http://politics.guardian.co.uk/iraq/story/0,12956,1182177,00.html.

weapons and tactics used within a war (the treatment of prisoners of war, and so forth). Our focus is further confined to the use of force against "rogue" states, and for the purpose of humanitarian intervention. We will say more about these limitations in Part II. In addition, our focus is normative, not positive. We seek to determine whether existing or alternative use of force rules are justified. Most political science literature focuses on positive issues, such as the conditions under which states go to war. Although we will refer to that literature, our effort is distinct from it. Finally, we should mention that there is a large international law literature on use of force, but this literature is mainly historical, doctrinal, or philosophical. Our reliance on economic analysis is, as far as we know, novel.

I. INTERNATIONAL RULES ON THE USE OF FORCE

The international law on the use of force has two sources: customary international law and the United Nations Charter, which nearly every state has ratified. In Under the U.N. Charter, states may go to war under only two conditions: with the authorization of the United Nations Security Council or in self-defense. The Security Council consists of fifteen states: five permanent members (the United States, Russia, China, France, and Britain) and ten rotating members. The Council can act on substantive matters only if nine members consent and none of the permanent members refuses consent. The Security Council was charged with the task of enforcing the U.N. Charter, including the provisions guaranteeing the sovereignty and territorial integrity of all member states. However, it has not discharged this function reliably. The United Nations has authorized the use of force only twice: against North Korea in

^{12.} For an economic approach to jus in bello, see Eric A. Posner, A Theory of the Laws of War, 70 U. Chi. L. Rev. 297 (2003).

^{13.} See, e.g., Bruce Bueno de Mesquita & David Lalman, War and Reason: Domestic and International Imperatives (1992).

^{14.} See, e.g., Anthony Clark Arend & Robert J. Beck, International Law and the Use of Force: Beyond the UN Charter Paradigm (1993); Dinstein, supra note 5; Christine Gray, International Law and the Use of Force (2000); Eyal Benvenisti, The US and the Use of Force: Double-Edged Hegemony and the Management of Global Emergencies, 15 Eur. J. Int'l L. 677 (2004); W. Michael Reisman, Assessing Claims To Revise the Laws of War, 97 Am. J. Int'l L. 82 (2003). For a helpful discussion of Gray's book and recent trends in the international law of the use of force, see Mary Ellen O'Connell, Re-leashing the Dogs of War, 97 Am. J. Int'l L. 446 (2003) (book review).

^{15.} John Yoo has applied a cost-benefit test to the self-defense rule. See John C. Yoo, Using Force, 71 U. Chi. L. Rev. 729 (2004). We comment on his argument below in Part III.A.

^{16.} For detailed discussions of the law, see Ingrid Detter, The Law of War (2d ed. 2000), and Dinstein, *supra* note 5.

^{17.} U.N. CHARTER art. 2, para. 4 (general prohibition on use of force); *id.* art. 42 (Security Council's power to authorize use of force); *id.* art. 51 (right of self-defense).

^{18.} Id. art. 23.

^{19.} Id. art. 27.

^{20.} Id. art. 2, para. 1.

^{21.} Id. art. 2, para. 4.

^{22.} See Dinstein, supra note 5, at 246-53.

1950, after the U.S.S.R. boycotted the Security Council in protest of China's exclusion at the time (a mistake that has not been repeated), and against Iraq after its invasion of Kuwait in 1991.²³ During this period, there have been dozens or even hundreds of wars, depending on how one defines the term, and in each case, aside from the two just noted, the Security Council has not acted.²⁴

According to many scholars, the self-defense provision of the U.N. Charter incorporates customary international law, which limits self-defense to uses of force against an "imminent" threat of attack, and even then permits only a "proportionate" response. Preemptive self-defense, which refers to cases where the threat is more remote, is forbidden. However, this form of self-defense was not prohibited by customary international law. Indeed, under customary international law, the decision to go to war was unregulated. The narrower definition of self-defense emanates from a rule of customary international law that governed uses of force short of war, such as a border incursion between two nations otherwise at peace. Many scholars hold that the U.N. Charter prohibits preemptive self-defense by incorporating this narrower rule, known as the Webster-Ashburton rule.

We note that the right of self-defense apparently encompasses the members of defense alliances—all members may legally use force when one of them is attacked if the alliance requires it or if one of its members requests aid.²⁸ Likewise, states may legally come to the aid of a belligerent state that requests aid even outside the framework of an alliance.²⁹

Finally, in recent years, some scholars have claimed that states may use force in order to prevent intrastate humanitarian disasters such as a government's use of force against its own people.³⁰ The U.N. Charter has no such provision, but the United States and several European countries launched air attacks on Serbia in 1999 in order to stop human rights abuses against ethnic Albanians living in the Serbian province of Kosovo.³¹ Because the Security Council did not authorize the invasion, and because the operation was clearly not an exercise of collective self-defense (which applies only to states, not intrastate political units

^{23.} Henkin et al., supra note 3, at 968-72.

^{24.} See Glennon, supra note 8, at 67–70. Occasionally, the Security Council recognizes a state of war without going any further; during the Falklands War, it acknowledged that a state of war existed without condemning either side for starting it. See DINSTEIN, supra note 5, at 257.

^{25.} See, e.g., DINSTEIN, supra note 5, at 165-69 (imminence), 208-13 (proportionality).

^{26.} See Oppenheim, supra note 9, at 177-79.

^{27.} See Dinstein, supra note 5, at 219-21. As Dinstein notes, this view is not universally accepted; some scholars deny that customary international law is incorporated into the U.N. Charter. See id.

^{28.} See U.N. CHARTER art. 52.

^{29.} See Case Concerning the Military and Paramilitary Activities in and Against Nicaragua (Nicar. v. U.S.), 1986 I.C.J. 14, 193–95 (Judgment of June 17).

^{30.} See, e.g., Fernando R. Tesón, *The Liberal Case for Humanitarian Intervention*, in Humanitarian Intervention: Ethical, Legal and Political Dilemmas 93 (J.L. Holzgrefe & Robert O. Keohane eds., 2003).

^{31.} Dana H. Allin & Anatol Lieven, NATO Won. But Can It Undo Milosevic's Evil?, WALL St. J., June 10, 1999, at A26.

that are attacked), either this use of force was illegal or it established legal precedent for the use of force against governments that abuse their own people.

A few scholars have argued that the use of force rules in the U.N. Charter no longer have the force of law.³² They point out that dozens of wars have been started by U.N. member states, that only two were authorized by the Security Council, and that the self-defense provision, by definition, cannot be invoked by both sides of a conflict. Efforts to find new customary rules, such as the humanitarian intervention exception, fail because states do not act consistently: states go to war for political reasons, just as they did before the U.N. Charter was ratified.

We take no position on this debate. We simply assume *arguendo* that (some) states care, at least a little, about their reputation for complying with international law, so that the law will affect their behavior on the margin. We then ask what are the optimal rules regarding the use of force under this assumption.

II. THEORETICAL CONSIDERATIONS: THE PRIVATE AND SOCIAL VALUE OF THE USE OF FORCE

In the discussion to follow, we limit our treatment of the use of force to cases involving self-defense or defense of others (humanitarian intervention). In particular, we assume that some external actor poses a threat of pure aggression (that is, aggression not motivated by defense of self or others) against the actor that we model, or against third persons that the actor we model may wish to defend. If the aggression occurs, we further assume that it is socially undesirable and will impose net social costs. The threat of aggression is exogenous in that our model does not explain why it arises, although we do entertain the question of whether the aggressor can be deterred through various means. It bears emphasizing, however, that we rule out by assumption any possibility that the aggressor is engaged in productive activity through aggression or the threat of aggression. The aggressor in our framework is thus much akin to a criminal in the economics of crime literature, in which it is commonly assumed that the criminal's gains from a criminal act are smaller than the social costs of the act, making the act undesirable and posing the problem of how to design an optimal system of deterrence.³³ Our analysis is very much in the spirit of that literature.

We thus analyze only a subset of the situations in which force may be used or contemplated. Historically, many wars or threatened wars have occurred between civilized states that dispute territorial rights, between colonial powers and their colonies seeking independence, and in various other contexts in which it is difficult to analogize a potential aggressor state to a criminal actor engaged in strictly unproductive activity. We do not purport to offer a framework for thinking about all such conflicts, and limit ourselves here to the task of policing

^{32.} See, e.g., GLENNON, supra note 8, at 2.

