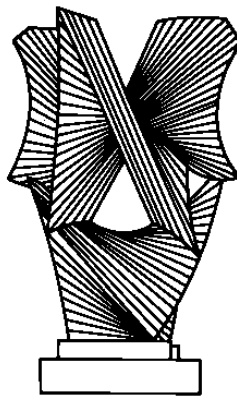


CHICAGO

JOHN M. OLIN LAW & ECONOMICS WORKING PAPER NO. 546
(2D SERIES)



Efficient Breach of International Law: Optimal Remedies, “Legalized Noncompliance,” and Related Issues

Eric A. Posner and Alan O. Sykes

THE LAW SCHOOL
THE UNIVERSITY OF CHICAGO

March 2011

This paper can be downloaded without charge at:
The Chicago Working Paper Series Index: <http://www.law.uchicago.edu/Lawecon/index.html>
and at the Social Science Research Network Electronic Paper Collection.

Efficient Breach of International Law:
Optimal Remedies, “Legalized Noncompliance,” and Related Issues

Eric A. Posner
Alan O. Sykes¹

Abstract

In much of the scholarly literature on international law, there is a tendency to condemn violations of the law and to leave it at that. If all violations of international law were indeed undesirable, this tendency would be unobjectionable. We argue in this paper, however, that a variety of circumstances arise under which violations of international law are desirable from an economic standpoint. The reasons why are much the same as the reasons why non-performance of private contracts is sometimes desirable—the concept of “efficient breach,” familiar to modern students of contract law, has direct applicability to international law. As in the case of private contracts, it is important for international law to devise remedial or other mechanisms that encourage compliance where appropriate and facilitate noncompliance where appropriate. To this end, violators ideally should internalize the costs that violations impose on other nations, but should not be “punished” beyond this level. We show that the (limited) international law of remedies, both at a general level and in certain subfields of international law, can be understood to be consistent with this principle. We also consider other mechanisms that may serve to “legalize” efficient deviation from international rules, as well as the possibility that breach of international obligations may facilitate efficient evolution of the underlying substantive law.

The topic of remedies is one of the most undeveloped areas of international law. No treaty regime governs remedies. The topic receives no more than a few pages in the standard treatises and texts.² Very few international judicial or arbitration opinions outside trade and investment law address remedies,³ and other authoritative sources are equally scarce. Members of the International Law Commission (ILC) drafted a handful of articles addressing remedies—part of a

¹ Kirkland & Ellis Professor of Law, University of Chicago Law School, and James & Patricia Kowal Professor of Law, Stanford Law School. Thanks to Eyal Benvenisti, Oren Bar-Gill, Yoram Margalioth, Ariel Porat, and participants at a workshop at Tel Aviv Law School, for helpful comments, and to James Kraehenbuehl and Greg Pesce for valuable research assistance.

² See, e.g., L. Oppenheim, *International Law: A Treatise* 352–57 (H. Lauterpacht ed., 8th ed. 1955); Peter Malanczuk, *Akehurst’s Modern Introduction to International Law* 269–72 (7th ed. 1997); Lori Damrosch et al., *International Law: Cases and Materials* 713–32 (4th ed. 2001). A popular treatise, Mark Weston Janis, *International Law* (5th ed. 2008), has nothing on remedies. A collection of essays ostensibly about remedies focuses on dispute resolution; see *Remedies in International Law: The Institutional Dilemma* (Malcolm D. Evans ed., 1998).

³ See Malcolm Shaw, *A Practical Look at the International Court of Justice*, in *Remedies in International Law*, *supra* at 26 (the ICJ “has not as yet developed a clear pattern of applicable remedies”).

larger project of describing the customary international law of state responsibility—but states never formally accepted them.⁴

This state of affairs is peculiar. In domestic law, it is a commonplace that one cannot understand a legal right without understanding the remedies for violating that right; a substantial literature on remedies exists; and entire law school courses are devoted to remedies. The topic of remedies in international law thus cries out for analysis.

In our view, the dearth of attention to remedies reflects in large measure the fact that international law is largely self-enforcing, so that the typical “remedy” historically has been a unilateral retaliatory action that was not subject to legal oversight. Formal rules about remedies were largely lacking or meaningless given the absence of such oversight. But this situation has been changing, in part through the creation of the draft rules of the ILC, and in part through the evolution of special remedial principles in areas such as trade and investment. We address these developments in detail, arguing that they uniformly reflect (or can be interpreted to reflect) the underlying logic of “efficient breach”—the principle that compliance is not always efficient, and that deviation from international law should be possible at an appropriate price.

Closely related to the international law of remedies are a number of rules and practices that allow nations to deviate from or to avoid certain treaty commitments “legally.” These include the rules and procedures for withdrawal from treaties (and perhaps from customary international law), and the rules governing reservations in treaties, both of which we discuss from an efficiency perspective.

Finally, we consider situations in which compliance with international law is inefficient because the underlying body of law is inefficient, or because the hope of self-enforcing cooperation is unrealistic. For the first category of cases, we will suggest how “efficient breach” may offer a route toward enhancing the efficiency of the underlying substantive law. In the second, we suggest that universal breach is inevitable and thus justifiable.

We view our analysis as both positive and normative. It is positive in its efforts to explain features of the more detailed remedial rules that have evolved in areas such as international trade and investment. It is normative where it suggests a rationale for deviation from the law in issue areas where the remedial principles are underdeveloped, and where it offers a suggested interpretation of remedial

⁴ International Law Commission, “Draft Articles on Responsibility of States for Internationally Wrongful Acts” (2001) (hereafter, ILC Draft), available at:

http://untreaty.un.org/ilc/texts/instruments/english/draft%20articles/9_6_2001.pdf.

For commentaries on the draft articles, see Draft Articles on Responsibility of States for Internationally Wrongful Acts, with Commentaries (2001) (hereafter, ILC Commentaries), available at: http://untreaty.un.org/ilc/texts/instruments/english/commentaries/9_6_2001.pdf.

principles that are on their surface somewhat vague (such as certain provisions of the draft ILC articles).

The Article proceeds as follows: Section I offers a general theory of “efficient noncompliance” with international law, illustrating key points with examples from various subfields. Along the way, we consider and reject several objections to the analysis. Section II discusses some further illustrations from the law and state practice: we address general remedial principles contained in the draft ILC articles, common practices relating to withdrawals rights and reservations, as well as the remedies or the role for efficient breach in international trade law, investment law, the law of armed conflict, the use of force, and the law of the sea.

I. A Theory of Efficient Noncompliance

We proceed from a functionalist, economic view of international law. International law *per se* has no moral force. It is simply the product of negotiation among bureaucrats and politicians (treaties), or it is a description of empirical regularities in the behavior of nations (customary international law). In either case, an argument for compliance with international law cannot rest merely on its status as “law,” but must rest on a belief that compliance serves some constructive function. In this regard, we adopt a welfarist approach, and suggest that compliance with international law is justified only if compliance promotes national or global welfare, putting aside for the moment the choice between the two conceptions of welfare in the event that they conflict (and they sometimes do).

Although economic analysis of international law is in its infancy outside the field of international trade, the limited work to date suggests two principal ways in which international law may promote welfare.⁵ First, and most commonly, international law can orchestrate cooperation to ameliorate various international externality problems that arise when nations act unilaterally. Second, international law may serve to tie the hands of governments in their relations with domestic interest groups, disabling them from engaging in certain politically expedient but economically wasteful behavior. We elaborate these points below.

To be sure, some bodies of international law may arise for other reasons and may lack a clear welfarist rationale. We see no reason why any nation should comply with such “law” absent some independent normative argument for

⁵ Book-length treatments include Andrew T. Guzman, *How International Law Works: A Rational Choice Theory* (2008); Jack L. Goldsmith & Eric A. Posner, *The Limits of International Law* (2005); Eric A. Posner, *The Perils of Global Legalism* (2009); Robert E. Scott & Paul B. Stephan, *The Limits of Leviathan: Contract Theory and the Enforcement of International Law* (2006); Joel P. Trachtman, *The Economic Structure of International Law* (2008); and Eric A. Posner & Alan O. Sykes, *Economic Foundations of International Law* (forthcoming 2011).

compliance.⁶ But even when international law *does* have a welfarist rationale, it does not follow that compliance with the law is always desirable. This section develops the reasons why, and addresses various possible objections to them.

We wish to be clear that the absence of a welfarist justification for compliance with international law does not necessarily imply that nations should act in a manner contrary to international law. The conduct required by international law may have independent justification of a moral, economic or other nature. The conduct required by international law may also be required by domestic law. We are in no way advocating that nations disregard domestic law or act in a way that is morally unacceptable. Our point is a narrower one—in the absence of a welfarist justification for compliance with international law, international law *per se* becomes irrelevant to the question of how nations should act.

A. The Welfarist Perspective on International Law

Existing economic commentary suggests that most international law typically serves to promote global welfare by addressing various types of international “externalities.”⁷ The fundamental inefficiencies that arise from international externalities are the same across a wide range of policy areas. In particular, imagine some policy sphere in which the policy choices of nations have consequences for the welfare of other nations. Assume that governments are responsive to the interests of their own constituents in formulating policy, but generally ignore the consequences of their policies for foreigners, who are unrepresented (or poorly represented) in the domestic political process. This is a standard assumption in the economic and political literature regarding international relations and institutions.⁸ Under this assumption, when national governments choose their policies unilaterally (also termed “non-cooperative” or “Nash equilibrium” policy choices), they will tend to select policies such that their marginal benefits are equal to their marginal costs (perhaps in political rather than conventional economic terms) from a *national* perspective. It follows that if these policies impose net costs on other nations, those policies will tend to arise to an economically excessive extent (from a global perspective) because the harm to other nations does not factor into the

⁶ Some international law may be nothing more than rhetoric for domestic or international political consumption, for example, or may reflect the pursuit of illicit objectives by governments.

⁷ See, e.g., Goldsmith & Posner, *supra* at 45–78 (analyzing how customary international law reduces externalities related to wartime maritime commerce, the breadth of the territorial sea, and ambassadorial immunity, among others); Alan O. Sykes, *International Law*, in *Handbook of Law and Economics*, Vol. I (A. Mitchell Polinsky & Steven Shavell eds., 2007); Eric A. Posner, *International Law: A Welfarist Approach*, 73 *U. Chi. L. Rev.* 487, 518–22 (2006) (analyzing the customary international law of state succession).

⁸ See, e.g., Sykes, *International Law*, *supra*; Kyle Bagwell & Robert W. Staiger, *The Economics of the World Trading System* (2002).

decision-making calculus—if the marginal benefits of a policy are equal to the marginal costs from a national perspective, the marginal benefits will be less than the marginal costs from a global perspective. The opposite problem emerges when policy choices confer net benefits on other nations.

Under these circumstances, a role for international law emerges. International law allows nations to move from the inefficient non-cooperative (Nash) policy equilibrium toward an efficient “cooperative” equilibrium in which nations behave as if they are “internalizing” the externality imposed on other nations. Ideally, policy choices pursuant to international law will be made such that the marginal costs are commensurate with the marginal benefits from a *global* perspective. Actions that harm other nations in Nash equilibrium will be curtailed, while actions that benefit other nations in Nash equilibrium will be encouraged. And because global welfare increases, it is possible for each nation to enjoy an increase in its welfare as well, although there is no guarantee that each nation benefits individually in the absence of some “side payment” mechanism to redistribute the surplus from globally efficient policies.⁹

This line of analysis affords a compelling explanation for many aspects of international law. Consider, for example, agreements to liberalize international trade such as the General Agreement on Tariffs and Trade (GATT) and its successor the World Trade Organization (WTO). When governments establish tariff policies in Nash equilibrium, they take account of the domestic costs and benefits of tariffs (in a political sense¹⁰), but ignore the impact that their tariffs have on the prices received by foreign exporters. If nations are large enough that the reduction in their demand for imports following a tariff increase reduces the prices received by foreign exporters (as is often the case), then tariffs create a negative externality.¹¹ As a

⁹ In general, we refer to a rule of international law as more efficient than an alternative rule if it produces gains for some states that are greater than the losses for others. Our concept of efficiency is thus Kaldor–Hicks rather than Paretian. But international law is plainly subject to participation constraints – nations will not accede to it unless they expect direct gains or gains on some broader set of issues. Accordingly, international law is sometimes accompanied by side payments to ensure that all nations benefit enough to accept the rules. Side payments can be monetary but will perhaps more often take the form of concessions on other issues. For example, the developing world might agree to protect the intellectual property rights of companies in developed countries in exchange for improved access for their textile exports in the markets of developed countries, a story that is often told about the genesis of the WTO Agreement on Trade-Related Intellectual Property Rights (TRIPs). See, e.g., Suzanne Scotchmer, *The Political Economy of Intellectual Property Treaties*, 20 *J.L., Econ. & Org.* 415, 422–26 (2004).

¹⁰ To be sure, this political calculus may not correspond to a traditional economic welfare calculus – it is often assumed that producer welfare receives greater political weight than consumer welfare in the formulation of trade policy, for example.

¹¹ The externality is “pecuniary” because it travels through market prices, but is nevertheless a source of inefficiency because it arises in an environment that is not characterized by perfect competition – the presence of nations that are large enough to influence prices on world markets implies the presence of monopsony power.

result, Nash equilibrium tariffs will tend to be too high from the standpoint of global (political) efficiency, and a role emerges for trade agreements that reduce tariffs toward the politically efficient level.¹²

Environmental agreements afford an illustration of international legal arrangements to encourage policies that confer net benefits on other nations. For example, scientists determined some decades ago that the emission of chlorofluorocarbons into the atmosphere causes a diminution in the ozone layer, which, among other things, protects the surface of the Earth from harmful ultraviolet radiation. If an individual nation curtailed chlorofluorocarbon emissions unilaterally, however, it bore the costs of that curtailment, while the benefits inured to all nations. Accordingly, emissions abatement was inadequate from a global perspective when nations acted unilaterally. The solution to the problem was the Montreal Protocol on Substances that Deplete the Ozone Layer, which required its signatories to eliminate harmful emissions over time.¹³

Many other examples can be offered. Aspects of the law of war, such as the rules requiring humane treatment of prisoners, can be understood as enhancing global welfare by lowering the costs of war. They require nations to expend resources that would likely not be expended in Nash equilibrium because the captors bear the costs but the captives receive the benefits. International refugee law can be understood as a mechanism for encouraging nations to bear the costs of accommodating refugees when the benefits flow in substantial measure to the refugees and to other nations that value their humane treatment because of altruism.¹⁴ In each of these cases and many others, international law emerges to promote global welfare by ameliorating the inefficiencies produced by some externality. All nations can benefit when compliance with the law is reciprocated by other nations.¹⁵

¹² The classic exposition is Harry G. Johnson, *Optimum Tariffs and Retaliation*, 21 *Rev. Econ. Stud.* 142, 142 (1953). Johnson assumed that all nations maximize national economic welfare conventionally defined (national income). More recent work emphasizes that the same class of problems arises when national governments have other maximands that incorporate different “political economy weights” for various interest groups. See, e.g., Gene M. Grossman & Elhanan Helpman, *Trade Wars and Trade Talks*, 103 *J. Pol. Econ.* 675, 677–79 (1995); Bagwell & Staiger, *supra*.

¹³ See United Nations Environment Programme, *Ozone Secretariat*, available at http://ozone.unep.org/Publications/MP_Handbook/Section_1.1_The_Montreal_Protocol/.

¹⁴ See Michael Kremer, David Levine & Ryan Bubb, *The Economics of International Refugee Law*, 39 *J. Legal Stud.* (forthcoming 2011).

