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THE INTELLECTUAL PROPERTY HOSTAGE IN TRADE RETALIATION

SARAH R. WASSERMAN RAJEC*

ABSTRACT

Intellectual property law has become bound up in a debate about appropriate remedies for violations of the World Trade Organization Agreement. As an alternative to traditional countermeasures that consist of retaliation under the violated agreement, the World Trade Organization (“WTO”) contemplates that violations of one of its covered agreements may be remedied through “cross-retaliation,” or retaliation under another agreement. One form of cross-retaliation has garnered interest in recent years: the threat to suspend intellectual property rights in response to unrelated trade violations.

Cross-retaliation through intellectual property rights suspension is theoretically appealing for its potential to avoid problems inherent in traditional retaliatory countermeasures—often tariff increases. Cross-retaliation appears attractive because its strength as a remedy is theoretically dependent on the value of the intellectual property rights at stake, rather than the political or economic strength of the complaining country. Proponents suggest it will solve power differential problems at the WTO while encouraging compliance.

Missing from the conversation about cross-retaliation are (1) an assessment of its effectiveness in cases where it has been approved, and (2) an advocate for what I call the “IP hostage” of trade re-

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taliation—that is, an account of the potential costs that may accompany threats to intellectual property rights. This account is useful in explaining why cross-retaliation has not been as effective as its proponents have suggested it would be. This Article fills the gap in the literature by providing case studies of the instances in which the WTO Dispute Settlement Body has approved intellectual property rights suspension as a means of trade retaliation. Based on these case studies, this Article argues that cross-retaliation may be a useful tool in some, limited circumstances, but generally suffers from many of the same problems as traditional retaliatory measures, particularly as they relate to developing countries with smaller economies. Moreover, this Article argues that the unique characteristics of intellectual property rights make it particularly difficult to carry out a threat of cross-retaliation through intellectual property rights suspension. Taking intellectual property rights hostage will not solve problems inherent in the remedial scheme for trade violations.

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INTRODUCTION

The 1994 Marrakesh Agreement (“WTO Agreement”)¹ establishing the World Trade Organization (“WTO”) is notable for its near-worldwide membership, sweeping scope, and the strong remedies it provides in the event of an uncured breach.² In addition to lowering tariffs even further below those agreed to through the 1947 General Agreement on Tariffs and Trade (“GATT”),³ the WTO Agreement extends beyond tariff rates to address non-tariff barriers to trade. Non-tariff barriers to trade encompassed by the WTO include areas of regulation traditionally seen as the domain of local governments. For example, the WTO Agreement includes agreements on trade in services, sanitary measures, technical barriers to trade, and—perhaps most controversially—intellectual property.⁴ The dispute settlement process and remedies provided for under the WTO, moreover, responded to one of the main critiques of other international agreements: that they lack means of enforcement.⁵ The Dispute Settlement Understanding (“DSU”)⁶ sets up a process for resolving disputes between WTO member countries and, when that

1. Marrakesh Agreement Establishing the World Trade Organization, Apr. 15, 1994, 1867 U.N.T.S. 154–55 [hereinafter Marrakesh Agreement].

2. Steve Charnovitz, *The World Trade Organization in 2020*, 1 J. INT’L L. & INT’L REL. 167, 167–68, 172 (2005); Mark Wu, *Rethinking the Temporary Breach Puzzle: A Window on the Future of International Trade Conflicts*, 40 YALE J. INT’L L. 95, 152 (2015) (describing the strength of the dispute settlement system, stemming from its “compulsory jurisdiction, detailed procedural rules, a formalized appellate review process, and the possibility of sanctions”).

3. General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat. A-3, 55 U.N.T.S. 188 [hereinafter GATT].

4. Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299 [hereinafter TRIPS].

5. See Joel P. Trachtman, *The Domain of WTO Dispute Resolution*, 40 HARV. INT’L L.J. 333, 336 (1999) (“[D]ispute resolution is not simply a mechanism for neutral application of legislated rules but is itself a mechanism of legislation and of governance.”).

6. Understanding on Rules and Procedures Governing the Settlement of Disputes art. 22.3, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 2, 1869 U.N.T.S. 401 [hereinafter DSU].

fails, approval of retaliatory countermeasures for ongoing violations by the WTO itself—typically through retaliation under the same agreement that was violated.⁷ Its enforcement measures have made the WTO one of the strongest international agreements currently in force.⁸ At the same time, the enforcement measures have been critiqued for perpetuating economic and power imbalances among countries due to structural aspects of remedies that make them less functional for small or economically weak countries. In particular, the measures frustrate economically weaker countries' ability to benefit from effective remedies because the imposition of retaliatory remedies may not impact the violator country and may instead harm the complaining country.⁹ This disadvantage adds to the difficulties economically weaker countries already face in using the WTO to seek enforcement due to the high cost of the action.¹⁰ Scholars, practitioners, and member countries have recently turned towards another allowable remedial scheme to circumvent these problems—cross-retaliation.¹¹

The WTO Agreement has garnered attention both for its inclusion of the DSU and for the broad scope of activities covered by the agreement in addition to tariffs. These two characteristics combine in Article 22 of the DSU

7. *Id.*

8. Oona Hathaway & Scott J. Shapiro, *Outcasting: Enforcement in Domestic and International Law*, 121 YALE L.J. 252, 266 (2011); Thomas Sebastian, *World Trade Organization Remedies and the Assessment of Proportionality: Equivalence and Appropriateness*, 48 H. J. INT'L L. 337, 337 (2007) (discussing how the WTO remedial scheme differs from those of other international treaties).

9. *See infra* Section I.B.

10. Gregory Shaffer, *The Challenges of WTO Law: Strategies for Developing Country Adaptation*, 5 WORLD TRADE REV. 177 (2006) (discussing costs of bringing challenges for smaller developing countries); Gregory Shaffer, *Developing Country Use of the WTO Dispute Settlement System: Why It Matters, the Barriers Posed*, in TRADE DISPUTES AND THE DISPUTE SETTLEMENT UNDERSTANDING OF THE WTO: AN INTERDISCIPLINARY ASSESSMENT 167, 182 (Frontiers of Economics and Globalization, Ser. No. 6, 2009) [hereinafter Shaffer, *Developing Country*].

11. *See, e.g.*, Rachel Brewster, *The Surprising Benefits to Developing Countries of Linking International Trade and Intellectual Property*, 12 CHI. J. INT'L L. 1, 1 (2011) (suggesting the "beneficial effects that trade retaliation in intellectual property can have for developing countries"); Arvind Subramanian and Jayashree Watal, *Can TRIPS Serve as an Enforcement Device for Developing Countries in the WTO?*, 3 J. INT'L ECON. L. 403 (arguing for the use of cross-retaliation); Henning Grosse Ruse-Khan, *Suspending IP Obligations Under TRIPS: A Viable Alternative to Enforce Prevailing WTO Rulings?*, CTR. FOR INT'L ENVTL. L., 1 (April 2008); Frederick M. Abbott, *Cross-retaliation in TRIPS: Issues of Law and Practice*, in THE LAW, ECONOMICS AND POLITICS OF RETALIATION IN WTO DISPUTE SETTLEMENT 536 (Chad P. Bown & Joost Pauwelyn eds., 2010) ("Attention is increasingly focusing on the possibility of developing members suspending concessions relating to intellectual property rights . . . as a means to induce compliance by developed members."). In addition, a group of countries has proposed making it easier for developing countries to pursue cross-retaliation following a finding of a WTO violation. *Negotiations on the Dispute Settlement Understanding: Special and Differential Treatment for Developing Countries Proposals on DSU*, WTO Doc. TN/DS/W/19 (Oct. 9, 2002).

to allow for cross-retaliation. This provision allows retaliation against countries found to be in continued noncompliance with the WTO through suspension of concessions under any WTO treaty, even those concessions not implicated in the dispute.¹² This remedy stands in contrast to conventional countermeasures under the DSU that allow for retaliation under the violated agreement only. For example, conventional countermeasures would allow a complaining country to raise tariffs on beef imports to counter a noncompliant country's unfair tariffs on its poultry. Under WTO Article 22, however, a complaining country is permitted to suspend concessions under a different agreement than the one that was the subject of the initial violation. The option to cross-retaliate has recently gained traction among scholars, practitioners, and advocates, particularly those arguing on behalf of developing countries.¹³ Moreover, countries complaining of a WTO violation find suspension of intellectual property ("IP") rights under the Agreement on Trade-Related Aspects of Intellectual Property Rights ("TRIPS") to be a particularly attractive option because it hits the violator country where it hurts and is a seemingly low-cost option to the complaining country.¹⁴

In addition to debates about the unequal availability of the dispute settlement system to developing countries, there is a debate about what the ultimate aim of the system is: compliance, compensation, or a minimization of breach. Scholars and advocates have debated whether countermeasures authorized by the WTO's DSU are meant to—and, moreover, whether they ought to—induce compliance by the offender or compensate industries for their harms (thereby allowing for something analogous to "efficient breach" in contract law). One view is that countermeasures ought to induce compliance, therefore justifying strong remedies and counseling an increased reliance on cross-retaliation.¹⁵ The other view is that remedies are meant to be

12. DSU, *supra* note 6; Sebastian, *supra* note 8, at 340–41 (describing the process for seeking remedies).

13. *See supra* note 11.

14. *See infra* Part I.D.

15. *See* John H. Jackson, *The WTO Dispute Settlement Understanding—Misunderstanding on the Nature of Legal Obligation*, 91 AM. J. INT'L L. 60, 60–63 (1997) (noting that WTO members are legally obligated to comply with the findings of dispute proceedings and thus specific performance is required of members); Marco Bronckers & Freya Baetens, *Reconsidering Financial Remedies in WTO Dispute Settlement*, 16 J. INT'L ECON. L. 281, 291 (2013) (arguing that compliance is the main purpose of remedies because it allows for "security and predictability" of the multilateral trading system, consistent with DSU Art. 3 (2)); Ruse-Khan, *supra* note 11, at 1 ("Given the imbalances in trade and economic power amongst WTO Members, the central issue is whether suspending TRIPS obligations can do a significantly better job than traditional retaliation in facilitating compliance by powerful WTO Members."); *see also* William J. Davey, *Dispute Settlement in GATT*, 11 FORDHAM INT'L L.J. 51, 68 (1988) (suggesting that enforcement is the principal goal of the dispute settlement system in GATT).

commensurate with the harm imposed on a complaining country, thereby allowing for breach of WTO commitments in some situations.¹⁶ The WTO has not historically allowed for financial damages as a remedy for breach of the agreement. However, recent strategic use of cross-retaliation suggests its ability to serve as a pathway to de facto financial penalty payments—or, as Rachel Brewster describes it, cross-retaliation allows parties to “bargain to mutually agreed resolutions of disputes that are less than full compliance.”¹⁷

A recent set of cross-retaliation cases gives insight into this practice and puts a new spin on a well-tread debate about appropriate sanctions for WTO violations.¹⁸ In both cases, intellectual property rights suspension was approved by the WTO’s dispute settlement body, but in neither case have the complaining countries made good on their threats, despite the continuation of violations.¹⁹ In the first, Antigua and Barbuda received authorization to suspend copyright protection against U.S. rights-holders as a means of retaliation against the United States’ anti-racketeering laws and prohibitions on online gambling.²⁰ The United States’ laws were found to be in violation of the General Agreement on Trade in Services (“GATS”).²¹ Despite many threats, however, Antigua has not suspended its protection of copyrights. Nor have the countries reached a settlement. The U.S. laws remain in place, and Antigua continues to enforce the copyrights of U.S. rights-holders. The second case, involving Brazil, is a contrast. Brazil received authorization to suspend patent rights in certain pharmaceutical patents owned by U.S. companies as a remedy for continued violations of the WTO and subsidies agreements by the United States in its cotton industry.²² The United States made some changes to its agricultural subsidy program, but remains in violation of the WTO. However, Brazil has not followed through on its threat.

16. Gene M. Grossman & Alan O. Sykes, ‘Optimal’ Retaliation in the WTO—A Commentary on the Upland Cotton Arbitration, 10 WORLD TRADE REV. 133, 150–51 (2011) (noting that the “equivalence” standard for determining countermeasures is not consistent with a compliance-inducing purpose); Eric A. Posner & Alan O. Sykes, *Efficient Breach of International Law: Optimal Remedies*, “Legalized Noncompliance,” and Related Issues, 110 MICH. L. REV. 243, 245 (2011); Rachel Brewster, *Pricing Compliance: When Formal Remedies Displace Reputational Sanctions*, 54 HARV. INT’L L. J. 259, 265 (2013)..

17. Brewster, *supra* note 16, at 288.

18. *See infra* Part II.

19. Arbitrator Decision, *United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, ¶ 6.2, WTO Doc. WT/DS285/ARB (Dec. 21, 2007); Arbitrator Decision, *United States – Subsidies on Upland Cotton*, ¶ 6.3, WTO Doc. WT/DS267/ARB/2 (Aug. 31, 2009).

20. Arbitrator Decision, *United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, ¶ 6.2, WTO Doc. WT/DS285/ARB (Dec. 21, 2007); *see also* discussion *infra* Section III.B.

21. General Agreement on Trade in Services, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1B, 1869 U.N.T.S. 183 [hereinafter GATS].

22. Arbitrator Decision, *United States – Subsidies on Upland Cotton*, ¶ 6.3, WTO Doc. WT/DS267/ARB/2 (Aug. 31, 2009); *see also* discussion *infra* Section III.C.

Instead, the United States recently entered a financial settlement with Brazil, paying \$300 million to the Brazilian Cotton Institute.²³ The threat of intellectual property rights suspension resulted in a financial settlement for Brazil, but in the case of Antigua—nothing.

These cases raise serious questions about the premise that cross-retaliation induces compliance or that it may be a pathway to greater access to protected goods for citizens in developing countries. They also demonstrate the difficulty of crafting remedies that provide an appropriate measure of or compensation for damages, suggesting that cross-retaliation may be useful as a means of reaching this goal, but in far fewer circumstances than others have suggested. Instead, the cases demonstrate that threats to intellectual property rights suffer from many of the same drawbacks as other forms of remedies when there are large economic disparities between the parties. The minimal benefits derived through cross-retaliation can be better understood by exploring the considerable costs associated with moving from a threat of suspension to actual suspension of intellectual property rights.

The cost of cross-retaliation through suspension of intellectual property rights is generally treated as a footnote by those discussing the potential benefits of such a system, as are the potential costs to innovation of threatening such suspension. After all, if cross-retaliation remains a mere threat and is never implemented, perhaps that cost is minimal. However, a full account of the value of cross-retaliation demands more. Cross-retaliation deputizes innovative industries to represent a global interest in WTO compliance, which is costly to the industry and ineffective, since the industries are in fact self-interested. The increased global harmonization of intellectual property laws is driven by the goals of decreasing barriers to trade and increasing investment in innovation. However, cross-retaliation allows complaining countries to suspend intellectual property rights, frustrating that interest. If threats of suspension become more frequent, they may result in lower investment in innovative industries. Admittedly, this Article argues that implementation of cross-retaliation is unlikely, and explores the reasons why. Nevertheless, it is worth detailing the potential costs of such retaliatory measures on the theory that the more frequent threats of cross-retaliation become, the more likely that IP rights suspension will be imposed at some point. Even for those who think global intellectual property rights are too strong, actual suspension through cross-retaliation would be a blunt and poorly-aimed instrument with which to target strong intellectual property laws.²⁴

23. Mem. Of Understanding Related to the Cotton Dispute (WT/DS267) entered into by the Government of the United States of America and the Government of the Federative Republic of Brazil (Oct. 1, 2014), <https://ustr.gov/sites/default/files/20141001201606893.pdf>.

24. *See infra* Part III.B.

Moreover, this exploration of the potential costs of intellectual property rights-suspension highlights the characteristics that distinguish it from other retaliatory measures, providing insight into why it is so rarely implemented. Importantly, there are practical difficulties associated with implementing cross-retaliation through intellectual property rights suspension. First, as more companies operate as global enterprises, it is difficult to identify the holders of intellectual property rights that are from an offending country, which makes the threat less effective. In addition, to benefit from intellectual property rights suspension, countries must have an industry that is sufficiently strong to be able to infringe in ways that benefit the domestic market and be willing to do so, despite the risk that the authorization will be withdrawn if and when the offending country brings its laws back into compliance. None of these criticisms are insurmountable, but each deserves attention, particularly given the unlikely benefits of cross-retaliation. Importantly, however, the countries that are best able to overcome the barriers to using intellectual property rights-suspension to seek relief are not the least developed countries with the smallest economies.