^{33.} For an accessible survey of the economics of criminal law, see Richard A. Posner, Economic Analysis Of The Law 237–40 (5th ed. 1998).

what might be termed "rogue" states. We accept that what constitutes a rogue state is to some degree in the eye of the beholder, but our analysis presupposes that such states can be identified in a principled manner.³⁴

A. WHY USE FORCE AGAINST AGGRESSOR STATES?

The analogy between criminals and aggressor states in our framework affords a useful point of departure for assessing the rules about the use of force. In the economic literature on crime, the use of force plays at most a background role in the design of an optimal deterrence system. The literature emphasizes the virtue of monetary sanctions because of their cheapness, and suggests that more costly sanctions such as incarceration should be employed only when monetary sanctions are inadequate for deterrence (because, *inter alia*, of the insolvency problem). The literature on crime is not concerned exclusively with deterrence, of course, but also emphasizes the possible value of incapacitation. Here, too, incarceration is the device generally considered for this purpose. The use of force against criminals (beyond incarceration) is not discussed in the literature (aside from that on capital punishment), although it assuredly has an implicit role in providing the state with the ability to coerce criminals to accept sanctions such as fines or imprisonment.

Against this backdrop, consider the problem of how to deter (or incapacitate) an aggressor state. The notion in the economic literature on crime that monetary penalties are the preferred line of defense against socially unproductive acts is obviously flawed in this context. Just as with criminals, the aggressor state may well lack the assets to pay for the harms caused by aggression. And unlike criminals, the individual actors who lead their states to engage in aggression may bear few if any of the costs of the monetary penalties that might be imposed. Finally, and most fundamentally, why would the aggressor state pay any such penalties unless a credible threat of force (or some other effective solution) were brought to bear against it? We do see states required to pay reparations at times, but usually only after they have lost a war. Occasional exceptions arise when an aggressor state has assets abroad that can be seized

^{34.} For the U.S. government's view of what a rogue state is, see The President of the United States, The National Security Strategy of the United States of America 13–14 (2002) [hereinafter National Security Strategy of the United States], available at www.whitehouse.gov/nsc/nss.pdf.

^{35.} See Gary S. Becker, Crime and Punishment: An Economic Approach, 76 J. Pol. Econ. 169, 190-99 (1968).

^{36.} See Posner, supra note 33, at 246 (explaining that nonpecuniary sanctions are appropriate when limitations on solvency render the costs of collecting fines prohibitive).

^{37.} See id. at 250 ("[I]mprisonment is often thought to serve the additional value, besides deterrence, of preventing further criminal acts by the imprisoned criminal—the acts he would commit if he were not in prison.").

^{38.} See Steven D. Levitt, Incentive Compatibility Constraints as an Explanation for the Use of Prison Sentences Instead of Fines, 17 INT'L REV. L. & ECON. 170 (1997).

(recall Iran³⁹), but these cases will be uncommon and even then may have little deterrent value on the leaders of aggressor states who do not own the assets personally.

If conventional monetary penalties are not a realistic penalty for most aggressor states, however, perhaps other forms of international economic sanctions can be employed. Sanctions have been used extensively in the international system, not only against aggressors (such as Iraq after the invasion of Kuwait⁴⁰) but also on humanitarian grounds (South Africa⁴¹). Their record as a deterrent, however, is mixed at best. The costs of sanctions are often borne by the citizenry at large, rather than by the leaders whose behavior is the source of the problem, and leaders often will not give up power voluntarily or make an important change in their behavior merely to avoid the economic harm that sanctions bring upon their economies.⁴²

The next line of defense against domestic crime—incarceration and associated incapacitation—is also of limited utility against aggressor states. States themselves obviously cannot be put in jail, nor is it usually possible to put whole governments in jail. To be sure, the leaders of such aggression can be and sometimes are incarcerated. But again, this outcome usually follows a war or a fortuitous regime change that makes it possible for the leaders of aggressor states to be placed under international criminal jurisdiction (such as the current incarceration and trial of Slobodan Milosevic, former leader of Yugoslavia). Without the use of force or at least a credible threat of it, the leaders of aggressor states will usually fear little from the prospect of war crimes trials and related punishment mechanisms.

Thus, the use of force or at least a credible threat of force will often be essential to deter potential aggressor states from unproductive acts or to incapacitate those states that cannot be deterred. The alternative deterrence mechanisms that we take for granted in a domestic criminal justice system will not work, for the most part, in international relations.

To say that force or threat thereof is generally essential, however, says nothing about the *timing* of force. As we note in the introduction, the current controversy over the rules of *jus ad bellum* centers on the existing constraints on the use of force—the requirement of Security Council authorization or of

^{39.} See Case Concerning United States Diplomatic and Consular Staff in Tehran (U.S. v. Iran), 1979 I.C.J. 7 (Dec. 15) (ordering, inter alia, the payment of reparations by Iran to the United States).

^{40.} See Robert S. Greenberger et al., U.N. Lifts Iraq Trade Sanctions, Clearing Way for Oil Exports, Wall St. J., May 23, 2003, at A3.

^{41.} See HENKIN ET AL., supra note 3, at 986-87.

^{42.} A classic study of the efficacy of economic sanctions is Gary Clyde Hufbauer, Jeffrey J. Schott & Kimberley Ann Elliott, Economic Sanctions Reconsidered: History and Current Policy (2d ed. 1990). The theoretical and empirical literature on sanctions is surveyed in Jonathan Eaton & Alan Sykes, *International Sanctions*, in 2 The New Palgrave Dictionary of Economics and the Law 352 (Peter Newman ed., 1998).

^{43.} See, e.g., David Housego, Bokassa Held on Return to Central African Republic, Fin. Times (London), Oct. 24, 1986, at 5.

grounds to invoke the right of self-defense against an actual or imminent attack. Much of our focus in the remaining sections will be on the question of whether force can be justified under other circumstances as well.

B. THE TIMING OF FORCE: PREEMPTIVE ATTACK

For the moment, we put aside the role of the Security Council, as well as the use of force for humanitarian purposes, and focus on the imminence requirement for the use of force in self-defense. Is the right to use force only against actual or imminent attack sufficient for purposes of self-defense against potential aggressor states?

One answer is that the target of aggression may be a weak state with insufficient capacity to deter or incapacitate, so that the right to use force has no value for it. This problem may be quite real, to be sure, but it does not argue for relaxing the imminence requirement in general. The state that is weak when attack is imminent will generally be weak at earlier points in time as well. The solution here, if there is one, may be for the weaker state to seek a defense alliance with more powerful states.

If we restrict our attention to potential targets of aggression that have the power to retaliate with enough force to deter or incapacitate aggressors, there are several obvious virtues to a requirement that they wait until an attack is underway or at least imminent before using force in response. Such a rule (if obeyed) ensures that force is used only as a last resort, and that all diplomatic means (presumably much less costly) to avoid conflict have been exhausted before force is employed. Likewise, if force is used before an attack is imminent, a significant chance of mistake arises—perhaps the potential aggressor state would never have attacked at all. One must also worry that a right to use force earlier than an imminent attack would be invoked opportunistically and become a pretense for aggression instead of a bona fide act of self-defense.

More fundamentally, if the potential victim state has substantial capacity to retaliate against the aggressor, why is it not sufficient for such a state to threaten retaliation at a level which will eliminate any gains to the aggressor state and discourage attack altogether? Such a strategy, if feasible and successful, eliminates the need for the use of force altogether. This was the strategy of the United States during the Cold War, when "mutually assured destruction" made it difficult to imagine that a rational Soviet leader would launch a nuclear attack. These considerations have considerable persuasive force and perhaps afford a basis for the imminence requirement across broad classes of self-defense scenarios. We suggest that they are not conclusive in all cases, however, for at least two types of reasons.

First, the imminence requirement may be unjustified when threats of substantial retaliation following an attack are not credible; the leaders of aggressor

^{44.} See Getting Past 'Star Wars', WALL St. J., May 4, 2001, at A14.

states may realize that potential retaliation would be constrained by the rational self interest of the target state. There may be geopolitical and moral limitations on the acceptable degree of damage caused to innocent individuals in the aggressor state or neighboring states by any retaliation, which may seriously undermine the credibility of the retaliatory threat. Similarly, the behavior that requires deterrence may not be an attack per se but a dangerous and threatening policy, such as the development of nuclear weapons by a rogue state. The threat to retaliate against a state that develops such weapons may lack credibility, not only because the weapons have not yet been used and political constraints preclude retaliation, but also because the costs of conflict with the nuclear state have risen to unacceptable levels. Finally, an attack by an aggressor state may not be easily traceable to that state. An aggressor that operates surreptitiously by supplying dangerous weaponry to terrorist agents may have plausible capacity to deny responsibility for an attack, and may believe that retaliation is unlikely given the great collateral damage that it would entail.

Second, even where the threat to retaliate is credible, it may not be effective to deter the leaders of aggressor states. Those leaders may care little about their own citizens and may expect to escape the consequences of retaliation themselves. In extreme cases, they may not even care about their own safety. Consider the religious zealots who believe that death during war against enemies will bring them to a blissful existence. Where deterrence is unrealistic for such reasons, states can protect themselves only by using force before the enemy state has a chance to strike. Such a policy inevitably requires the use of force before an attack is underway or imminent.

C. PREEMPTIVE ATTACK IN A TWO-PERIOD MODEL

To evaluate these claims, we provide a simple model that isolates the relevant factors bearing on a state's decision to use force preemptively.

