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TRIPS and Its Contents

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TRIPS AND ITS CONTENTS

PETER K. YU*

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* Copyright © 2019 Peter K. Yu. Professor of Law, Professor of Communication, and Director, Center for Law and Intellectual Property, Texas A&M University. Earlier versions of this article were presented at the Second Annual Intellectual Property Redux Conference at the University of New Hampshire School of Law, the 11th Annual Conference on Innovation and Communications Law at William S. Boyd School of Law, University of Nevada, Las Vegas, the 2019 Annual Meeting of the Law and Society Association in Washington, D.C., the 19th Intellectual Property Scholars Conference at DePaul University College of Law, and the International Intellectual Property Colloquium at Indiana University Maurer School of Law. I am grateful to Ann Bartow, Mary LaFrance, and Marshall Leaffer for their kind invitations and hospitality, and to the participants of these events for their valuable comments and suggestions.

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I. INTRODUCTION

About fifteen years ago, I wrote *TRIPS and Its Discontents*[1] for a symposium commemorating the tenth anniversary of the Agreement on Trade-Related Aspects of Intellectual Property Rights[2] (TRIPS Agreement). Held at Marquette University Law School in April 2005, that event was put together by my present colleague, Irene Calboli.[3] At that time, developing countries were deeply discontent with the TRIPS Agreement and the new and higher intellectual property standards that the World Trade Organization (WTO) had imposed upon them.[4] The Fifth

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[1] Peter K. Yu, *TRIPS and Its Discontents*, 10 MARQ. INTELL. PROP. L. REV. 369 (2006).

[2] 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 Agreement].

[3] Symposium, *The First Ten Years of the TRIPs Agreement*, 10 MARQ. INTELL. PROP. L. REV. 155 (2006); *see also* Irene Calboli, *Foreword*, 10 MARQ. INTELL. PROP. L. REV. i (2006) (providing a foreword to the Symposium). The published version of the Symposium also included Olufunmilayo Arewa, Graeme Dinwoodie, Sean Pager, Srividhya Ragavan (now another colleague of mine), and Marco Ricolfi.

[4] *See* Yu, *supra* note 1, at 379–86 (explaining why developing countries have been dissatisfied with the international intellectual property regime).

WTO Ministerial Conference in Cancún (Cancún Ministerial) had prematurely collapsed only two years before,[5] and WTO members voted to extend the transition period for least developed countries for the first time shortly before the Sixth WTO Ministerial Conference in Hong Kong (Hong Kong Ministerial), my hometown, in December 2005.[6] When I did the final edits for the 2006 article, the Hong Kong Ministerial was still fresh in my memory.[7]

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[5] Elizabeth Becker, *Poorer Countries Pull Out of Talks Over World Trade*, N.Y. TIMES, Sept. 15, 2003, at A1; Editorial, *The Cancún Failure*, N.Y. TIMES, Sept. 16, 2003, at A24.

[6] *See* Press Release, Word Trade Org., Poorest Countries Given More Time to Apply Intellectual Property Rules (Nov. 29, 2005), http://www.wto.org/english/news_e/pres05_e/pr424_e.htm [https://perma.cc/5J57-7R2K] [hereinafter LDC Extension Press Release] (reporting the WTO members' agreement to extend the transition period for least developed countries for seven and a half years until July 1, 2013, as long as the extension-seeking country has not yet met the TRIPS requirements or has not already offered protection in excess of those requirements). Since then, this transition period has been further extended for another eight years until July 1, 2021, without the earlier "non-rollback" commitment. Council for Trade-Related Aspects of Intellectual Property Rights, *Extension of the Transition Period Under Article 66.1 for Least Developed Country Members: Decision of the Council for TRIPS of 11 June 2013*, WTO Doc. IP/C/64 (June 12, 2013).

[7] At the time of the Ministerial Conference, I participated in the Hong Kong Trade and Development Symposium, a side event organized by the Geneva-based International Centre for Trade and Sustainable Development in coordination with the Hong Kong Fair Trade Fair Steering Committee and the Faculty of Law of the University of Hong Kong. *See* Peter K. Yu, *Development Bridge over Troubled Intellectual Property Water*, *in* INTELLECTUAL PROPERTY AND DEVELOPMENT: UNDERSTANDING THE INTERFACES—LIBER AMICORUM PEDRO ROFFE 97, 121 (Carlos Correa & Xavier Seuba eds., 2019) [hereinafter INTELLECTUAL PROPERTY AND DEVELOPMENT] (recounting the event).

Fast forward fifteen years to April 12 and 13, 2019, the time of the Second Annual Intellectual Property Redux Conference and only two to three days before the twenty-fifth anniversary of the TRIPS Agreement. Gone were the developing countries' trenchant critiques of the TRIPS Agreement or the attendant accusations of neo-imperialism.[8] In fact, the Agreement's silver anniversary was largely a non-event. The lack of commemorative activities surrounding this anniversary provided a sharp contrast to the two major conferences held at the WTO and the Max Planck Institute for Innovation and Competition when the TRIPS Agreement hit twenty.[9]

What has happened? Have developing countries successfully adjusted, or become sensitized, to the high intellectual property standards in the TRIPS Agreement? Have these countries and their supportive commentators and nongovernmental organizations become tired of criticizing the Agreement? Have developing countries and their supporters moved on to more pressing issues in the areas of intellectual property and international trade? Have these countries been mistaken about the negative ramifications of the TRIPS Agreement and finally figured out that the Agreement could be beneficial after all?