¹⁵ As noted *supra*, however, an increase in global welfare need not translate into a benefit for every nation absent a side payment mechanism. Accordingly, nations that do not benefit may be tempted to opt out of the legal order. The modern breakdown in aspects of the international refugee system, for example, may be understood as a consequence of the fact that some nations are bearing disproportionate costs in relation to the benefits they receive. *Id.*

Although international cooperation in the face of externality issues affords an explanation for much of international law, it is not the only explanation. Another account of international law suggests that it may at times facilitate *domestic commitments* that governments cannot make credibly otherwise. The international trade realm again provides an illustration. Suppose that a government wishes to encourage investment in industries that are competitive in world markets, and to discourage investment in industries that are not likely to be competitive in the long run. Such a policy will tend to enhance national welfare by allocating resources where they can earn the greatest returns. Suppose the government knows, however, that in the event of an economic shock to an inefficient, import-competing industry, it will face irresistible political pressure to afford trade protection to that industry. Firms in that industry, in turn, know that the government will protect them in the event of an economic shock, and so investors continue to invest in the industry. To create its desired investment incentives, therefore, such a government may wish to make a credible commitment to act against its short-term political interests in the event of a shock that would ordinarily beget protectionist measures. Conceivably, an international agreement might achieve this objective—if the government agrees to eschew trade protection under penalty of a substantial international sanction should it behave otherwise, its commitment may become credible.¹⁶

A similar rationale might be offered for some bilateral investment agreements. Many of these agreements involve small developing countries, and it is perhaps implausible that their demand for imported capital can affect the global price of capital. If so, the investment policies of small developing countries may have no international externalities. Nevertheless, such countries may benefit from the opportunity to lower their own cost of imported capital by making investment in their countries less risky. A bilateral investment treaty typically commits these countries to principles of nondiscrimination, to minimum standards of international law in the treatment of investors, and to fair compensation for any investment that is expropriated. These commitments are enforceable by private rights of action before established international arbitration organizations (such as ICSID and UNCITRAL). Bilateral investment treaties may thus allow developing countries to

¹⁶ See Giovanni Maggi & Andres Rodriguez-Clare, *The Value of Trade Agreements in the Presence of Political Pressures*, 106 *J. Pol. Econ.* 574, 576 (1998) (arguing that “in the short run the government is fully compensated . . . for the distortions caused by protection, whereas in the long run the government does not get compensated for the distortion in the allocation of capital”); Robert W. Staiger & Guido Tabellini, *Do GATT Rules Help Governments Make Domestic Commitments?*, 11 *J. Econ. & Pol.* 109, 127–33 (1999) (finding that GATT rules helped the United States government make domestic trade policy commitments that would have otherwise been impossible during the “Tokyo Round” from 1974–79). This explanation for trade agreements may not be entirely convincing, however, given that most of them allow nations to renegotiate commitments or to “escape” from them in the face of protectionist pressures. See GATT Article XIX (the “escape clause”); Article XXVIII (general authority for renegotiation of tariffs).

make credible commitments to potential domestic (foreign direct) investors regarding the security of their investments, lowering risk and thus the risk premium attached to imported capital.¹⁷

As a final illustration, the leaders of some nations may be concerned about the stability of their regimes and thus about the permanency of their policies. They may wish to “lock in” certain policies against change in the future by making international commitments to adhere to them. Once again, the goal is not to address international externalities, but to make commitments regarding future conduct that are difficult to alter—in this case, as a hands-tying device constraining successor governments. Precisely such an analysis has been offered to explain why emerging democracies in Europe may have been quick to accede to certain human rights treaties that are enforceable in European courts.¹⁸

In sum, international law may have a welfarist foundation for two types of reasons—it may promote mutually beneficial cooperation to address international externalities, and it may enable governments to make valuable domestic commitments. Indeed, we suspect that most international law fits into one of these two categories.

Nevertheless, we cannot rule out the possibility that some aspects of international law may lack a solid welfarist foundation. The reason is quite simple—because international law is the product of interaction among governments, it must be understood to maximize, in a rough sense, the welfare of the political officials who create it. Often, the objectives of these actors will map reasonably well into principled notions of the public welfare and, in the case of democracies such as the United States, will at least possess democratic legitimacy. One cannot rule out the possibility, however, that some governments may pursue objectives that are at odds with any principled conception of welfare. Such a claim is frequently made in debates about the doctrine of odious debt, which releases countries from public debts incurred by previous governments nominally for public projects but in fact for the purpose of enriching corrupt officials.¹⁹ Within our analytic framework, the

¹⁷ See Zachary Elkins, Andrew Guzman & Beth Simmons, *Competing for Capital: The Diffusion of Bilateral Investment Treaties 1960–2000*, 2008 U. Ill. L. Rev. 265, 277 (arguing that bilateral investment treaties enable governments to “make a credible commitment to treat foreign investors fairly . . . by (1) clarifying the commitment, (2) explicitly involving the home country’s government, and (3) enhancing enforcement”); Alan O. Sykes, *Public Versus Private Enforcement of International Economic Law: Standing and Remedy*, 34 J. Legal Stud. 631, 654–62 (2005) (arguing that a private right of action for compensatory damages can signal to firms that investments will be free from government interference).

¹⁸ See Andrew Moravcsik, *Explaining International Human Rights Regimes: Liberal Theory and Western Europe*, 1 Eur. J. Int’l Rel. 157, 159 (1995) (arguing that some “governments . . . employ international human rights regimes to strengthen their own democratic systems”).

¹⁹ See Sarah Ludington & Mitu Gulati, *A Convenient Untruth: Fact and Fantasy in the Doctrine of Odious Debts*, 48 Va. J. Int’l L. 595, 607–37 (2008) (arguing that the original proponent of the odious

absence of a welfarist foundation for the body of international law at issue undercuts any case for compliance although, as noted, we suspect that such instances are uncommon.

More important, the mere fact that a body of international law has a plausible welfarist foundation is not a sufficient condition for compliance with the law to promote welfare. We now consider the scenarios in which compliance is unwarranted.

B. Scenarios for Efficient Noncompliance

1. Overview

International law is in essence a contract among nations, sometimes an explicit contract (treaties) and sometimes an implicit contract (customary international law). Just as private contracting parties generally benefit from mutual performance of their obligations, nations generally benefit from the performance of obligations under international law. But also as in the case of private contracts, performance of obligations is not always desirable and should not always be required. In domestic contract law, two such cases arise. First, when the promisor commits a “material” or serious breach, the promisee has the right not to perform an obligation that is simultaneously or subsequently due.²⁰ Second, when contracts fail to address a contingency that increases the cost of performance beyond its value for the other party, the promisor normally has the right to pay damages rather than perform. Both rules have foundations in efficiency. The right not to perform in response to a material breach avoids the dissipation of resources that would otherwise be invested in anticipation of the other party’s performance, and gives the victim leverage against a judgment-proof promisor, improving the latter’s incentive to perform.²¹ The right to pay damages rather than perform permits the promisor to avoid inefficient performance.²²

In international law, analogous arguments can be made. First, when a state breaches an obligation, the victim state may have the right to retaliate by breaching its own obligations. This right can reduce the victim’s loss, and allows the victim to

debts doctrine sought to appease both the new Soviet government in his homeland and contemporaries in Paris after he emigrated to France).

²⁰ See Restatement (2d) of Contracts § 237 (1981) (“Except as stated in § 240, it is a condition of each party’s remaining duties to render performances to be exchanged under an exchange of promises that there be no uncured material failure by the other party to render any such performance due at an earlier time.”).

²¹ See Richard R.W. Brooks & Alexander Stremitzer, Remedies On and Off Contract, 120 Yale L.J. (forthcoming 2011) (discussing incentive effects of rescission remedies).

²² See Steven Shavell, Damage Measures for Breach of Contract, 11 Bell J. Econ. 466, 470 (1980). Of course, renegotiation is a possible option in this regard as well, as we discuss below.

inflict a sanction on the violator. Indeed, the right to retaliatory breach is even more important than in domestic contract law because it may be the only realistic remedy, and thus the only motivation for nations to comply with commitments. Second, treaties, like contracts, do not address all future contingencies; when contingencies increase the cost of performance above the other party's valuation of performance, breach is efficient.

Before turning to our argument in more detail, we should clear up a possible misunderstanding about nomenclature. In international law (as in domestic contract law), "noncompliance" is not the same as illegality. If a party injured by a breach of international law thereafter itself "breaches" as a form of justified retaliation, the "breach" should not be viewed as a violation of the law (although commentators may at times so characterize it). Indeed, in contract law the promisee's obligation to perform is often conditional on promisor's prior or simultaneous performance; thus, if the other party fails to perform, the first party has no obligation to perform and hence does not "breach" by failing to perform. This doctrinal formulation could be applied to international law as well.

There is more confusion surrounding the issue of efficient breach. An efficient breach may be viewed as a breach of contract and a violation of the law. Yet, some scholars also believe that contract law gives the promisor the option to perform or pay damages, and that one does not violate the law by "breaching" and paying damages.²³ In international law, one could similarly say that efficient breach of a treaty, when one thereafter accepts the agreed consequences of the violation, is either noncompliance or compliance with the law. In the case of WTO law, for example, a lively debate exists over whether a state that violates WTO rules and thereafter accepts authorized retaliation is in violation of international law or not.²⁴ Nothing of substance turns on this question in our view, and more broadly, nothing turns on whether an efficient breach is characterized as legal or illegal.

2. Noncompliance for the Purpose of Retaliation

In the domestic legal system, third-party enforcers exist to compel the performance of legal obligations. If a party to a contract refuses to perform, for

²³ The locus classicus of this view is Oliver Wendell Holmes. See O.W. Holmes, *The Path of the Law*, 10 Harv. L. Rev. 457, 462 (1897) ("The duty to keep a contract at common law means a prediction that you must pay damages if you do not keep it, — and nothing else.").

²⁴ The suggestion that the WTO dispute settlement system is designed to facilitate efficient breach is found in Warren F. Schwartz & Alan O. Sykes, *The Economic Structure of Renegotiation and Dispute Settlement in the World Trade Organization*, 31 J. Legal Stud. 179, 192 (2002) (arguing that the framers of the WTO "framed a dispute resolution system designed to facilitate efficient breach"). Subsequent legal and economic literature debating this claim is reviewed in Alan O. Sykes, *The Dispute Resolution Mechanism: Ensuring Compliance?*, in *Oxford Handbook of the WTO* (Amrita Narlikar et al., eds., forthcoming.)

example, the other party may bring an action for damages or specific performance depending on the circumstances. If that party is successful, the state can seize the assets of the breaching party to satisfy a damages judgment, or issue an injunction requiring performance backed by a threat of imprisonment should the breaching party ignore the injunction. The economic theory of contracts suggests that contracting parties rationally participate in this system because it makes their contractual promises credible and facilitates greater mutual gains.²⁵

In contrast, third-party enforcement rarely exists for international law. The United Nations may occasionally authorize a multilateral use of force to address situations that may violate international law, but such occasions are rare. And although numerous aspects of international law are subject to international adjudication (such as in WTO tribunals and the International Court of Justice), those adjudicators have no powers beyond the capacity to issue a ruling. They cannot seize assets or order the use of force against non-compliant parties. If a party in violation of international law is to suffer a meaningful sanction (aside from any damage to its “reputation,” a matter that we discuss below), the sanction must take the form of countermeasures imposed by another nation or nations.

Thus, international law must be “self-enforcing,” meaning that its enforcement relies on the parties subject to international law rather than on third-party enforcement.²⁶ Absent third-party enforcement, nations will tend to comply with international law only if compliance is in their self-interest. Nations may find compliance to be in their self-interest for three types of reasons: First, international law may simply require them to behave as they would prefer to behave anyway. Signatories to human rights treaties, for example, may obey their requirements due to a domestic consensus on the pertinent issues that is already embodied in domestic law. Second, although we doubt its importance for transparent democracies such as the United States (see below), nations may comply to maintain their “reputations” as good international actors.²⁷ Finally, and most important for present purposes, nations may comply even if, other things being equal, they would benefit from deviating, because deviation on their part can lead to deviation by other nations in retaliation. This incentive for compliance requires that the costs of retaliation by others outweigh the benefits of deviation.

This third type of environment is, in economic terms, a repeated prisoner’s dilemma. In its simplest representation, two players (nations) each choose between

²⁵ See, e.g., Steven Shavell, *Foundations of Economic Analysis of Law* 291–324 (2004).

²⁶ The classic paper is Lester Telser, *A Theory of Self-Enforcing Agreements*, 53 *J. Bus.* 27, 27 (1980) (arguing that “no third party intervenes to determine whether a violation has taken place” and that “the only recourse of the other party is to terminate the agreement after he discovers the violation” in a self-enforcing agreement).

²⁷ See Guzman, *How International Law Works*, *supra*.

two strategies—cooperation and defection—without the capacity to make binding strategic commitments to each other in advance. The dominant strategy in a single play Nash equilibrium is defection, but when both parties defect they are worse off than they would be if both parties cooperated. It is well known in game theory that cooperation can sometimes be sustained in a repeated play of the game, however, through strategies in which each player engages in cooperation as long as the other player does the same, and in which each player punishes defection by the other party with reciprocal defection in future periods. Such strategies can sustain cooperation as long as the game has no fixed endpoint (which results in “unraveling”), and as long as players do not discount the future too heavily (so that the short term benefits of defection outweigh the long term costs of reciprocal defection).²⁸ The task of sustaining cooperation has also been studied experimentally, most famously in a study by Robert Axelrod, which concluded that the “tit for tat” retaliation strategy does a pretty good job of discouraging defection.²⁹

The prisoner’s dilemma structure characterizes much of the cooperative behavior that international law seeks to orchestrate.³⁰ In standard economic models of trade agreements, for example, nations agree to lower their tariffs below their unilaterally preferred (Nash equilibrium) levels in exchange for reciprocal tariff reductions by other nations. It follows that, holding constant the behavior of other nations, each nation would prefer to breach the agreement and raise their tariffs. They do not do so in a successful agreement only because such behavior would lead other nations to breach their tariff commitments as well, returning the world to Nash equilibrium tariffs and foregoing the mutual benefits of cooperation.³¹

As another example, international law respecting the humane treatment of prisoners of war arguably addresses a prisoner’s dilemma. Each warring nation cares about the treatment of its own soldiers in captivity, but has much less concern for enemy soldiers. Nevertheless, each nation will treat enemy soldiers humanely as long as that treatment is reciprocated.

Where the function of international law is to orchestrate cooperation in the face of a prisoner’s dilemma, it is vital to the preservation of cooperation over time that nations make a credible threat to punish deviation from the rules by other nations. Often, the most plausible threat is reciprocal deviation (although, as we

²⁸ E.g., Eric Rasmusen, *Games and Information: An Introduction to Game Theory* (1989).

²⁹ Robert Axelrod, *The Evolution of Cooperation* (1984).

³⁰ Of course, not all forms of international cooperation involve prisoner’s dilemmas. Some treaties solve coordination games. In coordination games, no sanction for deviation is necessary because no one ever deviates. Examples include treaties that establish technical standards for interstate communication and transportation. If one state deviates from these standards, it loses the capacity to interact with other states, and therefore will not deviate. See Goldsmith & Posner, *supra* at 32–35.

³¹ Bagwell & Staiger, *supra*.

discuss later, other possible threats may be available and may be preferred). Likewise, when cooperation fails, threats of reciprocal deviation must sometimes be carried out to maintain credibility.

This observation suggests an important reason for noncompliance with international law—to retaliate for noncompliance by other nations. Indeed, noncompliance for the purpose of retaliation is not only acceptable from a welfarist perspective, but is essential—without it, the cooperation that international law seeks to achieve may collapse altogether.