Consider a two-period scenario involving two countries, "Home" and "Foreign." In period one, Home is uncertain whether Foreign intends to attack in period two. One can think of an attack in literal terms or simply as an aggressive strategy by Foreign, such as the development of nuclear weapons. Home's subjective probability of such an attack, that is, the probability perceived by Home, is p, 0 . Both nations have a per-period discount rate of <math>d. For notational convenience, let $\delta = 1/(1+d)$.

We further assume that an attack by Foreign cannot be deterred by a threat of later retaliation for one of the reasons given above. One might imagine the model applying, for example, to a scenario where Foreign has private information about its type. The "bad" type of Foreign state is one governed by crusaders, religious zealots, or ideologues who will launch an attack against Home, regardless of whether Home will retaliate. The "good" type of Foreign state will not attack in period two. Only Foreign knows whether it belongs to the bad or good type, and we assume that it cannot credibly reveal its type (bad types are able to "pool" with good types so that they are indistinguishable).

Home can attack Foreign preemptively in period one and eliminate the possibility of attack in period two. The cost of the preemptive attack to Home is K_h , and to Foreign is K_f . Alternatively, Home can wait until period two, when the existence or nonexistence of the threat from Foreign will be revealed. If Foreign does not attack, no losses occur and military action is unnecessary, then or in the future—the costs of conflict are zero. If Foreign does attack, Home will incur costs caused by the attack plus a variety of possible costs from its response. It may feel obliged to retaliate; it may wish to incapacitate Foreign to prevent future attacks; it may feel obliged to incur sizable defense expenditures to guard against the new threat from Foreign; it may be forced to transfer resources to Foreign to appease it. The cost to Home from Foreign's attack and Home's response will be Y_h . The cost to Foreign in the event of conflict in period two will be Y_h .

Think of K_f and Y_f as the welfare costs to Foreign that should be included in a proper social welfare calculus. If we thought of states as persons, one might question whether these variables should be counted at all in social welfare. In the economic analysis of criminal law, for example, it is often argued that one should not count the utility of the criminal, only that of the victim, and design the law to deter the criminal rather than to maximize the joint utility of criminal and victim.46 But in international conflict, much destruction can occur to the life, welfare, and property of civilians and even of largely blameless soldiers who were just following orders. Without taking any definitive position on which of these costs should count and which should not, we assume that some of them may count and include them in the model. In the discussion below we call the included costs to Foreign the "collateral damage." In limiting the game to two periods, we are obviously simplifying the analysis in relation to the open-ended time horizon that nations confront in reality. Indeed, if the world really ended in period two, there would be no reason for Home to incur the costs of responding to an attack by Foreign as there would be no future periods in which to derive any benefit. Our assumption that Home will incur the costs of a response in period two is thus best understood as an abstraction from an environment in which the game does not really end, and in which Home's best response after Foreign reveals itself to be aggressive is costly.

^{45.} We proceed in the text on the assumption that the costs to Foreign are positive, so that the net impact of attack on Foreign is not a benefit to it. One could relax this assumption. For example, if one believed that an attack on Foreign would free its people from miserable repression, it is conceivable that the net impact of an attack in either period would be favorable and that K_f and Y_f are both negative. We briefly touch on the implications of the case where Foreign benefits from an attack in footnote 52, infra, and consider that possibility more concretely in Section G of this Part when we discuss humanitarian intervention.

^{46.} See Steven Shavell, Foundations of Economic Analysis of Law 245, 543-52 (2004) (noting that the utility of the criminal is not counted in social welfare in the view of some). The notion that certain actors' utility is illicit and should not count in the social welfare calculus may also be found in the literature on punitive damages. See, e.g., Robert D. Cooter, Economic Analysis of Punitive Damages, 56 S. Cal. L. Rev. 79, 89 (1982).

1. Home's Private Calculus

We make the stylized assumption that Home gives no weight to the collateral damage to Foreign (even though in practice such costs may receive some significant weight). Then, Home will attack preemptively if:

$$K_h < \delta p Y_h$$

This expression implies that Home will find preemptive attack privately optimal if the costs to Home of an attack in period one are less than the discounted expected costs of conflict in period two. Thus, preemptive attack is more likely to be optimal when the costs of preemptive attack (K_h) are smaller, the probability of the threat materializing in period two (p) is greater, the costs of conflict in period two (Y_h) are greater, and the discount factor (δ) is greater (that is, the discount rate d is smaller).

A further implication is that preemptive attack is never optimal unless $Y_h > K_h$. That is, there can be no gains from preemptive attack unless the costs of conflict are greater if Home waits. Were it otherwise, Home would benefit by deferring the conflict, thanks to the time value of money and the fact that the probability of actual attack is less than one.

2. Social Calculus

Preemptive action is socially justified (that is, it lowers the expected social costs of conflict) if:

$$K_h + K_f < \delta p(Y_h + Y_f)$$

This expression states simply that preemptive attack in period one is justified if the costs of such an attack (including the collateral damage to Foreign) are less than the discounted expected costs of conflict in period two (again including collateral damage to Foreign).

It is perhaps useful to rewrite the expression as follows:

$$(K_h + K_f)/\delta(Y_h + Y_f) < p$$

In other words, preemptive attack is socially justified if the probability of an attack by Foreign in period two exceeds the ratio of the costs of preemptive conflict in period one to the discounted costs of conflict in period two. As with the private calculus, preemptive attack cannot possibly be justified unless the costs of conflict are growing over time $[K_h + K_f < Y_h + Y_f]$. The smaller the discount factor δ and the probability of attack p, the greater is the rate of growth in costs required to justify preemptive attack. Likewise, preemptive attack is more likely to be justified as p rises, a point that loosely provides some basis for the imminence standard (the closer p is to 1.0, the more imminent is the attack).

But a value of p close to unity is by no means necessary to justify preemptive attack.

Another way to understand these conclusions is to note that delay in the use of force has value as a real option.⁴⁷ The option value of delay relates not only to the time value of money, but also to the fact that information becomes better over time. In our simple model, Home learns with certainty whether Foreign has aggressive intentions in period two, but the framework is much more general and can accommodate any assumption about the way that information improves over time. In general, preemptive attack will be justified only if the growth in the costs of conflict over time is fast enough that the option value of delay turns negative.⁴⁸ Both the private calculus and the social calculus above may be interpreted in this fashion.

Plainly, there is a divergence between the private and social expressions for the optimality of preemptive measures. If Home follows its private calculus, and K_f is large enough, then Home may launch a preemptive attack that is socially suboptimal. But Home's reliance on its private calculus may also lead it to eschew preemptive attack when it is socially optimal.⁴⁹

As an illustration, suppose that the United States is considering a preemptive attack on Iraq. If K_h is very small (the "cakewalk" theory⁵⁰) and $\delta p Y_h$ is large (because of the possible use of weapons of mass destruction (WMDs) in a future period⁵¹), then the United States may launch the attack even if few Iraqi civilians and soldiers would be saved by an early attack (K_f and Y_f are about the same); the attack may fail the social cost-benefit test for that reason. Alternatively, assume instead that K_h is relatively high (say, \$100 billion) and $\delta p Y_h$ is low (the probability of WMDs is small), so the United States does not launch an attack. But if K_f is relatively low (because of precision bombing, few Iraqis are

^{47. &}quot;Real options" are the opportunities that actors have to alter their allocation of resources in response to changing information or resolving uncertainty. The literature on real options theory is vast. A thoughtful introduction to much of it may be found in Avinash K. Dixit & Robert S. Pindyck, Investment Under Uncertainty (1994).

^{48.} Suppose, for example, that the costs of conflict are constant over time: $K_h + K_f = Y_h + Y_f$. From a social standpoint, the option value of delaying the use of force is then equal to $(1 - \delta p)(K_h + K_f)$, an amount which is clearly positive and which increases as the discount factor and the probability of attack decrease.

^{49.} A further source of potential distortion outside the model relates to the possibility that Home may not even pursue its own interest systematically. There is perhaps no more reason to suppose that governments maximize national welfare in the pursuit of their security policies than they do in other policy spheres such as international trade, where policy decisions routinely diverge from the national welfare optimum. See, e.g., Gene M. Grossman & Elhanan Helpman, Trade Wars and Trade Talks, 103 J. Pol. Econ. 675 (1995). Eisenhower's famous warning about the "military-industrial complex" can be taken as a suggestion that interest groups favoring more militaristic policies may be particularly well organized, and may thus lead states to devote more resources to defense activities than may be justified on national welfare grounds. President Dwight D. Eisenhower, Farewell Radio and Television Address to the American People (Jan. 17, 1961), 1960–61 Pub. Papers 1035, 1038.

^{50.} See Robert Novak, No Cakewalk, CNN.com, Mar. 26, 2003, at http://www.cnn.com/2003/ALLPOLITICS/03/26/column.novak.opinion.cakewalk/.