Seeking answers to these questions, this Article revisits the TRIPS developments in the past twenty-five

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[8] *See infra* notes 15–17 (providing sources that describe the TRIPS Agreement as coercive, imperialistic, and harmful).

[9] *See generally* THE MAKING OF THE TRIPS AGREEMENT: PERSONAL INSIGHTS FROM THE URUGUAY ROUND NEGOTIATIONS (Jayashree Watal & Antony Taubman eds., 2015) [hereinafter MAKING OF TRIPS AGREEMENT] (providing personal recollections from individuals involved in the TRIPS negotiations); TRIPS PLUS 20: FROM TRADE RULES TO MARKET PRINCIPLES (Hanns Ullrich et al. eds., 2016) [hereinafter TRIPS PLUS 20] (providing a commemorative collection of articles on the TRIPS Agreement).

years, with a primary focus on developing countries. Part I explores why these countries have gradually shifted their views from being discontent with the TRIPS Agreement to being content with it.[10] This Part offers five explanations for this gradual shift. Like the 2006 article, in which I offered four distinct accounts of the origins of the TRIPS Agreement,[11] I encourage readers to draw their own conclusions on why developing countries changed their perception and assessment.[12]

Part II turns to observations drawn from the developing countries' engagement with the TRIPS Agreement in the past twenty-five years. This Part focuses on four observations that will inform not only the Agreement's past but also the ongoing and future development of the international intellectual property regime. Part III concludes by identifying three active roles that the TRIPS Agreement will continue to play in the near future, from the developing countries' perspective. These roles show how much the international intellectual property regime has evolved in only a quarter-century.

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[10] *See* Frederick M. Abbott, *Legislative and Regulatory Takings of Intellectual Property: Early Stage Intervention Against a New Jurisprudential Virus*, *in* INTELLECTUAL PROPERTY AND DEVELOPMENT, at 21, 22 ("Today, we more likely hear about preserving the flexibilities inherent in the TRIPS Agreement than criticism of its rules.").

[11] *See* Yu, *supra* note 1, at 371–79 (discussing the bargain, coercion, ignorance, and self-interest narratives).

[12] *See id.* at 379 ("[I]nstead of attempting the impossible task of suggesting which narrative is correct, th[e 2006] Article highlights the tension between the different, and sometimes competing, narratives in the hope that readers will have a better understanding of the background behind the TRIPs negotiations and be able to draw their own conclusions.").

II. FROM DISCONTENTS TO CONTENTS

The TRIPS Agreement was signed in April 1994 and entered into effect on January 1, 1995.[13] In its first decade or so, the Agreement attracted major criticisms from policymakers in developing countries, nongovernmental organizations across the world, and academic and policy commentators in both developed and developing countries.[14] Some of these commentators characterized the TRIPS Agreement as coercive,[15] imperialistic,[16] and harmful.[17] Meanwhile, policymakers

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[13] TRIPS Agreement, *supra* note 2.

[14] *See infra* notes 15–17 (collecting sources that offer trenchant critiques of the TRIPS Agreement).

[15] *See* CAROLYN DEERE, THE IMPLEMENTATION GAME: THE TRIPS AGREEMENT AND THE GLOBAL POLITICS OF INTELLECTUAL PROPERTY REFORM IN DEVELOPING COUNTRIES 2 (2009) ("TRIPS became a symbol of the vulnerability of developing countries to coercive pressures from the most powerful developed countries and galvanized critics regarding the influence of multinational corporations on global economic rules."); GRAEME B. DINWOODIE & ROCHELLE C. DREYFUSS, A NEOFEDERALIST VISION OF TRIPS: THE RESILIENCE OF THE INTERNATIONAL INTELLECTUAL PROPERTY REGIME 33–34 (2012) (discussing the coercion narrative); Donald P. Harris, *TRIPS and Treaties of Adhesion Part II: Back to the Past or a Small Step Forward?*, 2007 MICH. ST. L. REV. 185, 194–204 (characterizing the TRIPS Agreement as a "treaty of adhesion"); Yu, *supra* note 1, at 373–75 (discussing the coercion narrative).

[16] *See* Marci A. Hamilton, *The TRIPS Agreement: Imperialistic, Outdated, and Overprotective*, 29 VAND. J. TRANSNAT'L L. 613, 614 (1996) ("Far from being limited to trade relations, correcting the international balance of trade, or lowering customs trade barriers, TRIPS attempts to remake international copyright law in the image of Western copyright law."); A. Samuel Oddi, *TRIPS—Natural Rights and a "Polite Form of Economic Imperialism,"* 29 VAND. J. TRANSNAT'L L. 415 (1996) (considering the TRIPS Agreement as a "polite form of economic imperialism"); J.H. Reichman, *Intellectual Property in International Trade: Opportunities and Risks of a GATT Connection*, 22 VAND. J. TRANSNAT'L L. 747, 813 (1989) ("Imposition of foreign legal standards on unwilling states in the name of

and industry groups extolled the benefits of the Agreement, especially in its early days. They also considered the inclusion of intellectual property disputes in the mandatory

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'harmonization' remains today what Ladas deemed it in 1975, namely, a polite form of economic imperialism." (citing 1 STEPHEN P. LADAS, PATENTS, TRADEMARKS, AND RELATED RIGHTS: NATIONAL AND INTERNATIONAL PROTECTION 14–15 (1975))); Peter K. Yu, *The International Enclosure Movement*, 82 IND. L.J. 827, 902 (2007) ("Because of power asymmetry, [the TRIPS] harmonization process eventually became a Westernization, or Northernization, process.").