The international trading system again provides a useful illustration. Article XXIII of the GATT, negotiated in 1947, provides that the GATT membership may authorize retaliatory measures for breach of the Agreement. Early in the history of GATT, however, the practice evolved that all decisions must be made by consensus—a voting rule requiring unanimity. The consequence of the consensus rule was that punishment for breach could only be authorized by the membership if the breaching party agreed to it! As a result, sanctions for breach were only authorized one time in the history of GATT, in a very early case involving the Netherlands. Yet, the GATT system held together quite well until its replacement by the WTO in 1994—tariffs came down steadily and nations by and large adhered to their tariff (and other) commitments.³²

How did cooperation under GATT sustain itself in the absence of any realistic capacity of the membership to authorize sanctions for breach? The answer, in substantial part, is that nations punished violations unilaterally. Nations aggrieved by a breach of the agreement would object and retaliate in various ways if the breaching party did not cure its misconduct. Often, the retaliation would include the revocation of commitments under GATT (such as tariff reductions), chosen to impose costs on the breaching party.³³

To be sure, unilateral retaliation, whether in the form of reciprocal noncompliance with the law or some other punishment, is not a perfect mechanism for encouraging compliance with international law. Retaliation itself may be costly and consume resources. Further, in the absence of an adjudicative mechanism to rule on the existence of violations, disputes may arise over their existence and unilateral retaliation may become destabilizing as nations “take the law into their own hands.” Likewise, for reasons that we explore further below, it may be important to calibrate the punishment for deviation so that it is neither too high nor too low; a system with unilateral retaliation may run the risk that retaliation becomes excessive. Indeed, these considerations were important factors in the

³² See John H. Jackson, William J. Davey & Alan O. Sykes, *Legal Problems of International Economic Relations: Cases, Materials and Text*, chs. 2 and 5 (3d. ed. 2008).

³³ See, e.g., Alan O. Sykes, *Constructive Unilateral Threats in International Commercial Relations: The Limited Case for Section 301*, 23 *Law & Pol’y Int’l Bus.* 263, 269–91 (1992).

development of the WTO dispute resolution system, which replaced the GATT system in 1994, and now affords a mechanism for centrally authorized retaliation at a level that is subject to binding arbitration.³⁴

The WTO system thus illustrates how international law may evolve toward “legalizing” retaliation by establishing rules concerning when and to what extent it can be employed. After the advent of the WTO, punishment for breach is now authorized under WTO law, and no longer represents reciprocal “noncompliance.”

For many areas of international law, however, nothing comparable to the WTO dispute settlement system is available. In some contexts, no adjudicative body exists to assess the existence of a breach of international law (or none to which all parties will submit themselves). In other contexts, even if a ruling on the existence of a violation is obtainable, a mechanism for authorizing sanctions or retaliation is absent. The preeminent international court, the International Court of Justice, has no enforcement mechanism and nations can (and do) defy its rulings or withdraw from it in order to avoid its jurisdiction.³⁵ The International Criminal Court, the most recently established international court, also has no enforcement mechanism and must depend on member states to arrest, detain, and imprison defendants. As a consequence, formal noncompliance with some aspect of international law may become the best option for addressing violations of international law by other nations. We will offer various examples where this situation arises in Section II.

3. Efficient Breach and Legal Evolution

In private contracts, a range of contractual clauses excuse performance under contingencies where the costs may exceed the benefits—*force majeure*, acts of war, and the like. Similarly, both the common law and statutory law of contracts excuse performance when the costs become prohibitive or the premises that underlie the bargain prove wrong, through doctrines addressing, *inter alia*, mistake, impossibility, and commercial impracticability (under the UCC). But despite the best efforts of contracting parties, courts and the drafters of statutes such as the UCC, contingencies may arise in which performance is more costly than it is worth yet is not excused by any contractual clause or background rule of contract law. Contract scholars thus recognize that opportunities can arise for “efficient breach.” This possibility offers a classic argument for expectation damages,³⁶ which in principle place the aggrieved promisee in the position that the promisee would have enjoyed had performance occurred. If the promisor prefers to compensate the promisee for

³⁴ This is the core argument in Schwartz & Sykes, *supra* at 200–03.

³⁵ See Posner, *Perils*, *supra* at 134–49.

³⁶ Shavell, *Damage Measures*, *supra* at 475.

the lost value of performance rather than to perform the contract, breach is by definition efficient.³⁷

International law must confront the same set of issues. Contingencies may arise in which the costs of compliance to some nations will exceed the benefits of compliance to others. If the law at issue is quite simple and has become inefficient in its entirety, it may suffice for nations simply to withdraw from it—formal “breach” may not be necessary. Often, however, international law is complex and addresses many issues. Much of the law may remain efficient, and only some small part of it may have become inefficient. In such situations, the challenge is to permit deviation from the part that has become inefficient while preserving the gain from cooperation on other issues—efficient breach may be the best option. A similar situation arises when the circumstances that warrant deviation from the law are temporary. Here, the ideal outcome involves temporary deviation followed by eventual restoration of full cooperation under the original legal rules. Temporary efficient breach may again be the best option. In yet another class of situations, a body of law may become permanently inefficient, but the mechanism for withdrawal or renegotiation may be quite costly. Here, efficient breach may become the engine of efficient legal evolution. Finally, scenarios may arise in which international rules require behavior that no other nation cares about. If so, deviation from those rules is again efficient.

International trade law provides a useful illustration of the first two situations. The modern theory of trade agreements posits that governments negotiate trade liberalization to the point that further liberalization would impose political costs that exceed the benefits.³⁸ But this calculus depends on assumptions about the general state of the economy, assumptions that may prove incorrect following various economic shocks. Some shocks will result in substantially greater political pressure to impose trade protection in particular industries, to the point that negotiated commitments for liberalization may become more burdensome to the promisor than beneficial to the promisee, sometimes temporarily and in other cases permanently. In such instances, it is efficient to allow nations to retract their commitments.³⁹ Because typical trade treaties address trade policies respecting literally thousands of goods, however, as well as service sectors, investment matters and intellectual property rights, it does not make sense for nations to withdraw

³⁷ We recognize that expectation damages are an imperfect mechanism in this regard given the existence of measurement errors and litigation costs. The same types of problems arise under international law, as we discuss below.

³⁸ Trade agreements thus tend to be “politically efficient.” Bagwell & Staiger, *supra*. The caveat is that political efficiency may not always be attainable because of limits on the viability of self enforcement. *Id.*

³⁹ As noted earlier, “efficiency” here must be understood as political efficiency from the perspective of affected governments, which need not correspond to economic welfare traditionally defined.

from trade treaties in response to these shocks. Instead, mechanisms must be found to permit the adjustment of particular commitments that have become inefficient (whether temporarily or permanently), while preserving the many commitments that remain valuable. Likewise, in a multilateral trade treaty, compliance with some rule may be efficient for all but one or two nations.

WTO law indeed contains mechanisms for the retraction of individual commitments by individual trading nations in the face of political shocks. For example, GATT Article XIX (sometimes termed the GATT “escape clause”) as elaborated by the WTO Agreement on Safeguards, permits nations to revoke their tariff commitments temporarily in industries that are seriously injured by import competition—a marker for circumstances in which the political pressure for trade protection is likely to be intense.⁴⁰ Member nations can also renegotiate their tariff commitments permanently pursuant to GATT Article XXVIII.

Just as with private contracts, however, the set of contingencies in which WTO law authorizes deviation from commitments may not cover all the contingencies in which deviation is efficient. Consider, for example, the long-running dispute between the United States, Canada and Europe over a European prohibition on the importation and sale of hormone-treated beef, a prohibition that was adjudged to violate WTO law.⁴¹ Existing mechanisms for adjusting the WTO bargain do not permit Europe to maintain the ban (without suffering retaliation or otherwise compensating affected trading partners). A renegotiation of tariffs, for example, does not allow a nation to maintain a ban on a particular type of beef—in all likelihood it would merely allow Europe to negotiate for a non-discriminatory tariff increase on all beef.⁴² Should Europe instead attempt to create a new tariff classification for hormone-raised beef, and raise the tariff above its prior level, it would have to compensate the United States and Canada or bear retaliation, which of course is the situation it confronts when it violates WTO law presently. Likewise, the “escape clause” option to impose trade protection in an industry seriously injured by import competition cannot save the regulatory ban either—the European beef industry may not qualify for relief under the standards of the GATT escape clause, and even if it did trade protection would have to be imposed against all

⁴⁰ See Alan O. Sykes, Protectionism as a “Safeguard”: A Positive Analysis of the GATT “Escape Clause” with Normative Speculations, 58 U. Chi. L. Rev. 255, 284 (1991).

⁴¹ For the current state of play in this seemingly never-ending dispute, see World Trade Organization, Measures Concerning Meat and Meat Products (Hormones), http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds26_e.htm (last visited Feb. 23, 2011).

⁴² Of course, nations could always in principle renegotiate the legal rules that cause a policy to be in violation of the law. Given the size of the WTO membership (now over 150 nations) and the challenges of reaching agreement with such large numbers, however, this type of renegotiation is rarely a viable option in the WTO and, as we argue below in the text, is often unrealistic in international law more generally.

imported beef, hormone-treated or not.⁴³ Options for “legalized” deviation may thus be quite unsatisfactory from the European perspective. Yet, if the political pressure in Europe to maintain the hormone-treated beef prohibition is sufficiently intense—an intensity that is perhaps reflected in nearly a quarter century of this intransigent dispute—it is entirely conceivable that European officials benefit more from retaining the ban than officials abroad are harmed. The most efficient option may then be for Europe to violate the law (as it has for many years).

To be sure, the identification of circumstances where breach is efficient can be difficult. In the law of private contracts, the problem is addressed in large measure by requiring the breaching promisor to put her money where her mouth is—the promisor must pay expectation damages. WTO law contains a crudely similar mechanism. A WTO member that maintains a measure that has been ruled in violation of WTO law will, in the absence of negotiated settlement of the dispute, eventually become subject to retaliation in the form of a suspension of trade concessions “substantially equivalent” to the violation.⁴⁴ The substantial equivalence standard is subject to binding arbitration when a dispute arises over the magnitude of retaliation (the hormones case has indeed been through this arbitration process).⁴⁵ By requiring violators to pay a price tied to the harm suffered by trading partners, the WTO system can be viewed as a rough analog to an expectation damages system, making breach costly but not prohibitively so, and thereby facilitating breach when compliance is too costly.⁴⁶

An alternative to a system designed to permit efficient breach is to require a nation seeking to deviate from international law to secure the permission of affected nations—in effect, a requirement that they renegotiate international law and obtain a modification or waiver. In principle, renegotiation is another mechanism to determine whether a party that wishes to deviate from an agreement can do so and compensate the losers while still remaining better off. Indeed, some critics of the damages remedy in private contract law argue that renegotiation following decrees of specific performance may better identify situations where breach is actually efficient.⁴⁷ Whatever the merits of this suggestion for the case of private contracts,

⁴³ See WTO Agreement on Safeguards Art. 2(2).

⁴⁴ WTO Dispute Settlement Understanding (DSU), Art. 22(4). The standard under the Agreement on Subsidies and Countervailing Measures (SCMs) is, arguably, slightly different. WTO SCMs Agreement, Arts. 4.10, 7.9.

⁴⁵ See DSU Art. 22.6.

⁴⁶ See Schwartz & Sykes, *supra* at 180–83; Alan O. Sykes, *The Dispute Settlement Understanding: Ensuring Compliance?*, in *Oxford Handbook of the WTO*, *supra*. A formal treatment of WTO retaliation as an efficient breach mechanism may be found in Gene M. Grossman & Alan O. Sykes, “Optimal” Retaliation in the WTO: A Commentary on the *Upland Cotton* Arbitration, *World Trade Rev.* (forthcoming 2011).

⁴⁷ E.g., Alan Schwartz, *The Case for Specific Performance* 89 *Yale L.J.* 271, 277 (1979) (arguing that “damage awards actually are undercompensatory in more cases than is commonly supposed; the fact

however, it is not always plausible in international law. It is most plausible in the case of bilateral treaties covering a narrow range of issues. But for complex treaties addressing a wide range of issues affecting many interest groups, and for multilateral treaties involving large numbers of nations, renegotiation can be extremely costly and subject to holdup problems.⁴⁸ If so, it may not represent a viable alternative to efficient breach.

Another scenario in which efficient breach may be valuable, as noted above, concerns situations in which simple withdrawal from an inefficient legal regime, or renegotiation of the rules, is quite costly or impossible. Then, a period of formal noncompliance with the law may be necessary to facilitate efficient legal evolution.

Here, customary international law provides a useful illustration. In principle, everyone recognizes that customary international law can “evolve” as practices change, but it is generally understood that customary international law evolves only when a consensus of nations recognizes the evolution.⁴⁹ Sometimes, when nations agree that customary international law is inadequate or defective, they will send delegates to a convention and create a multilateral treaty to supplement or change customary international law. But this process is costly, and these treaties are subject to the same holdup problems that other multilateral treaties are. Accordingly, this type of “renegotiation” is not always viable, and the law may instead evolve toward efficiency through a process by which some nations deviate and others later mimic the deviations.

As an example, consider the evolution of rules governing sovereign immunity.⁵⁰ In the nineteenth and early twentieth century, sovereign immunity meant that national courts would not entertain a lawsuit against a foreign sovereign.⁵¹ This norm presumably ensured that private litigation would not cause frictions between nations and interfere with peaceful relations. Although individuals would lose some legal protection, this may have been justified by the need to maintain good foreign relations, with each nation benefiting from the restraint of other states.

of a specific performance request is itself good evidence that damages would be inadequate; and courts should delegate to promisees the decision of which remedy best satisfies the compensation goal”).

⁴⁸ Thus, for example, GATT Article XXVIII, provides that nations that fail to renegotiate their tariff commitments successfully are nevertheless allowed to withdraw them anyway subject to measured retaliation that is itself subject to binding arbitration. This mechanism may be understood as a response to what would otherwise be an acute holdup problem.

⁴⁹ See Restatement (Third) of Foreign Relations Law § 102 (1987).

⁵⁰ For a historical account, see Bradley & Gulati, *supra* at 226–33 (detailing how nations shifted from an absolute view of sovereign immunity to a more restrictive view of the doctrine).

⁵¹ See *Berizzi Bros. Co. v. The Pesaro*, 271 U.S. 562 (1926) (holding that sovereign immunity barred a breach of contract claim against the Italian government); *The Schooner Exchange v. M’Faddon*, 11 U.S. (7 Cranch) 116 (1812) (holding that sovereign immunity absolutely barred American citizens from laying claim to a French warship seized in U.S. waters).

But in the twentieth century, it became increasingly common for national governments to take ownership of commercial corporations. These corporations would do business in foreign countries and become embroiled in tort and contract disputes. The traditional rule of sovereign immunity implied that they could not be brought into court and, over time, nations began to make an exception for government-owned commercial enterprises, in effect, unilaterally deviating from the established customary norm.⁵²

The evolution is not difficult to understand. If a foreign-owned corporation cannot enter judicially enforceable contracts, it will have trouble doing business in foreign countries. If it cannot be sued in tort, then countries will be reluctant to allow the corporation to set up factories and distribution facilities that can injure people. Meanwhile, the risk that a tort suit against a foreign commercial entity (as opposed to a visiting foreign head of state) will lead to diplomatic frictions may be relatively low. It is thus in the joint interest of states to subject foreign government-corporations to judicial process and to permit their own corporations to be subject to judicial process in foreign countries. Thus, what began as a derogation of sovereign immunity norms has now itself become customary, and is plausibly efficient.

As one last example, many states do not in any clear way comply with provisions of the International Covenant on Economic, Social, and Cultural Rights [ICESCR],⁵³ which requires parties to provide their nationals with work, social security, education, and medical benefits. Other nations rarely accuse the first group of nations of violating that treaty. Instead, an understanding has arisen that most states can achieve these goods only gradually, and there is no specific timetable.⁵⁴ In reality the treaty was too ambitious, and imposed obligations with which states could not realistically comply. Rather than amending the treaty, which would be costly, difficult, and embarrassing, the states simply decline to comply with it and refrain from demanding compliance from other states.

The final scenario raising the possibility of efficient noncompliance may seem rather trivial, but is in fact of considerable practical importance. International legal rules are typically binding in a formal sense on all nations that are parties to a legal regime. Yet, compliance with international rules is often costly, and the costs of compliance may exceed the benefits simply because the external effects of a nation's actions are negligible. For example, the WTO Agreement on Technical Barriers to

⁵² See Bradley & Gulati, *supra* at 233 (noting that countries began to recognize a commercial activity or private action exception to the default rule of sovereign immunity during the twentieth century); Gary Born & Peter Rutledge, *International Civil Litigation in United States Courts* 219-24 (4th ed. 2007) (describing the evolution of the law).