Part I of this Article discusses the structure and theory of remedies at the WTO. Part II describes cases in which cross-sector retaliation has been approved by the Dispute Settlement Body and the subsequent history as it relates to compliance or financial settlement. Part III analyzes these cases in light of the theory behind WTO remedies and the inclusion of intellectual property rights within the WTO Agreement. The Article concludes by arguing that cross-retaliation through intellectual property rights suspension neither solves the problems associated with WTO remedies, nor have its potential benefits been realized. Instead, cross-retaliation suffers from many of the same problems as traditional WTO remedies. Its potential costs to innovation are unlikely to be very high if it is rarely threatened or imposed. And, its rare use is due in large part to the characteristics of intellectual property rights that make this remedy difficult to implement. Ultimately, cross-retaliation through IP rights suspension is a remedy the threat of which may be useful to promote settlement of claims for some subset of developing countries, but it fails as a means to counteract the disadvantages faced by least developed countries seeking compliance or redress for continuing violations by more powerful countries.

I. REMEDIES AT THE WTO: STRUCTURE AND THEORY

In the twentieth century, countries have turned to international trade law to increase global welfare by lowering barriers to trade.²⁵ According to modern trade theory, lower tariffs increase competition and lead countries to specialize in industries in which they have a comparative advantage over others.²⁶ The GATT significantly reduced barriers to trade by, inter alia, setting a harmonized tariff schedule and providing that countries extend any trade concession made to one country to all member countries.²⁷ The GATT and subsequent rounds of negotiation have resulted in the reduction of thousands of tariffs and affected tens of billions of dollars of trade.²⁸ One strength of the Agreement has been the near worldwide participation. Countries are better able to abandon protectionist measures when the changes are directly coupled to increased availability of new markets and cheaper imports. Nevertheless, countries still seek to encourage their domestic industries and implement non-tariff means of support that have, in turn, spurred new agreements.²⁹ Thus, momentum built to address measures constituting non-tariff barriers to trade.

Further rounds of negotiations led to the 1994 Marrakesh Agreement, which established the WTO Agreement. The WTO Agreement expanded

25. Sarah R. Wasserman Rajec, *Free Trade in Patented Goods: International Exhaustion for Patents*, 29 BERKELEY TECH. L. J. 317, 328, 332–39 (2014) (comparing modern international trade law with mercantilist trade theories).

26. KRUGMAN ET AL., INTERNATIONAL ECONOMICS: THEORY & POLICY 25–26 (2012). This book provides an example in which the United States produces ten million roses for Valentine’s Day, although with the same resources it could have produced one hundred thousand computers. *Id.* Columbia, in contrast, can produce ten million roses easily, whereas devoting those resources to making computers would only yield thirty thousand computers. *Id.* The difference in price ratios means that roses are relatively more expensive to produce in the United States in winter than in Columbia, and vice versa with respect to computers. *Id.* Low tariffs allow the United States to stop growing winter roses and Columbia to shift its resources out of computer manufacturing. Both countries are better off than before. *Id.* This is the (very) basic example of the potential gains from trade based on comparative advantage, generally attributed to the economist David Ricardo. See Alan O. Sykes, *Comparative Advantage and the Normative Economics of International Trade Policy*, 1 J. INT’L ECON. L. 49, 55 (1998).

27. GATT, *supra* note 3 (quoting the purpose of the GATT as the “substantial reduction of tariffs and other trade barriers and to the elimination of preferences, on a reciprocal and mutually advantageous basis”).

28. See Douglas A. Irwin, *International Trade Agreements*, THE CONCISE ENCYCLOPEDIA OF ECONOMICS, <http://www.econlib.org/library/Enc/InternationalTradeAgreements.html> (last visited July 12, 2016) (“The annual gain from removal of tariff and nontariff barriers to trade as a result of the Uruguay Round Agreement . . . has been put at about \$96 billion, or 0.4 percent of world GDP.”).

29. Daniel J. Hemel & Lisa Larrimore Ouellette, *Knowledge Goods and Nation-States*, 101 MINN. L. REV. 59 (forthcoming 2016), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2745632.

significantly on the GATT.³⁰ In addition to further lowering tariffs, the WTO Agreement included agreements on areas considered non-tariff barriers to trade, such as telecommunications, industrial and product safety standards, and intellectual property—all areas of governance that are typically thought to implement domestic policy preferences rather than solely protectionist purposes.³¹ TRIPS seeks to minimize variations in the protection of intellectual property rights through minimum requirements for protection of intellectual property rights.³² The argument in favor of harmonization of intellectual property laws is that wildly different regimes of protection made it difficult for companies to operate across borders, whereas the certainty of intellectual property rights protection would encourage greater amounts of foreign direct investment and manufacturing of goods worldwide. The TRIPS Agreement has provided a strong push towards a harmonized patent law, addressing substantive measures in addition to the procedural issues that were the primary focus of previous agreements.³³ Though copyright law already enjoyed some substantive harmonization pre-TRIPS, it also gained stronger global protection through the Agreement.³⁴ In addition, the TRIPS Agreement includes enforcement measures—common to all the WTO agreements—that previous intellectual property law agreements did not.³⁵ The negotiations surrounding the TRIPS Agreement were contentious and split along lines of development and wealth. A common narrative shows that developing and least developed countries were strong-armed into accepting the requirements of TRIPS in order to gain access to markets crucial for their economic growth.³⁶

30. Marrakesh Agreement *supra* note 1.

31. *See id.* (stating desire of members to substantially reduce tariffs and other barriers to trade in order to raise standards of living and employment levels, expand the production of and trade in goods and services, and allow for optimal use of world resources).

32. TRIPS, *supra* note 4, art. 1.

33. *See* Margaret Chon, *Intellectual Property and the Development Divide*, 27 CARDOZO L. REV. 2821, 2824 (1999) (describing the TRIPS Agreement as a “tectonic shift in the landscape of intellectual property law”); *see also* Sarah R. Wasserman Rajec, *Evaluating Flexibility in International Patent Law*, 65 HASTINGS L. J. 153, 167 (2013) (describing how TRIPS requirements address patent-eligible subject matter, standards of patentability, and the duration and scope of rights, *inter alia*).

34. Rajec, *supra* note 33, at 154.

35. DSU, *supra* note 6, art. 1.

36. HOLGER HESTERMEYER, HUMAN RIGHTS AND THE WTO: THE CASE OF PATENTS AND ACCESS TO MEDICINES 39–40 (2007) (describing the United States’ strategy of withdrawing certain trade benefits and threatening trade sanctions under Section 301 of the Trade Act as retaliation for refusal to grant certain patent rights); Susan K. Sell, *Post-TRIPS Developments: The Tension Between Commercial and Social Agendas in the Context of Intellectual Property*, 14 FLA. J. INT’L L. 193, 194 (2002) (describing how “American-based multinational corporations” pushed for adoption of TRIPS).

The WTO's enforcement measures serve to strengthen the provisions in TRIPS, which may be seen as a win for proponents of strong intellectual property rights.³⁷ However, they also allow aggrieved countries to threaten TRIPS suspension in response to violations of other agreements in certain circumstances.

The Dispute Settlement Body of the WTO ("DSB") may authorize compensatory or retaliatory trade measures against a country found in violation of one of its constituent agreements, following an opportunity for the violator country to amend its laws or practices.³⁸ Retaliatory measures (or countermeasures) generally consist of a suspension of concessions by the complaining country towards the noncompliant country.³⁹ As a result, retaliatory measures increase trade barriers for the noncompliant member.⁴⁰

A. *WTO Structure for Retaliation: Compensation, Countermeasures, and Cross-Retaliation*

The WTO Agreement includes a Dispute Settlement Understanding Agreement ("DSU") that details how complaints are to be filed and disputes resolved.⁴¹ The WTO's treatment of dispute resolution represents a change from the GATT's negotiation model of dispute settlement to a more robust adjudicative system under the WTO.⁴² At the time, it was thought that a stronger adjudicatory system would prove to be fairer to weaker countries, whereas negotiations allowed "some countries to use their relative political

37. Donald P. Harris, *TRIPS' Rebound: An Historical Analysis of How the TRIPS Agreement Can Ricochet Back Against the United States*, 25 N. J. INT'L L. & BUS. 99, 104–05 (2004) (discussing the strong impact of TRIPS due to the linkage of intellectual property rights with trade and the enforcement measures available); Adrian Macey, *Dispute Settlement in TRIPS: A Two-Edged Sword*, in *THE MAKING OF THE TRIPS AGREEMENT: PERSONAL INSIGHTS FROM THE URUGUAY ROUND NEGOTIATIONS* 351, 351–54 (Jayashree Watal & Antony Taubman eds., 2015) (describing how the United States wanted to institutionalize cross-retaliation as a means of ensuring intellectual property law enforcement through suspension of trade concessions against developing countries).

38. DSU, *supra* note 6, art. 21(3).

39. The WTO also provides for a rarely-used remedy of "compensation," according to which the violator country eases trade barriers unrelated to the dispute. *Id.* art. 22(4). Because it is rare, this Article does not explore it.

40. Joost Pauwelyn, *Enforcement and Countermeasures in the WTO: Rules Are Rules—Toward A More Collective Approach*, 94 AM. J. INT'L L. 335, 337 (2000) (describing the imposition of countermeasures as "detrimental to free trade principles"); Sebastian, *supra* note 8, at 338 ("[T]he remedy for one violation of the treaty is an offsetting violation of the treaty.").

41. DSU, *supra* note 6, art. 1.

42. Davey, *supra* note 15, at 60. The GATT stressed negotiations between parties; there was no right to establishment of a panel, and a panel report could only be adopted by consensus of members (including the "losing" party). *Id.* at 58, 60; GATT art. XXIII:2; *see also* Shaffer, *Developing Country*, *supra* note 10, at 168 ("With the WTO's creation on January 1, 1995, international trade rules became more detailed, and their application more judicialized." (footnote omitted) (citing Alec Stone Sweet, *Judicialization and the Construction of Governance*, 32 COMP. POL. STUD. 147 (1999)).

and economic strength to take advantage of weaker countries.”⁴³ As a result, conflict resolution at the WTO has been lauded as more “legal” and less “political” than dispute settlement under other treaties and international agreements.⁴⁴ In practice, however, the costs of bringing disputes and structural characteristics have led to critiques that dispute settlement at the WTO also suffers from power differentials. It is this critique, discussed further below, that has many turning to cross-retaliation as a potential method to empower developing countries in WTO enforcement.⁴⁵

The DSU establishes the DSB to oversee trade disputes, and grants authority to assign dispute settlement panels if the parties are unable to resolve the dispute through consultations.⁴⁶ Panel decisions are subject to appeal, heard by the Appellate Body.⁴⁷ Decisions by the DSB are automatically adopted, which contrasts with the GATT’s requirement of a consensus for adoption, allowing a losing party to block adoption of a panel report.⁴⁸ When a violation is found, the DSU requires “prompt compliance,” monitored by the DSB.⁴⁹ If a noncompliant country fails to bring its laws into compliance, the DSU dictates the process for the complainant to request permission to retaliate.

Member countries often resolve their disputes without the involvement of a dispute settlement panel, and only in a minority of cases do member countries fail to comply with DSB rulings.⁵⁰ Observers differ on how they characterize the outcomes of disputes, but according to the WTO, member

43. Davey, *supra* note 15, at 72.

44. James Cameron & Kevin R. Gray, *Principles of International Law in the WTO Dispute Settlement Body*, 50 INT’L & COMP. L.Q. 248, 250 (2001); Steve Charnovitz, *Rethinking WTO Trade Sanctions*, 95 AM. J. INT’L L. 792, 803 (2001) (“The establishment of the Appellate Body made the system more judicial.”).

45. *See infra* Parts I.B. & D.

46. DSU, *supra* note 6, art. 6.

47. The appellate process is detailed in DSU articles 16 & 17.

48. *See supra* note 42.

49. DSU, *supra* note 6, art. 21.1. The DSU suggests that there is flexibility in determining a “reasonable period of time,” but as a guideline, suggests that it “should not exceed 15 months from the date of adoption of a panel or Appellate Body report.” *Id.* art. 21.3(c). However, during this time the member country must file status reports to the DSB. *Id.* art. 21.6.

50. At the end of 2014, 488 disputes had been brought at the WTO. *Resolving Trade Disputes Between WTO Members*, WTO, at 3, https://www.wto.org/english/thewto_e/20y_e/dispute_brochure20y_e.pdf [hereinafter *Resolving Trade Disputes*]. More than half of those disputes were resolved without the involvement of a dispute settlement panel. *Id.* at 6. Even those disputes that resulted in findings of violations generally were resolved through compliance and settlement; in 2010, only seventeen disputes resulted in authorization to retaliate through suspension of concessions. Chad P. Bown & Joost Pauwelyn, *Introduction: Trade Retaliation in WTO Dispute Settlement: A Multi-disciplinary Analysis*, in *THE LAW, ECONOMICS AND POLITICS OF RETALIATION IN WTO DISPUTE SETTLEMENT* 1, 10 (Chad P. Bown & Joost Pauwelyn eds., 2010) (“Of the so far seventeen authorizations to retaliate, eight were granted to developing countries and only in one instance did a developing country actually implement the retaliation . . .”).

countries party to a dispute comply with DSB rulings at a rate of ninety percent.⁵¹ A study of decisions over the course of the WTO's first ten years found that "[a]pparent more-or-less-full compliance" was achieved in 67.1% of the cases where a violation was found, but that only 8.9% of cases resulted in "[u]nabashed noncompliance."⁵² Still, noncompliance happens.⁵³

In the event that recommendations or rulings are not implemented "within a reasonable period of time,"⁵⁴ the DSU allows for compensation to—or suspension of concessions by—the complaining country.⁵⁵ There is no provision for the award of financial compensation.⁵⁶ Rather, compensation in the DSU describes the reduction of tariffs on specific goods by the violating country⁵⁷ and is a rarely-used remedy.⁵⁸ Retaliatory countermeasures are the preferred remedy for countries complaining of ongoing trade violations.⁵⁹ Retaliation refers to the imposition of countermeasures, determined through arbitration and subsequent approval by the DSB after which

51. *Resolving Trade Disputes*, *supra* note 50, at 7.

52. Gary Horlick & Judith Coleman, *A Comment on Compliance with WTO Decisions*, in *THE WTO: GOVERNANCE, DISPUTE SETTLEMENT AND DEVELOPING COUNTRIES* 773 (Merit E. Janow et al. eds., 2008). The remaining cases were characterized as resulting in partial compliance (eight cases out of seventy-nine), debatable compliance (six cases out of seventy-nine), and sleazy settlements (five cases out of seventy-nine). *Id.*

53. *See id.*; *see also* Charnovitz, *supra* note 44, at 794.

54. DSU, *supra* note 6, art. 21.3 (requiring the violating member to inform the DSB of its intentions regarding implementation of recommendations, and describing a reasonable period of time as one proposed by the member and approved by the DSB, a time period agreed upon by the parties to the dispute, or, if necessary, a time period determined through binding arbitration). In practice, arbitrators take into account the nature of the implementing action that is required when setting a reasonable time. Arbitrator Decision, *United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, ¶ 35, WTO Doc. WT/DS285/13 (Aug. 19, 2005) ("Legislative action will, as a general rule, require more time than regulatory rule-making, which in turn will normally need more time than implementation that can be achieved by means of an administrative decision.").

55. DSU, *supra* note 6, art. 2.

56. Grossman & Sykes, *supra* note 16, at 152 ("[C]ash transfers typically are not available as countermeasures in WTO disputes."). In contrast, the recently-released draft of the Trans-Pacific Partnership agreement provides for financial damages as at least a temporary remedy for violations. Text of the Trans-Pacific Partnership, NEW ZEALAND TRANS-PACIFIC PARTNERSHIP, art. 28.20(7), (10) & (11), https://www.mfat.govt.nz/assets/_securedfiles/Trans-Pacific-Partnership/Text/28.-Dispute-Settlement-Chapter.pdf (last visited Aug. 17, 2016).

57. For example, Japan reduced tariff rates on certain goods pending full implementation of the Appellate Body report in *Japan – Taxes on Alcoholic Beverages*. *See generally* Appellate Body Report, *Japan – Taxes on Alcoholic Beverages*, WTO Doc. WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R (adopted Feb. 14, 1997).

58. *See* Bryan Mercurio, *Why Compensation Cannot Replace Trade Retaliation in the WTO Dispute Settlement Understanding*, 8 *WORLD TRADE REV.* 315, 325 (2009) (discussing the rare use of compensation as a remedy for trade violations, likely because the noncompliant country is responsible for implementing the compensatory system, removing control from the complaining country that already has reason to mistrust the noncompliant country).