[17] *See* Jagdish Bhagwati, *What It Will Take to Get Developing Countries into a New Round of Multilateral Trade Negotiations*, *in* DEP'T FOREIGN AFFS. & INT'L TRADE, TRADE POLICY RESEARCH 2001, at 19, 21 (2001) (Can.) ("TRIPS does not involve mutual gain; rather, it positions the WTO primarily as a collector of intellectual property–related rents on behalf of multinational corporations."); Surendra J. Patel, *Can the Intellectual Property Rights System Serve the Interests of Indigenous Knowledge?*, *in* VALUING LOCAL KNOWLEDGE: INDIGENOUS PEOPLE AND INTELLECTUAL PROPERTY RIGHTS 305, 316 (Stephen B. Brush & Doreen Stabinsky eds., 1996) (arguing that the TRIPS Agreement has made U.S. copyright law universal, harming the interests of the developing world); WORLD BANK, GLOBAL ECONOMIC PROSPECTS AND THE DEVELOPING COUNTRIES 2002: MAKING TRADE WORK FOR THE WORLD'S POOR, at xvii (2002) (estimating that "rent transfers to major technology-creating countries—particularly the United States, Germany, and France—in the form of pharmaceutical patents, computer chip designs, and other intellectual property, would amount to more than $20 billion"); Yu, *supra* note 16, at 889 (noting that the unquestioned adoption of foreign intellectual property standards "might . . . exacerbate the dire economic plight of less developed countries by allowing foreign rights holders to crush local industries through the threats of litigation, or even actual litigation"); J. Michael Finger, *The Doha Agenda and Development: A View from the Uruguay Round* 9 (Asian Dev. Bank, Econ. & Research Dep't, Working Paper No. 21, 2002) (stating that "TRIPS developing countries took on as legal obligation a cost of $60 billion per year"). *See generally* Peter M. Gerhart, *The Tragedy of TRIPS*, 2007 MICH. ST. L. REV. 143, 158–62 (explaining why international negotiations are ill-equipped to handle distributive issues).

WTO dispute settlement process a crowning achievement of the Uruguay Round of Trade Negotiations.[18]

In recent years, however, the TRIPS Agreement seems to have made a second, and markedly different, impression, as the two sets of positions have gradually swapped. While policymakers and industry groups in developed countries have become increasingly disappointed with the TRIPS Agreement, finding it "primitive, constrained, inadequate, and ineffective,"[19] those who used to criticize the Agreement seem to have warmed up to it and become more content. Indeed, a growing number of policymakers in developing countries have used TRIPS standards to signify that their countries have offered sufficient intellectual property protection and enforcement.[20]

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[18] *See* Rachel Brewster, *Shadow Unilateralism: Enforcing International Trade Law at the WTO*, 30 U. PA. J. INT'L L. 1133, 1134 (2009) ("Diplomats and trade negotiators have referred to the [Dispute Settlement Understanding] as the 'crown jewel' of the WTO system."); William J. Davey, *The WTO Dispute Settlement System: The First Ten Years*, 8 J. INT'L ECON. L. 17, 32 (2005) ("Dispute settlement is one of the great successes of the WTO."); Rochelle Cooper Dreyfuss & Andreas F. Lowenfeld, *Two Achievements of the Uruguay Round: Putting TRIPS and Dispute Settlement Together*, 37 VA. J. INT'L L. 275 (1997) (noting that the two achievements of the Uruguay Round are, as the title suggests, "Putting TRIPS and Dispute Settlement Together"); Molly Land, *Rebalancing TRIPS*, 33 MICH. J. INT'L L. 433, 445–61 (2012) (discussing why subjecting the TRIPS Agreement to trade dispute resolution has restricted the policy space for tailoring national intellectual property policies); Ruth Okediji, *Toward an International Fair Use Doctrine*, 39 COLUM. J. TRANSNAT'L L. 75, 149–50 (2000) ("One of the most celebrated accomplishments of the WTO system is the dispute resolution mechanism which adds legitimacy to the overall design of the new trading system." (footnote omitted)).

[19] Peter K. Yu, *TRIPS and Its Achilles' Heel*, 18 J. INTELL. PROP. L. 479, 483 (2011).

[20] *See* TRIPS Agreement, *supra* note 2, art 1.1 ("Members may, but *shall not be obliged to*, implement in their law more extensive

Focusing primarily on the developing countries' shift from being discontent with the TRIPS Agreement to being content with it,[21] this Part offers five explanations for this about turn. While each reason may only provide an incomplete picture of this changing position, all five reasons are relevant. They are offered alongside each other so that readers can have a more complete picture and can decide for themselves which explanation, or explanations, is the most persuasive.