⁵³ International Covenant on Economic, Social, and Cultural Rights, opened for signature Dec. 19, 1966, 993 U.N.T.S. 3.

⁵⁴ See our discussion in Part II.C.2.b, *infra*.

Trade (TBT) requires member nations to observe a range of substantive and procedural rules in promulgating all sorts of regulations that may affect imported goods. Local building codes are an example of the rules subject to its disciplines. Imagine that a small community in Tonga has had a fire, and the local municipal leader wishes to enact regulations to change the building codes to require construction materials that are more fire resistant. The leader neglects to follow a number of substantive and procedural rules in the TBT Agreement. The distinct possibility arises, however, that no foreign exporter will be affected sufficiently by this breach of obligations to notice it. Indeed, one imagines that nations and their subsidiary governments frequently violate all sorts of rules that are technically binding on them, under circumstances where no one abroad cares to any material degree.

The general lesson is that before any nation incurs the costs of compliance with some international rule, it should always ask itself whether deviation will injure another nation seriously enough to justify the costs of compliance. To be sure, the private calculus in this regard will generally deviate from the social (global) calculus, and not all rational noncompliance will be efficient even in cases where no foreign nation will complain. But for large classes of cases, the benefits of compliance to other nations may be so small that the costs of compliance outweigh them.

In sum, opportunities for efficient breach arise under international law just as in private contracts, affording another justification for noncompliance at times. We acknowledge that breach can be opportunistic and inefficient, and are mindful of the need for attention to ways of guarding against that prospect.

C. Implications for Remedies

The analysis above yields two propositions. First, a credible threat of retaliatory defection from international legal obligations is often necessary to sustain beneficial international cooperation. Second, some instances of deviation from international law are efficient and should not be discouraged. These propositions have important implications for the penalties that states should pay when they fail to comply with international law.

If the relevant international actors can readily distinguish efficient and inefficient breaches, it is sufficient for them to do nothing when an efficient breach occurs and to retaliate when an inefficient breach occurs. In the case of retaliation against inefficient breach, the extent of retaliation can perhaps be as high as the

victim wants.⁵⁵ High sanctions will deter inefficient breach, while no sanctions will permit efficient breach—and this is the optimal outcome.

In many instances, however, the relevant set of international actors cannot readily observe whether breach is efficient or not. The benefits of breach to the party that commits a breach, and the costs to other states, may all be private information. Consider first the possibility that the *benefits* of breach to the breaching party are private information. Then, as a first approximation, the ideal remedy will force the breaching state to incur a cost equal to the cost that it has inflicted on the victim state. An ideal remedy is monetary reparations, which are analogous to expectation damages: the wrongdoing state simply transfers an amount equal to the loss to the victim state measured against the baseline of full performance.⁵⁶ But the wrongdoing state may refuse to pay reparations. In that case, the victim state might retaliate so as to impose the equivalent loss on the wrongdoing state.

Such a system is nevertheless subject to a number of difficulties. Among other things, victims will not always have the proper incentives to retaliate because retaliation may be too tempting or too costly. In the case of a trade violation, for example, retaliation may be (politically) beneficial and thus quite tempting—it enables political officials in the victim state to secure political gains by supplying protection to import-competing firms. For this reason the victim may tend to retaliate excessively (unless the rules somehow prevent such behavior). In the case of, say, nuclear nonproliferation violations, by contrast, retaliation may be quite expensive. Perhaps victim states must inflict economic sanctions on wrongdoers, which injure firms in victim states that want to do business with firms in wrongdoer states. The same problem can arise in a trade treaty when the victim of a breach is “small” and lacks the market power to affect the prices received by firms engaged in trade in the violator state—retaliation then passes through in full to the victim state’s consumers and can amount to “shooting oneself in the foot.” In this second group of cases, retaliation may be insufficient.

Furthermore, when sanctions are costly in themselves, and are not simply transfers between countries, the cost of sanctions must be taken into account in designing an optimal remedial system.⁵⁷ In particular, the cost of the sanctions mechanism must be factored into any assessment of the costs of breach to decide whether breach is genuinely “efficient.” Conceivably, a sanctions system may be so expensive that the ideal remedial system might embody a credible threat of

⁵⁵ Of course, when sanctions are themselves costly, a ceiling on retaliation may still be desirable as we note below.

⁵⁶ See Eric A. Posner & Alan O. Sykes, *An Economic Analysis of State and Individual Responsibility under International Law*, 9 *Am. L. & Econ. Rev.* 72, 114–15 (2007).

⁵⁷ See, e.g., Mostafa Beshkar, *Optimal Remedies in International Trade Agreements*, 54 *Eur. Econ. Rev.* 455 (2010), who discusses the case of trade.

enormous sanctions that will never be used, thus forcing renegotiation as the sole mechanism for adjusting the bargain. It is also possible that sanctions should be set at a level below compensation so that the victim of breach will be less likely to pursue them.⁵⁸

Further complications arise as a result of the dynamic nature of the parties' relationship. Suppose that state X breaches a treaty, and state Y responds with retaliation by imposing economic sanctions as well as suspending its own obligations under the treaty. If X believes that Y's retaliation is excessive, it will treat the retaliation as a breach of international law, warranting a response in kind. If Y believes that Y's retaliation was lawful, it will regard X's retaliation as an independent breach of international law, and raise its own level of retaliation. The risk of such escalation helps explain the appeal of neutral adjudicators who can provide impartial judgments about the proper scope of retaliation. It also might suggest that states should not retaliate as aggressively as might otherwise seem justified.⁵⁹

Finally, we underscore a point that relates to earlier remarks—optimal retaliation may entail more or less than the abandonment of the underlying treaty regime. Suppose, as a benchmark case, that state X and state Y enter a treaty that entails a simultaneous exchange of benefits. Neither party relies on the treaty in the sense of making sunk expenditures. A shock occurs that changes the preferences of state X so that performance of the treaty is no longer worthwhile. Both states can cease performing immediately, and state Y has suffered no loss in reliance on the treaty that requires compensation. Here, the optimal response to changed circumstances is simply for both sides to cease performance, and unless state Y can and will offer some additional inducement for state X to reengage, the treaty efficiently ends.

But one can imagine other possibilities. Suppose state Y makes sunk investments in reliance on the treaty. State X then contemplates breach, and may use a threat of breach to extract opportunistic concessions from Y (a type of opportunistic renegotiation). It may be necessary for Y to have the capacity to retaliate more substantially than simply by abandoning its own treaty obligations to avoid such an outcome.

Lastly, suppose that the treaty spans a wide range of obligations, and that some shock occurs to render one of the obligations inefficient while the others remain valuable (consider the WTO, with its thousands of obligations respecting trade in goods, services and intellectual property). Here, the abandonment of the treaty regime in the face of a breach of one obligation is most undesirable, and the

⁵⁸ See A. Mitchell Polinsky & Daniel L. Rubinfeld, *The Welfare Implications of Costly Litigation for the Level of Liability*, 27 *J. Legal Stud.* 151, 159–60 (1988).

⁵⁹ See Robert Axelrod, *The Evolution of Cooperation* 119–20 (1984) on tit-for-two-tats.

challenge is to calibrate the remedy for a deviation from a single obligation to ensure that such deviation is efficient while avoiding instability in the broader regime.

D. Caveats and Objections

The discussion above already notes some caveats to particular aspects of the analysis, such as the challenges of identifying opportunities for efficient breach. Here, we address some more general caveats and objections.

1. Self-Enforcement Measures Are Lawless Unilateralism

One objection to violations of international law as countermeasures following violations by other nations is that such countermeasures often involve a considerable degree of “unilateral action,” by which we mean action that is not subject to multilateral oversight. Thus, the argument runs, a state that violates international law to “punish” violation by another has “taken the law into its own hands,” acting as prosecutor, judge and jury for purposes of determining that a violation of international law has been committed by another nation.⁶⁰ In addition, the magnitude of the “punishment” may well be determined unilaterally, in which case punishment may be excessive. The possibility of excessive punishment is an implication of the earlier suggestion that breach of international law may sometimes be efficient—if punishment is too high, efficient deviations from the law will be discouraged. A similar concern is that unilateral retaliation will lack legitimacy, and beget counter-retaliation that causes international cooperation to unravel altogether.

There is some merit to all of these points. Indeed, one of us has argued elsewhere that precisely these concerns led to the replacement of the dispute mechanism of the old GATT, under which unilateral measures aimed at punishing violations were common, by the new WTO dispute resolution system, which relies on centralized adjudication of violations followed by multilaterally authorized sanctions of a magnitude subject to arbitration.⁶¹ As a result of the new dispute system, the need for nations to “violate” the law to encourage compliance has greatly diminished.⁶²

⁶⁰ This type of claim was often advanced in the multilateral trading system before the advent of the WTO. See the collection of papers in *Aggressive Unilateralism: America’s 301 Trade Policy and the World Trading System* (Jagdish Bhagwati & Hugh T. Patrick eds., 1990).

⁶¹ Schwartz & Sykes, *supra* at 200–04.

⁶² Some subtle issues still arise. Most importantly, delays in litigation create what is sometimes termed the “3-year free pass” for WTO violators. A nation can violate WTO law and avoid any sanction until adjudication has finished and the violator has been given a “reasonable period of time”

The WTO experience is instructive, and we believe that nations should not act unilaterally to enforce the rules when viable alternatives exist. If an impartial adjudicator is available to decide whether the law has been violated, a nation aggrieved by a purported violation should appeal to that adjudicator. If a standard exists for calibrating countermeasures (such as the “substantial equivalence” standard of the WTO or the “commensurate” standard of the draft ILC Articles, discussed further below), nations should endeavor to follow it, and allow an impartial adjudicator to review the magnitude of countermeasures under that standard if such review is available.

The problem is that impartial third-party adjudication and review is often unavailable under international law. The WTO dispute resolution system is unique. And even when an appeal to the International Court of Justice or to certain other tribunals is possible in other settings, accused violators may refuse to cooperate in submitting themselves to jurisdiction. If they do submit themselves to jurisdiction, they may ignore a resulting ruling against them.

It should also be kept in mind that adjudication systems are themselves subject to “efficient breach.” They are the products of treaties and, as we argued, treaties do not always anticipate future contingencies. The dispute settlement systems themselves may become inefficient. A nation might believe, for example, that a system for selecting judges is biased in favor of certain types of nations. The International Court of Justice was regarded as too “western” by developing countries in the 1960s, for example, which boycotted it until western countries renegotiated the system to allow for regional representation of judges. In later years, the United States came to believe that the ICJ was biased against American interests and withdrew from its mandatory jurisdiction.⁶³

For these reasons, unilateral action is often the only viable course for sanctioning violations of international law. The alternative to unilateral action is acquiescence in violations, which can lead to a complete breakdown of cooperation. Nations should approach unilateral measures with caution, but the fact that they are “unilateral” is not a fatal objection.

2. Self-Enforcement Measures Favor Powerful Countries

Another objection to violations of international law as countermeasures is the suggestion that that only powerful states can afford to take countermeasures, and so this approach favors the strong and hurts the weak. The problem with this argument is that in a repeated prisoner’s dilemma game between a powerful state

to correct its behavior. See WTO DSU Art. 21. If such conduct becomes flagrant, one might argue, a role for unilateral countermeasures remains.

⁶³ See Posner, *Perils*, supra at 35–49, for details.

and a weak state, *both* states benefit from cooperation. If the powerful state benefits from cooperation, then the weak state can harm the powerful state by taking countermeasures such as withdrawal from, or violation of, the treaty. The threat of such a countermeasure will deter the powerful state from violating in the first place except, as we have argued, when the gain is sufficiently high. Likewise, the weak state will comply in order to avoid retaliation except when the gain from violation is sufficiently high.

The international trade area again provides a useful illustration. International economics often distinguishes “large” countries from “small” countries. A small nation, by definition, cannot affect the prices received by foreign exporters by altering its purchases of their goods and services. Thus, they cannot inflict a loss of surplus on others; their behavior is immaterial. Other (perhaps large) nations thus have nothing to lose by violating their legal obligations toward small nations, the argument might run. But then the question arises why large states entered an agreement with the small states in the first place—if the small states cannot confer or extract surplus to others by changing their behavior, why bother to negotiate with them? There two possible answers: (a) there are benefits to the large states from cooperation with the small states, even if small, which means that small states do have the power to retaliate;⁶⁴ or (b) the concessions to small countries (perhaps developing nations) are a gift motivated by altruism. In either case, the large states will bear a cost by breaking the law (in the second case the large nations lose the utility of giving the gift).

To be sure, a powerful state may get away with violating one body of law because of implicit threats to punish subsequent retaliation through other means (like withdrawal of foreign aid). In this case, the weaker state could retaliate but is discouraged from doing so because of the threat of some larger punishment. But the weaker state is still better off by allowing deviation than it would be otherwise—when weaker states are net beneficiaries of some larger bargain that cuts across issue areas, they may have a part of their surplus taken away by larger states in response to shocks but still come out ahead.

A similar point may be made about situations in which more powerful states are imagined to have greater bargaining power, and thus to have extracted much of the joint surplus for themselves in international negotiations. Where that is true, precisely because it receives a large share of the surplus, the more powerful nation will have incentives to obey the law to avoid the loss of that surplus.

⁶⁴ In the trade area, for example, the benefits of cooperation with small states might relate, *inter alia*, to their promises to respect the intellectual property rights of developed country exporters. The threat to back away from intellectual property commitments under the WTO TRIPs Agreement may then represent a potent threat. See WTO DSU Art. 22.3 (allowing for such cross retaliation).

3. Countermeasures That Do Not Violate International Law Are Superior

Another objection to violations of international law as countermeasures is that other countermeasures may be available. Particularly in the case of the United States with its substantial economic, military and diplomatic muscle, one might argue, an ability to punish those who violate international law exists using actions that do not themselves violate international law (“retorsion”⁶⁵)—for example, certain economic sanctions, the withdrawal of foreign aid, and diplomatic protest.

There is some merit to this point as well. Countermeasures that do not violate international law may well be available, effective, and not unduly costly. In such situations, they assuredly merit consideration.

We suggest, however, that there is no “thumb on the scale” in favor of such measures as a logical matter. If another nation violates international law, it should expect to pay a price, and indeed that expectation can be vital to sustaining cooperation over time as we suggested earlier. The violator has no cause to complain if a countermeasure also violates international law. Thus, in our view, the choice of countermeasures should be based simply on their likely effectiveness at inducing compliance and fostering future cooperation, and on their cost.⁶⁶ If a countermeasure that violates international law is the most attractive option in this regard, so be it.

4. Noncompliance with International Law Damages a Nation’s “Reputation”

Recent writing on international law argues that nations comply with it because of concern for their “reputations.”⁶⁷ This claim suggests another possible objection to noncompliance—it may result in damage to a nation’s reputation and attendant adverse consequences.

We think this objection is misguided. Other writers have already noted various difficulties with the suggestion that “reputation” is an important factor in inducing compliance with international law. It is unclear whether reputation crosses issue areas, for example (such as trade and security policy), and it is unclear whether a reputation acquired by one government official or administration will transfer to others.⁶⁸

⁶⁵ See Damrosch, *supra* at 713.

⁶⁶ Indeed, sanctions (and threats of sanctions) that impose substantial costs on the violator at the least cost to the party imposing the sanction are the most likely to be effective. See Jonathan Eaton & Maxim Engers, *Sanctions*, 100 *J. Pol. Econ.* 899, 902, 909 (1992).

⁶⁷ E.g., Andrew Guzman, *How International Law Works* (2008) (proposing a reputational theory of compliance).

⁶⁸ See Rachel Brewster, *Unpacking the State’s Reputation*, 50 *Harv. Int’l L.J.* 231, 249–62 (2009) (arguing that the reputational model fails to take into consideration the different time horizons of the indefinite state and the relatively short-term governments that control them, or adequately consider

More fundamentally, the term “reputation” is used quite loosely in the literature in a manner that confuses the issues. Some who invoke the notion of reputation simply seem to be saying that if a nation violates international law, it will face some sort of retaliation or sanction. To the extent that this is the claim, we agree, but have addressed its relevance already—noncompliance with international law can be justified if it appropriately sanctions noncompliance by other nations or if it represents efficient breach.