59. *Id.*

the complaining country may impose approved countermeasures against the noncompliant member. Countermeasures take the form of suspensions of concessions made under the WTO and ancillary agreements.⁶⁰

The DSU provides guidelines about what type of concessions may be suspended, how to determine the appropriate value for countermeasures, and the duration of the measures.⁶¹ Countermeasures are tied in size to the harm suffered by a complaining country and constrained in time to counter prospective harms and cease upon compliance.⁶² The DSB may authorize a complaining country to suspend concessions or other obligations to the noncompliant member under the WTO Agreement at a level that is “equivalent” to the nullification or impairment of benefits that was suffered with the initial violation.⁶³ Despite the requirement of equivalence, the countermeasures are imposed prospectively, and do not redress losses from past violations.⁶⁴ In addition, according to the DSU, countermeasures are meant to be temporary, applied only until measures are taken to bring the violator country into compliance or until another satisfactory solution is found.⁶⁵ Countermeasures are generally meant to be applied in the same trade sector as the violation, so that an unfair tariff on goods will be countered with higher tariff levels against other, imported goods from the noncompliant country.⁶⁶ However, complaining countries may seek to impose countermeasures on goods or under agreements not implicated by the initial violation.

60. DSU, *supra* note 6, arts. 2, 22.2.

61. *See generally id.* art. 22.

62. *Id.* art. 22.4.

63. *Id.*

64. The time lag between a complaint and the potential imposition of sanctions has frequently been criticized for allowing a “free pass” for temporary violations. John H. Jackson, *The Case of the World Trade Organization*, 84 INT’L AFF. 437, 452 (2008) (describing the three year “free pass” countries have to violate the WTO because the dispute settlement process takes at least three years, and any damages are prospective in nature); Hyo-young Lee, “Remedying” the Remedy System for Prohibited Subsidies in the WTO: Reconsidering its Retrospective Aspect, ASIAN J. WTO & INT’L HEALTH L. POL’Y 423 (2015); Note, *(In)efficient Breach of International Trade Law: The State of the “Free Pass” after China’s Rare Earths Export Embargo*, 125 HARV. L. REV. 602 (2011) (discussing the time lag between a country’s breach and the imposition of remedies and potential underdeterrence of breach as a result).

65. DSU, *supra* note 6, art. 22.8 provides:

The suspension of concessions or other obligations shall be temporary and shall only be applied until such time as the measure found to be inconsistent with a covered agreement has been removed, or the Member that must implement recommendations or rulings provides a solution to the nullification or impairment of benefits, or a mutually satisfactory solution is reached.

66. If the complaining party considers it “not practicable or effective” to retaliate within the same sector, it may ask to retaliate against another sector within the same agreement. *Id.* art. 22.3(b).; The DSU defines “sector” to mean:

(i) with respect to goods, all goods;

Cross-retaliation is the imposition of countermeasures under other agreements, and the DSB may approve such measures if it determines that retaliation under the same agreement is “not practicable or effective” and if “circumstances are serious enough.”⁶⁷ The measure of these standards depends on the level of trade affected by the violation, its importance to the complaining country, and the “broader economic elements . . . and consequences” of suspending concessions.⁶⁸ As discussed below, a complaining country with a small economy is likely to suffer when it imposes high tariffs, as the tariffs result in higher prices for its domestic consumers of targeted goods or higher prices for intermediate goods that domestic industries depend on. In contrast, a noncompliant country with a large economy will not be so affected by such countermeasures imposed by a small trading partner. As a result, “practicable” has been understood as a measure of whether there was sufficient trade in the given sector to impose a sufficient retaliatory countermeasure.⁶⁹ The term “effective” has been interpreted to mean that a prospective countermeasure is likely to induce compliance by the member targeted by the countermeasure.⁷⁰

Thus, a violation with respect to goods may be countered with the suspension of obligations under the TRIPS Agreement or GATS.⁷¹ This has been seen as an increasingly attractive way to counter perceived deficiencies in typical retaliatory countermeasures.⁷²

(ii) with respect to services, a principal sector as identified in the current “Services Sectoral Classification List” which identifies such sectors; (14)

(iii) with respect to trade-related intellectual property rights, each of the categories of intellectual property rights covered in Section 1, or Section 2, or Section 3, or Section 4, or Section 5, or Section 6, or Section 7 of Part II, or the obligations under Part III, or Part IV of the Agreement on TRIPS.

Id. art. 22.3(f).

67. DSU, *supra* note 6, art. 22.3(c).

68. *Id.* art. 22.3(d).

69. See, e.g., Arbitrator Decision, *United States – Subsidies on Upland Cotton, Recourse to Article 21.5 of the DSU by Brazil*, ¶ 5.460, WTO Doc. 8WT/DS267/ARB/1 (adopted Aug. 31, 2009); Arbitrator Decision, *European Communities – Regime for the Importation, Sale and Distribution Of Bananas*, ¶ 70, WTO Doc. WT/DS27/ARB/ECU (Mar. 24, 2000) [hereinafter “Arbitration Decision, *EC–Bananas III*”] (“[T]he ordinary meaning of ‘practicable’ is ‘available or useful in practice; able to be used’ or ‘inclined or suited to action as opposed to speculation etc.’ In other words, an examination of the ‘practicability’ of an alternative suspension concerns the question whether such an alternative is available for application in practice as well as suited for being used in a particular case.”).

70. See, e.g., Arbitration Decision, *EC–Bananas III*, ¶ 72 (“[T]he term ‘effective’ connotes ‘powerful in effect,’ ‘making a strong impression’, ‘having an effect or result’ . . . [allowing] the party seeking suspension to ensure that the impact of that suspension is strong and has the desired result, namely to induce compliance by the Member which fails to bring WTO-inconsistent measures into compliance with DSB rulings within a reasonable period of time.”).

71. See *infra* Part I.A.

72. See *infra* Part I.A.

B. Countermeasure Critiques

Scholars and advocates for developing countries criticize traditional WTO remedies as ineffective, unfair, and counter-productive, particularly for developing countries.⁷³ The perception that WTO remedies are ineffective stems from the fact that, in disputes that proceed to the point of authorization or imposition of remedial measures, the remedies have often not resulted in compliance.⁷⁴ Most disputes are settled along the way—and those that are not settled before a panel or appellate body opinion is issued still have a likelihood of settling once a violation is found. Remedies, therefore, do not come into play in most cases.⁷⁵ As Steve Charnovitz explained in 2001, there is disagreement about whether the failure of remedies to induce compliance indicates a lack of sufficiently sharp teeth or that trade agreements are simply fruitless in some circumstances.⁷⁶

The argument that WTO remedies are ineffective because they lack sharp teeth is based on the idea that there is systematic underdeterrence of violations. Not every violation results in a WTO complaint, for reasons of costs, both political and fiscal. Remedies do not contemplate compensation for past violations, including violations after the complaint or even after an adverse ruling; and because the benefits to a violator country may accrue in advantages against multiple countries, remedies will only be applied with respect to those countries that have filed a complaint. If a lack of sharp teeth is the problem, then increased—or more carefully targeted—remedies may result in greater compliance.

The other possibility is that “sharper” teeth are not enough to induce compliance, because the threat of remedies plays a smaller role in countries’ compliance with the WTO than is typically theorized—particularly when those theories analogize to domestic private law. Instead, this narrative posits that diplomacy and the interests of mutual adherence to and global interests in validity of the treaty tend to induce compliance in most cases.⁷⁷ And, those

73. Chad P. Bown, *Participation in WTO Dispute Settlement: Complainants, Interested Parties, and Free Riders*, 19 WORLD BANK ECONOMIC REV. 287 (2005) (examining reasons developing country members of WTO are discouraged from active engagement in dispute settlement by the system’s rules and procedures).

74. See Charnovitz, *supra* note 44, at 796 (“In the three instances where sanctions were imposed (1 *Bananas*, 2 *Hormones*), little or no compliance has ensued. In the other two episodes where sanctions were authorized (1 *Bananas*, 1 *Aircraft*), the winning country did not exercise its rights.”).

75. This is not so different from domestic law, where the importance of remedies are nonetheless understood to derive from their importance in settlement negotiations.

76. The imagery in this characterization is Charnovitz’s, and perhaps reflects that a dispute over bananas drove many of these observations. Charnovitz, *supra* note 44, at 796.

77. Horlick & Coleman, *supra* note 52, at 771 (starting their article with the premise that “WTO Members normally comply with their WTO obligations”).

cases that reach the remedies stage represent instances where countries' preferences are strong enough that compliance is politically costly. Thus, it may well be that in some instances, countries are unable or unwilling to comply no matter the threatened—or imposed—remedy and regardless of whether the reasons strike observers as objectively meritorious. One example of this inability or unwillingness to comply regardless of costs is the hormones dispute between the United States and the European Union (“EU”).⁷⁸ The United States challenged European regulations banning sales of hormone-raised beef despite a lack of compelling scientific research showing a link between hormones and cancer.⁷⁹ On one hand, the European ban on imports of beef-administered hormones can be characterized as the European Union's commitment to longstanding methods of food production and hesitancy to take on risks absent long-term studies showing safety. On the other hand, the measures may equally and plausibly be characterized as protectionist measures on behalf of domestic and local food production that favor smaller farms over larger, foreign, and potentially more efficient means of producing food.⁸⁰ In either case, the European Union was unwilling to amend its laws following a finding of violation.⁸¹

If perfect compliance is impossible due to domestic pressure—regardless of whether the pressure results from deeply felt anxiety or protectionist impulses—stronger remedies will not result in compliance. Instead, the potential benefit of harsh remedies, such as cross-retaliation, is that they serve to identify such situations and their threat ensures compliance in those cases that do not implicate such deeply held commitments to particular noncompliant measures. It is worth noting that for developing countries defending against complaints by developed countries, political pressure outside the scope of the WTO makes refusal to comply impossible. This pressure may be due to dependence on foreign aid from the complaining country, for example.⁸² Therefore, it may be more accurate to say that in some cases,

78. Appellate Body Report, *European Communities – Measures Concerning Meat and Meat Products (Hormones)*, WT/DS26/AB/R (Jan. 16, 1998).

79. Howard F. Chang, *Risk Regulation, Endogenous Public Concerns, and the Hormones Dispute: Nothing to Fear but Fear Itself?*, 77 S. CAL. L. REV. 743, 753–54 (2004).

80. *Id.* at 766–76 (discussing United States' claims that the hormones ban reflected protectionist interests rather than health concerns, an argument ultimately rejected by the Appellate Body of the DSB).

81. See Appellate Body Report, *European Communities – Measures Concerning Meat and Meat Products (Hormones)*, ¶ 253, WTO Doc. WT/DS26/AB/R, WT/DS48/AB/R (adopted Jan. 16, 1998) (finding violation); Arbitrator Decision, *European Communities – Measures Concerning Meat and Meat Products (Hormones)* WTO Docs. WT/DS26/ARB & WT/DS48/ARB (July 12, 1999) (finding the United States and Canada entitled to impose \$125 million in sanctions against the European Union). Similarly, U.S. laws against online gambling can be characterized as representing a moral judgment against gambling or as a result of capture by and protectionism on behalf of gambling organizations within the United States.

82. Shaffer, *Developing Country*, *supra* note 10, at 178.

stronger remedies imposed against developed countries will not result in compliance. The informal pressure that is brought to bear on developing countries makes deeply felt anxiety an unattainable luxury; they cannot afford not to comply.

Traditional trade retaliation is also criticized as being particularly ineffective when used by developing countries against developed countries.⁸³ This is because, for example, tariffs on exports to a developing country generally have little effect on producers and exporters in the developed country—developing country markets are simply too small to impact an industry that exports worldwide to many larger markets.⁸⁴ At the same time, tariff-type countermeasures may have a strong, negative impact on consumers in developing countries, as goods that have been subjected to high tariffs will be sold at higher prices to offset the tariffs.⁸⁵ These higher prices harm consumers in the complaining country.⁸⁶ If the targeted goods are not of the type directly sold to consumers, but instead are raw materials used in products manufactured by domestic industries, tariffs may also be harmful to those industries that depend on low-cost inputs.⁸⁷

Another critique of WTO remedies is that they are unfair because of the separation between those who receive the benefits of noncompliant laws and those who are harmed by retaliatory measures.⁸⁸ As discussed above, retaliatory tariffs often have unintended impacts on constituencies in the complaining country that are entirely unrelated to the dispute, such as consumers. In addition, noncompliant country exporters whose goods are targeted with retaliatory tariffs are also often unrelated to those who benefit from the initial measures. Tariffs are often imposed against goods in a different manufacturing sector than the one that benefitted from the initial violation, resulting in

83. Marco Bronckers & Freya Baetens, *Reconsidering Financial Remedies in WTO Dispute Settlement*, 16 J. INT'L ECON. L. 281, 282 (2013); Subramanian & Watal, *supra* note 11, at 404.

84. See Subramanian & Watal, *supra* note 11, at 404 (“[T]here is no way of forcing developed countries into compliance with their WTO obligations because any threat of retaliatory actions by developing countries, say in the form of more trade restrictions, will not be effective. The size of their own markets and the consequential limited effect of the punitive tariffs imposed on partner countries and their firms may make threatened retaliatory trade action an insufficient deterrent.”).

85. See Bronckers & Baetens, *supra* note 83, at 282 (“[W]ith retaliation, members may easily shoot themselves in the foot by making imports from the offending member more expensive.”).

86. Nevertheless, this may be a boon—albeit modest, due to the small market—to domestic producers who are able to raise prices and capture more of the domestic market in the face of more expensive imports.

87. See, e.g., Arbitrator Decision, *United States-Subsidies on Upland Cotton*, ¶ 5.153, WTO Doc. WT/DS267/ARB/2 (Aug. 31, 2009) (accepting Brazil’s position “that it would not be practicable or effective to seek to suspend concessions or other obligations in relation to imports of capital, intermediate and other essential inputs into Brazil’s economy”).

88. See Bronckers & Baetens, *supra* note 83, at 289 (critiquing current WTO remedies).

harm to “innocent bystander” industries.⁸⁹ For example, when the United States sought and received approval to retaliate against the European Communities for their discriminatory treatment of bananas, the retaliatory tariffs levied on “bath preparations, other than bath salts,” in addition to handbags, bed linens, and coffee/tea makers.⁹⁰ These industries—which suffered under 100% tariffs—were unrelated to any industries that may have gained from the initial violations in the agricultural sector.⁹¹

Lastly, retaliatory countermeasures are criticized as counterproductive because they increase trade barriers. The “solution” to one noncompliant trade barrier is to impose a second in an unrelated area, increasing distortions to free trade. Increasing the availability and imposition of cross-retaliation and introducing financial damages have both been raised as potential means to address these critiques of traditional remedies as ineffective, unfair, and counter-productive.⁹² If the threat of cross-retaliation is more effective at forcing compliance, then use of that threat will not result in further trade distortion. If, instead, intellectual property rights are in fact suspended, then one would expect trade disruption in innovative and creative industries, as discussed below. Financial damages are attractive because they do not directly distort trade. Payment does not come from an unrelated industry or impose costs on consumers (except in their role as taxpayers). In addition, financial damages could counter the unfairness critique of trade remedies if the money is used to alleviate harms to the injured industry. This Section has explained the critiques of traditional countermeasures from a compliance perspective, though the possibility that remedies may be incapable of preventing breach raises the other view of WTO remedies. The next Section, therefore, engages the debate over the purpose of WTO remedies: whether they ought to be crafted to induce total compliance or to allow for occasional breach—and if so, under what circumstances.

C. *Theories of Retaliation*

Debate over the ideal amount and form of WTO remedies turns on the extent to which the goal of trade remedies is compliance-inducing versus compensatory. That is, whether the threat of retaliation ought to deter breach entirely or whether retaliation ought to merely reflect the cost to complaining

89. In this sense, a noncompliant country’s decision to continue its violation is a decision to transfer gains from the retaliated-against industry to the industry that is the beneficiary of the violation.

90. Scott D. Andersen & Justine Blanchet, *The United States’ Experience and Practice in Suspending WTO Obligations*, in *THE LAW, ECONOMICS AND POLITICS OF RETALIATION IN WTO DISPUTE SETTLEMENT* 235, 238 (Chad P. Bown & Joost Pauwelyn eds., 2010).