A. Everything Is Relative

The first explanation is that everything is relative. Since the expiry of the transition period for developing countries on January 1, 2000,[22] developed countries began expressing their disappointment with the lack of protection and enforcement of intellectual property rights in their less developed counterparts.[23] Many developed countries also

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protection than is required by this Agreement, provided that such protection does not contravene the provisions of this Agreement." (emphasis added)); Antony Taubman, *Australia's Interests Under TRIPS Dispute Settlement: Trade Negotiations by Other Means, Multilateral Defence of Domestic Policy Choice, or Safeguarding Market Access?*, 9 MELB. J. INT'L L. 217, 228 (2008) ("[T]he assertion that legislation is 'TRIPS compliant' . . . served as a metonym—a brand, even—of a country's willingness and capacity to provide a regulatory regime that is receptive to the trade interests that defined 'new economy' or innovation-based models of growth and prosperity.").

[21] Although the scope and length of this Article do not allow for a greater exploration of the developed countries' position shift, that subject is no less important and equally instructive.

[22] *See* TRIPS Agreement, *supra* note 2, art. 65.2 (providing developing countries with a four-year transition period).

[23] *See* Yu, *Achilles' Heel*, *supra* note 19, at 505 (noting the developed countries' deep dissatisfaction with the continuous piracy and counterfeiting problems in developing countries and explaining why the former did not push for stronger international intellectual property enforcement norms until the mid-2000s).

noted their concerns about the deadlocks at the WTO, which prevented the organization from further liberalizing trade.[24] As United States Trade Representative (USTR) Robert Zoellick noted famously, and disturbingly, after the collapse of the Cancún Ministerial, the United States was interested in separating the "can-do" countries from the "won't-do" countries, and planned to "move towards free trade with [only the former]."[25]

In the mid-2000s, the United States, the European Union, Japan, and other developed countries began to actively negotiate free trade and economic partnership agreements.[26] These agreements have not only generated new and higher protection and enforcement standards in the intellectual property area, but have also steered international norm-setting activities away from the WTO and the World Intellectual Property Organization

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[24] *See generally* FATOUMATA JAWARA & AILEEN KWA, BEHIND THE SCENES AT THE WTO: THE REAL WORLD OF INTERNATIONAL TRADE NEGOTIATIONS (updated ed. 2004) (examining the difficulties in the WTO negotiations, with a focus on the failure of the Cancún Ministerial); Cho Sungjoon, *A Bridge Too Far: The Fall of the Fifth WTO Ministerial Conference in Cancun and the Future of Trade Constitution*, 7 J. INT'L ECON. L. 219 (2004) (providing a post-mortem analysis of the failed Cancún Ministerial).

[25] Robert B. Zoellick, *America Will Not Wait for the Won't-Do Countries*, FIN. TIMES (London), Sept. 22, 2003, at 23.

[26] *See generally* INTELLECTUAL PROPERTY & FREE TRADE AGREEMENTS (Christopher Heath & Anselm Kamperman Sanders eds., 2007) (collecting articles that discuss free trade agreements in the intellectual property context); Robert Burrell & Kimberlee Weatherall, *Exporting Controversy? Reactions to the Copyright Provisions of the U.S.-Australia Free Trade Agreement: Lessons for U.S. Trade Policy*, 2008 U. ILL. J.L. TECH. & POL'Y 259 (criticizing the United States-Australia Free Trade Agreement); Peter K. Yu, *Currents and Crosscurrents in the International Intellectual Property Regime*, 38 LOY. L.A. L. REV. 323, 392–400 (2004) (discussing the growing use of bilateral and regional trade agreements to push for higher intellectual property standards).

(WIPO).[27] While then WTO Director-General Pascal Lamy expressed "concern about incoherence, confusion, exponential increase of costs for business, unpredictability and even unfairness in trade relations,"[28] WIPO Director General Francis Gurry worried that the parties negotiating the Anti-Counterfeiting Trade Agreement (ACTA)[29] would "tak[e] matters into their own hands to seek solutions outside of the multilateral system to the detriment of inclusiveness of the present system."[30]

To illustrate the strengthened protections offered by TRIPS-plus bilateral, regional, plurilateral agreements,

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[27] *See* Ruth L. Okediji, *Legal Innovation in International Intellectual Property Relations: Revisiting Twenty-One Years of the TRIPS Agreement*, 36 U. PA. J. INT'L L. 191, 196 (2014) ("[T]he instability generated by a new breed of plurilateral agreements has ushered multilateral IP norm-setting, and the TRIPS Agreement specifically, into an age of uncertainty."). *See generally* Peter K. Yu, *The Non-multilateral Approach to International Intellectual Property Normsetting*, *in* INTERNATIONAL INTELLECTUAL PROPERTY: A HANDBOOK OF CONTEMPORARY RESEARCH 83, 86 (Daniel J. Gervais ed., 2015) (discussing the TRIPS-plus standards in bilateral, regional, and plurilateral trade agreements).

[28] World Trade Org., *Proliferation of Regional Trade Agreements "Breeding Concern"—Lamy* (Sept. 10, 2007), https://www.wto.org/english/news_e/sppl_e/sppl67_e.htm [https://perma.cc/RKC5-XVG7].