The concept of “reputation” in the economic literature is typically rather different, in a way that makes it largely irrelevant in our view to transparent democracies such as the United States. Reputation games in economics are games of incomplete information. In the simplest such game, we might imagine that players are one of two “types”—those with a propensity to cooperate, and those with a propensity to cheat or act selfishly. The players do not know which “type” characterizes the other player(s), and must draw an inference about their type from past behavior. In this setting, a player who defects from cooperation acquires a reputation for defecting, and other players will decline to cooperate with that player in the future. A player who develops a reputation for cooperation, by contrast, will benefit from the opportunity to enter more cooperative relationships in the future⁶⁹

In the case of an open democratic society such as the United States, however, other nations need not draw inferences about future behavior from the past. Nations can learn far more about the propensity of the United States to obey some aspect of international law by reading the statute books, by listening to the statements of government officials, by reading the Congressional Record, and so on. Given all of these sources of information, a violation of international law by a nation such as the United States likely has little impact on expectations about its future behavior.

Finally, even if a nation has a “reputation” that can be damaged by violations of international law, a violation under the circumstances that we suggest can justify it need not damage reputation. If a nation makes clear that its deviation from the law is a countermeasure to punish deviation by others or a situation in which the costs of compliance are excessive (so that the nation is willing to pay the price for deviation in the form of sanctions by others), its reputation for compliance under other circumstances can remain intact (although we stipulate that problems may arise when such claims are not verifiable).

differing costs of compliance for different treaty regimes); Rachel Brewster, *The Limits of Reputation on Compliance*, 1 *Int'l Theory* 323, 324–30 (2009).

⁶⁹ See generally Drew Fudenberg & Jean Tirole, *Game Theory* ch. 9 (1991).

5. International Law Will Lose Its Legitimacy if Countries Violate It

A last objection, related to the first, is that nations will be less likely to comply with international law if other nations violate it. This argument draws from some psychological and economic studies of compliance with domestic law, which suggest that people are more likely to comply with a law if they believe that other people comply with that law.⁷⁰

This domestic analogy does not work well with international law. Recall that in the repeated game framework, a country will cheat if it believes that its counterpart will *not* retaliate by cheating in turn. Countries comply with the law only because they believe that other countries might not comply with the law. The key point is that a violation of international law undermines compliance only if the violation is opportunistic; if it is in response to other violations, then it is a necessary condition for international cooperation.

In addition, if states complied with international law even when compliance was inefficient, this would make international law less rather than more attractive to states. In this hypothetical world, states would comply more frequently with international law but they would create less international law in the first place.

II. Some Additional Examples and Extensions

In this Section, we discuss additional illustrations of our argument in Section I. Subsection A comments further on the remedial rules of international law, both at a general level and with respect to particular subfields. Subsection B addresses two topics that have proven a source of controversy in academic commentary—withdrawal rights and treaty reservations—and considers whether these practices can be understood as efficient, “legalized” noncompliance. Subsection C concludes with some further examples that illustrate opportunities for efficient breach of international law, including scenarios in which breach has or might potentially lead to efficient legal evolution.

A. Remedies in International Law

1. General Principles

General principles of international law do not speak in terms of efficiency, but they can be interpreted consistently with our claims. As there is no authoritative international legal source on the international law of remedies, we rely on the International Law Commission’s draft articles on state responsibility.⁷¹ These are

⁷⁰ See, e.g., Tom R. Tyler, *Why People Obey the Law* (1990).

⁷¹ ILC Draft, *supra*.

(ostensibly) customary international law rules, and they apply to breaches of both customary international law and treaty law (unless the treaty itself provides otherwise).

a. Countermeasures

Draft article 22 recognizes that a state may lawfully engage in an act “not in conformity with an obligation towards another State” that has engaged in an internationally wrongful act.⁷² Such an act is known as a “countermeasure.” Thus, the basic idea that noncompliance is permissible to sanction violations of international law is clearly recognized.

The ILC subjects the right to take countermeasures to several restrictions. Most important for our purposes, Article 51 provides:

Countermeasures must be commensurate with the injury suffered, taking into account the gravity of the internationally wrongful act and the rights in question.

The ILC does not define “commensurate,” but the clear focus of Article 51 is on the *harm* done by the violation. A party undertaking a countermeasure must be mindful of the “injury suffered,” the “gravity” of the violation and the importance of the rights at issue. The emphasis on countermeasures “commensurate” with the harm suffered broadly accords with our suggestion that countermeasures should induce violators to internalize the harm done to others, and should not in general “punish” them beyond that level.

Of course, the “commensurate” standard is subject to interpretation and in many scenarios it will be difficult if not impossible to measure the harm done by a violation precisely. We do not wish to overstate our case, but merely to make the point that the general standard for countermeasures adopted by the ILC links such measures to the harm done by the violation, and does not seek to achieve absolute or maximal deterrence of violations. Although the ILC drafters may not have understood the provision in this fashion, such a standard tends to promote efficient compliance and to permit efficient breach.

Certain other limitations on countermeasures are perhaps more difficult to square with our theory. For example, a state cannot engage in countermeasures that would violate certain fundamental norms of international law: those in the UN charter, “fundamental human rights,” prohibitions on reprisals that violate humanitarian norms, and other peremptory norms.⁷³ The humanitarian appeal of

⁷² See also ILC Draft, *supra*, art. 49 (establishing the object and limits of countermeasures).

⁷³ ILC Draft, *supra*, art. 50(1).

these restrictions is easy to understand, and perhaps the implicit premise is that such measures do so much harm that they must be inferior to other feasible countermeasures. But their logical (and legal⁷⁴) basis is at times questionable. To prevent Serbian forces from committing human rights violations, for example, NATO launched a military intervention that violated both the UN charter (it had no security council authorization) and arguably some human rights and humanitarian norms (barring high-altitude bombing). Yet it is not clear what alternatives there were. Economic sanctions, for example, are notoriously ineffective,⁷⁵ and can impose their own great hardships on innocent populations. The NATO action may thus have been an “efficient breach” of the usual remedial rules.

Certain other restrictions on countermeasures may make good sense. In the *United States Diplomatic and Consular Staff in Tehran* case,⁷⁶ the ICJ said that states may not violate diplomatic immunities even as a countermeasure. If a state retaliates against, say, the violation of a fishery treaty by taking the wrongdoing state’s ambassador hostage, then communications between the states will break down, interfering with efforts to resolve the dispute and prevent escalation. It would be better if the victim state could find a means to retaliate that has less drastic effects.

These last two examples relate to the principle that retaliatory strategies should minimize the collateral or deadweight costs of retaliation conditional on their effectiveness. Sometimes, unfortunately, the only available retaliation may entail substantial collateral costs, yet may be preferable to inaction.

A final type of restriction on countermeasures requires states to observe some minimal procedural rules when engaging in them. States must call upon the wrongdoing state to obey the law, and must give notice prior to the implementation of countermeasures.⁷⁷ These rules seem reasonable to limit the risk of a misunderstanding in which the wrongdoing state might interpret a countermeasure as an independent wrong justifying an escalating series of additional countermeasures.

⁷⁴ The ILC Commentaries, *supra* at 131-35, cite dicta in a handful of cases and (somewhat more persuasively) the non-derogation provisions in human rights treaties and the prohibitions on reprisals in the Geneva Conventions.

⁷⁵ See Gary Clyde Hufbauer et al., *Economic Sanctions Reconsidered* 158–60 (3d ed. 2007) (concluding that economic sanctions failed to achieve their goals in a large majority of 174 cases studied).

⁷⁶ *United States Diplomatic and Consular Staff in Tehran (U.S. v. Iran)* 1980 I.C.J. 3, ¶ 86 (May 24).

⁷⁷ ILC Draft, *supra* note , art. 52. But see Anthony Aust, *Modern Treaty Law and Practice* 304 (2000), who denies that this rule has entered customary international law.

b. Reparations

The ILC draft requires states to pay reparations or restitution if they violate international law.⁷⁸ Restitution means the return of a thing wrongfully taken, such as territory. Reparations are monetary damages. There are limits in both cases. A state is not required to make restitution if the cost to it is out of proportion to the benefit to the victim state.⁷⁹ Reparations are supposed to be compensatory (not punitive).⁸⁰ Once reparations are paid or restitution is made, countermeasures are no longer appropriate.

The best explanation for this system is that states have an implicit option to perform or pay reparations, just as contract parties under domestic law have an implicit option to perform or pay expectation damages. The victim state retaliates only if the wrongdoing state both breaches and fails to pay reparations; if the wrongdoing state breaches but pays reparations, then the victim state has no right to retaliate. If reparations fully compensate the victim state, then the rules governing reparations are broadly consistent with the theory of efficient breach.

The paucity of cases makes it difficult to determine, however, whether states comply with this norm. One of the few cases to address this issue is the Air Service Agreement arbitration.⁸¹ France injured Pan Am's commercial interests by placing certain restrictions on flights from the United States to France. The United States retaliated by suspending Air France flights to Los Angeles. The arbitration panel held that France violated the agreement, and that the U.S. response was proportionate even though the harm to Air France's economic interests as a result of the U.S. retaliation was considerably greater than the harm to Pan Am's. The panel held that a strict comparison of losses was not appropriate given the "importance of the issue" but did not explain further. From an efficient breach perspective, this judgment seems questionable.⁸²

Restitution is also potentially in tension with the objective of efficient breach. If a state must make restitution, then it may not obtain any benefit from the breach. Perhaps restitution will be or should be limited to property right-like violations (the

⁷⁸ ILC Draft, *supra* note , arts. 31, 34. The principle was first recognized by an international court in *Factory at Chorzów (Ger. v. Pol.)*, 1928 P.C.I.J. (ser. A) No. 17, at 29 (Sept. 13) (holding that "any breach of an engagement involves an obligation to make reparation" as part of determining whether Poland owed reparations to Germany for seizing a German factory); *Factory at Chorzów (Ger. v. Pol.)*, 1927 P.C.I.J. (ser. A) No. 9, at 21 (July 26) (stating that "[i]t is a principle of international law that the breach of an engagement involves an obligation to make reparation in an adequate form" while determining whether the court had jurisdiction over the dispute).

⁷⁹ ILC Draft, *supra* note , art. 35.

⁸⁰ ILC Draft, *supra* note , art. 36.

⁸¹ *Air Service Agreement Case (Fr. v. U.S.)*, 18 R.I.A.A. 417 (Perm. Ct. Arb. 1978). Discussed in ILC Commentaries, *supra* at 134.

⁸² For a general discussion of the appropriate magnitude of reprisals, see Arie David, *The Strategy of Treaty Termination* ch. 9 (1975).

seizure of land, ships, equipment, and so forth), where the return of the property approximates compensatory damages (minus, of course, any lost “rental value”). Unfortunately, the law is ambiguous and unsettled.⁸³

We are mindful of the fact that the obligation to pay reparations or restitution co-exists with the law on countermeasures. Depending on how the notion of “commensurate” countermeasures is implemented, and how the value of reparations or restitution is set, the possibility arises that a violator may become subject to an excessive sanction combining “commensurate” countermeasures with compensatory reparations. Nothing in the draft ILC articles rules out this possibility, and we thus urge that in cases where both countermeasures and reparations are involved, the principles in the draft Articles be interpreted with an eye toward ensuring that the combination of remedies does not result in excessive penalties for breach.

2. International Trade Law

The multilateral law of international trade under the WTO, along with its dispute resolution system, is the most elaborate body of international law in existence. We have already suggested at numerous points in Section I how key features of the WTO remedial system reflect the themes of this paper.

To recapitulate briefly, international trade law is self-enforcing, and accordingly it is often necessary for nations to “violate” the law (or threaten to violate it) to punish other violators. In an ideal world, threats of retaliation would be enough to sustain cooperation, but because of shocks that make deviation from the bargain efficient, violations will indeed occur, and it may be unclear whether a violation is efficient or not due to imperfect information about the consequences for affected parties. Actual (as opposed to threatened) retaliation is then necessary, but must be tempered by the possibility that breach is at times efficient, and hence the price for violations must not become too high (or too low). The original enforcement mechanism of GATT (before the WTO) involved a form of unilateral, tit-for-tat retaliation for breach of obligations. Despite the imperfections of this mechanism, GATT held together successfully for nearly half a century, as average tariff rates steadily declined.⁸⁴

One deficiency of unilateral retaliation as an enforcement mechanism, however, particularly in a complex treaty like a trade agreement, is that honest disputes may arise over the question whether breach exists. Accordingly, GATT permitted members to seek impartial adjudication of their claims regarding breach.

⁸³ For a discussion, see Posner & Sykes, *supra*, at 114–21.

⁸⁴ See John H. Jackson, William J. Davey & Alan O. Sykes, *International Economic Relations* ch. 2 (5th ed. 2008).

This level of adjudication was perceived to be adequate for much of the history of GATT.

But another deficiency of unilateral retaliation is that its magnitude is undisciplined, and may become excessive in situations where deviation from obligations is efficient. The danger of excessive retaliation may be particularly great when large countries (like the United States) engage in retaliation—retaliation can impose substantial costs on foreign exporters, yet may be politically tempting to political officials who view it as an opportunity to renege on politically costly trade commitments. This problem, we have suggested, was a key motivation for the reforms of the dispute resolution system under the WTO, which substituted central supervision over the magnitude of retaliation, including binding arbitration under a standard requiring the retaliation to be “substantially equivalent” to the harm done by the violation. This crude analogue to an expectation damages mechanism, we have suggested, ensures that the price for breach is not prohibitive and allows deviation when it is of great political importance.

With the reforms ushered in by the WTO, it is no longer necessary for trading nations to “violate” the law to secure its enforcement—retaliatory deviation is now authorized by the membership and is no longer a “violation.” Nevertheless, the essential punishment mechanism remains the same—nations aggrieved by violations revoke their WTO commitments to impose harm on the violator.

Formal “violations” of the law do occur, of course, some no doubt inefficient and some efficient. These violations will persist despite retaliation when their political value to the violator is great, and the retaliatory price is not too high politically—these are the cases that may correspond, crudely we concede, to instances of (politically) efficient breach. The correspondence is crude for much the same reasons that expectation damages in contract law do not yield perfectly efficient breach—the price for breach may be measured incorrectly, and the sanctions mechanism is itself costly.

Indeed, these problems are worse in the trade area. It is very difficult in general to know precisely what level of trade retaliation restores the political welfare of a nation aggrieved by a violation of WTO law. The simple rules of thumb used by WTO arbitrators—such as to allow retaliation that chokes off a volume of trade equivalent to the trade volume lost as a result of the violation⁸⁵—do not capture this loss in general. Accordingly, it would be unrealistic to imagine that retaliation in the WTO induces the violator to “internalize the externality” with any great accuracy. Moreover, one must take account of the fact that WTO litigation itself

⁸⁵ See Grossman & Sykes, *supra*.

is costly, and that trade sanctions create their own deadweight losses.⁸⁶ The WTO system elides these issues.

Nevertheless, the fact that the WTO membership has devised a system to place an upper bound on unilateral retaliation evinces recognition that the price for breach should not be prohibitive and thus that breach may be efficient. It also reflects the fact that in a complex multilateral treaty such as the WTO, with 153 member states, renegotiation alone is an inadequate mechanism for adjusting the bargain.

An interesting puzzle remains that we have not yet addressed. Under WTO law, member nations agree not to seek redress or retaliation except in accordance with the WTO Dispute Settlement Understanding.⁸⁷ Pursuant to that Understanding, nations alleging a violation must proceed through a panel adjudication process, followed by the possibility of appellate review, before a violation is “proven” and any retaliatory right comes into existence. Moreover, violators have a “reasonable time” to cure their violations after a final adjudication before retaliation may begin. If the violation is cured within that time, no retaliation is allowed. And if the violation continues, the permissible retaliation is constrained in practice to be “equivalent” to the ongoing harm done by the violation—the aggrieved nation(s) are not allowed to retaliate for the harm suffered prior to the expiration of the “reasonable period” for compliance.