^{51.} See infra Part II.E.

harmed) and Y_f is extremely high (if WMDs are developed and deployed, the United States would retaliate with a massive nuclear strike), then it may be socially optimal for the United States to attack preemptively. Thus, the divergence between private incentives and social welfare could lead to too many or too few preemptive attacks.⁵²

D. EXTENSION TO THREE PERIODS

The two-period structure above masks some interesting issues, including one raised by the debate over the invasion of Iraq. European opponents of the invasion, such as France, proposed to increase the number of weapons inspectors as an alternative to military action.⁵³ The proposal for increased inspections, and for a delay in action pending the conclusion of inspections, suggests an extension of our model to focus on three stylized points in time when military action might be taken by Home against Foreign: (1) before the weapons inspections run their course; (2) after their completion but before an attack by Foreign; and (3) after an attack by Foreign. We will spare the reader a complete formal treatment of this case, and simply note the factors that bear on the wisdom of delay from period one to period two.

Suppose, for concreteness, that preemptive attack is optimal (privately or socially) if we ignore the intermediate period—the costs of conflict in period one are less than the discounted expected costs of conflict in period three. When is it nevertheless desirable to defer military action to period two? The answer relates to considerations noted above. Plainly, the higher the discount rate, the more attractive is deferring action. And the faster the costs of conflict are growing over time, the less attractive it is. The other important factor is the degree to which information may be expected to improve between period one and period two. If the estimate of the probability of attack is likely to improve substantially by waiting, then the option value increases, other things being equal. If the likely improvement in information is minimal, the option value of delay is lower and may well be negative.

There are many ways that one might model the change in information as a formal matter, and we offer one possibility here merely as an illustration of the basic idea. Suppose that at the end of period two (at the end of weapons inspections), the probability of attack will be refined as follows: with probability 0.5, the revised probability of attack will be $p + \epsilon$, and with probability 0.5, it will be $p - \epsilon$. If ϵ is large, one might say that information has improved considerably. If it is very small, information has improved little, and if it equals zero, information has not changed.

^{52.} We note that an important caveat to our analytic discussion arises if one assumes that an attack on Foreign confers net benefits on it (as by eliminating a repressive regime). Then, one must ask whether attack is justified from a social standpoint even if Foreign turns out not to be aggressive. That is, one must modify the social calculus to consider the costs of *not* attacking Foreign in either period.

^{53.} David S. Cloud, Three Nations Say Iraq Has Failed To Disarm, Reviving War Showdown, WALL St. J., Feb. 25, 2003, at A2.

In this framework, the following points should be intuitively clear. If the costs of conflict in period one are lower than the expected discounted costs in period three, if ϵ is very small, and if the costs of conflict are rising significantly between period one and period two (the "bad" type Foreign will make significant progress in building up its armaments, for example), then it probably does not pay to defer military action to period two. If Foreign is indeed a would-be aggressor, then waiting increases the costs of conflict significantly and will not materially affect the knowledge of whether Foreign is an aggressor state or not. It is better to act preemptively in period one because of the greater expected costs of conflict in period two (when a more expensive preemptive attack will be needed, unless of course the costs have risen so much that it is then best to wait for period three). By contrast, as ϵ becomes large, the attractiveness of delay increases, other things being equal. Delay offers a significant chance (in the example above, fifty percent) that information will come to light that considerably reduces (because of the large ϵ) the apparent likelihood of Foreign being an aggressor state, and if so, all sides may be spared the costs of military conflict.

E. IMPLICATIONS: IRAQ AND THE WMD ISSUE

The framework that we have developed sheds considerable light on the debate over the invasion of Iraq. Part of the disagreement between proponents and opponents of the invasion may be understood as simply a difference of opinion over certain parameters of the model. Other elements of the disagreement may be interpreted as a judgment by opponents that the U.S. case for preemptive action was logically flawed in a way that the model highlights, a view with which we have some sympathy.

One issue separating the two sides was the wisdom of delaying action pending further weapons inspections. The position of the United States was that weapons inspections would not yield valuable new information with any significant likelihood—the Iraqis were too adept at concealing things, and a failure to find any "smoking gun" would do nothing to put matters to rest.⁵⁴ The European view, in contrast, was that the weapons inspection process could add significant new information (positive or negative) about Iraq's intentions.⁵⁵ This disagreement may be seen as a dispute over the value of ϵ in the three-period model: the United States felt that it was very small, while the European view was that it was sizable, making delay a more attractive option, other things being equal.

Even if the United States had been right on this issue, however, the case for preemptive action would still require considerably more, as we have indicated—

^{54.} See Peter Ford, Iraq Inspections Face High Hurdle, Christian Sci. Monitor, Sept. 24, 2002, available at http://www.csmonitor.com/2002/0924/p01s04-wogi.html ("[S]ome senior [U.S.] officials deride any inspection regime as worthless").

^{55.} See generally Hans Blix, Disarming Iraq (2004).

Iraq must have been undeterrable through a threat of retaliation should it attack (or supply weapons to terrorists), and the costs of conflict must have been growing over time at a rate sufficient to overcome the value of waiting until Iraq's true intentions were revealed. It is not clear that the United States made its case on either issue.

Most of the U.S. rhetoric before the invasion emphasized suspected programs to develop and stockpile WMDs.⁵⁶ In thinking about whether such concerns justify preemptive force, it is useful to distinguish the categories of WMDs carefully. With regard to chemical weapons, the capacity of Iraq to develop and deploy such weapons was beyond dispute.⁵⁷ Yet, we suggest, the possible presence of stocks of chemical weapons was largely irrelevant to the case for preemptive force. First, it is by no means clear that a threat to retaliate massively against Iraq for any future aggressive use of such weapons would have been insufficient to deter their use. That chemical weapons were little used, if at all, during the first Gulf War suggests the potency of such a threat.⁵⁸ Second, as to the possibility that Iraq might surreptitiously supply chemical weapons to terrorists, this too seems a weak justification for preemptive action. Chemical weaponry is an aged technology, and knowledge regarding the manufacture of chemical weapons is widely dispersed.⁵⁹ Terrorists simply do not need the aid of governments to manufacture such weapons (witness the use of sarin gas by terrorists in Japan in 1995⁶⁰). Even if Iraq had large stocks of chemical weapons, as the United States suspected, and even if Iraq had ties to terrorist organizations, as the United States urged, the value of preemptive action to destroy chemical weapons stocks was dubious.

Biological agents present a somewhat different picture. Again, it is hardly clear that a threat of massive retaliation would have been insufficient to deter the transparent use of biological weapons by the Iraqi government. A stronger case can be made for fearing that terrorists may obtain access to some such weapons, however, since many biological agents (such as the smallpox virus) are not readily obtainable from any other source (anthrax spores, by contrast, may not be terribly difficult to obtain).⁶¹ Thus, one might argue, ongoing biological weapons programs may pose a significant prospect that the costs of

^{56.} See, e.g., Colin Powell, Secretary of State, Address to the United Nations Security Council (Feb. 5, 2003), available at http://www.whitehouse.gov/news/releases/2003/02/20030205-1.html.

^{57.} See Khidhir Hamza, Each Day We Wait, Saddam Grows More Powerful, WALL St. J., Dec. 10, 2001, at A18.

^{58.} See Antonio Regalado, Analyzing Chemical Weapons and Their Threat, Wall St. J., Apr. 8, 2003, at All.

^{59.} See Cent. Intelligence Agency, Terrorist CBRN: Materials and Effects (2003) (containing a discussion of the numerous chemical (and biological) agents that terrorists are known to have experimented with in the past), available at http://www.cia.gov/cia/reports/terrorist_cbrn/terrorist_CBRN.htm.

^{60.} See Peter Landers et al., In 1995 Tokyo Gas Attack, Lessons for the U.S., Wall St. J., Sept. 28, 2001, at A12.

^{61.} See Marilyn Chase, Old Soviet Threat Drives Smallpox Plan, WALL St. J., Nov. 30, 2001, at B2.

conflict will rise in the future, justifying preemptive measures before the programs come to fruition. The difficulty with this argument, however, is that preemptive action may well fail to avert the danger; it may even exacerbate it. If Iraq possessed the smallpox virus and had some inclination to share it with terrorists in the future, a preemptive invasion could nevertheless fail to find and recover the virus, which is easy to conceal. It might also motivate Iraqi leaders to share the virus with terrorists, when they might not have done so otherwise. To be sure, preemptive action could also halt laboratory efforts to weaponize certain biological agents, something that terrorists may have a hard time accomplishing on their own. Thus, worries about biological weapons may afford a somewhat stronger justification for preemptive attack than worries about chemical weapons, although not necessarily a conclusive one.

A suspected nuclear weapons program seemingly presents the strongest case for preemptive attack. Even if the transparent use of nuclear weapons by the existing Iraqi government could have been deterred by threats of retaliation in kind, the possibility of such weapons falling into terrorist hands at some future date suggests that the costs of future conflict could rise dramatically with delay. And, in contrast to biological weapons that may be concealable in a vial or test tube, facilities for the production of fissionable material and completed nuclear weapons are harder to conceal. The chances of discovering such facilities and disabling them through preemptive measures, before any functioning weapons are produced, appear significantly greater.