[29] Anti-Counterfeiting Trade Agreement, *opened for signature* May 1, 2011, 50 I.L.M. 243 (2011) [hereinafter ACTA]. For my discussions of this Agreement, see generally Peter K. Yu, *The ACTA/TPP Country Clubs*, *in* ACCESS TO INFORMATION AND KNOWLEDGE: 21ST CENTURY CHALLENGES IN INTELLECTUAL PROPERTY AND KNOWLEDGE GOVERNANCE 258 (Dana Beldiman ed., 2013); Peter K. Yu, *ACTA and Its Complex Politics*, 3 WIPO J. 1 (2011); Peter K. Yu, *Enforcement, Enforcement, What Enforcement?*, 52 IDEA 239 (2012); Peter K. Yu, *Six Secret (and Now Open) Fears of ACTA*, 64 SMU L. REV. 975 (2011) [hereinafter Yu, *Six Secret Fears*].

[30] Catherine Saez, *ACTA a Sign of Weakness in Multilateral System, WIPO Head Says*, INTELL. PROP. WATCH (June 30, 2010), https://www.ip-watch.org/2010/06/30/acta-a-sign-of-weakness-in-multilateral-system-wipo-head-says [https://perma.cc/5LWR-J3ZN].

consider the protections for undisclosed test or other data that have been submitted to regulatory authorities for the marketing approval of pharmaceutical and biological products.[31] Article 39.3 of the TRIPS Agreement introduced only two obligations relating to pharmaceutical products: the protection "against unfair commercial use" and the protection "against disclosure."[32] Unlike Article 1711.6 of the North American Free Trade Agreement (NAFTA),[33] the TRIPS provision does not stipulate the minimum duration for such protection,[34] nor does it prevent

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[31] *See* TRIPS Agreement, *supra* note 2, art. 39.3 (offering protection to undisclosed test or other data for pharmaceutical products).

[32] Article 39.3 of the TRIPS Agreement provides:

Members, when requiring, as a condition of approving the marketing of pharmaceutical or of agricultural chemical products which utilize new chemical entities, the submission of undisclosed test or other data, the origination of which involves a considerable effort, shall protect such data *against unfair commercial use*. In addition, Members shall protect such data *against disclosure*, except where necessary to protect the public, or unless steps are taken to ensure that the data are protected against unfair commercial use.

Id. (emphasis added); *see also* Peter K. Yu, *Data Exclusivities and the Limits to TRIPS Harmonization*, 46 FLA. ST. U. L. REV. 641, 649–51 (2019) (discussing these two obligations).

[33] Article 1711.6 of NAFTA explicitly states:

Each Party shall provide that for data . . . that are submitted to the Party after the date of entry into force of this Agreement, no person other than the person that submitted them may, without the latter's permission, rely on such data in support of an application for product approval during a reasonable period of time after their submission. For this purpose, a reasonable period shall normally mean not less than five years from the date on which the Party granted approval to the person that produced the data for approval to market its product, taking account of the nature of the data and the person's efforts and expenditures in producing them.

North American Free Trade Agreement, Can.-Mex.-U.S., art. 1711.6, Dec. 17, 1992, 32 I.L.M. 289 (1993) (entered into force Jan. 1, 1994) [hereinafter NAFTA].

[34] *Compare id.* ("[A] reasonable period shall normally mean not less than five years from the date on which the Party granted approval to the

countries from relying on data submitted by originators to regulatory authorities.[35]

By contrast, the bilateral, regional, and plurilateral trade agreements the United States negotiated in the 2000s have included five years of minimum protection for pharmaceutical test data.[36] Labeled by commentators as "TRIPS-plus,"[37] these agreements require the signatories to offer protections that go beyond the TRIPS requirements, such as market exclusivity[38] and data reliance.[39] In the

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person that produced the data for approval to market its product, taking account of the nature of the data and the person's efforts and expenditures in producing them."), *with* TRIPS Agreement, *supra* note 2, art. 39.3 (omitting the durational requirement). *See also* Yu, *supra* note 32, at 651–52 (discussing the lack of a durational requirement in Article 39.3 of the TRIPS Agreement).

[35] *Compare* TRIPS Agreement, *supra* note 2, art. 39.3, *with* NAFTA, *supra* note 33, art. 1711.6 ("[N]o person other than the person that submitted them may, without the latter's permission, rely on such data in support of an application for product approval during a reasonable period of time after their submission."). *See also* Yu, *supra* note 32, at 655–58 (discussing the lack of explicit language mentioning data reliance in Article 39.3 of the TRIPS Agreement).

[36] *See, e.g.*, Dominican Republic-Central America Free Trade Agreement, art. 15.10.1, Aug. 5, 2004, http://www.ustr.gov/trade-agreements/free-trade-agreements/cafta-dr-dominican-republic-central-america-fta/final-text [https://perma.cc/Y7BQ-R4HR]; United States-Australia Free Trade Agreement, Austl.-U.S., art. 17.10.1, May 18, 2004, https://ustr.gov/trade-agreements/free-trade-agreements/australian-fta/final-text [https://perma.cc/T7AX-TRY6]; United States-Singapore Free Trade Agreement, Sing.-U.S., art. 16.8.1, May 6, 2003, https://ustr.gov/trade-agreements/free-trade-agreements/singapore-fta/final-text [https://perma.cc/J5TP-BRPH].