Thus, under the WTO system, a violator has a “free pass” of sorts—it suffers no retaliation for harm caused by a violation during the period that it takes to adjudicate it plus the ensuing “reasonable time” for cure. Various commentators have wondered whether this system makes sense.⁸⁸ Some have speculated that the system is designed to encourage nations to litigate their cases to conclusion, perhaps because litigation confers a positive externality for the membership in clarifying the rules. Another possibility is that the alternatives are simply worse—the costs of undisciplined unilateral retaliation prior to an adjudication of a violation may wreak more harm than the inefficient deviation that the current system permits.

We have no sure answer to this puzzle, except to observe that after many years of more or less unconstrained unilateral retaliation under GATT, the WTO membership opted for a system that excludes the possibility of allowing nations to act as judge and jury for their own claims, and disables them from setting the price for breach unilaterally. The tradeoff is that the price of breach may now be too low, at least for an initial period of time.

⁸⁶ See *id.*; Beshkar, *supra*, at 460–63.

⁸⁷ See DSU Art. 23.

⁸⁸ See generally *The Law, Economics and Politics of Retaliation in WTO Dispute Settlement* (Chad Bown & Joost Pauwelyn eds. 2010).

3. International Investment Law

Investment law governs the relationships between foreign investors and states that permit foreign investment. Until recently, investment law was customary international law, and the central norm was that when states expropriate foreign investments, they must compensate the investors. This norm was contested by newly independent states in the 1950s and 1960s, which sought to expropriate foreign investments and transfer the wealth to nationals. In recent years, developing countries have signed Bilateral Investment Treaties (BITs), which, similar to the Fifth Amendment of the U.S. Constitution, permit governments to take property for public purposes as long as they compensate investors; these treaties also provide for international arbitration.⁸⁹ The purpose of these treaties is to attract foreign investment by assuring investors that their investments will be protected.⁹⁰

Investment law, like trade law, in this way “legalizes” a behavior that might otherwise be considered breach. Parties recognize that states will generally want to respect private property to encourage investment, but that in exceptional circumstances they will do better by taking that property. From the standpoint of efficiency, states should take property only when the (political) benefits exceed the costs to others; the requirement of compensation forces states to internalize the cost that their actions impose on investors, and thereby achieves (politically) efficient breach.⁹¹

An interesting controversy has arisen over what happens when a state violates the provisions in a BIT that govern the conditions under which it may take property. In the ADC arbitration, Hungary expropriated the investment of two Cypriot companies, which had been hired to renovate the airport in Budapest. The arbitrator held that Hungary’s expropriation violated the BIT because, among other things, the Hungarian government seized the property for political reasons rather than in the “public interest.” The BIT provided for compensation in case of takings in the public interest, measured at the time of the taking, but the tribunal held that because the taking was not in the public interest, the BIT remedial provision was

⁸⁹ See Jeswald W. Salacuse & Nicholas P. Sullivan, *Do BITS Really Work?: An Evaluation of Bilateral Investment Treaties and their Grand Bargain*, 46 *Harv. Int’l L.J.* 67, 87–90 (2005) (describing the dispute resolution mechanisms in most BITS).

⁹⁰ The treaties face complex but fairly standard questions about how to value assets, which has been the topic of numerous arbitration proceedings and a small academic literature. See, e.g., Manuel A. Abdala & Pablo T. Spiller, *Damage Valuation of Indirect Expropriation in International Arbitration Cases*, 14 *Am. Rev. Int’l Arb.* 447, 451–59 (2003) (discussing valuation methodologies).

⁹¹ As the literature on domestic takings points out, however, the compensation requirement may not yield efficient takings in the traditional welfare-economic sense. Governments may not internalize the benefits of takings, for example, and so a requirement of compensation could lead to too few takings. Likewise, when investors anticipate compensable takings, they may overinvest in socially wasteful measures to increase the value of their property in advance.

not dispositive. Instead, it held that damages should be based on the value of the investment at the time of the arbitral award, which was higher.⁹²

Various commentators have defended such decisions. Brower and Ottolenghi argue that such a distinction between “legal” and “illegal” takings should be made because “it would offend against all common sense to allow the same recovery for a lawful act as for an unlawful one.”⁹³ And in the words of the Iran-U.S. Claims Tribunal, the distinction should be made because otherwise “the injured party would receive nothing additional for the enhanced wrong done it and the offending State would experience no disincentive to repetition of unlawful conduct.”⁹⁴

We see no reason, however, for drawing a distinction between legal and illegal takings, or for having the award depend on that distinction. First, with reference to the issue before the arbitrators in the ADC arbitration, we question whether judgments about the “public interest” can be coherently distinguished from actions taken for “political” reasons. Second, due to transaction costs, BITs cannot foresee all the circumstances under which states should be permitted to seize property, and must be viewed as incomplete contracts. The proper remedy for seizure of property is compensatory, which induces political officials to internalize, in a political sense, the externality that they create. Efficient compensation should be based on the value of the investment at the time it is taken, which will reflect the discounted value of future contingencies that affect value. To be sure, a tribunal should award interest to compensate the investor for the time value of money up until the award, but measuring the loss at a later time simply because it produces a higher award cannot be justified.

The only caveat is that it is important for the remedy to be truly compensatory—in domestic takings cases, for example, the strong suspicion arises that one branch of government (the judiciary) may have an incentive to undervalue the harm being done by another branch (the executive). The reference to neutral, international arbitration under conventional BITs is plainly an effort to avoid the sort of problems that arise when the government doing the taking is also responsible for valuing of the property.⁹⁵

⁹² See *ADC Affiliate Ltd. v. Republic of Hungary*, ICSID Case No. ARB/03/16, Award, ¶¶ 479–500 (Oct. 2, 2006); discussed in Charles N. Brower & Michael Ottolenghi, *Damages in Investor-State Arbitration*, 4 *Transnat'l Disp. Mgmt.* 1, 9-10 (2007). For a similar case, see *Siemens A.G. v. Argentine Republic*, ICSID Case No. ARB/02/8 (2008) (violation of contract to revise and operate national identity system).

⁹³ Brower & Ottolenghi, *supra*, at 13 (internal brackets and quotation marks omitted), citing Derek W. Bowett, *State Contracts with Aliens*, *Contemporary Developments on Compensation for Termination or Breach*, 59 *Brit. Y.B. Int'l L.* 49, 61 (1988).

⁹⁴ *SEDCO, Inc. v. Nat'l Iranian Oil Co.*, Second Interlocutory Award, 10 *Iran-U.S. Cl. Trib. Rep.* 189, 205 n.40 (1986) (separate opinion of Judge Brower).

⁹⁵ Of course, the mere reference of the substantive dispute to impartial arbitration is not by itself enough to protect investors – investors must also feel confident that an arbitral judgment can be

4. *Jus In Bello and the Law of Reprisals*

International humanitarian law, also known variously as the laws of war and *jus in bello*, limits the methods, tactics, and activities of each side in a war. Rules require, among many others things, that prisoners of war and civilians in occupied territory be treated humanely; that the lives and property of neutral parties be respected; and that reasonable force be used against targets. Hospitals and cultural sites cannot be attacked. Enemy soldiers accused of war crimes must be given fair trials. Military forces must keep order and supply public services in occupied areas. Truces must be respected. Another set of rules governs the types of weapons that can be used, forbidding dum-dum bullets, certain types of fragmentary explosives, blinding lasers, poison gas, and other weapons believed to be inhumane.⁹⁶

The laws of war have a simple economic explanation. When two states go to war, they anticipate the possible outcomes. The war could end with complete victory by one side or (more commonly) a settlement in which one state makes some concessions to the other. Given that both states will end up at some new equilibrium in terms of territory or wealth or power, it is best for both states if they can reach that equilibrium cheaply rather than expensively. The problem is that each state individually does best if it uses harsh tactics. Each state does better by (for example) killing enemy prisoners than by incurring the cost of sheltering and feeding them.⁹⁷ But both states are best off if they can agree to engage in mutual restraint. This standard prisoner's dilemma can be solved through repeated play,⁹⁸ and the cooperative outcome can only be sustained (if at all) when each state credibly threatens to retaliate in response to violations.

Thus, reprisals⁹⁹ were an acknowledged right of warfare until recent times. The Lieber Code of 1863, which initiated modern efforts to codify the laws of war, explicitly authorized reprisals against enemies who violate the rules.¹⁰⁰ There is also

enforced or collected. To some degree, nations will comply with awards voluntarily; here, their compliance with or resistance to the enforcement of awards may indeed affect their "reputations" in world capital markets. But when nations resist enforcement, tricky issues can arise because of longstanding statutory and common law doctrines relating to sovereign immunity and act of state. These issues are beyond the scope of our analysis but assuredly important in practice.

⁹⁶ Bonnie Docherty, *The Time is Now: A Historical Argument for a Cluster Munitions Convention*, 20 *Harv. Hum. Rts. J.* 53, 56–57 (2007) (providing a brief history of weapon ban treaties).

⁹⁷ It is possible that states do better by treating prisoners humanely because that encourages enemy soldiers to surrender. But if that is the case, laws are not necessary to ensure humane treatment.

⁹⁸ See Eric A. Posner, *Terrorism and Laws of War*, 5 *Chi. J. Int'l L.* 423, 428–30 (2005).

⁹⁹ Some commentators distinguish reprisals and "reciprocal measures," where the latter involve violations of obligations that "correspond to or are directly connected with the obligation breached." Damrosch, *supra* at 713. We do not believe this distinction has any importance and do not address it here.

¹⁰⁰ Francis Lieber, *General Orders No. 100: Instructions for the Government of Armies of the United States in the Field* (Apr. 24, 1863) [hereinafter *Lieber Code*]; see Michael A. Newton, *Reconsidering Reprisals*, 20 *Duke J. Comp. & Int'l L.* 361, 371–72 (2010).

evidence that states have taken this approach to the laws of war in more recent conflicts. In World War II, for example, belligerents on the western European front managed to comply with the laws of war (the United States, Britain, Germany), while Russia and Germany, on the eastern front, did not. Meanwhile, in the Pacific theater, the laws were broken by both the United States and Japan. Thus, the countries in each theater either maintained the laws of war or they did not, in reciprocal fashion.¹⁰¹

In the twentieth century, however, states began to formulate limitations on reprisals. The 1929 Geneva Conventions prohibited reprisals against POWs. The 1949 Geneva Conventions extended this prohibition to forbid reprisals against the wounded and the sick, and against civilians. The Additional Protocol I of 1977 extended the prohibition to civilian objects, historic monuments and works of art, foodstuffs and other objects indispensable to the survival of civilian population, and the natural environment, among other things.¹⁰² In short, with some limited exceptions, states would no longer be permitted to inflict collective punishment on the enemy. Instead, states could, if possible, capture enemy soldiers responsible for war crimes, give them a fair trial, and punish them if they are convicted.¹⁰³ Is this evolution in the remedies for violations of *jus in bello* efficient?

In essence, the modern approach substitutes individual criminal responsibility, and an effort to punish the individual war criminal, for the historical approach of punishing the army or civilian population of the war criminal. The effects of this shift are not entirely clear. Consider the incentives of a soldier under the old system, who must decide whether to commit a law-of-war violation or not. That soldier may fear capture and prosecution by the enemy, or prosecution by his own army because it seeks to avoid reprisals. The threat of reprisal itself, however, may have little direct effect on the soldier's incentives to commit the crime, because he would not be directly affected by the reprisal.

Now consider the modern system. The soldier again now knows that if he is captured, he may be prosecuted and punished by the enemy, or he may be prosecuted by his own army, presumably because his army fears that if it does not

¹⁰¹ For evidence, see James Morrow, When Do States Follow the Laws of War?, 101 Am. Pol. Sci. Rev. 559, 562–66 (2007) (finding “a broad pattern of reciprocity” through empirical analysis of the Correlates of War data).

¹⁰² Protocol Additional to the Geneva Convention of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflict (Protocol I), adopted June 8, 1977, arts. 51-56, 1125 U.N.T.S. 3, 26–29. See Newton, *supra* at 376.

¹⁰³ See generally Frits Kalshoven, International Humanitarian Law Series: Belligerent Reprisals (2d ed. 2005) (tracing the history of belligerent reprisals from ancient to modern times and finding that they are nearing total prohibition); but see Philip Sutter, The Continuing Role for Belligerent Reprisals, 13 J. Conflict & Security L. 93, 93–94 (2008) (contending that the sole use of tribunals would result in some violators of war crimes being unpunished, which creates a place for the continued use of belligerent retaliation).

prosecute war criminals, enemies will not either. The difference lies in the absence of a threat of reprisal, and any marginal effect that difference has on the propensity of a war criminal's own army to prosecute him. The practical difference between the two systems, from the soldier's perspective, may be minimal, although we stipulate that this is an empirical question. Plausibly, however, deterrence has declined little or perhaps even improved by the emphasis on criminal prosecution. If so, the new system seems an obvious improvement because it avoids the costs of reprisals against innocents.

The law of reprisals, to be sure, takes us slightly afield from our focus on efficient breach, as we do not suggest that a breach of the laws of war is often efficient—the fact that breaches occur anyway merely reflects the limitations of self-enforcement. The evolution of the law of reprisals does reflect, we believe, the broader tendency of formal remedies to evolve toward efficiency, and perhaps illustrates an important caveat attached to our analysis in Section I -- retaliatory breach is not always the best self-enforcement mechanism because other devices for penalizing breach may be less costly and comparably effective.

B. Legalizing Efficient Deviation?: Reservations and Withdrawal Rights

1. Reservations

An interesting feature of treaties from our perspective is the institutionalization of partial noncompliance through the development of reservations. Reservations are registered at the time that a nation enters a treaty, and effectively stipulate that the states will not comply with one or more provisions of the treaty. When a state issues a reservation with respect to a particular treaty provision, it has no right to enforce that provision against other states.

One might have thought that if a state enters a treaty and then announces that it will not comply with one or more provisions of it, then that state would be in violation, and other states would be entitled to retaliate or withdraw from the treaty. But states generally accept the practice of reservations.

Consider, for example, the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques, which went into force in 1978.¹⁰⁴ This treaty prohibits states from using “environmental modification techniques” as a method of warfare. Among other things, the treaty provides that all parties must give support to countries that are victims of such techniques. Switzerland issued a reservation providing that it would not engage in actions that went beyond its traditional position of neutrality, presumably meaning that it would

¹⁰⁴ Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques, opened for signature May 18, 1977, 31 U.S.T. 333, 1108 U.N.T.S. 151.

not cooperate in a war against a country that uses environmental modification techniques against its enemy. Because of Switzerland's reservation, other states would have no obligation to give military support to Switzerland if it were the victim of environmental modification techniques.

As another example, the ICCPR prohibits states from detaining adults and juveniles in the same facility.¹⁰⁵ Numerous countries, including several liberal democracies, issued reservations in which they stated that they would not comply with that prohibition.

If a state issues a reservation that goes to the "heart" of the treaty, however, it is not considered valid, or at least other states may withdraw from the treaty. Nevertheless, many international law scholars are critical of reservations, arguing that all reservations undermine international law.¹⁰⁶ Indeed, why are reservations not properly viewed as a type of anticipatory repudiation?

Our answer is that the reservation is a technique that relates closely to the concept of efficient breach (and to the transaction costs of making it possible). Multilateral treaties negotiated by dozens of states may end up containing terms that some states cannot accept because the cost of compliance exceeds the benefits resulting from the compliance of other states. The problem may not become apparent until after negotiations are complete, and the technique of reservation avoids the need for costly renegotiation.

In addition, within any multilateral negotiation, there may exist sub-issues on which a smaller or "plurilateral treaty" makes sense, involving only a subset of the countries negotiating. The reservation technique allows these *de facto* plurilateral treaties to come into existence cheaply. Thus, instead of viewing a reservation as a device for opting out of treaty provisions, it is perhaps more instructive to view it as a device used by a subset of treaty signatories for opting into an additional obligation on a reciprocal basis.