But this argument for preemptive action also has an important weakness. If facilities for the production of nuclear weapons are likely to be found and disabled in a preemptive attack, so too might they be detected through a weapons inspection program. It is noteworthy that the facilities being used for nuclear work in Iran and North Korea are apparently well known⁶³ (as was the Iraqi reactor facility at Osirak that was destroyed some years earlier by Israel⁶⁴)—a serious nuclear weapons program may be difficult to hide from inspectors as well as invaders. This observation offers some support for the European position that weapons inspections should have been allowed to continue, counterbalanced of course by the worry that a nuclear weapons program might have nonetheless remained hidden just long enough to allow the production of working bombs, and thus to raise the costs of conflict dramatically.

In sum, the framework developed here highlights some important weaknesses in the case for preemptive action in Iraq put forward by the United States. It suggests that the existence or nonexistence of chemical weapons stocks in Iraq was largely irrelevant to any case for preemptive action, despite the emphasis

^{62.} David Brown, Biological, Chemical Threat Is Termed Tricky, Complex, Wash. Post, Sept. 30, 2001, at A12.

^{63.} See, e.g., Iran To Provide Nuclear Design Details, Inspector Says, Associated Press, Feb. 23, 2003; R. Jeffrey Smith, Inspectors Returning to North Korea, Wash. Post, May 14, 1994, at A14.

^{64.} See, e.g., Peter Hermann, Iraq Sees Nuclear Threat from Iran as Near Critical Stage, Balt. Sun, Oct. 27, 2004, at 15A.

on such weapons in much of the rhetoric leading up to the invasion.⁶⁵ Bona fide concerns about biological and nuclear weapons programs afforded greater possible justification for preemptive action, but even then the case was hardly airtight.

We underscore once again that we take no position on the ultimate wisdom of the Iraq invasion, or of any other past conflict. Such judgments turn on difficult factual questions about which we have little information or expertise. Our goal is simply to clarify the conditions under which a case for preemptive action might be made, and to suggest that popular discussion of the issue before the invasion of Iraq often deviated from the key issues.

F. MULTISTATE COMPLICATIONS: COLLECTIVE ACTION AND THE SECURITY COUNCIL

As noted, the possible optimality of preemptive force turns crucially on an assumption that aggression cannot be deterred by the mere threat of retaliatory response to an actual attack. This assumption is dubious in many contexts, but may have some plausibility in others. If the problem is indeed an important one, the analysis here raises questions about a legal rule that outlaws preemptive action and limits the timing of defensive measures to the window after an attack has occurred or become imminent. The reader might well respond, however, that existing law contains no such limitation—preemptive measures are permissible if authorized by the U.N. Security Council. We now turn to an analysis of this and related mechanisms for the collective authorization of force, preemptive or otherwise.

In our simple model above, we have only two states, Home and Foreign. In the real world, there are almost 200 states, and the welfare of states not direct parties to conflict often enters the discussion of a conflict's wisdom. In defending the recent invasion against Iraq, for example, the United States did not confine itself to the argument that the invasion was necessary to promote its own security. It also argued that the invasion was necessary to protect other nations in the region and the world.⁶⁶

The introduction of additional states into the analysis raises important new issues. We treat them informally here in the interests of simplicity.

A fundamental complication arises because a decision by Home to take action against Foreign, in either period, creates externalities for third states. Those threatened by Foreign may reap a benefit from Home's action, and those aligned with Foreign in some way may suffer a cost. Neighbors of Foreign may also suffer costs owing to an influx of refugees, a loss of trading opportunities, or other collateral consequences of military conflict.

If Home makes a unilateral decision about military action in either period, and fails to take full account of these various external effects (as well as the

^{65.} See, e.g., Mitchell Landsberg, A Review of the Evidence: Some Prewar Allegations About Iraq's Weapons Now Appear Overstated or False, L.A. Times, June 15, 2003, at A10.

^{66.} See, e.g., Powell, supra note 56.

collateral damage to Foreign), its choices may be distorted from a social standpoint in numerous ways. It may fail to act preemptively when it is socially optimal because it neglects the benefits to other states, or it may act preemptively when suboptimal because it neglects the costs. Its response to an attack in period two, which we do not model in our simple framework but take to be fixed, can also be distorted by a failure to take account of the costs and benefits to others. We emphasize that the distortion can run in all directions, depending on the nature and magnitude of the various externalities.

This observation is by no means new. A significant literature exists on the economics of alliances, in which a number of states facing a common external threat must decide how to behave.⁶⁷ This literature conventionally assumes that defense measures by one state confer benefits on other threatened states. Not surprisingly, when a state taking defensive measures bears the full costs but some of the benefits are external, the result is too little defense effort, a standard result from the theory of public goods. Thus, it has been argued that European countries underinvested in defense during the Cold War because they benefited from the U.S. nuclear umbrella.⁶⁸ Of course, if one were to make the opposite assumption, that the external effect of defense measures on other states is predominantly negative, the opposite result could arise. Finally, and trivially, in cases where conflict between Home and Foreign has no important external consequences, the analytic treatment in the previous section captures all of the important considerations, notwithstanding the existence of other states.

When externalities are important, the international community faces classic collective action and free-rider problems. Four types of highly imperfect solutions to these problems suggest themselves: bargaining among states in an informal structure; collective security and alliances; decentralized, hegemonic leadership; and binding international law. We will consider each in turn.

1. Informal Bargaining

States communicate routinely about matters of mutual interest; on issues of importance it is not difficult for most states to ascertain the preferences of other governments. But knowing the preferences of other states and striking a bargain that solves the externality problem are two different things. A constructive bargain requires some mechanism that rewards states for the creation of positive externalities and penalizes them for the creation of negative externalities. Interstate transfers, or "bribes," can in principle do both, and can employ various currencies. Monetary aid is common in some settings, with foreign aid, IMF loans, and the like regularly used to reward states that behave in accor-

^{67.} The modern economic literature on alliances begins with Mancur Olson & Richard Zeckhauser, An Economic Theory of Alliances, 48 Rev. Econ. & Stat. 266 (1966). A recent survey of the literature is found in Todd Sandler & Keith Hartley, Economics of Alliances: The Lessons for Collective Action, 39 J. Econ. Lit. 869 (2001).

^{68.} See Sandler & Hartley, supra note 67, at 869-70. See generally Olson & Zeckhauser, supra note 67.

dance with the wishes of major players.⁶⁹ Even nations like the United States may be rewarded for taking action in some settings by commitments of funding to support it (as in the first Gulf War⁷⁰). Where monetary payments are difficult to orchestrate, "payments" on other issues of interest, such as trade issues or environmental matters, may be made.

But the problems with informal bargaining in a large-numbers situation are both familiar and potentially acute: negotiation costs, free riders, and bargaining failure. The process of negotiation is time-consuming and costly, and those who benefit from particular outcomes will hope that others may pay for them. Nations may also act strategically to demand as much of the surplus as they believe they can extract, and bargaining can break down as a consequence (recent negotiations between the United States and Turkey prior to the Iraq invasion may be an illustration⁷¹). For these reasons, one cannot be optimistic that informal bargaining will remedy the externality problem.

2. Collective Security

One way to reduce some of the costs of informal bargaining is to structure interaction in a formal institution or alliance. On a global level, the United Nations was designed to solve the collective action problem as applied to war and peace. Other institutions aimed at this problem have been devised on a regional level (such as NATO). As originally conceived, the United Nations would have its own army, and the Security Council would direct that army to intervene against states that threatened the sovereignty of other states.⁷² After member states declined to put armies under international control, it was decided that the Security Council could authorize or order members to go to war, but member states would retain control of their own armies.⁷³

These schemes have never worked terribly well. States would not put armies under international control because they did not trust the United Nations to use their armies in a way that benefited them, or because the particular war did not serve their own interests. And member states rarely agreed to authorize other states to go to war, because they could not trust the belligerent to act in a way that benefited them, or because the war did not serve their own interests. For example, China and Russia blocked efforts to authorize a U.N. response to Serbia's repression of the Kosovars in 1999 because China and Russia would gain nothing from such a war; they feared setting precedents that would

^{69.} Pakistan provides a good illustration—since September 11, 2001, Pakistan has cooperated with U.S. efforts to combat terrorism, and has been rewarded with economic aid and favored military alliance status. See Mike Allen, U.S. Will Increase Aid to Pakistan: Funding Tied to Terrorism, Nonproliferation Goals, Wash. Post, June 25, 2003, at A1.

^{70.} See Bob Davis et al., Rift over Iraq Haunts Meeting of G-7 Ministers, WALL St. J., Feb. 20, 2003, at A3.