[37] *See* Yu, *supra* note 16, at 867–68 (discussing TRIPS-plus provisions).

[38] As I noted in an earlier article:

Although commentators often describe this regime as "data exclusivity," the term "market exclusivity" is more accurate because the TPP regime merely prevents the marketing of a new pharmaceutical or agrochemical product based on the utilization of, or reliance on,

mid-2010s, the adoption of the Trans-Pacific Partnership (TPP) Agreement further strengthened the obligations regarding such protections.[40] The TPP intellectual property chapter also included new protections for the undisclosed test or other data for biological products,[41] an area not covered by Article 39.3 of the TRIPS Agreement.[42]

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previously submitted test or other data. However, the regime does not grant exclusive rights in the data, nor does it prevent the utilization of, or reliance on, such data during the exclusivity term.

Yu, *supra* note 32, at 674–75 (footnote omitted).

[39] *See supra* note 36 (providing the relevant treaty provisions).

[40] *See* Trans-Pacific Partnership Agreement, art. 18.50, Feb. 4, 2016, https://ustr.gov/trade-agreements/free-trade-agreements/trans-pacific-partnership/tpp-full-text [https://perma.cc/RT6J-GYDY] [hereinafter TPP Agreement] (providing protection to undisclosed test or other data for pharmaceutical products). For my discussions of the TPP, see generally Peter K. Yu, *The Investment-Related Aspects of Intellectual Property Rights*, 66 AM. U. L. REV. 829 (2017); Peter K. Yu, *Investor-State Dispute Settlement and the Trans-Pacific Partnership*, *in* INTELLECTUAL PROPERTY AND THE JUDICIARY 463 (Christophe Geiger et al. eds., 2018); Peter K. Yu, *The Alphabet Soup of Transborder Intellectual Property Enforcement*, 60 DRAKE L. REV. DISCOURSE 16, 24–28 (2012) [hereinafter Yu, *Alphabet Soup*]; Peter K. Yu, *TPP and Trans-Pacific Perplexities*, 37 FORDHAM INT'L L.J. 1129 (2014) [hereinafter Yu, *TPP and Trans-Pacific Perplexities*].

[41] *See* TPP Agreement, *supra* note 40, art. 18.51 (providing protection to undisclosed test or other data for biological products).

[42] *See* Srividhya Ragavan, *The (Re)Newed Barrier to Access to Medication: Data Exclusivity*, 51 AKRON L. REV. 1163, 1185 (2017) ("On the face of it, biologics are not included within the scope of Article 39.3's requirement to protect new chemical entities. The [new chemical entities] should not, by definition, include biologics." (footnote omitted)); Yu, *supra* note 32, at 689–90 ("Article 39.3 of the TRIPS Agreement does not grant protection to biologics because those products are not considered 'new chemical entities' within the meaning of the Agreement.").

Although the TPP provisions for pharmaceutical and biological products were suspended[43] after the adoption of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP),[44] which replaced the TPP Agreement following the United States' withdrawal,[45] the standard for biological products was strengthened once again with the adoption of the United States-Mexico-Canada Agreement (USMCA).[46] Seeking to replace NAFTA,[47] this Agreement protects undisclosed test or other data for biological products "for a period of at least ten years from the date of first marketing approval."[48] Lasting two years longer than the term stipulated in the

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[43] *See* Comprehensive and Progressive Agreement for Trans-Pacific Partnership art. 2, Annex, Mar. 8, 2018, https://www.mfat.govt.nz/en/trade/free-trade-agreements/free-trade-agreements-concluded-but-not-in-force/cptpp/comprehensive-and-progressive-agreement-for-trans-pacific-partnership-text [https://perma.cc/3W4C-T28F] (entered into force Dec. 30, 2018) (suspending Articles 18.50 and 18.51 of the TPP Agreement).

[44] *Id.*; *see also* Peter K. Yu, *Thinking About the Trans-Pacific Partnership (and a Mega-Regional Agreement on Life Support)*, 20 SMU SCI. & TECH. L. REV. 97, 104–06 (2017) (discussing the CPTPP).

[45] *See* Presidential Memorandum Regarding Withdrawal of the United States from the Trans-Pacific Partnership Negotiations and Agreement, 82 Fed. Reg. 8497 (Jan. 23, 2017) (directing the USTR to "withdraw the United States as a signatory to the [TPP and] . . . from TPP negotiations"); *see also* Yu, *supra* note 44, at 101–10 (discussing the United States' withdrawal from the TPP Agreement and its aftermath).

[46] United States-Mexico-Canada Agreement, Can.-Mex.-U.S., Nov. 30, 2018, https://ustr.gov/trade-agreements/free-trade-agreements/united-states-mexico-canada-agreement [https://perma.cc/R4RM-9JR5] [hereinafter USMCA].

[47] *See* Glenn Thrush, *Trump Says He Plans to Withdraw from Nafta*, N.Y. TIMES (Dec. 2, 2018), https://www.nytimes.com/2018/12/02/us/politics/trump-withdraw-nafta.html [https://perma.cc/4MCV-MGDH] (reporting President Trump's announcement of his intention to withdraw the United States from NAFTA).