Although reservations have these advantages, they do have a dark side to the degree that they are unanticipated and destroy important benefits of the bargain for other signatories. The principle that only relatively modest reservations are acceptable -- those not going to the "heart" of the treaty -- is one response to this problem, and tends to ensure that the primary benefits of a complex bargain will nevertheless be preserved. Reservations may also be forbidden in contexts where they would do too much damage. It would be odd if a nation could revoke an important tariff concession in a trade agreement, for example, simply by entering a reservation, and indeed we do not observe formal reservations in the WTO

¹⁰⁵ International Convention on Civil and Political Rights, art. 10, Dec. 16, 1966, 999 U.N.T.S. 171, 176 [hereinafter ICCPR].

¹⁰⁶ See Louis Henkin, U.S. Ratification of Human Rights Treaties: The Ghost of Senator Bricker, 89 Am. J. Int'l L. 341, 342-48 (expressing discomfort with reservations).

context.¹⁰⁷ But the fact that reservations have come to be accepted in other areas suggest that partial cooperation is often better than no cooperation at all, and that reservations are not so important and unanticipated that the bargain is seriously undermined. The reciprocity principle following the entry of a reservation further ensures that in most cases the reserving states cannot free ride.

2. Withdrawal Rights

We already noted that most of the remedial norms in the ILC draft are default rules, and can be superseded by contrary provisions in treaties. It is also important to recognize that in many cases, the remedial rules are nugatory because the treaties permit easy withdrawal after notice is given.¹⁰⁸ Rather than violate a treaty, a state can simply withdraw from the treaty and then take whatever course of action the treaty blocked.

A similar point can be made about customary international law. Curtis Bradley and Mitu Gulati argue that, under traditional understandings, a state bound by customary international law has the right to opt out after giving notice.¹⁰⁹ Thus, if a state seeks to engage in an act that violates customary international law, it can avoid remedial obligations by opting out of customary international law and then engaging in the previously forbidden act.

Based on our discussion in Section I, the availability of the withdrawal option perhaps makes good sense in a category of cases in which neither state has sunk costs in the expectation that a treaty regime will continue. Imagine that states X and Y create such a treaty regime, and then X announces that it will withdraw from the treaty. Y might then simply suspend its own obligations under the treaty. Such retaliation returns the parties to the pre-treaty “Nash equilibrium.” If any surplus from further cooperation exists, the parties can renegotiate to a new treaty that satisfies each party’s participation constraint. If they do not do so, the inference is that cooperation no longer yields joint surplus and the demise of the treaty regime is efficient. An additional remedy is thus unnecessary. Here, free withdrawal allows

¹⁰⁷ Reservations are unnecessary on tariff concessions because a nation can simply decline to give that particular concession in the first place. WTO law does provide, however, certain excuses for non-performance of other obligations based on pressing needs (such as the protection of human health or national security). We also observe certain plurilateral agreements (such as the WTO Agreement on Government Procurement), to which only a subset of WTO members accede. In short, the “reservation” issue is handled in other ways.

¹⁰⁸ See Laurence R. Helfer, *Exiting Treaties*, 91 *Va. L. Rev.* 1579, 1589 (2005) (describing lawful exit from treaties through minimal procedural conditions as one of six distinguishing features of treaty exit).

¹⁰⁹ Curtis A. Bradley & Mitu Gulati, *Withdrawing from International Custom*, 120 *Yale L.J.* 202, 211 (2010) (describing modern customary international law as not binding on states who persistently object through affirmative international communication).

states to avoid treaty obligations that are no longer welfare-maximizing as a result of a change in circumstances.

Unfettered withdrawal rights can become more troublesome where parties have sunk costs. Suppose, for example, that X and Y agree to jointly construct a power plant on a river that divides their territories.¹¹⁰ X constructs its portion of the project and then Y breaches. X cannot deter opportunistic breach by suspending its performance—its performance is already complete. X will have to retaliate in some other way. But if Y can lawfully withdraw from the treaty, X has no right to retaliate by breaking some other law.

One might accordingly conjecture that treaties make unrestricted withdrawal rights available when neither party sinks significant costs in a project in advance of performance by the other party, or else when *both* parties incur similar sunk costs that would be imperiled by the dissolution of cooperation. When the incidence of sunk costs is highly asymmetrical, withdrawal rights will not be permitted or will be restricted.

A similar argument can be made about customary international law. It is enough for states to retaliate for “withdrawals” (or “violations”) of customary international law simply by suspending their own obligations under the law except when they have sunk costs in anticipation of compliance by other states. There, reciprocal withdrawal is an inadequate remedy, although a strong “notice” requirement may help (recall the analysis of Bradley and Gulati)—given sufficient notice, other parties may allow their sunk investments to depreciate and the sunk cost problem may disappear before withdrawal occurs.

The utility of reciprocal withdrawal as a remedy for violations is also plainly questionable when treaties become more complex, and their obligations span a number of particular issues. Then, shocks may render performance inefficient with respect to some issue addressed by the treaty regime, but cooperation on other issues covered by the treaty may remain efficient. Withdrawal from the entire regime is then likely to be undesirable, and it becomes more important for the treaty to contain mechanisms for permitting partial deviation that does not unravel cooperation altogether. We have already considered this problem in the context of WTO law, and observed how various mechanisms for adjusting the bargain, including breach followed by calibrated retaliation, provide such alternatives to withdrawal.

¹¹⁰ Cf. *Gabcikovo-Nagymaros Project (Hung. v. Slov.)*, 1997 I.C.J. 7 (Sept. 25) (resolving a dispute over a joint project to build a system of locks on the Danube that Hungary unilaterally withdrew from).

C. Efficient Violation of Inefficient or Ineffective Law

We conclude with some final examples of “efficient breach” in international law. The emphasis in this final section is on the possibility that breach may facilitate efficient legal evolution, or may simply be the best national response to the limits of self-enforcing cooperation.

1. Efficient Legal Evolution

a. Law of the Sea

The law of the sea governs the use of the oceans for purposes of navigation and exploitation. Every state enjoys a coastal sea over which it has (nearly) complete authority; the high seas are a commons that all states may use as long as they do not interfere with usage by other states. Various rules govern maritime pollution, fishing, jurisdiction over ships, exploitation of resources in the continental shelf and the deep seabed, and so forth.

The laws of the sea were for the most part codified in the United Nations Convention on the Law of the Sea (UNCLOS), which went into force in 1994.¹¹¹ Before then, the law of the sea was a patchwork of treaty law and customary international law. A famous incident illustrates its development, and suggests the utility of efficient breach. In 1945, President Truman issued a proclamation that asserted American control over the continental shelf extending from the American coastline. Before that time, the continental shelf would have been regarded as a part of the high seas, and open to all for exploration and mining. But Truman believed that exploration and mining should be subject to legal regulation of a state. Truman’s proclamation was illegal, but other countries did not protest it and instead made similar claims over their own continental shelves. As a consensus formed that states should control their continental shelves, the law changed. The new customary international law is codified in UNCLOS.

The United States’ assertion of control over its continental shelf was quite plausibly a case of efficient noncompliance with an outmoded rule. The old rule may have made sense before there were technological means to exploit resources in the continental shelf on a large scale. But when technology advanced sufficiently, legal regulation of mining of the continental shelf would be just as appropriate as legal regulation of mining on a country’s territory. International law had to be changed to permit states to exert control over the continental shelf, and it was through an act of noncompliance -- an (apparently) efficient breach.

¹¹¹ United Nations Convention on the Law of the Sea, opened for signature Dec. 10, 1982, entry into force Nov. 16, 1994, 1833 U.N.T.S. 397.

b. Use of Force

Our second example is no doubt more controversial. The UN Charter provides that states may not go to war except in self-defense or with the authorization of the Security Council.¹¹² The Security Council has the power to authorize war for purposes of collective security. These rules regarding use of force (*jus ad bellum*) were established in the wake of the World War II, and reflect an effort to prevent or at least discourage nations from going to war.

It is easy to formulate a welfarist rationale for international law forbidding war. Wars are highly destructive and often simply “transfer” wealth or resources from the loser to the victor.¹¹³ Yet war may at times be justified on welfarist grounds. Today, the chief example is humanitarian intervention, such as the use of force against Serbia in 1999, where countries intervened to prevent a government from abusing its own citizens. There may also be a welfarist justification for a preemptive war that prevents a hostile regime from obtaining weapons of mass destruction or other advantages that it is likely to use in a future war.¹¹⁴ Finally, war might be justified as efficient retaliation, particularly when a country engages in self-defense against an aggressor.

The UN Charter recognizes a right to self-defense but bans war for other purposes. The evident aim is to prevent states from resorting to war for non-welfarist, that is, predatory, purposes. But it is not clear that the benefits—preventing predatory wars—exceed the costs, namely, preventing welfare-enhancing wars such as humanitarian interventions and preemptive attacks against rogue states.

The drafters of the UN Charter attempted to address this problem by giving the Security Council the authority to launch wars, at least where collective security is at stake. The Security Council has fifteen members. Five—the United States, the United Kingdom, France, Russia, and China—are permanent members, and enjoy a veto. The other ten slots are filled through rotation with guaranteed regional representation. Nine votes are required to authorize substantive actions.

Unfortunately, the voting structure creates gridlock. With rare exceptions (the Korean War and the first Iraq War), the Security Council has not been able to authorize military responses to illegal uses of force. And no example exists of an

¹¹² U.N. Charter art. 2, ¶ 4 (“All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state”); art. 42 (authorizing the Security Council to sanction the use of force if non-force measures are inadequate); art. 51 (“Nothing in the present Charter shall impair the inherent right of individual or collective self-defense if an armed attack occurs against a Member of the United Nations.”).

¹¹³ To be sure, it is possible that war improves well-being when people in the conquered territory become subject to a better government, or when re-aligned boundaries facilitate more efficient provision of public goods.

¹¹⁴ Eric A. Posner & Alan O. Sykes, *Optimal War and Jus Ad Bellum*, 93 *Geo. L.J.* 993, 999–1006 (2005).

authorization for preemptive force or humanitarian intervention. The interests of Security Council members are simply too divergent, and cannot be expected to align well with those of nations threatened with future attack. A Council member with close economic ties to a potential aggressor, for example, bears the costs of actions against that nation but may reap none of the benefits. Such a nation may then be expected to vote against (or veto) any use of force, preemptive or otherwise.

Thus, the distinct possibility arises that use of force may be efficient at times when it nevertheless violates international law. The clearest cases involve humanitarian interventions. Indeed, because states that intervene for humanitarian reasons bear the costs but do not fully internalize the benefits, we might predict that humanitarian interventions will tend to be too infrequent even without the nominal prohibition against them.

One may also question the general ban on preemptive action (without Security Council authorization). Perhaps the ban is sensible for the great bulk of conflict situations, but exceptional circumstances may arise in which preemptive force reduces rather than aggravates the costs of conflict. If so, an exception to the ban on preventive wars may evolve, and in its absence we may expect occasional use of preemptive force anyway. The fact that such action violates international law does not, by itself, prove that it is undesirable.

It is nevertheless appropriate that any nation acting preemptively be asked to justify its actions at length and persuasively lest “preemption” become an excuse for aggression. The problem here, of course, is that nations acting preemptively do not bear the full costs of their actions, and their “private calculus” regarding preemption will not reflect the social (global) calculus. In contrast to the situation in, say, the WTO, there is no centrally imposed “price” for violating the rules of force to help keep nations honest. Thus, while one must acknowledge the possibility that illegal preemptive force may be efficient, the challenge of confining preemptive action to those cases is a daunting one and is as yet unsolved.

2. The Efficient Response to Failed Cooperation

a. Law of the Sea Redux: Fisheries

An important area of noncompliance in the law of the sea arises in connection with fisheries. Fisheries are classic commons. If states do not cooperate in the exploitation of fisheries, they are overfished and their value is not maximized. States have established a number of treaties and conventions to regulate particular fisheries, but they have not worked very well. Too many states cheat on the rules,

perhaps because cheating is often difficult to detect at a reasonable cost.¹¹⁵ States that might otherwise be willing to comply with the rules then violate them because their counterparts violate them.

In this case, noncompliance is inefficient in general. The world would be better off if treaties to protect the value of fisheries were respected. Nevertheless, given widespread cheating by other countries, it would be foolish for one country to feel itself bound by international law. The only hope for cooperation lies in the expectation that treaty partners will retaliate against noncompliance; for that reason, states that hope to establish enforceable fishery regimes must persist in refusing to comply as long as treaty partners refuse to comply.

Sadly, at least based on the evidence to date, self-enforcing cooperation to preserve the value of fisheries may simply be impossible in many cases. Dogged insistence on compliance with the rules within an individual state is then foolish—in the face of cooperative failure, states typically will (and we suggest should) revert to their Nash equilibrium behavior.

b. Human Rights

Human rights treaties require nation states to respect certain rights of their own citizens. The most important human rights treaties are the International Covenant on Political and Civil Rights, which protects a standard list of negative rights, including the rights to a fair trial, to religious freedom, to freedom of expression, and to humane punishment;¹¹⁶ and the International Covenant on Economic, Social, and Cultural Rights, which requires states to provide nationals with health care, education, social security, employment, and other positive rights.¹¹⁷ Other treaties protect the rights of children, women, disabled people, and ethnic minorities. There are also treaties that ban genocide and torture.¹¹⁸

Recent academic literature suggests that these treaties have little impact on the activities of states that ratify them. Liberal, democratic states typically observe these rights before they ratify a human rights treaty, and then do not change their behavior after they ratify the treaty. Authoritarian states typically violate those

¹¹⁵ See, e.g., *Southern Bluefin Tuna Case (N.Z. v. Jap, Austl. v. Jap)*, 39 I.L.M. 1359, 1362–70 (UNCLOS Arb. Trib. 2000) (describing a dispute that arose after Japan increased the tonnage of Southern Bluefin Tuna fished contrary to a prior agreement between it and New Zealand and Australia), Karol de Zwager Brown, *Truce in the Salmon War: Alternatives for the Pacific Salmon Treaty*, 74 Wash. L. Rev. 605, 625–68 (1999) (cataloging the history of the dispute between Canada and the United States regarding the 1985 Pacific Salmon Treaty, which both countries violated in an escalating series of retaliation).

¹¹⁶ ICCPR, *supra* note .

¹¹⁷ International Covenant on Economic, Social, and Cultural Rights, opened for signature Dec. 19, 1966, 993 U.N.T.S. 3 [hereinafter ICESCR].

¹¹⁸ For a brief overview of human rights treaties sponsored by the United Nations, see Louis Henkin et al., *Human Rights* 214–23 (2d ed. 2009).

rights before they enter the treaty; then the treaty does not change their behavior. There is some limited evidence that “transitional” states—states halfway between authoritarianism and democracy, and possibly moving in the direction of democracy—do change their behavior after they ratify human rights treaties. But the evidence is only partial, and there are, as always, questions of causal direction and omitted variables.¹¹⁹

Human rights treaties can be given various welfarist justifications. Suppose that liberal states care about the treatment of people in illiberal states. They might care for altruistic reasons, or they might believe that states with poor human rights performance often become threats to international peace. Whatever the case, the liberal states benefit if the illiberal states can commit themselves to treat their citizens humanely by entering a human rights treaty. To be sure, the illiberal states will usually be worse off by their own lights (or the lights of their government); in which case the liberal states must “buy” ratification by offering foreign aid or else threaten to sanction states that fail to ratify the treaties. In addition, some illiberal states may be in transition and may seek to commit their future governments to liberal human rights policies, as we noted in Section I. Such states may hope to “buy” enforcement from other states through treaty commitments as a form of “hand-tying” behavior.