91. *Id.*

92. *See infra* Parts I.C.2 & I.D.

countries, allowing potential violators to calculate the cost of breach and choose whether to violate trade obligations. The remedies provided in the WTO admit either justification. The principle critique of the WTO framework—that the WTO favors developed countries with stronger economies—does not necessarily favor either compliance-inducing or compensatory views of remedies. On the one hand, developing and least developed countries are viewed as already compelled to comply, while developed countries are able to flout the WTO rules. Compliance-inducement is therefore seen as a way of ensuring the developed countries are not getting away with something that developing and least developed countries cannot. On the other hand, if occasional breach by developed countries is a foregone conclusion, a method that allows for compensation may be appealing—in fact, the direct award of financial damages would be of great benefit from this perspective. Both theories may point to the benefits of cross-retaliation, albeit for different reasons.

1. *The Conflicting Purposes of Countermeasures: Compliance or Compensation?*

The increased interest in remedying WTO violations by suspending—or threatening suspension of—the intellectual property rights protection required by the TRIPS Agreement comes from proponents of both a compliance and compensatory view of WTO remedies. This interest stems from the difficulty of crafting appropriate and effective remedies as well as from a lack of agreement on what “appropriate” or “effective” mean in this context. This discourse fits into the broader, ongoing debate about the purposes of remedial measures at the WTO,⁹³ both as a descriptive and prescriptive matter.⁹⁴ Some scholars suggest that the main objective of the WTO Agreement is compliance,⁹⁵ and that this purpose is intended to dictate appropriate remedies. Un-

93. In one arbitration, the arbitrators lamented that “it is not completely clear what role is to be played by the suspension of obligations in the DSU and a large part of the conceptual debate that took place in these proceedings could have been avoided if a clear ‘object and purpose’ were identified.” Arbitrator Decision, *United States – Continued Dumping and Subsidy Offset Act of 2000*, ¶ 6.4, WTO Doc. WT/DS217/ARB/BRA (Aug. 31, 2004). It may be particularly frustrating to arbitrators that conceptual debates are left unsettled because of the non-precedential status of determinations, meaning that prior decisions do not decide the issue for them, and their determination will not govern the decisions of future arbitration proceedings.

94. Joost Pauwelyn, *The Calculation and Design of Trade Retaliation in Context: What Is the Goal of suspending WTO Obligations?*, in *THE LAW, ECONOMICS AND POLITICS OF RETALIATION IN WTO DISPUTE SETTLEMENT* 34, 35 (Chad P. Bown & Joost Pauwelyn eds., 2010).

95. See Grossman & Sykes, *supra* note 16, at 149 (terming this the “compliance theory” of countermeasures).

der this theory, remedies associated with violations should be tailored to induce maximum—or perfect—compliance.⁹⁶ Others suggest that perfect compliance is impossible, and that remedies should seek to reduce noncompliance to situations analogous to “efficient breach” in contract law, pointing to the DSU’s requirement that retaliation be “equivalent” to the impairment suffered by a complaining country in arguing for compensatory-type remedies.⁹⁷ These different viewpoints dictate different interpretations of appropriate retaliation for violations of the WTO Agreement.⁹⁸ Whether termed an “efficient breach”⁹⁹ (a problematic term given that trade distortions are generally seen as inefficient from a global welfare perspective) or framed as a method of “pricing noncompliance,”¹⁰⁰ the second view generally counsels for lesser remedies than the first.

Those who suggest that compliance is the primary purpose of remedies point to the centrality of compliance to the functioning of the WTO Agreement, in general, as well as its incorporation into the Dispute Settlement Agreement’s stated purpose, specifically.¹⁰¹ In one sense, the compliance-inducement view of WTO remedies flows quite plainly from an understanding of the purpose and role of the WTO Agreement. The premise of the WTO is that world welfare will increase with lower barriers to trade, but that unilaterally eliminating protectionist laws in any one country is often politically unpalatable. The WTO carries out the work of the GATT, under which members tie these politically unpalatable changes to new trade opportunities resulting from reciprocal obligations undertaken by other members.

Collective compliance is central to the WTO Agreement’s continued legitimacy. It follows, according to this argument, that the dispute settlement process should be geared towards enforcing compliance through its rulings

96. See, e.g., Bronckers & Baetens, *supra* note 83, at 290–91 (arguing that compliance is the main purpose of remedies because it allows for “security and predictability” of the multilateral trading system, consistent with DSU Art. 3 (2)); Ruse-Khan, *supra* note 11, at 1 (“Given the imbalances in trade and economic power amongst WTO Members, the central issue is whether suspending TRIPS obligations can do a significantly better job than traditional retaliation in facilitating compliance by powerful WTO Members.”); see also Davey, *supra* note 15, at 68 (suggesting that enforcement is the principal goal of the dispute settlement system in GATT).

97. See Grossman & Sykes, *supra* note 16, at 150–51 (noting that the “equivalence” standard for determining countermeasures is not consistent with a compliance-inducing purpose).

98. See *id.* at 162 (“Economic analysis can say little about ‘optimal’ retaliation in the WTO system absent a theory of what retaliation is supposed to accomplish.”).

99. Posner & Sykes, *supra* note 16, at 243.

100. Brewster, *supra* note 16, at 265.

101. See Jackson, *supra* note 15, at 60 (noting that WTO members are legally obligated to comply with the findings of dispute proceedings and thus “specific performance” is required of members); Bronckers & Baetens, *supra* note 83, at 291 (arguing that full compliance with WTO obligations allows for security and predictability of the multilateral trading system).

and remedies. Under this view, it is the threat of retaliation that keeps countries from resorting to trade restrictions.¹⁰² As Kyle Bagwell has noted, to achieve compliance, the long-term costs of retaliation must outweigh the short-term gains from cheating.¹⁰³ Bagwell nonetheless suggests that the difficulty of calculating damages makes it unappealing to use WTO remedies this way.¹⁰⁴ In contrast, some, like Marco Bronckers and Freya Baetens, see the difficulty of calculating the effects of initial violations and potential retaliatory measures as a strength of the compliance inducement view. They argue that one reason a compliance-inducing view of WTO remedies is preferable is because it absolves arbitrators from having to make precise judgments about the complex financial implications of remedies.¹⁰⁵ Thus, the potential for disproportionately large retaliatory measures offers the advantage that it need not be precisely calculated—the whole point is to make the retaliation more painful than the initial violation was beneficial.

For those who support a compliance-inducing view of remedies, strong retaliatory measures are also seen as a means of balancing or neutralizing the portions of the DSU that otherwise result in undercompensation for harms. The delays in instituting remedial measures and their solely prospective application mean that they rarely meet—let alone exceed—the benefits drawn by the violating country or the injury suffered by the complaining country.¹⁰⁶

The text of the DSU offers some support for the primacy of compliance in the dispute settlement process. First, the stated objective of the DSU is the removal of measures inconsistent with the covered agreements.¹⁰⁷ In addition, the provisions declaring that countermeasures are meant to last only until compliance is achieved, which supports the idea that the DSU ultimately

102. Or, to be more precise, threats of retaliation enforce compliance when reputational costs, reciprocity, and other considerations are not sufficient.

103. Kyle Bagwell, *Remedies in the World Trade Organization: An Economic Perspective*, in *THE WTO: GOVERNANCE, DISPUTE SETTLEMENT AND DEVELOPING COUNTRIES* 733, 741 (Merit E. Janow et al. eds., 2008).

104. Bagwell does not advocate for compliance-inducing retaliatory measures, explaining that, while theoretically appealing, discerning an optimal level of retaliation is complex due to uncertainty about the losses caused by initial violations, the benefits and costs of retaliatory measures for the member countries directly involved in the conflict, and the third-party effects of retaliation-caused trade distortions. *Id.* at 750–51.

105. Bronckers & Baetens, *supra* note 83, at 307 (explaining that one need not be precise about damages in order to induce compliance).

106. *See, e.g.*, Benjamin H. Liebman & Kasaundra Tomlin, *World Trade Organization Sanctions, Implementation, and Retaliation*, 48 *EMPIRICAL ECON.* 715, 715 (2014) (presenting a study showing that the WTO-violative “Byrd Amendment” increased share returns of U.S. companies benefited by the subsidies that were larger than share declines experienced by firms targeted with retaliatory tariffs and suggesting that this diminished pressure on U.S. policymakers to strike down the noncompliant measure).

107. DSU, *supra* note 6, art 3.7; Charnovitz, *supra* note 44, at 804 (“The tenor of these provisions is that a suspension operates to drive compliance.”); Mercurio, *supra* note 58, at 321.

envisions member countries modifying their laws in order to comply with rulings.¹⁰⁸

This stated purpose of the WTO Agreement and its dispute settlement process, however, is not evident in the provisions governing the calculation of remedies. As Joost Pauwelyn explains, while the ultimate purpose of the WTO dispute settlement process is to induce compliance,¹⁰⁹ the DSU provisions for countermeasures do not appear geared towards that goal.¹¹⁰ Or, in the words of Gene Grossman and Alan Sykes, “If the *goal* of the system is to ensure compliance, therefore, its *design*, at least as interpreted in the decisions to date, is hard to square with that objective.”¹¹¹ The provisions that supporters of a compliance theory rely upon describe the general purpose of the DSU, but need not require that retaliatory countermeasures be calibrated so as to maximize compliance. Instead, as Pauwelyn and others have noted, the level—and forward-looking nature—of countermeasures allowed by the DSU suggest that they are meant to serve a compensatory or trade-balancing purpose.¹¹² In particular, the DSU requires that the level of countermeasures be “equivalent to the level of the nullification or impairment” imposed by the violation and thus tied to the harm suffered by a complaining party.¹¹³ The delay before countermeasures are imposed and the proportionality requirement may result in undercompensation and underdeterrence, leaving the impression that compliance—another form of deterrence—may not be the driving force behind the calculation of remedies.

Compliance theory dictates a different measure of remedies than compensatory theories of remedies—and therefore has been criticized because it is not consistent with the proper level of countermeasures dictated by the

108. DSU, *supra* note 6, art. 22.8; *see also* Charnovitz, *supra* note 44, at 804–08 (arguing that there was a transformation from the rebalancing function contemplated under GATT and the compliance-inducement function of remedies under the WTO).

109. Joost Pauwelyn, *Enforcement and Countermeasures in the WTO: Rules Are Rules—Toward A More Collective Approach*, 94 AM. J. INT’L L. 335, 343 (2000) (citing various arbitration proceedings that state the WTO’s commitment to compliance).

110. *Id.* at 343–44.

111. Grossman & Sykes, *supra* note 16, at 150–51.

112. Countermeasures are forward-looking in that they do not take into account harm done before the WTO has judged a measure to be in violation.

113. “The level of the suspension of concessions or other obligations . . . shall be equivalent to the level of the nullification or impairment.” DSU, *supra* note 6, art. 22.4. Provisions in the Agreement on Subsidies and Countervailing Measures (“SCM”) concerning appropriate remedies for rectifying illegal subsidies are similar: they are to be “commensurate with the degree and nature of the adverse effects determined to exist.” Agreement on Subsidies and Countervailing Measures art. 7.9, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1869 U.N.T.S. 14, 21 [hereinafter SCM]. Calculation of the “level of the nullification or impairment” is unsurprisingly often disputed in litigation and a topic of discussion in academic literature. *See, e.g.*, Grossman & Sykes, *supra* note 16, at 137–41 (discussing the parties’ arguments in *Upland Cotton* about whether countermeasures should be based on the lost trade volume for the harmed country or the value of the subsidy granted by the noncompliant country).

DSU. If compliance is the goal of retaliatory measures, the appropriate level of countermeasures should be tied to the gains of the noncompliant country to negate incentives for noncompliance. The countermeasures could even be punitive in nature, because larger potential remedies ought to induce greater compliance.¹¹⁴ Cross-retaliation is attractive from a compliance view because intellectual property-reliant industries are seen as having strong lobbies that are able to put pressure on a noncompliant government. The harms to such industries from suspending intellectual property rights also may be large and diffuse, making the pressure on government not just acute, but also strong.¹¹⁵

In contrast to the compliance theory, those who argue that the purpose of WTO remedies is compensation point to the allowed level of countermeasures that is based on the damage done to the complaining country and on rebalancing trade.¹¹⁶ A number of scholars have embraced the idea of countermeasures serving a compensatory purpose. Alan Sykes argues that a view of WTO remedies as compensatory is consistent with the text of the DSU.¹¹⁷ Moreover, Sykes argues that it is economically desirable to allow countries to breach the agreement in certain circumstances, and that these circumstances—analogue to an “efficient breach” in contract law—are best identified by a remedies regime that imposes compensatory damages.¹¹⁸ Together with Eric Posner, Sykes explains that international law has historically been self-enforcing, with breaches subject to unilateral retaliation and no legal oversight.¹¹⁹ It is only relatively recently that agreements, such as the WTO, provide for remedial systems with judicial oversight.¹²⁰ The WTO remedies, Sykes and Posner argue, reflect the economic logic of the “efficient breach” in contract law by recognizing both that the underlying laws embodied in the WTO may, at times, be inefficient,¹²¹ and that sometimes breach is inevitable and the remedial system should recognize this reality.¹²² The argument that

114. Grossman & Sykes, *supra* note 16, at 150.

115. Ruse-Khan, *supra* note 11, at 2 (“A withdrawal of obligations under TRIPS can generally be expected to have a significant impact on key industries and thereby provide a strong incentive to industrialized countries to comply with WTO rulings.”).

116. Pauwelyn, *supra* note 94, at 38.

117. Alan O. Sykes, *The Remedy for Breach of Obligations Under the WTO Dispute Settlement Understanding: Damages or Specific Performance?*, in *NEW DIRECTIONS IN INTERNATIONAL ECONOMIC LAW: ESSAYS IN HONOUR OF JOHN H. JACKSON* 347, 353 (Marco Bronckers & Reinhard Quick eds., 2000); Posner & Sykes, *supra* note 16, at 243; Grossman & Sykes, *supra* note 16, at 149.

118. Sykes, *supra* note 117, at 351.

119. Posner & Sykes, *supra* note 16, at 245.

120. *Id.* at 257.

121. *Id.* at 245. In other words, laws embodied in the WTO may fail to promote national or global welfare.

122. *Id.* at 246.

occasional breach is inevitable for political reasons does not mean that breach is “efficient” from a global economic perspective, but compensatory-type remedies will ensure that it only occurs when a country’s idiosyncratic values are held sufficiently strongly, an occurrence perhaps better-termed “unavoidable” or “expedient” breach. Setting rules for breach allows countries some certainty about what the costs of various choices will be and allow for “legalized noncompliance.”¹²³

Offering another take on compensatory damages, Rachel Brewster explains that “pricing compliance,” or using dispute resolution to set the cost of breach, may be an attractive feature of the WTO Agreement’s strong dispute resolution procedures.¹²⁴ In other words, “governments may create formal dispute resolution systems to lower the costs of deviation rather than to raise them.”¹²⁵ This argument contrasts with the compliance theory viewpoint that full compliance strengthens the WTO Agreement. Instead, Brewster suggests that countries are only willing to submit to the strong provisions of the WTO Agreement because of the option of breach. According to this view, the success of the WTO is based on its option to opt out.

Efficient breach in any context has its critics.¹²⁶ In the WTO context, additional criticism of the compensatory view of remedies is that it may be

123. Posner & Sykes, *supra* note 16, at 253.

124. See Brewster, *supra* note 16, at 265 (“[The] choice of a dispute resolution system is often a purposeful effort to limit remedies to the harm caused, and thus to price noncompliance rather than to sanction it.”).

125. *Id.* at 302. Brewster, together with Adam Chilton, has also delved deeper into dispute resolution procedures to show that one of the greatest predictors of compliance with DSB rulings in the United States is whether the compliance must be achieved through congressional action—in which case it is less likely to occur. See Rachel Brewster & Adam Chilton, *Supplying Compliance: Why and When the United States Complies with WTO Rulings*, 39 YALE J. INT’L L. 201, 203 (2014) (“[W]ho within the government supplies compliance is the *best predictor* of whether and when the U.S. government complies with WTO rulings. The need for congressional involvement in the compliance process both decreases the likelihood of compliance and delays compliance *more than any other factor*.”).