[48] USMCA, *supra* note 46, art. 20.49; *see also* Yu, *supra* note 32, at 682–83 (discussing Article 20.49 of the USMCA).

TPP Agreement,[49] the USMCA standard is now the high-water mark of protection in this area, which many U.S. legislators have found inappropriately high.[50]

When all of these slowly increasing standards are taken into consideration, it is difficult not to be cynical about the ongoing trajectory of international intellectual property norm-setting. Recognizing that everything is relative, Susan Sell, one of the most ardent critics of the TRIPS Agreement, made the following observation around the time of the ACTA negotiations:

> Fifteen years ago, trade negotiators signed off on the most comprehensive multilateral intellectual property agreement in history. It was both sweeping in scope and legally binding. Hailed as a major change to international market regulation at the time, in retrospect, it looks like a relatively timid

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[49] *Compare* TPP Agreement, *supra* note 40, art. 18.51, *with* USMCA, *supra* note 46, art. 20.49.

[50] As stated in a letter sent by more than 100 Democrat Congressional representatives to United States Trade Representative Robert Lighthizer:

Unless the USMCA text is amended, it would limit Congress' ability to adjust the biologics exclusivity period, instead locking the US into policies that keep cancer and other drug prices high while exporting this model to Mexico, which has no additional exclusivity period for biologics, and to Canada, which has an eight-year period.

Letter from Representative Jan Schakowsky et al. to Robert E. Lighthizer, U.S. Trade Representative (July 11, 2019), https://schakowsky.house.gov/uploads/lighthizermeds.pdf [https://perma.cc/2BM9-ZD3J]; *see also* Allison Inserro, *House Democrats Ask US Trade Representative to Drop Biologics Language from USMCA*, CTR. FOR BIOSIMILARS (July 12, 2019), https://www.centerforbiosimilars.com/news/house-democrats-ask-us-trade-representative-to-drop-biologics-language-from-usmca [https://perma.cc/6N73-JYU2] (reporting on the letter).

> and permissive agreement. . . . Looking back on the past fifteen years of intellectual property norm setting and governance, critics' initial objections to TRIPS look almost mild, and I, for one, never imagined that the original TRIPS would look so good.[51]

Because a decade has now passed since Professor Sell's observation, the TRIPS Agreement has likely become even more "timid and permissive," especially when compared against the CPTPP and the USMCA.

B. TRIPS Is Obsolete

The second explanation is that the TRIPS Agreement is now obsolete. Even in the early days of this Agreement, some commentators took the position that the Agreement was obsolete upon arrival. As Marci Hamilton observed in the mid-1990s:

> Despite its broad sweep and its unstated aspirations, TRIPS arrives on the scene already outdated. TRIPS reached fruition at

[51] Susan K. Sell, *TRIPS Was Never Enough: Vertical Forum Shifting, FTAs, ACTA, and TPP*, 18 J. INTELL. PROP. L. 447, 448 (2011). Henning Grosse Ruse-Khan concurred:
The trend towards TRIPS-plus obligations in [free trade agreements] has . . . led to changes in the perception of TRIPS: initially viewed by developing countries as serving primarily the interests of the [intellectual property] exporting industries in the developed world, TRIPS is now often praised for the flexibilities it offers. It seems that—after fifteen years and in light of [ACTA] and other initiatives—TRIPS is not so bad after all.
Henning Grosse Ruse-Khan, *The International Law Relation Between TRIPS and Subsequent TRIPS-Plus Free Trade Agreements: Towards Safeguarding TRIPS Flexibilities?*, 18 J. INTELL. PROP. L. 325, 328 (2011) (footnote omitted).

> the same time that the on-line era became irrevocable. Yet it makes no concession, not even a nod, to the fact that a significant portion of the international intellectual property market will soon be conducted on-line.[52]

Professor Hamilton's observation drew support from the TRIPS negotiators' lack of interest in setting

[52] Hamilton, *supra* note 16, at 614–15. Jerome Reichman concurred:

> [The principal weakness of the TRIPS Agreement] stems from the drafters' technical inability and political reluctance to address the problems facing innovators and investors at work on important new technologies in an Age of Information. The drafters' decision to stuff these new technologies into the overworked and increasingly obsolete patent and copyright paradigms simply ignores the systemic contradictions and economic disutilities this same approach was already generating in the domestic intellectual property systems.

J.H. Reichman, *The Know-How Gap in the TRIPS Agreement: Why Software Fared Badly, and What Are the Solutions*, 17 HASTINGS COMM./ENT. L.J. 763, 766 (1995) (footnote omitted). By contrast, Patricia Judd is comfortable with the TRIPS Agreement's lack of Internet-related provisions:

> [T]he TRIPS Agreement is not the dinosaur that some perceive it to be. Sure, it does not have overt, cutting edge provisions on tackling Internet enforcement. Neither does any other instrument. In fact, trying to tackle such an ever-changing phenomenon as Internet enforcement through a treaty is ill-advised. No treaty, large or small, bilateral or multilateral, regional or multinational, can hope to keep up with recent and ongoing technological changes. What TRIPS does have is a malleability that can aid it in keeping up with the times. It does not need specific Internet-oriented provisions to be relevant in an Internet age. In fact, given the perceived necessary specificity of those provisions to tackle the problem of the moment, such provisions may actually prove disadvantageous, falling by the wayside as the specific tactics and technologies they address become outdated.