^{71.} See Philip P. Pan, Turkey Lets U.S. Use Airspace, WASH. Post, Mar. 21, 2003, at A24.

^{72.} See Glennon, supra note 8, at 89-91.

^{73.} Id.

^{74.} See id. at 98-100.

interfere with their own policies in Tibet and Taiwan (for China) and Chechnya (for Russia); and Russia and Serbia were old allies.⁷⁵

Regional alliances are perhaps somewhat more successful, but are hardly without their imperfections. During the Cold War, when U.S. defense measures created substantial positive externalities for other NATO members, conventional wisdom had it that NATO members continued to free-ride on U.S. defense spending and did not pay a fair share of total costs. Further, regional alliances by definition are not global; they may deal with some externality issues, but will not address all of them.

The essential problem with collective security efforts is that the creation of an institution like the United Nations or NATO does not solve the fundamental problems that arise in bargaining. These institutions merely provide a venue for bargaining, along with voting rules or veto rights that define exit options in the bargaining game. Because nations have largely proven unwilling to cede significant sovereignty to these institutions, free-rider and bargaining failures characterize their normal operation, and they have made at best limited progress in addressing the externalities that motivated their creation.

These observations cast serious doubt on the adequacy of the Security Council as a mechanism for authorizing socially justifiable use of force, whether preemptive or in any other context. Most threats are targeted at a modest subset of the U.N. membership. Those members contemplating the use of force will tend to vote their private interest, and there is little reason to think that bargaining within the Security Council will suffice to align their private interest with the social interest. The voting structure, with five nations holding veto rights, makes it all the more difficult for the Council to agree on an authorization of force.

3. Decentralized security and hegemonic leadership

The literature on alliances and on defense measures as a potential public good notes that larger nations will tend to supply more defense because their private benefits from defense are greater.⁷⁷ A large nation that becomes dominant in its military position is sometimes termed a hegemon, and may get its way in matters of international security simply by virtue of its relative strength.

The perceived failures of the United Nations have led some scholars to argue that the United States, the most plausible candidate for hegemonic status at present, should take the lead in solving the problem of collective security. ⁷⁸ One might interpret this work as suggesting that the United States should adopt the social calculus in its decisionmaking, but nevertheless stand willing to act unilaterally or with a small coalition when necessary.

^{75.} See id. at 83, 185-86.

^{76.} See Sandler & Hartley, supra note 67, at 882-85.

^{77.} See, e.g., id., supra note 67, at 869-76.

^{78.} See, e.g., Yoo, supra note 15, at 792-93.

Whatever appeal this suggestion may have in principle, it is far from clear why the United States would act in this fashion. Political leaders in the United States will be motivated mainly by national interest groups, and absent the use of transfers to align the national and global interest, U.S. policy may be expected to favor the former. To be sure, situations may arise in which the United States can be compensated for acting in the broader interest, as in the first Gulf War, but these instances will be plagued by free-rider problems and bargaining failures, as indicated above. Any suggestion that the United States or any other nation ought be allowed to act without constraint as long as it promises to pursue the global interest, therefore, is not likely to meet with much enthusiasm in the international community.

4. International Law

The conventional justification for public international law is the existence of important international externalities when decisions are made unilaterally.⁷⁹ The rules of *jus ad bellum* may be interpreted as an effort, however imperfect and weak in its influence, to define the conditions under which the use of force is socially productive.

A key analytic distinction between collective security institutions on the one hand, and international law on the other, is that international law can at times be formulated behind a "veil of ignorance," whereas voting and veto rights in collective security institutions will typically be exercised only after a specific problem has arisen and the private interests of members have crystallized. For this reason, international law has the potential to overcome some of the deficiencies in collective security institutions to the extent that the institutions limit themselves to acting only after crises have arisen. The fact that the existing international rules of *jus ad bellum* rely so heavily on voting by the Security Council thus seems somewhat unfortunate.

Yet the alternatives to reliance on such a collective decisionmaking mechanism are also problematic. The only obvious option is to create rules that specify the conditions under which force may be employed, such as the existing rules on self-defense. But the challenge of writing clear and specific rules to anticipate all of the contingencies under which force may be socially justified is a daunting one, while vague and general rules will do little work in distinguishing justified and unjustified uses of force. Further, any system that relies on generally applicable rules also requires some mechanism to police violations, and hence the involvement of some type of collective or impartial international body seems essential (although it could be an entity like the International Court

^{79.} See Alan O. Sykes, Public International Law, in Handbook of Law and Economics (A. Mitchell Polinsky & Steven Shavell eds., forthcoming 2005).

^{80.} JOHN RAWLS, A THEORY OF JUSTICE 137 (1971).

^{81.} We note, however, that nothing in the U.N. Charter prevents the Security Council from acting ex ante, as by promulgating new rules for the use of force before a crisis arises.

of Justice rather than the Security Council).

Nevertheless, the analysis in this section and the last suggests that some consideration might usefully be given to modifying the rules regarding the use of force in the absence of Security Council authorization. There are good reasons to wonder whether the Security Council will ever act to authorize force, preemptive or otherwise, when it is socially valuable. An important class of cases may exist in which preemptive force will reduce the social costs of conflict. The requirement of an imminent threat before states can act in self-defense remains troubling for this reason.

We are mindful, however, of some countervailing considerations. First, the possible justification for preemptive force developed earlier presupposes that Foreign is akin to a criminal actor engaged in unproductive aggression (or potential aggression). Who is to make the determination that a particular state fits that description? A unilateral determination by the hegemon is subject to the difficulties with hegemonic leadership noted earlier. And if the determination is entrusted to the Security Council, we return to square one with the problems of collective security. One might try to fashion objective criteria as part of the law for the identification of rogue states, ⁸² but that task may be exceedingly difficult.

Second, rules permitting preemptive force are subject to possible abuse and opportunism. States may invoke them to justify preemptive attack when it is socially undesirable, and a mechanism is required to discourage such behavior lest any modified rules do more harm than good. We will return to these difficult issues below.

G. HUMANITARIAN INTERVENTION

Our simple model can be modified to illustrate the argument for allowing humanitarian intervention under international law. The use of preemptive force is rarely required or considered in these cases; intervention occurs (if at all) only after evidence of an existing humanitarian crisis emerges. We may thus dispense with the two-period structure, and modify the notation as follows. Let K_h represent the costs to Home of humanitarian intervention, let K_f represent the collateral damage to Foreign from such intervention, and let Y_f represent the costs to Foreign if no intervention occurs. Think of Y_f as the social costs of allowing the humanitarian crisis to play out without intervention. Humanitarian intervention is then socially justified if:

$$K_h + K_f < Y_f$$

Home will again act in accordance with its private calculus rather than the social calculus. Plainly, if Foreign's welfare does not enter Home's welfare

^{82.} See supra note 34 and accompanying text.

function, Home will simply decline to act. Why, then, does humanitarian intervention ever occur? One possibility is that Foreign poses a threat to Home as well as to its own people. Or perhaps refugees from Foreign will flow into Home and impose costs on Home unless action is taken. The humanitarian benefits of intervention then arise as a byproduct of (or perhaps as a political justification for) an action to address some threatened harm to Home.

The other possibility is altruism—Home may experience disutility because the welfare of Foreign does enter its welfare function, and may thus be forced to choose the lesser evil of intervention and nonintervention. Suppose, for concreteness, that Home's private calculus gives the weight a to the welfare of Foreign, where 0 < a < 1. It then chooses to intervene if:

$$K_h + aK_f < aY_f$$

If a = 1, the private and social calculus converge. For a < 1, however, Home may decline to intervene when it is socially optimal. And unlike the case of preemptive self defense considered earlier, there is no danger that Home will intervene when intervention is socially undesirable—if $K_h + aK_f < aY_f$, then $aK_h + aK_f < aY_f$, which implies $K_h + K_f < Y_f$ (intervention is socially optimal).

If altruistic humanitarian intervention when it occurs is socially beneficial, how do we explain the international resistance to the position that it should be legally permitted? The answer is that humanitarian goals often serve as a pretext for a military intervention undertaken for other reasons, such as territorial expansion. States rarely act altruistically. States spend little money on foreign aid, so why should we believe them when they claim to invade for the benefit of the citizens of an enemy?

Yet the pretext problem is not special to humanitarian intervention. Self-defense is also a frequent pretext for aggressive war. Thus, we face a puzzle: If a self-defense exception to the prohibition on war is permitted despite the problem of pretext, why should a humanitarian exception be denied because of concerns about pretext?

A possible answer is that the humanitarian justification for intervention is almost always pretext, while the self-defense justification is more often bona fide—perhaps a is so small as a practical matter that nations will never intervene for genuinely humanitarian reasons. Indeed, it is difficult to find a single historical example of a war that was clearly motivated by humanitarian concerns. But one can find examples of intervention supported by mixed motives, where the humanitarian considerations were arguably present to a degree. And just as other states can decide for themselves whether a self-

^{83.} See, e.g., Glennon, supra note 8, at 72-75.