126. In the context of contract law, using expectation damages as a means of encouraging efficient breach may suffer from a problem of overreliance—where the harmed party knows there is a chance the other party will breach, but because compensation is certain, will proceed in reliance on the other parties’ performance. Steven Shavell, *Damage Measures for Breach of Contract*, 11 BELL J. ECON. 466, 472 (1980). In the international context, this argument would suggest that countries who foresee long-term breach from others should adjust industrial policy accordingly, rather than relying on compensatory measures or the potential for financial settlements. A. Mitchell Polinsky explains that efficient breach theory makes sense to push the breaching party to behave efficiently, but when we have reason to be concerned about the harmed party’s incentives, other remedies such as restitution will spur more efficient behavior. A. MITCHELL POLINSKY, AN INTRODUCTION TO LAW AND ECONOMICS 38 (2d ed. 1989). In the international context, Polinsky’s explanation suggests that expectation damages are likely a reasonable remedial choice because overreliance is less of a concern. The reason for this is that—unlike in the contract setting—the party that is harmed (domestic industry) is not the same party that decides to bring suit (the government) nor, importantly, is it the same party that is benefited by retaliatory measures. See *supra* note 88 and accompanying text for a discussion of the fairness critique of WTO remedies.

available to wealthy, developed countries as a way to buy themselves out of their obligations while conferring favors on their strongest industries in the form of WTO-violating policies. This is because potential retaliatory measures fall on other industries,¹²⁷ have lesser impact when imposed by developing countries with small markets,¹²⁸ and may even take the form of settlement payments, in which case the cost is dispersed over taxpayers while the benefits are concentrated on industries with the strongest lobbies. In this way, developed countries might be under—encouraged to comply. Thus, even assuming that some cases may present situations where countries are unwilling or unable to comply, a compensatory theory of countermeasures is likely to result in breach more frequently than is desirable. Even those who argue for compensatory remedies agree that instances of breach ought to be minimized. The likelihood that developed countries might buy their way out of their obligations is exacerbated by the delays that are allowed for in instituting countermeasures and the prospective nature of countermeasures. Because much of the damage to the complaining country remains uncompensated, there may be undercompensation, resulting in higher levels of breach than a true compensatory regime would predict.

This critique of a compensatory theory of WTO remedies is supported by the fact that developing countries generally have complied with WTO rulings, while the instances of noncompliance are generally attributable to developed countries. At the same time, what it misses, when discussing the ways that current WTO damages do not mimic expectation damages in contract law—that is, they do not fully compensate for harms—is that these breaches are still fairly infrequent. One explanation is that there are other costs to developed countries of exercising the option to breach. These are the reputational costs that have traditionally been seen as the force behind compliance, particularly for treaties with less in the way of formalized dispute resolution.¹²⁹ From a compensatory damages perspective, cross-retaliation is appealing because it solves some of the problems associated with the ineffectiveness of developing country complaints due to the size of the market and it may benefit consumers through the potential for lower prices on innovative goods, at least in the short term.

127. *See supra* notes 81–91 and accompanying text.

128. *See supra* notes 76–79 and accompanying text.

129. *See, e.g.*, Andrew T. Guzman, *A Compliance-Based Theory of International Law*, 90 CALIF. L. REV. 1823, 1861–65 (2002) (discussing factors that affect the importance of reputational costs in state decisions to breach international obligations); George W. Downs & Michael A. Jones, *Reputation, Compliance, and International Law*, 31 J. LEGAL STUD. 95 (2002) (discussing the complex factors that affect reputational costs of breach in international law).

2. *The Appeal of Financial Damages*

Financial damages have some appeal to scholars from both camps, and the cross-retaliation cases that occupy the next Section may be cast as one way of attaining many of the benefits of financial damages through settlement. Scholars from both camps—those who support the compliance theory of remedies and those who argue for compensatory remedies—have suggested that financial damages may solve some of the structural problems associated with retaliatory countermeasures. One benefit is that financial compensation does not result in greater trade distortion in the way that traditional countermeasures do.¹³⁰ A separate but related benefit is that financial remedies solve the problem of suspending concessions to industries that did not benefit from the initial violation and are merely located in the noncompliant country.¹³¹ In addition, the option of financial remedies might benefit weaker WTO members who have difficulty imposing effective countermeasures because those measures generally inflict greater harm on the imposing country than the noncompliant country.¹³² Financial damages, in contrast, provide a concrete benefit to a harmed country.

Financial damages have some of the same potential problems as retaliation. For example, the counterargument to the optimistic prediction that financial damages might give weaker WTO members greater recourse to remedies is that the relative ease of paying financial damages—as opposed to the harm and subsequent lobbying that occur when an “innocent” industry is targeted by remedies—will result in a greater number of breaches.¹³³ If breaches become too common, the norm of compliance will be softened, threatening the strength and value of the multilateral agreement. Additionally, the potential for monetary compensation could make WTO litigation

130. See Mercurio, *supra* note 58, at 329 (“[T]he most attractive feature of financial compensation is that, like trade compensation, it is not trade restrictive, and thus does not conflict with WTO principles.”).

131. See Joost Pauwelyn, *Enforcement and Countermeasures in the WTO: Rules Are Rules—Toward A More Collective Approach*, 94 AM. J. INT’L L. 335, 345–46 (2000) (“Pecuniary compensation would . . . make more economic sense than both the suspension of concessions and a compensatory lifting of trade barriers in mostly unrelated sectors . . .”).

132. See *id.* (“[Financial damages] would . . . be easier to monitor and more accessible for weaker WTO members.”); William J. Davey, *Compliance Problems in WTO Dispute Settlement*, 42 CORNELL INT’L L.J. 119, 126 (2009) (“[O]nly a small group of powerful countries can be expected to effectively use retaliation. The obvious possible remedy is to allow a prevailing party to choose between suspension of concessions and receipt of a periodic monetary payment.”).

133. See Davey, *supra* note 132, at 126 (“The system would have to be designed to avoid the possibility that rich members could effectively buy their way out of obligations in a way not available to the poor members. That result might be accomplished by tying the amount of fines to the size of the member’s economy or otherwise providing for a sliding scale that would minimize “discrimination” against poor members.”).

more appealing by driving conflicts that are now resolved politically into legal proceedings and encouraging rent-seeking behavior over diplomacy.

Despite the appeal of financial damages as a solution to the difficulties associated with crafting a remedial scheme at the WTO, it has not gained traction in international negotiations. This may be because those negotiations have effectively stalled overall.¹³⁴ Only recently have financial remedies made their way into some of the multi-lateral trade agreements that are under negotiation—primarily those in which the United States is a party.¹³⁵ The negotiated draft of the proposed Trans Pacific Partnership provides for the payment of monetary compensation until the parties have settled or the violator country has brought its laws into compliance.¹³⁶ It remains to be seen if these types of provisions will become common in regional treaties and gain adherence internationally.

D. Intellectual Property in Trade Agreements and the Making of IP Hostages

Cross-retaliation for WTO violations through suspension of intellectual property rights has the potential to bridge the compliance-compensation debate on remedies and to provide a path to financial damages. Of course, this was not the intention of including intellectual property law standards in the WTO Agreement. Instead, attempts to harmonize intellectual property laws through the TRIPS Agreement are meant to encourage businesses to produce and sell goods globally, increase investment in developing economies and open new markets for innovative corporations.¹³⁷ Absent these protections, companies would be hesitant to expand into foreign markets because of the

134. Takemasa Sekine, *Financial Compensation in Trade Dispute Settlements: Can the Free Trade Agreement Experiment be Successful?*, 10 *ASIAN J. WTO & INT'L HEALTH L. & POL'Y* 465, 467 (2015) (pointing out that financial compensation has not yet materialized as a remedy under the WTO); *World Trade Talks End in Collapse*, BBC NEWS, (July 29, 2008, 10:46 PM), <http://news.bbc.co.uk/go/pr/fr/-/2/hi/business/7531099.stm>.

135. Sekine, *supra* note 134, at 465–66.

136. Text of the Trans-Pacific Partnership, NEW ZEALAND TRANS-PACIFIC PARTNERSHIP, art. 28.20.7, https://www.mfat.govt.nz/assets/_securedfiles/Trans-Pacific-Partnership/Text/28.-Dispute-Settlement-Chapter.pdf (last visited Aug. 17, 2016). In this draft, there is a cap on monetary compensation set at fifty percent of the level of benefits the panel has determined may be suspended in retaliation, and a requirement that the suspension not last more than a year unless the complaining country agrees to an extension. *Id.* art. 28.20.7, 10.

137. Rajec, *supra* note 33, 153 (discussing benefits and drawbacks of increased uniformity in global patent law). The premise that uniform IP laws are beneficial to developing countries is contested, and some of the scholars who support cross-retaliation support it in part because it allows a path for lower levels of IP enforcement. This Article argues that cross-retaliation is an ill-suited instrument to decrease TRIPS requirements for developing countries. However, the very potential that IP rights—supposedly more protected than previously because of the WTO Agreement—might be threatened by their association with it serves as an example of how countries' IP and trade interests do not always fit seamlessly together, although they are aligned in theory.

threat of copying. Minimum required levels of intellectual property laws in countries party to TRIPS lower the transaction costs associated with operating in different legal environments and provide a baseline for IP rights protection. However, with the possibility of cross-retaliation under the TRIPS Agreement, the strength of those rights is challenged. Nevertheless, the use of cross-retaliation has some appeal from a trade perspective.

Patent protection is a time-limited right to exclude that governments grant to inventors who disclose their inventions.¹³⁸ This patent grants protection in exchange for disclosure of inventions with the assumption that patent holders may profit from producing or licensing the invention, a way of rewarding those who engage in commercially desirable innovation while benefiting the public through access to the technology—likely at a premium price before the patent expires—and as a part of the public domain following its expiration.¹³⁹ Those arguing for changes in the strength of patent protection or remedies associated with infringement often reference the tradeoff between protection and access.¹⁴⁰ These tradeoffs and balances, discussed below, are not the ones that drive discussions of the potential role of cross-retaliation through suspension of intellectual property rights. Instead, the potential role for cross-retaliation has been measured by the ways it may be able to address structural problems in WTO remedies, generally.

138. In the United States, the right of Congress to grant patents “[t]o promote the Progress of Science and useful Arts” is enshrined in the Constitution. U.S. CONST. art. I, § 8, cl. 8.

139. See Rebecca S. Eisenberg, *Patents and the Progress of Science: Exclusive Rights and Experimental Use*, 56 U. CHI. L. REV. 1017 (1989), reprinted in MARTIN J. ADELMAN ET AL., CASES AND MATERIALS ON PATENT LAW 33–34 (1998) (reasoning that courts expect the right of exclusion to provide incentives for individuals to invest in research and disclose their inventions, thereby benefiting the public); David S. Olson, *Taking the Utilitarian Basis for Patent Law Seriously: The Case for Restricting Patentable Subject Matter*, 82 TEMP. L. REV. 181, 195–97 (2009) (describing how the patent system solves the public goods problem by granting inventors time limited, exclusive rights to control their invention); Dan L. Burk & Mark A. Lemley, *Policy Levers in Patent Law*, 89 VA. L. REV. 1575, 1580 (2003) (determining that the exclusive rights granted to inventors is a limitation society accepts in the name of increased innovation); John F. Duffy, *Rethinking the Prospect Theory of Patents*, 71 U. CHI. L. REV. 439, 439–40 (2004) (arguing that the protections offered to inventors create rewards for continued innovation by eliminating the fear that a product may be appropriated by a competitor).

140. See, e.g., DAN L. BURK & MARK A. LEMLEY, THE PATENT CRISIS AND HOW THE COURTS CAN SOLVE IT (2009); Burk & Lemley, *supra* note 139; Michael W. Carroll, *One Size Does Not Fit All: A Framework for Tailoring Intellectual Property Rights*, 70 OHIO ST. L.J. 1361 (2009); Anna B. Laakmann, *An Explicit Policy Lever for Patent Scope*, 19 MICH. TELECOMM. & TECH. L. REV. 43 (2012) (suggesting patentable subject matter doctrine as potential policy lever for calibrating patent scope); Gideon Parchomovsky & Michael Mattioli, *Partial Patents*, 111 COLUM. L. REV. 207 (2011) (suggesting two new patent forms to mitigate the social costs of traditional patents and increase access by subsequent inventors); Sarah R. Wasserman Rajec, *Tailoring Remedies to Spur Innovation*, 61 AM. U. L. REV. 733, 742–48 (2012) (suggesting that courts weigh the public interest in encouraging innovation and promoting access when determining the appropriateness of the remedy of a permanent injunction).

The threat of cross-retaliation through TRIPS suspension has been welcomed by many as a way of evening the playing field between developed and developing countries to increase compliance.¹⁴¹ It is also a potential way to effect a transfer—a method of allowing for financial damages that are not provided for in the WTO.¹⁴² Because the industries in developed countries generally value intellectual property rights highly,¹⁴³ remedies that target these industries theoretically will result in the strongest lobbying for bringing laws into compliance.¹⁴⁴ Moreover, some that support greater use of cross-retaliation under TRIPS suggest that where noncompliance continues, suspension of IP rights may have some benefits.¹⁴⁵ For example, domestic industries in the complaining country will be able to enter the market for a drug earlier than expected if patent rights go unenforced. As a result, domestic consumers will gain access to medication for a lower cost. As Arvind Subramanian and Jayashree Watal explain, cross-retaliation under TRIPS has the dual benefits that it “inflict[s] loss or pain swiftly on the party being retaliated against” and is “beneficial to the country taking the action.”¹⁴⁶

The competing narratives of remedial purpose may appear reconcilable on the issue of cross-retaliation, particularly in relation to the TRIPS Agreement. Retaliation against a violation, such as granting illegal subsidies under the GATT, through intellectual property rights suspension exacts a high price

141. See *supra* note 96.

142. See Grossman & Sykes, *supra* note 16, at 161. Grossman and Sykes note that the threat of cross-retaliation might:

[Result in a] transfer of rents from interest groups in the violator country to the complaining nation. If so, it may have the nice property that it is much closer to a “transfer” than traditional trade sanctions, which may make it relatively attractive. Indeed, if TRIPS retaliation could be orchestrated in such a way as to avoid damaging innovation incentives (or other valuable interests served by intellectual property rights) . . . then it might dominate trade sanctions quite broadly.

Id.

143. The importance of intellectual property protection to developed countries was central to the creation of the TRIPS Agreement and its inclusion in the WTO. Antony Taubman, *Thematic Review: Negotiating “Trade-Related Aspects” of Intellectual Property Rights*, in *THE MAKING OF THE TRIPS AGREEMENT: PERSONAL INSIGHTS FROM THE URUGUAY ROUND NEGOTIATIONS* 15, 19 (Jayashree Watal & Antony Taubman eds., 2015); see also Macey, *supra* note 37, at 351 (describing the developing countries as “clearly not the *demandeurs* in [the TRIPS] negotiation); Brewster, *supra* note 11, at 49 (“[Intellectual property-dependent industries] are politically mobilized groups with the lobbying power to significantly influence national trade policies.”).

144. Ruse-Khan, *supra* note 11, at 2 (“Affected industries are likely to lobby their respective (non-complying) governments to do everything necessary to avoid such suspensions in the first place”); Subramanian & Watal, *supra* note 11, at 403.

145. Ruse-Khan, *supra* note 11, at 3 (“[S]uspending IP protection may have positive welfare effects for a (developing) economy, especially in education and health.” (emphasis omitted)); Subramanian & Watal, *supra* note 11, at 407 (suggesting that reducing intellectual property protection will make countries better off).

146. Subramanian & Watal, *supra* note 11, at 405–06.

for violations with little downside for the complaining country.¹⁴⁷ As a result, cross-retaliation is attractive to compliance proponents. For example, India, together with other developing countries,¹⁴⁸ has proposed that it be allowed to cross-retaliate without a showing that other remedies are not practicable and effective.¹⁴⁹

At the same time, cross-retaliation proves attractive to many proponents of a compensatory justice theory of remedies—when properly calculated.¹⁵⁰ Cross-retaliation is seen as potentially solving some of the problems associated with remedies that are unrelated to allowing occasional breach. For example, the inability of weaker countries to retaliate is problematic under either theory of remedies. Cross-retaliation under the TRIPS Agreement has the potential to solve this problem, and thus may also solve the problem of over-encouraging breach.¹⁵¹ In addition, it may lead to financial settlements—thus using a property rule of damages to force the noncompliant country to reveal how much it values the violation.¹⁵² This characteristic fits in well with a compensatory justice theory of remedies, though not with a view focused on increased compliance.

Many voices have therefore supported the idea of increased use and availability of cross-retaliation under TRIPS. However, it has not proved to be a panacea in practice—albeit with a small sample size. In all three cases where cross-retaliation through IP rights suspension has been authorized, it

147. Grossman & Sykes, *supra* note 16, at 161 (“In past arbitrations, the goal of complaining nations seeking cross-retaliation rights, of course, has been an authorization to retaliate under TRIPS.”).

148. The proposal was made on behalf of Cuba, Honduras, India, Indonesia, Malaysia, Pakistan, Sri Lanka, Tanzania, and Zimbabwe. *Negotiations on the Dispute Settlement Understanding: Special and Differential Treatment for Developing Countries Proposals on DSU*, WTO Doc. TN/DS/W/19 (Oct. 9, 2002).