Thus, one can indeed understand human rights treaties from a welfarist perspective, but what do we make of the fact that they seem to have little impact on behavior, with widespread noncompliance by illiberal states? The most obvious answer is that liberal states do not care enough about human rights violations in authoritarian states to incur the costs to stop them. Some violators such as China and Russia are too big, powerful, and important. Smaller violator countries have strategic advantages or resources sought by big countries (Saudi Arabia, Egypt, Sudan). Many countries have governments that are too weak to impose order on their own soldiers and security agents (Somalia, Afghanistan).¹²⁰

Is the frequent noncompliance with human rights treaties, especially illiberal states, efficient? In one sense, the answer is likely no—if these treaties indeed have a welfarist justification, it is implausible that the observed instances of noncompliance represent efficient retaliation or efficient breach. Rather, the problem, as in the fisheries case above, is the absence of a credible enforcement

¹¹⁹ See Beth Simmons, *Mobilizing for Human Rights: International Law in Domestic Politics* (2009), which is the latest and most comprehensive contribution to a large literature.

¹²⁰ See Monica Hakimi, *Secondary Human Rights Law*, 34 *Yale J. Int'l L.* 596, 601–02 (2009) (attributing the rise of alternative enforcement mechanisms for human rights to “erratic incentives” faced by states to police other states’ behavior), A.M. Weisburd, *Implications of International Relations Theory for the International Law of Human Rights*, 38 *Colum. J. Transnat'l L.* 45, 101–08 (1999) (explaining low levels of compliance with human rights treaties as the result of the prevalence of competing foreign policy interests or the lack of will by powerful countries to enforce).

mechanism—liberal states rationally ignore human rights violations by others because the costs of doing something about them exceed the benefits. The failure of human rights treaties to shape behavior more effectively thus highlights the limits of self-enforcement in international law. Non-enforcement is a rational strategy by liberal states given their private cost-benefit calculus; non-compliance by illiberal states is the inevitable result. Widespread compliance would yield joint gains, but the costs of achieving it exceed the benefits to the states that would have to supply the enforcement measures. Given this unfortunate reality, all states are behaving efficiently, not in relation to an ideal world, but in relation to the attainable world.

The one caveat is that noncompliance may be efficient if the treaties overreach and impose obligations that many states—especially poorer states—cannot realistically respect. There is a kind of grudging acknowledgment of this possibility in the ICESCR committee’s comments that poor states do not need to supply medical care, social security, education, and jobs immediately; it is enough if they gradually progress in that direction.¹²¹

c. The Conflict with Al Qaeda

One of the most controversial issues in recent years has been the application of the laws of war to Al Qaeda. Al Qaeda is not a state but a private organization, and so it is not a party to the Geneva Conventions. But members of Al Qaeda are nationals of states that are parties to the Geneva Conventions. The United States initially claimed that the Geneva Conventions did not apply at all to Al Qaeda, and that the United States was not bound by international law in its dealings with members of Al Qaeda. This view was rejected by many commentators, and was resisted by American courts.¹²² Today, the United States offers certain limited procedural protections to members of Al Qaeda and others captured on the battlefield in Afghanistan, and acknowledges that the general protections of

¹²¹ See, e.g., U.N. Comm. on Econ., Soc. & Cultural Rights, General Comment No. 14 (2000): The Right to the Highest Attainable Standard of Health (Article 12 of the International Covenant on Economic, Social, and Cultural Rights), ¶¶ 5, 30–31, U.N. Doc. E/C.12/2000/4 (Aug. 11, 2000) (acknowledging that states face constraints outside of their control that necessitate progressive realization of the rights guaranteed in the ICESCR); U.N. Comm. on Econ., Soc. & Cultural Rights, General Comment No. 19: The Right to Social Security (Art. 9), ¶ 41, U.N. Doc. E/C.12/GC/19 (Feb. 4, 2008) (requiring only that states develop plans for full implementation of the right to social security because of a recognition the “significant financial implications” social security programs contain); see also ICESCR art. 2, ¶ 3 (allowing developing countries to determine to what extent they would guarantee ICESCR rights in light of their national economy).

¹²² See, e.g., Jordan J. Paust, *War and Enemy Status After 9/11: Attacks on the Laws of War*, 28 *Yale J. Int’l L.* 325, 328–34 (2003) (determining that the Geneva Convention is adequate to govern the United States’ treatment of War on Terror prisoners); *Hamdan v. Rumsfeld*, 548 U.S. 557, 626–34 (2006) (applying Article 3 of the Geneva Convention to analyze the procedures used to try prisoners at Guantanamo).

Common Article 3 (which prohibits torture, non-judicial executions, and the like) apply to them (but not POW protections).¹²³

The problem is not entirely new. States have often faced external threats from private entities such as pirates and international terrorists. It is characteristic of these private organizations that they do not regard themselves as bound by international law, and they behave in ways that flagrantly disregard the laws of war (torturing prisoners, beheading enemies, and so on).

The logic of our argument suggests that nations should feel no obligation to extend international legal protections to demonstrable members of these organizations, unless those organizations can reasonably be expected to reciprocate.¹²⁴ Because Al Qaeda has shown no willingness to reciprocate, nations should not extend legal protections to members of Al Qaeda. This is not to say, however, that any treatment of such an individual is acceptable. Domestic law must still be obeyed, and a nation that holds such an individual in custody must still act in accordance with its own sense of what is morally acceptable. Our point is simply that *international law*, by itself, should have no relevance.¹²⁵

Conclusion

Although the international law of remedies remains in its infancy outside the fields of trade and investment, two core principles can be identified and defended. First, states should have a right to retaliate against wrongdoers by violating the law if that is the least cost option. Such self-help is often the only device for ensuring that states have an incentive to comply with the law, and its invocation should not be condemned *except* when the remedial law of the international regime at issue has evolved an adequate substitute. Second, states should generally have an option to breach and pay reparations, make other concessions, or bear retaliation that causes them to internalize the harm to other states. Such a principle allows for efficient breach of international law while encouraging efficient compliance. We stipulate here that “efficiency” refers to an international political efficiency, and may deviate from the maximization of economic welfare traditionally defined.

The nascent general principles of international law regarding remedies, reflected in the draft ILC articles, can be interpreted to reflect these principles. The elaborate remedial regime that has evolved in the WTO also fits nicely into this framework, as can the remedy for a taking of investor property under international

¹²³ See Robert Chesney & Jack Goldsmith, *Terrorism and the Convergence of Criminal and Military Detention Models*, 60 *Stan. L. Rev.* 1079, 1108–20 (2008) (describing procedures of military detention as converging with criminal procedures in the years following 9/11).

¹²⁴ When an individual’s participation in such organizations is unclear or questionable, however, legal protections may be justified as a way of avoiding offense to foreign sovereigns.

¹²⁵ For an extended discussion, see Posner, *Terrorism*, *supra* ; Newton, *supra* (and citations therein).

investment law. The evolving international law of reprisals in wartime plausibly illustrates a slightly different point—that retaliatory violation of international law may at times be an ineffective or inferior remedy in relation to some feasible alternative.

In response to some critical scholarly commentary, we further argued that international practice regarding reservations, as well as the liberal withdrawal rights found in many treaty regimes, are at least potentially consistent with the goal of sustaining efficient cooperation while facilitating efficient deviation from commitments. Reservations can economize on the transaction costs of multilateral negotiation while maintaining valuable reciprocal cooperation. Withdrawal from a treaty regime may be the efficient remedy for breach by another party, and may reflect an efficient response to changed circumstances, particularly when any sunk costs in reliance on the treaty regime are symmetric among nations.

We also offered some examples of how breach of international law may stimulate efficient legal evolution. The cleanest example concerns the law of the sea and the continental shelf; a more conjectural example involves modern practice in the use of force in the face of Security Council gridlock over humanitarian intervention and, most controversially, preemptive war. Finally, we suggest how reversion to Nash equilibrium behavior may be the best option in cases where international law has overshot the limits of self-enforcement and promulgated rules that cannot be sustained through reciprocal threats of deviation, either because the costs of enforcing cooperation are too high, the benefits are too low, or the relevant counterparties have effectively opted out of the cooperative regime. The three respective examples involve fisheries, human rights treaties, and terrorist organizations.

Collectively, these examples suggest a range of circumstances in which breach of international law, or closely related standards for “legalized noncompliance,” have sound welfarist justifications. It is neither rational nor desirable for states to behave as if bound by international law at all times, merely because of its status as “law.”

Readers with comments should address them to:

Professor Eric A. Posner
University of Chicago Law School
1111 East 60th Street
Chicago, IL 60637
eric_posner@law.uchicago.edu

Chicago Working Papers in Law and Economics
(Second Series)

For a listing of papers 1–475 please go to Working Papers at <http://www.law.uchicago.edu/Lawecon/index.html>

476. M. Todd Henderson, Credit Derivatives Are Not “Insurance” (July 2009)
477. Lee Anne Fennell and Julie Roin, Controlling Residential Stakes (July 2009)
478. Douglas G. Baird, The Holmesian Bad Man’s First Critic (August 2009)
479. Douglas G. Baird, The Bankruptcy Exchange (August 2009)
480. Jonathan Masur and Eric A. Posner, Against Feasibility Analysis (August 2009)
481. Lee Anne Fennell, The Unbounded Home, Property Values beyond Property Lines (August 2009)
482. Bernard E. Harcourt, Henry Louis Gates and Racial Profiling: What’s the Problem? (September 2009)
483. Stephen J. Choi, Mitu Gulati, Mirya Holman, and Eric A. Posner, Judging Women (September 2009)
484. Omri Ben-Shahar, One-Way Contracts: Consumer Protection without Law (October 2009)
485. Ariel Porat, Expanding Liability for Negligence *Per Se* (October 2009)
486. Ariel Porat and Alex Stein, Liability for Future Harm (October 2009)
487. Anup Malani and Ramanan Laxminrayan, Incentives for Surveillance of Infectious Disease Outbreaks (October 2009)
488. Anup Malani, Oliver Bembom and Mark van der Laan, Accounting for Differences among Patients in the FDA Approval Process (October 2009)
489. David Gilo and Ariel Porat, Viewing Unconscionability through a Market Lens (October 2009)
490. David Weisbach, Instrument Choice Is Instrument Design (October 2009)
491. M. Todd Henderson, Justifying *Jones* (November 2009)
492. Eric A. Posner, *ProCD v. Zeidenberg* and Cognitive Overload in Contractual Bargaining (November 2009)
493. Randal C. Picker, Antitrust and Innovation: Framing Baselines in the Google Book Search Settlement (November 2009)
494. Richard A. Epstein, Against Permittitis: Why Volunteer Organizations Should Regulate the Use of Cancer Drugs (November 2009)
495. Richard A. Epstein, Heller’s Gridlock Economy in Perspective: Why There Is Too Little, Not Too Much, Private Property (November 2009)
496. Richard A. Epstein, *NRA v. City of Chicago*: Does the Second Amendment Bind Frank Easterbrook? (November 2009)
497. Randal C. Picker, Easterbrook on Copyright (November 2009)
498. Omri Ben-Shahar, Pre-Closing Liability (November 2009)
499. Randal C. Picker, Assessing Competition Issues in the Amended Google Book Search Settlement (November 2009)
500. Saul Levmore, Ambiguous Statutes (November 2009)
501. Saul Levmore, Interest Groups and the Problem with Incrementalism (November 2009)
502. Tom Ginsburg, The Arbitrator as Agent: Why Deferential Review Is Not Always Pro-Arbitration (December 2009)
503. Nuno Garoupa and Tom Ginsburg, Reputation, Information and the Organization of the Judiciary (December 2009)
504. Eric A. Posner and Alan O. Sykes, Economic Foundations of the Law of the Sea (December 2009)
505. Jacob E. Gersen and Anne Joseph O’Connell, Hiding in Plain Sight? Timing and Transparency in the Administrative State (December 2009)
506. Richard A. Epstein, Impermissible Ratemaking in Health-Insurance Reform: Why the Reid Bill is Unconstitutional (December 2009)
507. Tom Ginsburg and Eric A. Posner, Subconstitutionalism (January 2010)

508. Stephen J. Choi, Mitu Gulati, and Eric A. Posner, What Do Federal District Judges Want? An Analysis of Publications, Citations, and Reversals (January 2010)
509. Joseph Isenbergh, The Future of Taxation (January 2010)
510. Lee Epstein, William M. Landes, and Richard A. Posner, Why (and When) Judges Dissent: A Theoretical and Empirical Analysis (January 2010)
511. Tom Ginsburg, James Melton, and Zachary Elkiins, The Endurance of National Constitutions (February 2010)
512. Omri Ben-Shahar and Anu Bradford, The Economics of Climate Enforcement (February 2010)
513. Neta-li E. Gottlieb, Free to Air? Legal Protection for TV Program Formats (February 2010)
514. Omri Ben-Shahar and Eric A. Posner, The Right to Withdraw in Contract Law (March 2010)
515. Richard A. Epstein, Inside the Coasean Firm: Competence as a Random Variable (March 2010)
516. Omri Ben-Shahar and Carl E. Schneider, The Failure of Mandated Disclosure (March 2010)
517. Kenneth W. Dam, The Subprime Crisis and Financial Regulation: International and Comparative Perspectives (March 2010)
518. Lee Anne Fennell, Unbundling Risk (April 2010)
519. Stephen J. Choi, Mitu Gulati, and Eric A. Posner, Judicial Ability and Securities Class Actions (April 2010)
520. Jonathan S. Masur and Jonathan Remy Nash, The Institutional Dynamics of Transition Relief (April 2010)
521. M. Todd Henderson, Implicit Compensation, May 2010
522. Lee Anne Fennell, Possession Puzzles, June 2010
523. Randal C. Picker, Organizing Competition and Cooperation after *American Needle*, June 2010
524. Richard A. Epstein, What Is So Special about Intangible Property? The Case for intelligent Carryovers, August 2010
525. Jonathan S. Masur and Eric A. Posner, Climate Regulation and the Limits of Cost-Benefit Analysis, August 2010
526. Richard A. Epstein, Carbon Dioxide: Our Newest Pollutant, August 2010
527. Richard A. Epstein and F. Scott Kieff, Questioning the Frequency and Wisdom of Compulsory Licensing for Pharmaceutical Patents, August 2010
528. Richard A. Epstein, One Bridge Too Far: Why the Employee Free Choice Act Has, and Should, Fail, August 2010
529. Jonathan Masur, Patent Inflation, August 2010
530. Bernard E. Harcourt and Tracey L. Meares, Randomization and the Fourth Amendment, August 2010
531. Ariel Porat and Avraham Tabbach, Risk of Death, August 2010
532. Randal C. Picker, The Razors-and-Blades Myth(s), September 2010
533. Lior J. Strahilevitz, Pseudonymous Litigation, September 2010
534. Omri Ben Shahar, Damaged for Unlicensed Use, September 2010
535. Bernard E. Harcourt, Risk As a Proxy for Race, September 2010
536. Christopher R. Berry and Jacob E. Gersen, Voters, Non-Voters, and the Implications of Election Timing for Public Policy, September 2010
537. Eric A. Posner, Human Rights, the Laws of War, and Reciprocity, September 2010
538. Lee Anne Fennell, Willpower Taxes, October 2010
539. Christopher R. Berry and Jacob E. Gersen, Agency Design and Distributive Politics, October 2010
540. Eric A. Posner, The Constitution of the Roman Republic: A Political Economy Perspective, November 2010
541. Stephen J. Choi, Mitu Gulati, and Eric A. Posner, Pricing Terms in Sovereign Debt Contracts: A Greek Case Study with Implications for the European Crisis Resolution Mechanism, November 2010
542. Bernard E. Harcourt, Reducint Mass Incarceration: Lessons from the Deinstitutionalization of Mental Hospitals in the 1960s, January 2011
543. Jacob E. Gersen, Designing Agencies, January 2011

544. Bernard E. Harcourt, *Making Willing Bodies: Manufacturing Consent among Prisoners and Soldiers, Creating Human Subjects, Patriots, and Everyday Citizens—The University of Chicago Malaria Experiments on Prisoners at Stateville Penitentiary*, February 2011
545. Tom Ginsburg and Thomas J. Miles, *Empiricism and the Rising Incidence of Coauthorship in Law*, February 2011
546. Eric A. Posner and Alan O. Sykes, *Efficient Breach of International Law: Optimal Remedies, “Legalized Noncompliance,” and Related Issues*, March 2011