^{84.} See Jack L. Goldsmith & Eric A. Posner, The Limits of International Law ch. 9 (2005).

^{85.} Compare Tesón, supra note 30 (citing military interventions in Uganda, the Central African Republic, East Pakistan (Bangladesh), and Grenada, as motivated by humanitarian concerns), and

defense justification is pretextual or real, so too can they decide whether a humanitarian justification is pretextual or real. It is thus not obvious why humanitarian intervention should be prohibited altogether (absent Security Council authorization, which is subject to its own problems as discussed above⁸⁶).

H. PROPORTIONALITY

Under the Webster-Ashburton rule of self-defense, the response to attack must be "proportional." The rule came out of a dispute resulting from a conflict along the Canadian border in 1837. Canadian authorities (as agents of the British imperial master) entered American territory in order to attack camps of Canadian insurgents who were receiving some aid from locals; several Americans were killed or wounded in the battle that followed. The United States protested and, after negotiations, the British agreed that such a use of force could not be justified unless it was proportionate to the threat. The modern version of this idea is that a state cannot use a minor border incursion or act of violence perpetrated by another state as an excuse for a full-scale war. 88

What is the purpose of the proportionality requirement? In our basic model of two-country conflict, it can perhaps be understood loosely as an injunction to limit the collateral damage. The larger the threat to Home, the larger the collateral damage may be; but it remains the case that the collateral damage should be as small as reasonably possible (implying some tradeoff between the costs to Home and the costs to Foreign in each period that needs to be optimized, a consideration outside the framework of our simple model). With this interpretation, the proportionality requirement is crudely consistent with the social welfare calculus. Our framework adds only a suggestion that the proportionality requirement might usefully be interpreted to require proportionality not only to the damage already incurred or imminently threatened, but also to the damage that may be avoided by preemptive measures.

III. IMPLICATIONS FOR INTERNATIONAL LAW

A. SELF-DEFENSE

Our analysis offers support for the suggestion that self-defense should be defined more broadly to allow preemptive action. We agree with John Yoo that, as a theoretical matter, self-defense should be permitted when the expected costs of waiting are high enough.⁸⁹ The probability of the attack is simply not

Franck, *supra* note 8, at 135–73 (citing interventions in Uganda, Bangladesh, Kampuchea, the Central African Republic, Iraq, Sierra Leone and Liberia, and Yugoslavia, as motivated by humanitarian concerns), *with* Glennon, supra note 8, at 72–75 (arguing that the interventions studied by Tesón were the result of mixed motives).

^{86.} See supra Part II.F.

^{87.} LORI FISLER DAMROSCH ET AL., INTERNATIONAL LAW: CASES AND MATERIALS 922-23 (4th ed. 2001).

^{88.} DINSTEIN, supra note 5, at 192-94.

^{89.} See Yoo, supra note 15, at 751-61.

the only pertinent consideration, as the imminence standard would suggest: One must also focus on the likely rate of growth in the costs of conflict associated with delaying action. Using military force to prevent a rogue state from obtaining nuclear weapons—as Israel did against Iraq's Osirak nuclear facility, in 1981⁹⁰—may be justified.⁹¹

To be sure, a potential divergence exists between the national and the global interest in the use of preemptive force. Presumably, international law should promote the global interest—a state should engage in preemptive war against another state when the costs of waiting for both states is high enough. Under such a rule, a state can launch a preemptive war against another state if that other state poses a sufficiently grave threat to the first state's welfare in the future, the joint cost of the war at the moment is relatively low, and the joint welfare loss from the threatened future attack is high.⁹²

To a surprising degree, this rule was implicit in the public discussion surrounding the invasion of Iraq by the United States in 2003. The Bush administration argued that Iraq would eventually either attack its neighbors or support terrorist operations against Americans, in either case necessitating an American military response. Waiting until this time would (1) cause greater casualties than an immediate attack because in the meantime Iraq would have improved its WMD capability $(Y_h > K_h)$; (2) cause greater civilian casualties in Iraq because a larger response would be necessary $(Y_f > K_f)$; (3) result in further harm to Iraqi civilians who would in the interim be killed—by Iraq's security forces or as a

^{90.} See Hermann, supra note 64.

^{91.} As John Lewis Gaddis has recently noted, there are many examples of preemptive war in American history. He includes Jackson's invasion of Spanish Florida in 1818, subsequently endorsed by the Monroe administration; the invasions of Indian territory throughout the nineteenth century; the annexation of Texas and the Mexican War; the seizure of Cuba and the Philippines during the Spanish-American War; and the various early twentieth-century interventions in the Caribbean and Central America. In all of these cases, a prominent rationale for the war—aside from pretexts such as the destruction of the U.S.S. Maine—was either preemption of attacks by criminal gangs or Indian armies from "failed states" such as Spanish Florida, which was not controlled in any measure by the Spanish government, or the preemption of seizure of neighboring states by European powers such as Germany, Russia, Spain, Great Britain, and France, which would then pose a threat to American borders. See John Lewis Gaddis, Surprise, Security, and the American Experience 16–22 (2004).

^{92.} This is similar to Yoo's argument that the old "imminent" self-defense rule fails to take into account the magnitude of the risk and harm of war. See Yoo, supra note 15, at 751-61. However, although Yoo argues (as we do) that a state should take account of the expected harm from waiting, he does not say what this expected harm should be compared with. Here is his discussion:

International law should allow states to use force in their self-defense, rather than pursuing diplomatic means or waiting for the UN to solve the problem, when the expected harm of a potential attack reaches a certain level. Admittedly, the Hand formula does not inform us where that line should be, but it does allow us to see that use of force should move away from pure temporal imminence—which was just a proxy for a high level of probability—to include probability and magnitude of harm.

Id. at 757

By contrast, we argue that the expected harm from an attack should be compared to something: to the costs (both to Home and Foreign) from initiating a war earlier rather than later.

^{93.} See Powell, supra note 56.

result of international sanctions⁹⁴—(further increasing Y_f); and (4) pose great danger to Americans and others outside Iraq because the probability of eventual Iraqi attack was high (high p).⁹⁵ Many critics of the invasion implicitly accepted this normative framework and merely disagreed about the empirics: they thought, correctly as it turned out, that Iraq's WMD capability was low or nil; that sanctions and inspections could prevent Iraq from improving its capability; that the short-term costs of war would be higher than claimed; and that the probability that Iraq would cause trouble in the future was low.⁹⁶

We have already taken issue with some of the logic of the U.S. case for preemptive action, particularly insofar as it rested on generic concerns about Iraq's WMD programs without differentiating them carefully. Nevertheless, the general tenor of the U.S. case for action appealed to the social costs of delay, while opponents downplayed those costs for various reasons. The standard for intervention implicit in much of the discussion thus tracked rather closely the standard that we suggest as a possible rule to govern such issues going forward. For these reasons, we think that our argument can better be interpreted as an attempt to refine an evolving standard of international law than as an effort to radically revise the U.N. Charter.

Even if international law were to recognize a right of preemptive attack under proper circumstances, however, it would remain to specify whether states could invoke the right unilaterally. Many critics of the Iraq invasion argued that the Bush administration should invade Iraq only if it could persuade the Security Council to authorize the invasion.⁹⁷ Their opposition was not so much to preemptive action per se, but to unilateral preemptive action.

For those who believe that a requirement of prior Security Council authorization is best on balance, a question remains as to what rule should guide the Security Council's decision. Currently, there is no explicit rule governing the circumstances under which the United Nations may authorize the use of force. Our argument is that the United Nations should authorize the preemptive use of force when the expected costs to the involved states are likely to be less if war

^{94.} Many supporters of the invasion emphasized the benefits to Iraqis. See, e.g., Kenneth M. Pollack, The Threatening Storm: The Case for Invading Iraq (2002). Wilsonians and neoconservatives also saw long-term gains from spreading democracy in the Middle East. See, e.g., William Kristol & Lawrence F. Kaplan, The War over Iraq: Saddam's Tyranny and America's Mission (2003).

^{95.} See President George W. Bush, Remarks at the United Nations General Assembly (Sept. 12, 2002), available at http://www.whitehouse.gov/news/releases/2002/09/20020912-1.html. All of these factors are touched on in National Security Strategy of the United States, supra note 34.

^{96.} Examples of all these views can be found in *Hearings To Examine Threats, Responses, and Regional Considerations Surrounding Iraq: Hearings Before the Senate Comm. on Foreign Relations*, 107th Cong., 2d Sess. (July 31 & Aug. 1, 2002).

^{97.} The Bush administration claimed that earlier U.N. resolutions authorized the invasion. For the arguments pro and con, compare John Yoo, *International Law and the War in Iraq*, 97 Am. J. INT'L L. 563 (2003), with Thomas M. Franck, *What Happens Now? The United Nations After Iraq*, 97 Am. J. INT'L L. 607 (2003), and Sean D. Murphy, *Assessing the Legality of Invading Iraq*, 92 Geo. L.J. 173 (2004).

occurs sooner rather than later (and not otherwise).