149. *See id.* at 2. The proposal suggested that a new paragraph *3bis* be added to Article 22 of the DSU providing:

Notwithstanding the principles and procedures contained in paragraph 3, in a dispute in which the complaining party is a developing-country Member and the other party, which has failed to bring its measures into consistence with the Covered Agreements is a developed-country Member, the complainant shall have the right to seek authorization for suspension of concessions or other obligations with respect to any or all sectors under any covered agreements.

Id.

150. For a discussion of calculation, see Grossman & Sykes, *supra* note 16, at 158.

151. Not all commentators see such potential in cross-retaliation—some find it barbarously unfair and likely to greatly harm the noncompliant country beyond the harm it imposed. One suggested that “this hyper-creative form of retaliation . . . seems excessive,” violating “the biblical injunction [of] . . . an eye for an eye,” and that seeking ever “more cruel and unusual forms of sanctions can only lead to barbarism.” Alan Wm. Wolff, *Remedy in WTO Dispute Settlement*, in *THE WTO: GOVERNANCE, DISPUTE SETTLEMENT AND DEVELOPING COUNTRIES* 783, 798 (Merit E. Janow et al. eds., 2008).

152. *See generally* Pauwelyn, *supra* note 94, at 34–73 (discussing property and liability rules in the context of trade retaliation).

has not been used. In one case, compliance is set to be achieved twenty years after the dispute began—far longer than the three year free pass discussed in traditional WTO disputes above. In a second case, the size and power disparities between the two countries, together with the practical difficulties of taking advantage of rights suspension, have resulted in a stalemate. In the last case, the authorization of cross-retaliation led to a financial settlement. However, the financial settlement was reached with a country that has a strong trading economy and a robust domestic industry ready to take up production of the patented goods at issue, countering the idea that cross-retaliation alone can address problems associated with economic and political disparity. These cases do not show a complete failure of cross-retaliation; however, they raise serious questions about its supposed superiority over other retaliatory measures.

II. CROSS-RETALIATION IN PRACTICE: IP HOSTAGES AND FINANCIAL SETTLEMENTS

The competing purposes of WTO retaliation have informed the three cases in which cross-retaliation has been sought—and approved—at the WTO. Arbitrators have found convincing arguments based on the relative sizes of the economies, bolstering arguments about the potential ill effects on the complaining country from imposing restrictions on imports from the non-compliant country. Moreover, these potential imbalanced effects suggested that other measures would not be effective in inducing compliance. However, like other retaliatory measures, cross-retaliation has proven less effective as a threat by small countries against larger countries. In one of the three cases, *EC–Bananas III*, Ecuador entered into an agreement with the EU whereby the EU eliminated its discriminatory quotas and pledged to reduce discriminatory tariffs. The final tariff rates, however, will not be achieved until a full twenty years after the challenge was brought in the WTO.¹⁵³ Intellectual property rights were not suspended.

Two more recent cases have neither resulted in compliance, nor in suspension of intellectual property rights. In a challenge brought against the United States by Antigua, the countries have reached a stalemate, under which the United States has refused to bring its laws into compliance with GATS and Antigua continues to threaten to suspend intellectual property rights—but has not done so thus far. It may be that the threat of cross-retaliation is more effective only when credible. Thus, when Brazil threatened to suspend pharmaceutical patents held by U.S. entities in the second case, the threat did prompt action by the United States. Even so, this more credible threat did not result in compliance. Instead, it precipitated a private, financial

153. See *infra* Part II.A.

settlement. This Section describes the cases in which a WTO Arbitrator approved suspension of concessions under TRIPS. In none of these cases, however, have intellectual property rights been suspended. Thus, the emerging picture of cross-retaliation is that it is not a good tool to induce compliance; instead, it may spur negotiation of financial damages—but only for countries that otherwise have leverage.

A. *European Community–Bananas III*

The first case in which cross-retaliation under the TRIPS Agreement was sought and approved resulted neither in full compliance nor in IP rights suspension. As the name implies, *EC–Bananas III*,¹⁵⁴ is one in a series of cases. The banana disputes have been a decades-long battle over preferential market access granted by European states to the African, Caribbean and Pacific (“ACP”) group of countries while restricting imports from banana-producing Latin American countries.¹⁵⁵ In 1996, Ecuador, together with Guatemala, Honduras, Mexico, and the United States, challenged the EU’s agreement, called the Common Market Organization for Bananas (“CMOB”), as noncompliant with WTO agreements, including GATT and GATS.¹⁵⁶ In 1997, a dispute resolution panel found the EU in violation of the WTO Agreement,¹⁵⁷ a decision subsequently upheld by the Appellate Body.¹⁵⁸ When the EU failed to bring its import regime into compliance by January 1999, Ecuador sought and received approval to impose retaliatory

154. Appellate Body Report, *European Communities – Regime for the Importation, Sale and Distribution of Bananas*, WTO Doc. WT/DS27/AB/R (adopted Sept. 25, 1997) [hereinafter Appellate Body Report, *EC–Bananas III*].

155. *Bananas I* resulted in a panel opinion holding that various European regimes violated GATT’s most favored nation requirement that “any advantage, favor, privilege, or immunity” granted to goods from one contracting parties be afforded to goods from all contracting parties. GATT art. 1.1. Panel Report, *European Economic Community – Member States’ Import Regimes for Bananas*, DS32/R, ¶ 364-72, 375 (June 3, 1993) (not adopted) [hereinafter *EC–Bananas I*]. Subsequently, the European Union countries entered into the “Common Market Organisation for Bananas,” harmonizing the (preferential) treatment of bananas from certain countries and territories. Panel Report, *European Economic Community – Import Regime for Bananas*, ¶ 1 (Jan. 18, 1994), 34 I.L.M. 180, 181 (1995) (not adopted). This agreement was also found to violate GATT in *Bananas II*. *Id.* at ¶ 170. However, the GATT’s dispute settlement process required member consensus in order to adopt a panel opinion, and thus *Bananas II* was blocked from adoption by the EU. Chi Carmody, *Of Substantial Interest: Third Parties Under GATT*, 18 Mich. J. Int’l L. 615, 645 (1997).

156. The United States was not a producer of bananas, but challenged CMOB as noncompliant with GATS.

157. Panel Report, *European Communities – Regime for the Importation, Sale and Distribution of Bananas, Complaint by Ecuador*, WTO Doc. WT/DS27/R/ECU (adopted Sept. 25, 1997).

158. Appellate Body Report, *EC–Bananas III*, *supra* note 154.

countermeasures on goods from the EU.¹⁵⁹ Ecuador sought to suspend obligations and concessions it had made under the TRIPS Agreement in addition to GATS and GATT 1994—up to an amount of \$450 million.¹⁶⁰

Ecuador's request for authorization of cross-retaliation was based on its argument that it was not practicable or effective for it to implement its entire retaliation within the agreements that the EU had violated. The Arbitrator found compelling Ecuador's argument that because its imports from the EU were often used as "inputs in the domestic manufacturing process," imposing retaliatory tariffs would harm Ecuador's manufacturers—in addition to its consumers—more than it would harm European exporters.¹⁶¹ The Arbitrator also looked to the relative sizes of the markets, noting that "Ecuador, as a small developing country, only accounts for a negligible proportion of the [European Communities'] exports of these products" and, therefore, "the suspension of concessions by Ecuador vis-à-vis the European Communities is unlikely to have any significant effect on demand for these [European Communities'] exports."¹⁶² As a result, the arbitrators recommended and the panel approved retaliation up to an amount of \$201.6 million annually through suspension of concessions under GATT 1994, GATS, and TRIPS.¹⁶³ Ecuador proposed suspending the Ecuadorian intellectual property rights of European entities in sound recordings, industrial designs, and geographical indications.¹⁶⁴

Despite authorization, Ecuador did not implement the proposed retaliatory measures. Instead, the countries ultimately reached a settlement, albeit following further challenges. In April 2001, the EU and Ecuador agreed that Ecuador would suspend sanctions if the EU transitioned, by 2006, to a tariff-only system instead of its previous combined tariff and quota system.¹⁶⁵ However, after a few years, Ecuador found that the measures the EU took were insufficient and, in 2008, the Appellate Body upheld a panel finding that the EU's treatment of bananas based on their source country continued to violate GATT, once again requesting the EU to bring its provisions into

159. Arbitration Decision, *EC–Bananas III*, *supra* note 69, ¶¶ 171–77.

160. *Id.* ¶ 1.

161. *Id.* ¶¶ 89–96.

162. *Id.* ¶¶ 95–96.

163. *Id.* ¶¶ 170–73.

164. *Id.* ¶¶ 161–63.

165. World Trade Organization, Ministerial Decision, *European Communities – Transitional Regime For the EC Autonomous Tariff Rate Quotas on Imports of Bananas*, WTO Doc. WT/MIN(01)/16 (Nov. 21, 2001), https://www.wto.org/english/thewto_e/minist_e/min01_e/mindecl_ec_bananas_e.htm; Press Release, *Lamy Hails Accord Ending Long Running Banana Dispute*, WTO Doc. PRESS/591 (Dec. 15, 2009), https://www.wto.org/english/news_e/pres09_e/pr591_e.htm.

compliance.¹⁶⁶ In 2012, the EU and ten Latin American countries reached a new settlement and signed an agreement containing reductions in tariffs over time (and no quotas) for banana importation by the EU.¹⁶⁷

This was the first time TRIPS suspension was threatened, and the moral of its approval is not entirely clear. While the agreement ultimately achieved compliance, it is likely that the EU's desire to demonstrate a commitment to its international legal commitments and pressure from the United States played at least as large a role in its decision to comply as the threat of intellectual property rights suspension. Because the United States lined up with the Latin American countries, any retaliatory countermeasures approved were likely to present real threats, regardless of whether they were tariff- or TRIPS-related. Perhaps the situation fit into the unavoidable breach category, as the EU was able to negotiate to maintain preferences, albeit for a limited number of years. An assessment of the economic impact of the EU's measures, however, is beyond the scope of this Article. Nor does this case offer a clear narrative about developing countries prevailing in the face of resistance from developed countries. The countries given preferential treatment by the EU were in some cases least developed economies, and the EU's ultimate compliance with the settlement is still likely to harm banana producers in those countries. This may change commentator sympathies about the distributional effects of the outcome, if not on the ultimate legal question of what would constitute compliance. Nevertheless, the case forged a path—one that seemed desirable to other developing countries, in addition to academics.

B. *United States—Gambling*

The DSB has authorized Antigua to suspend its obligations under TRIPS to holders of intellectual property rights as a result of the United States' prohibition on online gambling. Online gambling is the second-largest employer in Antigua, after tourism.¹⁶⁸ In 2003, the United States began blocking online gambling sites hosted in Antigua, consistent with its federal

166. Ecuador requested consultations with EU under Article 21.5 of DSU; the Compliance Panel concluded that the EU's unilaterally reformed banana regime was inconsistent with its WTO obligations under Articles I, II and XIII of GATT, a decision upheld by the WTO Appellate Body in November 2008. Appellate Body Report, *European Communities – Regime for the Importation, Sale, and Distribution of Bananas*, ¶ 478, WTO Doc. WT/DS27/AB/RW2/ECU (adopted Nov. 26, 2008) (upholding panel's finding of violations of Art. II and Art. XIII of GATT).

167. *Historic Signing Ends 20 Years of EU-Latin American Banana Disputes*, WORLD TRADE ORG. (Nov. 8, 2012), https://www.wto.org/english/news_e/news12_e/disp_08nov12_e.htm; *EU and Ten Latinamerican Countries End 20-Year 'Banana Dispute'*, MERCOPRESS (Nov. 9, 2012), <http://en.mercopress.com/2012/11/09/eu-and-ten-latinamerican-countries-end-20-year-banana-dispute>.

168. Isaac Wohl, *The Antigua-United States Online Gambling Dispute*, J. INT'L COM. & ECON. 1, 2 (2009).

and state anti-racketeering laws prohibiting cross-border gaming services.¹⁶⁹ Indeed, the United States issued an arrest warrant against Jay Cohen, founder of World Sports Exchange, who owned an American gambling site in Antigua.¹⁷⁰ Antigua challenged various provisions of U.S. law as inconsistent with its obligations under GATS.¹⁷¹

Specifically, Antigua argued that the U.S. prohibitory measures were in violation of “market access” rules provided under Article XVI:1 of GATS by allowing domestic companies to offer online gambling services to U.S. citizens while prohibiting overseas Internet gambling services from Antigua.¹⁷² Antigua further contended that this resulted in a “total prohibition” of Antigua’s cross-border supply of services in the United States, a “limitation on the number of service suppliers” and “limitation on the total number of service operations”¹⁷³ in violation of Article XVI:2 of GATS.¹⁷⁴ In addition, Antigua argued that such restrictions constituted a “total prohibition” of the betting services and hence, amounted to a “zero quota” limitation, which was again prohibited by Article XVI:2 of GATS.¹⁷⁵ Lastly, Antigua claimed that the United States treated domestic and foreign service suppliers unequally, amounting to a “national treatment” violation under Article XVI:1 of GATS, which obligates every WTO member to treat the service suppliers of its own country and those of other member countries equally.¹⁷⁶ In response, the United States argued that it had not made commitments with respect to gambling services, and that a lack of numerical format in its provisions meant it was not a limitation on the number of service providers.¹⁷⁷ Additionally, it argued that its anti-racketeering laws fit the “public morals” exception provided for under Article XIV of GATS.¹⁷⁸

169. In particular, Antigua challenged the Wire Act, the Travel Act, and the Illegal Gambling Business Act as inconsistent with U.S. obligations under GATS. Panel Report, *United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, ¶ 3.93, WTO Doc. WT/DS285/R (adopted Nov. 10, 2004).

170. Hartley Henderson, *Antigua Offers a New Proposal to End Internet Gambling Dispute with U.S.*, OFF-SHORE GAMING ASSOC. (Sept. 12, 2014), http://www.osga.com/online_gaming_articles.php?Antigua-offers-a-new-proposal-to-end-Internet-gambling-dispute-with-U.S.-14330#.VYB5QflVikp (last visited Aug. 17, 2016).

171. Panel Report, *United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, ¶ 3.28, WTO Doc. WT/DS285/R (adopted Nov. 10, 2004).

172. *Id.* ¶¶ 3.124–25.

173. *Id.* ¶ 3.125.

174. *Id.*

175. *Id.* ¶ 3.134.

176. *Id.* ¶¶ 3.129, 3.150.

177. *Id.* ¶¶ 3.126–27.

178. *Id.* ¶¶ 3.278–79.

The WTO panel held that the federal laws prohibiting online gambling services violated both the market access rules and the national treatment obligation provided under GATS.¹⁷⁹ The public morals defense was rejected on the ground that the United States failed to demonstrate a total ban on all forms of internet gambling, such as those allowed under the Interstate Horse Racing Act.¹⁸⁰ The United States was unwilling to bring its laws in compliance with its commitments under GATS. Instead, the United States announced its intentions to modify its GATS schedule—a process unique to that agreement—and exclude gambling services from its commitments.¹⁸¹

Following the panel decision, Antigua requested authorization to impose countermeasures under GATS and TRIPS in an amount of \$3.4 billion.¹⁸² The arbitrators agreed that it was not “practicable or effective” for Antigua to retaliate within the same sector as the original violation, as that would require a suspension of entertainment services and result in harm to Antiguan citizenry through higher prices for and potential deprivation of entertainment options.¹⁸³ The great imbalance in trading positions of the two countries was a key to their determination that cross-retaliation was appropriate—as with Ecuador, Antigua is a country with a relatively low trade volume, and the harm associated with retaliation would be much greater than the harm to the United States of increased tariffs for a very small portion of its exports. The arbitrators authorized Antigua to suspend the obligations under the TRIPS Agreement at a level not exceeding \$21 million annually.¹⁸⁴

Antigua has periodically announced its intention to suspend U.S. copyrights in the music and film industries. In 2013, the country announced its intention to operate a website that would sell works to its citizens, without compensation to the American rights-holders¹⁸⁵ and set up a committee to oversee its plan.¹⁸⁶ However, no such website has materialized. The reason

179. *Id.* ¶ 7.2(b).

180. *Id.* ¶ 6.600.

181. Arbitrator Decision, *United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, ¶ 1.5, WTO Doc. WT/DS285/ARB (Dec. 21, 2007).

182. *Id.*

183. *Id.* ¶ 4.52.

184. *Id.* ¶ 6.1; *WTO Authorises Antigua to Move Forward on Retaliation in U.S. Gambling Dispute*, BRIDGES (Jan. 30, 2013), <http://www.ictsd.org/bridges-news/bridges/news/wto-authorises-antigua-to-move-forward-on-retaliation-in-us-gambling>.

185. W. John Eagan, *Antigua & Barbuda Planning to Launch Piracy Platform*, MALLOY LAW BLOG (Nov. 1, 2013), <http://www.malloylaw.com/blog/item/190-antigua-barbuda-planning-to-launch-piracy-platform>.

186. William New, *Antigua Creating Platform to Monetise Suspended U.S. IP Rights from WTO Case*, INTELL. PROP. WATCH (Oct. 24, 2013), <http://www.ip-watch.org/2013/10/24/antigua-creating-platform-to-monetise-suspended-us-ip-rights-from-trips-case/>. The committee recommended the establishment of a statutory body by the government of Antigua “to own, manage, and operate the ultimate platform to be created for the monetisation or other exploitation of the suspension of American intellectual property rights authorised . . . by the WTO.” *Id.*

is unclear, though the Antiguan economy's reliance on tourism from the United States and its fear of political retaliation from the United States provides a potential explanation.¹⁸⁷ The Antiguan example demonstrates that, for countries that cannot credibly threaten to suspend intellectual property rights, cross-retaliation alone will not place a weak WTO member in a better position. This calls into question the notion that intellectual property rights suspension will solve the problems of power imbalance that others have pointed out in the WTO remedial scheme.

C. *United States—Upland Cotton*

Brazil and the United States are both major producers and exporters of cotton, though their respective shares of the worldwide market have fluctuated over the years.¹⁸⁸ Following consultations in 2002, Brazil requested the establishment of a panel¹⁸⁹ to adjudicate its claims that various U.S. government programs were inconsistent with U.S. obligations under the Subsidies and Countervailing Measures (“SCM”) Agreement, the Agreement on Agriculture (“AA”), and Article XVI of GATT.¹⁹⁰ The panel ruled that a number of U.S. programs were inconsistent with the agreements.¹⁹¹ The Appellate Body upheld nearly all of the panel findings in 2005, and made recommendations for the United States to bring its programs into compliance.¹⁹² The

187. See Henderson, *supra* note 170 (speculating that “the island continuously refused to use that ruling fearing retaliation by the American government against the island in the area of tourism bans, which would have completely devastated their economy”).

188. ERS Report CWS-11d-01, Brazil’s Cotton Industry Economic Reform and Development (U.S.D.A. 2011), http://www.ers.usda.gov/media/111523/cws11d01_1_. In 1999, the country had 119 licensed operators employing around 3,000 people. Joseph M. Kelly, *Clash in the Caribbean: Antigua and U.S. Dispute Internet Gambling and GATS*, 10 GAMING RES. & REV. J. 15, 15 (2005).

189. Panel Report, *United States – Subsidies on Upland Cotton*, WTO Doc. WT/DS267/R (adopted Sept. 8, 2004).

190. See *id.* ¶¶ 1.1, 2.1, 2.2. The report describes the challenged programs as follows: [P]rohibited and actionable subsidies provided to United States producers, users and/or exporters of upland cotton, as well as legislation, regulations and statutory instruments and amendments thereto providing such subsidies (including export credit guarantees), grants, and any other assistance to United States producers, users and exporters of upland cotton. They include measures referred to as marketing loan programme payments (including marketing loan gains and loan deficiency payments (LDPs)), user marketing (step 2) payments, production flexibility contract payments, market loss assistance payments, direct payments, counter-cyclical payments, crop insurance payments, cottonseed payments and export credit guarantee programmes

Id. ¶ 2.2 (footnotes omitted).

191. *Id.* ¶ 2.1.

192. Appellate Body Report, *United States – Subsidies on Upland Cotton*, ¶ 5, WTO Doc. WT/DS267/AB/R (adopted Mar. 3, 2005). The Panel recommended the withdrawal of prohibited subsidies such as the export credit guarantees and step 2 payments and the removal of adverse effects or withdrawal of price-contingent subsidy measures. See *id.* ¶ 4.

United States subsequently made some changes to its programs, spurring further challenges from Brazil and another panel report¹⁹³ and Appellate Body decision¹⁹⁴ upholding many of the panel's findings of continued violations.

In 2005, after the first Appellate Body ruling, Brazil sought to retaliate against the United States for its continuing violations and arbitration was initiated.¹⁹⁵ During the second set of proceedings, the arbitration was suspended but it resumed in 2008.¹⁹⁶ Brazil sought permission to cross-retaliate by suspending concessions under TRIPS and GATS to compensate for \$3 billion worth of loss.¹⁹⁷ Brazil based its request on the potential damage to its own consumers that would result from imposing tariffs on ninety-five percent of the U.S. imports into Brazil, including many of its medical, educational, and food supplies.¹⁹⁸ The arbitrators determined that Brazil could suspend obligations under TRIPS after the allowable countermeasures in tariffs reached a certain threshold each year.¹⁹⁹ Brazil subsequently announced its intention to impose countermeasures up to \$829 million on U.S. goods, including \$268 million for cross-retaliation in pharmaceutical patents.²⁰⁰

The threat of suspension of the rights of U.S. patent holders on certain pharmaceutical companies comes with real heft. Brazil is a major market for pharmaceuticals, but it also has a strong domestic industry.²⁰¹ The government has supported the domestic pharmaceutical industry through a variety of investment policies, while also promoting policies that allow for greater access to medicines for its population.²⁰² As a result, the domestic industry supplies a large portion of the domestic market, but the portion supplied by foreign manufacturers—with patented drugs—is of significant importance to U.S. drug makers.²⁰³

Despite the long and involved legal process, Brazil has not suspended intellectual property rights. And the United States has not eliminated the

193. Panel Report, *United States – Subsidies on Upland Cotton, Recourse to Article 21.5 of the DSU by Brazil*, WTO Doc. WT/DS267/RW (adopted Dec. 20, 2007).

194. Appellate Body Report, *United States – Subsidies on Upland Cotton, Recourse to Article 21.5 of the DSU by Brazil*, WTO Doc. WT/DS267/AB/RW (adopted June 2, 2008).

195. Arbitrator Decision, *United States – Subsidies on Upland Cotton*, ¶ 5.102, WTO Doc. WT/DS267/ARB/2 (adopted Aug. 31, 2009).

196. *Id.* ¶ 1.22.

197. *Id.*

198. *Id.* ¶¶ 5.116–17.

199. *Id.* ¶ 6.3.

200. Ryan Conroy, *Looking Back on the U.S.—Brazil Upland Cotton Dispute*, POLITIK PRESS (Feb. 17, 2014), at 14.

201. *Protectionist Measurements Guard Domestic Pharmaceutical Industry Growth*, EMERGING MARKETS ONLINE, WLN 25088643 (Oct. 7, 2013).

202. *Id.*

203. *See id.* (“[A]ccording to Brazil’s local media Valor Economico, by June 2013 half of the Brazilian pharmaceutical sales were generated by domestic manufacturers.”).

inconsistent measures. Instead, the countries have come to a private settlement. In 2010, the United States agreed to pay Brazilian cotton farmers \$147.3 million per year while the countries continued to negotiate.²⁰⁴ In October 2014, the countries finally settled the dispute entirely through a one-time payment, by the United States, of \$300 million to the Brazil Cotton Institute.²⁰⁵ The Brazilian story does not show compliance, nor does it show a temporary relaxation of intellectual property rights that may be used to provide access to medicines to those who need them. In contrast to the Antigua story, however, it does demonstrate the use of cross-retaliation to garner a financial settlement, thereby serving a compensatory purpose.

III. EVALUATING CROSS-RETALIATION THREATS IN INTELLECTUAL PROPERTY

These case studies demonstrate that cross-retaliation is not operating to achieve either the compliance or the compensatory purposes of WTO remedies, and that cross-retaliation is only moderately useful as a means of providing monetary compensation for breaches through settlement. Particularly, cross-retaliation will not solve the difficulty of achieving relief for countries that suffer a great power-differential against a noncompliant country and are unable to mount a credible threat of intellectual property rights suspension. In this way, the cases show that cross-retaliation may suffer from the same problems as other means of enforcement. At the same time, cross-retaliation through the TRIPS Agreement has costs to intellectual property rights that have not been fully accounted for in prior discussions, which have primarily focused on perceived benefits. Cross-retaliation operates in ways that are at cross-purposes with international intellectual property goals and presents a number of practical difficulties as well. As a result, the limited benefits associated with cross-retaliation must be weighed against these potential costs.

A. The Trade Perspective on Cross-Retaliation Through Intellectual Property Rights Suspension

From a compliance theory viewpoint, cross-retaliation appears far less appealing in practice than in theory. Of the three cases, *EC–Bananas III* is the only case that arguably resulted in compliance, although it was actually a settlement with negotiated acceptable tariff treatments in the future. It took

204. Editorial, *U.S.–Brazil Cotton Deal Perpetuates an Unhealthy Status Quo of Subsidies*, WASH. POST (Oct. 7, 2014), https://www.washingtonpost.com/opinions/us-brazil-cotton-deal-perpetuates-an-unhealthy-status-quo-of-subsidies/2014/10/07/d8346bf4-4b2a-11e4-891d-713f052086a0_story.html.

205. News Release, United States and Brazil Reach Agreement to End WTO Cotton Dispute, USDA (Oct. 1, 2014), <http://www.usda.gov/wps/portal/usda/usdahome?contentid=2014/10/0219.xml>.

fifteen years to get that agreement, meaning that the potential for cross-retaliation did not appear to create a sense of urgency with regard to compliance.²⁰⁶ In addition, because other retaliatory measures were at stake from the United States and from Ecuador besides retaliation under the TRIPS agreement, it is not clear which of these threats resulted in the compliance—if any. It is entirely possible that Europe's eventual capitulation stemmed from other considerations wholly unrelated to remedial threats, such as reputation and reciprocity.²⁰⁷

Similarly, the two more recent cases did not, by any measure, result in compliance with WTO rules.²⁰⁸ In the *United States-Gambling* dispute, Antigua is still waiting for relief from its claim and continues to threaten suspension of United States copyrights. This threat, however, has not mobilized lobbying forces in the United States sufficiently to result in compliance with the WTO ruling or in a settlement approximating monetary damages. Antigua, moreover, is a developing country with an economy tens of thousands of times smaller than the United States.²⁰⁹ This is one situation in which cross-retaliation appears—at first blush—to be a desirable alternative to other types of trade retaliation. Antigua's relative weakness means that traditional retaliatory measures are unlikely to be effective in forcing compliance. However, in this case, cross-retaliation did not change the story. This could be for a few different reasons. For example, it could be that Antigua is unable to withstand diplomatic pressure from the United States and would rather preserve a good relationship than implement this remedy.²¹⁰ Or, perhaps Antigua does not have the technological capability to allow for a purely domestic distribution of copyrighted goods. A system for distribution of copyrighted work would certainly take some investment to implement. If the United States were to change its laws or offer a desirable settlement, Antigua would then have to discontinue its distribution. One likely explanation for Antigua's delay in carrying through the threat, then, is that the country is anticipating such a settlement offer and would rather settle the matter without investing in carrying out its threat if possible. And why hasn't the United States complied? It may be that the views of the United States on online gambling

206. *See supra* Part II.A.

207. *See supra* Part II.A.

208. *See supra* Part II.A–B. The United States actually formally withdrew gambling from its GATS commitments, which means that it is now compliant with its commitments. While GATS allows for opt-outs, other agreements do not.

209. Based on data from the World Bank, showing that the Gross Domestic Product of Antigua and Barbuda is \$1.221 billion, compared to the U.S. Gross Domestic Product of \$17.42 trillion. Antigua and Barbuda Data, WORLDBANK, <http://data.worldbank.org/country/antigua-and-barbuda> (last visited Jan. 22, 2016); United States Data, WORLDBANK, <http://data.worldbank.org/country/united-states> (last visited Jan. 22, 2016).

210. *See supra* text accompanying note 187 (discussing Antigua's fear of a tourism ban by the United States).

are so strong—whether by conviction or by lobby—that it is legislatively unable to change its law. This may be one of those cases where compliance is simply not possible. Still, it is noteworthy that in addition to its refusal to comply, the United States has also not come to a settlement agreement with Antigua. Perhaps the United States realizes that Antigua's threat is not viable. Whatever the reason for the stalemate, the threat of cross-retaliation through suspension of intellectual property rights has not compelled the United States to comply. Moreover, the possible explanations are generalizable to other small economies.

Similarly, the *United States-Upland Cotton* dispute did not result in compliance by the United States. Brazil's credible threat to the U.S. pharmaceutical industry resulted in pressure on the American government. However, the considerable lobbying power of the cotton industry that received the illegal subsidy and the gridlock that has characterized the American Congress together made compliance politically impossible in the United States. As a result, the United States is now subsidizing both American and Brazilian cotton farmers—the former through the various challenged subsidy programs, and the latter through a monetary payment to a fund intended for disbursement to Brazilian farmers. In contrast to Antigua, Brazil's threat of cross-retaliation spurred a financial settlement, but was not effective in spurring compliance.

Noncompliance in the *Gambling* and *Upland Cotton* cases may be explained by any number of factors. One compelling explanation for both cases comes from Rachel Brewster, who shows that the United States is most likely to comply with WTO rulings when compliance may be achieved through executive action and least likely when compliance requires congressional action.²¹¹ Brewster's work suggests that cross-retaliation—or any type of remedy—may be more or less effective at inducing compliance depending on the institution in charge of noncompliant laws. This explanation also suggests why it may be difficult to calibrate remedies to encourage only minimal breach. Congressional inability or refusal to change laws in order to comply with WTO rulings may merely reflect a collective action problem, where no one lawmaker wants to be seen as an enemy to the industry benefiting from noncompliance. At the same time, congressional inaction could just as well be characterized as a reflection of domestic values that is not properly represented in the treaties negotiated by the executive branch. In other words, Brewster's insight into congressional inaction could support both a conclusion that Congress is unable to determine when it is expedient to breach—or that failure to comply is a reflection of Congress identifying precisely the situations when breach is expedient and unavoidable. But, even if these cases

211. See Brewster, *supra* note 16.

show instances of Congress making rational determinations about the value of breach, cross-retaliation does not greatly aid in making this determination.

Furthermore, from a compensatory damages viewpoint, cross-retaliation delivers less in practice than in theory. Cross-retaliation was potentially attractive because it allowed for pricing compliance—or pricing breach—when complaining countries were otherwise unable.²¹² In particular, for countries that are unable to retaliate because the retaliation causes more damage to their industry than to the violator country's industries, cross-retaliation through intellectual property was seen as a way to impose the cost of breach on the noncompliant country at little cost to—and with potential benefit for—the complaining country. In addition, because countries could still negotiate, cross-retaliation served as a potential stand-in for financial damages.²¹³

Although *United States-Uplands Cotton* did result in monetary compensation, this was only when the complaining country posed a credible threat to U.S. holders of intellectual property rights. Although a developing country, Brazil is a significant market for the United States. And while its decision to suspend intellectual property rights may have galvanized the United States to settle, Brazil was also authorized to suspend other trade concessions as well. In this case, patent rights served as another lever for a country that already had some weight in its negotiations with the United States. Of course, the threat of suspending pharmaceutical patents was significant to an important U.S. industry, but Brazil was only able to exercise its influence on the United States because of the size of its markets to begin with. So, while the threat of intellectual property rights suspension may have helped Brazil to obtain compensation for the trade distortion it suffered, this result cannot be generalized to other developing markets searching for a means of collecting compensation for another country's breaches of WTO law.²¹⁴ This means that for least developed and developing countries, cross-retaliation may not

212. *See id.* at 261–63, 265.

213. *See supra* note 142.