Turning to the issue of whether Security Council authorization should be a necessary predicate for preemptive action, we have already noted the problems inherent in its voting mechanism, and the tendency of members to vote their private interests rather than the social interest in ways that are not easily overcome through informal bargaining. These concerns weigh against limiting the right to preemptive force to cases approved by the Security Council. The strongest argument on the other side is that a rule allowing the unilateral use of preemptive force may be more easily manipulated than the traditional imminence rule. The defenders of the old rule might argue that states will use preemptive self-defense as a pretext for launching an invasion for other purposes if they are allowed to act unilaterally—it will become an excuse for territorial expansion, regional dominance, control of natural resources, and the like. Imminent threats, by contrast, are clear, so pretextual invasions will be seen for what they are.

This argument is a kind of rules/standards claim. The preemptive self-defense rule is a standard in the sense that it allows the decisionmaker to consider all normatively relevant factors. The imminent self-defense rule is a rule in the sense that it sometimes bars a normatively justified outcome in order to reduce decision and error costs. The imminent self-defense rule (absent Security Council approval to deviate from it) is preferable if the cost of pretextual wars (enabled by a unilateral preemptive self-defense rule) exceeds the cost of forgone, socially valuable preemptive self-defense (not authorized by the Security Council). Should the international community be more concerned about aggressors masking their motives behind the pretext of preemptive self-defense or about aggressor states developing dangerous weapons owing to Security Council paralysis?

It is impossible to answer this question with confidence, and we will confine ourselves to the claim that preemptive self-defense has become more attractive over the past fifty years. This is so for three reasons. First, the proliferation of WMDs, and the danger of their dissemination to terrorist organizations, increases the cost of delayed response to emerging threats; preemption can now avoid greater losses than it could in the past. Second, decisionmaking processes in most states are more transparent today than they were during the Cold War, when even the western powers refused to engage in public debate about proposed military interventions. Thus, the pretext problem is somewhat less severe than in the past. Third, while at one time the imminent self-defense rule may have been justified by the Security Council's residual power to authorize preemptive wars, the Security Council system has in the eyes of many proven a

^{98.} Note that we are talking about the margin: aggressors can already use ordinary self-defense as a pretext.

^{99.} Yoo, supra note 15, at 735, 750.

failure.¹⁰⁰ It has not authorized a single preemptive war, and if it cannot be depended on to authorize justified preemptive wars, individual states perhaps ought to have that power.

Some critics of the Security Council have argued that there is, or could be, a dual system of international law, one in which the United States follows one set of rules, and the rest of the world another. The argument is that only the United States can serve as an enforcer of international law, because only the United States has the military capacity to do so. Decause the United States incurs the costs (or most of them) and takes the risks, it should not be subject to the same rules that apply to other states. This argument lies behind American policy regarding the International Criminal Court, and the U.S.'s demand that American soldiers and officials enjoy immunity from the jurisdiction of that court. On the international Criminal Court.

Such a system may be superior to the conventional United Nations system, but not necessarily. On the one hand, if the hypothetical system better reflects strategic realities, then compliance is more likely. In addition, as we have seen, the hegemon in some cases has good incentives to enforce international law. On the other hand, there is no reason to believe that the hegemon's incentives are systematically aligned with the social interest: the hegemon will, absent effective side payments, enforce international law selectively in a way that reflects its own interests.

B. COLLECTIVE SELF-DEFENSE

Often, the use of force is justified as an act of collective self-defense: typically, state A attacks state B because B has attacked C. A recent example is the first Gulf War, in which the U.S.-led coalition came to the defense of Kuwait. The U.S.-assisted insurgency against Nicaragua in the 1980s was justified as a defense of El Salvador and other neighboring countries, whose own insurgencies were receiving assistance from the Nicaraguan government. Similar cases, real or pretextual, include U.S. assistance to South Vietnam and South Korea following attacks from the North.

Collective self-defense is a straightforward extension of individual self-defense. It allows states to pool their resources, increasing the ability of a weak victim to resist a strong attacker. However, it raises the pretext problem in a new form. The problem is that the intervener may use the invasion of a neutral as a pretext for its own aggression. Nicaragua made this argument in an Interna-

^{100.} See Glennon, supra note 8, at 2.

^{101.} For various perspectives on this issue, see the essays collected in United States Hegemony and the Foundations of International Law (Michael Byers & Georg Nolte eds., 2003).

^{102.} See Yoo, supra note 15, at 792-94.

^{103.} See John R. Bolton, Under Secretary of State for Arms Control and International Security, The United States and the International Criminal Court, Remarks at the Aspen Institute (Sept. 16, 2002), available at http://www.state.gov/t/us/rm/13538.htm.

^{104.} HOLLY SKLAR, WASHINGTON'S WAR ON NICARAGUA 67-70 (1988).

tional Court of Justice (ICJ) case it brought against the United States for mining its harbors. The ICJ held against the United States, arguing that El Salvador had failed to notify the United Nations that it sought assistance from the United States. This, according to the ICJ, suggested that the United States was using Nicaragua's assistance to the rebels in El Salvador as a pretext for bringing down Nicaragua's Communist government. To again the United States was using the United States was using Nicaragua's assistance to the rebels in El Salvador as a pretext for bringing down Nicaragua's Communist government.

The ICJ's decision is puzzling. Either the United States was defending El Salvador or it was invading Nicaragua. This is a purely factual question, although a hard one. The ICJ should have answered this question, and ruled for the United States in the first case, or for Nicaragua in the second. Requiring notification might have seemed like an attractive way of dealing with the pretext problem, but there is little reason to think that this rule was sensible. If the United States was looking for a pretext, and El Salvador was compliant, then it would be easy enough for the United States to ask El Salvador to file the notice ahead of the invasion. In addition, if collective self-defense was genuine, the ICJ rule, if obeyed, would have prevented nations from obtaining assistance in their self-defense against foreign enemies because of the failure to comply with a formality. This rule is plainly not sustainable.

C. HUMANITARIAN INTERVENTION

The United Nations Charter does not permit states to use force unilaterally in order to effect a humanitarian intervention. Whether the use of force rules should be altered to permit humanitarian intervention without Security Council authorization again depends largely on whether the concern about pretext is serious or trivial. If states pay attention to international law in order to avoid reputational sanctions, and the rest of the world can distinguish pretextual reasons from actual motives, then the use of force rules should permit humanitarian intervention. There is no reason why the altruism of a state should not be permitted to influence its international behavior; a ban on humanitarian intervention would be as senseless as a ban on foreign aid.

The case for banning humanitarian intervention rests on two assumptions: (1) that genuine humanitarian motives for invasion are rare; and (2) that a state can escape reputational sanctions by advancing a pretext for illegal behavior. The first assumption is probably correct, but should not be exaggerated. And even if the first assumption is correct, humanitarian intervention should not be banned unless the second assumption is correct as well. The problem with the second assumption is that there are already plenty of pretexts (such as self-defense or security) for aggressive attacks; it is not clear that providing aggressive states

^{105.} Case Concerning the Military and Paramilitary Activities in and Against Nicaragua (Nicar. v. U.S.), 1986 I.C.J. 14 (Judgment of June 17).

^{106.} Id. at 146.

^{107.} Id. at 133.

^{108.} Cf. Dinstein, supra note 5, at 240 (pointing out the formalistic nature of the requirement).

^{109.} Id. at 66-67.

with a new pretext (humanitarian intervention) would increase their ability to engage in illegal invasions while avoiding reputational sanctions. We see little reason for banning humanitarian interventions.

Conclusion

Our main conclusion is that there are good reasons for allowing preemptive self-defense, possibly without Security Council authorization. Although our judgment on this last point rests on empirical guesses, we can say at least that the strength of the argument for relaxing the imminence rule has increased with time. The potential proliferation of nuclear weapons and certain other weapons of mass destruction to rogue states and state sponsors of terrorism affords a rationale for invading dangerous states sooner rather than later. That the governments of these states often mistreat their own citizens provides an additional reason for preemption. Although one can make a respectable argument for a regime in which preemptive self-defense can be employed only if authorized by the United Nations (the status quo), theory and the history of the United Nations suggest that such a rule may not be adequate because of bargaining failure and collective action problems.

We note once again that we have restricted our discussion to a subset of the disputes governed by *jus ad bellum*, those involving rogue states that threaten socially unproductive acts of aggression. Our rationale for narrowing the scope of our inquiry in this way is that the current era—the post-Cold War era beginning around 1990—seems to be one in which the likelihood of military conflict between major powers is relatively low, and many of the security issues that receive prominent attention involve what we perceive to be rogue states. This situation could change quickly: a war between China and the United States over Taiwan would not fit neatly within our framework; nor would, we think, a war between India and Pakistan over Kashmir. We have no special insights for such conflicts, and leave them for future research.