214. This raises another potential problem with cross-retaliation from the efficient breach viewpoint: the size of the negotiated settlement is likely to mirror the value of the intellectual property rights to the noncompliant country, not the size of the harm to the complaining country. Theoretically, these values should be the same, because the rights-suspension is keyed towards the value of the initial violation. DSU, *supra* note 6, art. 22.4. However, this form of retaliation layers approximations upon approximations. Determination of the initial harm is not a precise science. *See Grossman & Sykes, supra* note 16, at 143–45 (discussing the methodology for calculating harm done to Brazil by illegal subsidies). This approximation (that is part of all countermeasure proceedings at the WTO) must then be followed in cases of cross-retaliation by determining an equivalent amount of harm through suspension of some number of patents for some amount of time. This double approximation likely results in a less accurate calculation of what should be compensatory damages than countermeasures that are imposed through tariff increases, and is problematic because the theory of efficient breach relies upon setting the cost of breach correctly, thereby ensuring that the set remedy neither over- nor under-encourages breach. *Id.* at 149–50. *But see* Abbott, *supra* note 11, at 561–62 (suggesting that valuation of IP assets is not unusually difficult).

be as useful of a tool as some have suggested because it is most useful for those that provide a large market. There are other, practical reasons why mounting a credible threat of cross-retaliation is likely limited to a relatively small number of developing countries that are discussed in more detail below.²¹⁵

The problem with cross-retaliation, then, from either point of view, is that it is unlikely to give leverage to countries that otherwise have none. Unfortunately, this was one of the strongest arguments in favor of the use of cross-retaliation. In the case of Brazil, retaliation was approved under the GATT, GATS, and TRIPS agreements, so part of the problem that was solved by cross-retaliation was that countermeasures under the violated agreements (GATT and SCM) would not allow for enough retaliation.²¹⁶ And for Brazil, with its strong generic drug industry, the threat of suspending pharmaceutical patents was a strong one. But least developed countries and those with weak economies are unlikely to have strong generic drug industries. Instead, some developing countries that have relatively strong economies are the most likely to have strong generic drug industries. Cross-retaliation may have some distributional benefits, then, but they are skewed towards those who are relatively well off to start with. It is unlikely to bring great benefit to countries that cannot mount a credible threat due to the small size of their overall markets or to their underdeveloped industry, both of which can undermine the threat associated with cross-retaliation. In the case of Antigua, the reason its threat is not credible may be that it simply relies on U.S. trade and good relations too much for it to make sense to impose the sanction.²¹⁷

In addition, for those suggesting that cross-retaliation would result in suspension of IP rights and that this would be beneficial to developing and least developed countries because of increased access to innovation,²¹⁸ the cases to date give little support to this viewpoint. In none of the three cases where intellectual property rights suspension was authorized was the remedy implemented, and access interests were not served by the threat of suspension. There are likely diplomatic and practical reasons for this. In terms of diplomacy, intellectual property rights suspension is a strong threat, and it may be that complaining countries have little interest in carrying through be-

215. See *infra* Section III.B.

216. Arbitration Decision, *United States – Subsidies on Upland Cotton*, ¶¶ 6.1–6.5, WTO Doc. 8WT/DS267/ARB/1 (Aug. 31 2009); Arbitration Decision, *United States – Subsidies on Upland Cotton*, ¶¶ 6.1–6.5, WTO Doc. WT/DS267/ARB/2 (Aug. 31 2009).

217. For example, according to USAID, the United States gave \$476,000 in aid to Antigua and Barbuda in 2012, \$711,000 in 2013, and \$512,000 in 2014, much of which was security assistance for the military and for narcotics enforcement. *Foreign Aid Explorer*, USAID, [https://explorer.usaid.gov/country-detail.html#Antigua and Barbuda](https://explorer.usaid.gov/country-detail.html#Antigua%20and%20Barbuda) (last visited Oct. 2, 2016).

218. See *supra* note 145.

cause of the potential chill in diplomatic relations or the potential for decreased aid.²¹⁹ In addition, it is easier to impose, increase, decrease, and lift tariff-based retaliation than it is to impose intellectual property-based retaliatory measures, making intellectual property rights suspension less flexible than tariff-based retaliation in diplomatic negotiations.

There are also practical complications that accompany suspension of intellectual property rights. For tariff-based retaliation, the government of a complaining country implements the retaliation itself by collecting higher tariffs. When suspending intellectual property rights, however, the complaining country needs to recruit actors to capitalize on the suspended intellectual property rights, unless those with technological know-how and capacity already stand ready to do so.²²⁰ Either way, the actor must possess sufficient technological prowess to capitalize on the scientific or artistic innovations hitherto protected, whether that means developing generic versions of drugs that were previously only manufactured by the patent holder or developing an online platform to facilitate the distribution of previously-protected movies and music within the complaining country. And because countermeasures of any sort may only be implemented until compliance is achieved, any investment necessary to exploit the intellectual property may be lost if and when the dispute is resolved. The *United States-Uplands Cotton* dispute may have been the rare case where non-governmental actors could capitalize on the suspended intellectual property rights, due to Brazil's strong generic pharmaceutical industry and its record of public-private partnerships in the drug industry.²²¹ However, in *United States-Gambling*, Antigua was only able to make vague threats about an internet platform that would allow for sharing of copyrighted materials.²²² It is unclear how much progress has been made on this project, if any, or how private actors in Antigua are being induced to invest in such a project.

B. The Intellectual Property Perspective on Cross-Retaliation

The potential benefits of threatening to suspend intellectual property rights—which I have argued are much smaller than imagined—come with costs and serious practical difficulties specific to the nature of the rights at issue. For example, patent rights are effective because they provide certainty that investments in innovation will be protected for a discrete length of time, but the potential for intellectual property rights suspension limits that certainty. As a result, in contrast to retaliation through raising tariffs, retaliation

219. See *supra* note 82.

220. See Abbott, *supra* note 11, at 585 (“Capital investment based upon a regime that is subject to termination on short notice may not be advisable.”).

221. See *supra* Part II.C.

222. See *supra* Part II.B.

through intellectual property rights suspension has the potential to impose diffuse social welfare costs by decreasing incentives to innovate worldwide.²²³ Increasing globalization also makes it difficult to constrain the costs of retaliation to companies “from” a single, offending country. Last, cross-retaliation also raises several practical problems unique to the nature of intellectual property protection, such as the difficulty of valuation, the need for significant private action to implement the suspension, and the pressure to maintain a way to reverse the rights-suspension when the appropriate level of retaliation is reached or the violator country amends its laws. These features mean that while cross-retaliation may be a useful option for some countries, it is not an effective option for least developed countries with relatively small markets and relatively weak economies.

One cost of a cross-retaliation regime is that the uncertainty associated with the potential suspension of intellectual property rights may result in lower investment in innovation—a cost with global externalities. The utilitarian justification for intellectual property rights posits that the rights represent a balance between the public’s interest in access to innovation and the need to encourage future innovation by granting inventors and creators the right to exclude others from marketing goods that embody their creations.²²⁴ Under such a theory, weakening intellectual property rights (through shorter terms, weaker remedies, or more exceptions, for example) will result in less innovation, while strengthening intellectual property rights will result in more innovation. The threat of cross-retaliation through suspension of intellectual property rights introduces uncertainty and is therefore a weakening of these rights. A company cannot control this risk *ex ante*, because cross-retaliation is imposed as retaliation for violations under other agreements, by other industries.²²⁵ As a result, if credible threats of cross-retaliation become more common, we can expect lower investments in innovation. One wrinkle to this cost is that it may be incurred even when intellectual property rights suspension is merely threatened, but not actually imposed. This is because the threat alone can cause uncertainty that will make investment in innovative industries less attractive than investment elsewhere. By allowing threats to intellectual property rights through cross-retaliation, uncertainty is reintroduced.

A counter to the innovation-cost argument is that the uncertainty associated with suspension of intellectual property rights is limited because of the

223. See *supra* note 139 (discussing the purpose of patent rights and its potential to increase investment in innovation, providing a social good).

224. See *supra* note 140 (discussing the balance between access and innovation).

225. This is not unique to cross-retaliation, as discussed in Section II.B, because the industry that suffers under retaliatory measures is generally not the industry that has benefitted from the initial violations. See *supra* Section II.B.

low likelihood that a threatening country will carry out its threat. In none of the cases discussed here were intellectual property rights suspended and there are reasons to think this trend may continue. Instead, countries that can mount a credible threat will pressure noncompliant countries to settle.²²⁶ However, another way to envision the potential cost to innovation of intellectual property rights suspension is that innovative companies, faced with the threat of cross-retaliation, will need to divert further resources from research and development to lobbying, either for the government to amend laws in violation and bring them into compliance, or for financial settlements. In this way, innovative industries are deputized by the WTO dispute resolution system to enforce compliance, or at least minimize noncompliance with WTO rules in unrelated industries. Whether directly or indirectly, cross-retaliation through intellectual property rights imposes some costs on innovative and creative industries, although the scope of those costs so far is likely small. Nevertheless, these costs may reasonably be assumed to impact the industries' innovative and creative capacities.

The costs of cross-retaliation do not end there, because there may be a ripple effect of costs to foreign investment and trade in industries that rely on innovation. This is not a problem of how much is invested in innovative activity, but of where the investments are made geographically. One common critique of the TRIPS Agreement at the time it was signed was that intellectual property is not a free trade issue.²²⁷ However, the justification for including it in the WTO Agreement was that uncertainty and wide disparity in intellectual property protection served as a barrier to trade.²²⁸ Specifically, innovative companies would hesitate to invest in countries that would not protect their intellectual property. In addition, there were prohibitively high transaction costs associated with figuring out whether the intellectual property rights were sufficient in each of many jurisdictions.²²⁹ According to this view, the TRIPS Agreement encourages companies to do business globally by providing a baseline of protection in all member states, and reducing risk and the transaction costs of doing business.

226. The length of the dispute resolution process leading to implementation of intellectual property rights suspension also is likely to reduce the perceived cost of such threats, so that one would not expect to see either a drastic or an immediate drop in investment in innovative industries upon the filing of a complaint at the WTO targeting the practices of an unrelated industry.

227. GRAEME B. DINWOODIE & ROCHELLE C. DREYFUSS, *A NEOFEDERALIST VISION OF TRIPS: THE RESILIENCE OF THE INTERNATIONAL INTELLECTUAL PROPERTY REGIME* 32 (2012) (casting the TRIPS Agreement as an intellectual property "tax" developing countries accepted in order to access other markets for trade).

228. Brewster, *supra* note 11, at 51 (suggesting that developed countries set the stage for cross-retaliation by linking intellectual property rights to market access issues in trade agreements during the WTO negotiations).

229. Rajec, *supra* note 33, at 164.

Decreased investment in innovation, to the extent cross-retaliation is likely to drive such a decrease, is not necessarily a bad thing when it comes in the service of greater access. The ideal level of innovative activity is a much-debated question, as is the appropriate balance between access interests and intellectual property rights protection.²³⁰ Thus, there may be circumstances in which decreased innovation is deemed worthwhile.²³¹ Nonetheless, cross-retaliation is a very blunt tool for weakening intellectual property rights—if that is in fact what we want—particularly if the threats are never realized. From an intellectual property law perspective, it would be unfortunate to weaken incentives to invest in intellectual property without achieving greater access to innovative goods. However, that is what happens if intellectual property-reliant industries bear the costs of lobbying their governments to comply with trade commitments while countries that are harmed threaten, but do not suspend, intellectual property rights.²³² Cross-retaliation represents a privileging of trade dispute resolution over intellectual property commitments, and the early results suggest that the returns—even in terms of trade dispute resolution—are not particularly promising.

C. Why Cross-Retaliation Threats in Intellectual Property Don't Work (Well)

It may seem surprising that cross-retaliation through intellectual property rights suspension is not as successful in practice as it is in theory. However, suspending intellectual property rights is different from imposing countermeasures in a number of practical ways that do much to explain why this remedy falls short. There are practical complications associated with suspending intellectual property rights that make the remedy costly and difficult for many countries to implement—or even to credibly threaten implementing. These complications include the complexity of valuing intellectual property rights, identifying which rights-holders to target, and inducing private actors to capitalize on the newly available market, even while recognizing that their authorization may be short-lived.

The value of retaliatory intellectual property rights suspension—like any retaliatory measure—is limited by the requirement that retaliation be valued at an amount equivalent to the impact of the protested measures.²³³ This

230. Mark A. Lemley, *Property, Intellectual Property, and Free Riding*, 83 TEX. L. REV. 1031, 1067–69 (2005) (detailing the debate); Lisa Larimore Ouellette, *Patent Experimentalism*, 101 VA. L. REV. 65, 128 (2015) (detailing without taking a position on the appropriate level of incentives and suggesting potential methods of gathering relevant data to address the question).

231. For instance, compulsory licensing.

232. For a discussion of the difficulty of setting efficient levels of intellectual property protection that also account for trade concessions, see Rajec, *supra* note 33, 168.

233. DSU, *supra* note 6, art. 22.4.

creates difficulties in intellectual property rights suspension that do not arise in tariff rate changes. For example, Brazil received approval to suspend intellectual property rights equivalent to a value of up to \$268 million a year. But determining how greatly a company values protection of its pharmaceutical products is more complicated than imposing tariffs under traditional countermeasures. The value associated with suspending patent rights is complicated to determine because it depends on the market demand for the products absent protection and the price of generic substitutes, which will reflect the cost of development and production to generic drug companies.²³⁴ Additionally, actions for retaliation under the WTO already require a showing of injury. In other words, first the DSB must determine the harm imposed by U.S. cotton subsidies and then must determine the appropriate level of intellectual property rights suspension that equals that level of harm. In addition to doubling the complexity of damages calculations, cross-retaliation requires a determination of which rights-holders to affect. This raises several questions. For example, if a copyrighted work of music is a collaboration between people in different countries, one of whom is from the United States, does cross-retaliation apply to the work? Similarly, if a U.S. pharmaceutical company files foreign patents in the name of foreign subsidiaries, will it matter that the invention originated in the United States by a U.S. inventor? What if the invention originated in a foreign laboratory, invented by an employee of a foreign subsidiary of a U.S. company? The WTO has increased global trade and global manufacturing, and with that the world has seen a proliferation of multi-national corporations. At this point, it is unclear how a country with authority to suspend U.S. intellectual property rights can limit harms associated with suspension of those rights exclusively to U.S. industries. If there is a way, however, it seems clear that a sophisticated country will find it worthwhile to circumvent those limits through strategic offloading of patents and other methods of corporate structuring.

One other clear difference between retaliation through increased tariffs and intellectual property rights suspension is that the first involves government action that is relatively easily started and stopped by Customs, while the second requires private actors who are equipped to exploit newly-unprotected intellectual property rights. Those private actors must also be willing to support any startup costs required to exploit those rights, and maintain this willingness even though the suspension of rights is capped at a certain level and may be cancelled upon the violating country's decision to bring its laws into compliance.²³⁵ This difference between retaliation through tariffs and retaliation through intellectual property rights-suspension is one explanation

234. Anyone who considers such calculations relatively simple ought to sit through damages arguments in patent infringement trials.

235. *See supra* note 220.

for why Brazil's threats are more credible than Antigua's. Brazil has a thriving pharmaceutical industry, including a robust generic drug manufacturing industry that makes it uniquely suited to exploit suspending U.S. pharmaceutical patents. In fact, it is likely that beyond Brazil and India, there are few countries able to mount a credible threat in this particular area of innovation. But whatever the field, there are costs associated with bringing products to market beyond intellectual property rights-related costs. These costs, such as product development, manufacturing, and marketing, are borne by private actors and not the government that has asked to implement them. Thus, in order to effectively retaliate, Antigua would need to encourage or coordinate a platform for the distribution of U.S. copyrighted works. And beyond the costs associated with making goods that embody the suspension of intellectual property rights available, any private actor stepping into this role is subject to limits on their profits. Similarly, there is a risk that the violating country will bring its laws back into compliance, thereby requiring the harmed country to reverse itself and begin protecting the rights again. These risks likely make it difficult to find private actors willing to exploit the intellectual property rights at all, even when there are actors well-positioned to do so.

This intellectual property perspective shows both that there are costs to intellectual property when cross-retaliation is approved and that there are costs associated with implementation of cross-retaliation, specific to the use of intellectual property, that make it less appealing than it originally appears. The practical costs may explain in part why threats to intellectual property have not resulted in a satisfactory result for Antigua and Barbuda.

IV. CONCLUSION

Intellectual property rights suspension has been hailed as a desirable retaliatory measure for small and developing countries facing violations by more powerful countries. However, authorization for cross-retaliation through TRIPS has rarely been requested and authorized, and it has never been implemented. The cases in which cross-retaliation under TRIPS has been approved serve to highlight its deficiencies. An analysis of the three cases in which cross-retaliation was authorized demonstrates that it will not result in greater compliance, it is unlikely to solve the power imbalance problem in WTO remedies, and it is not a useful tool for solving problems such as lack of access to innovation. This is not to suggest it can play no role. Cross-retaliation may work for some well-positioned developing countries. In such cases, cross-retaliation may serve as a blunt tool to gain monetary compensation otherwise not provided for in the WTO. However, because it is subject to the same problems of power imbalance between countries as all WTO disputes, cross-retaliation does not fully satisfy either of the dual and dueling goals of compliance and compensation that scholars have identified

and promoted. In addition, cross-retaliation through intellectual property rights suspension, if widely adopted as a strategy, may weaken intellectual property rights without providing greater access to innovation. It is time to reexamine this practice that has been wrongly hailed as a solution to the remedial problems at the WTO. It appears that this reexamination will favor a decreased—or at least not expanded—role for the remedy.