Patricia L. Judd, *The TRIPS Balloon Effect*, 46 N.Y.U. J. INT'L L. & POL. 471, 527 (2014) (footnote omitted).

Internet-related intellectual property norms.[53] This lack of interest is understandable considering that the TRIPS Agreement "adjusted the level of intellectual property protection to what was the highest common denominator among major industrialized countries as of 1991."[54] In the early 1990s, the Internet had not yet entered the mainstream. To some extent, the omission of Internet-related norms in the TRIPS Agreement provided WIPO with an opportunity to regain the momentum for international intellectual property norm-setting.[55] Less than

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[53] As Antony Taubman, the Director of the WTO Intellectual Property, Government Procurement and Competition Division, recounted:

In 1986 the Internet was a limited tool for academics and researchers, unknown to most of humanity who were largely oblivious to its potential economic and social impact. And the very character of trade was perceived essentially to concern transactions in physical objects that passed across borders and could be counted and measured as such—things you could drop on your foot, as the familiar parlance put it.

Antony Taubman, *Thematic Review: Negotiating "Trade-Related Aspects" of Intellectual Property Rights*, *in* MAKING OF TRIPS AGREEMENT, *supra* note 9, at 15, 19–20; *see also* David Fitzpatrick, *Negotiating for Hong Kong*, *in* MAKING OF TRIPS AGREEMENT, *supra* note 9, at 285, 287 ("While copyright lawyers were alive to the dawn of the digital era, and the convergence of television, computer and telephone technology, the Internet was not then upon us. The negotiators did not indulge in futurology."); Jagdish Sagar, *Copyright: An Indian Perspective*, *in* MAKING OF TRIPS AGREEMENT, *supra* note 9, at 341, 347 ("It seems odd, looking back, that the Internet never figured in the TRIPS negotiations: at least, I do not remember any mention of it and the treaty itself took no account of it.").

[54] Daniel J. Gervais, *The TRIPS Agreement and the Doha Round: History and Impact on Economic Development*, *in* 4 INTELLECTUAL PROPERTY AND INFORMATION WEALTH: ISSUES AND PRACTICES IN THE DIGITAL AGE 23, 43 (Peter K. Yu ed., 2007) [hereinafter INTELLECTUAL PROPERTY AND INFORMATION WEALTH]; *see also id.* at 29 ("The 1992 text was not extensively modified and became the basis for the TRIPS Agreement adopted at Marrakesh on April 15, 1994.").

[55] *See* Yu, *supra* note 26, at 367–75 (discussing efforts to regain the momentum for international intellectual property norm-setting); *see*

two years after the Agreement's adoption, WIPO established the WIPO Copyright Treaty[56] and the WIPO Performances and Phonograms Treaty.[57] This U.N. specialized agency also initiated the WIPO Internet Domain Name Process.[58]

An area that Professor Hamilton did not mention, and one to which TRIPS negotiators also did not pay sufficient attention, was the TRIPS Agreement's limited coverage of biotechnology. Although the biotechnology revolution has been proceeding very rapidly since the 1980s, thanks in part to the United States Supreme Court decision of *Diamond v. Chakrabarty*,[59] the Agreement includes only two sub-provisions addressing the policy and ethical concerns sparked by this revolution.[60] Echoing

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also Graeme B. Dinwoodie, *The Architecture of the International Intellectual Property System*, 77 CHI.-KENT L. REV. 993, 1005 (2002) ("[T]he sudden emergence of the WTO as part of the international intellectual property lawmaking process seemed to energize WIPO, resulting in the conclusion of several new treaties in copyright, patent and trademark law, as well as the reorganization . . . designed to make WIPO fit for the twenty-first century." (footnotes omitted)).

[56] World Intellectual Property Organization Copyright Treaty, Dec. 20, 1996, 2186 U.N.T.S. 121.

[57] World Intellectual Property Organization Performances and Phonograms Treaty, Dec. 20, 1996, 2186 U.N.T.S. 203.

[58] WORLD INTELLECTUAL PROP. ORG., THE MANAGEMENT OF INTERNET NAMES AND ADDRESSES: INTELLECTUAL PROPERTY ISSUES: FINAL REPORT OF THE WIPO INTERNET DOMAIN NAME PROCESS (1999); WORLD INTELLECTUAL PROP. ORG., THE RECOGNITION OF RIGHTS AND THE USE OF NAMES IN THE INTERNET DOMAIN NAME SYSTEM: REPORT OF THE SECOND WIPO INTERNET DOMAIN NAME PROCESS (2001).

[59] 447 U.S. 303 (1980).

[60] A key concern at that time was the patentability of isolated human genes and genetically-engineered microorganisms. For discussions of this issue, see generally Margo A. Bagley, *A Global Controversy: The Role of Morality in Biotechnology Patent Law*, *in* 2 INTELLECTUAL PROPERTY AND INFORMATION WEALTH, *supra* note 54, at 317; Li Yahong, *Human Gene Patenting and Its Implications for Medical*

Article 53(a) of the European Patent Convention,[61] Article 27.2 of the TRIPS Agreement allows WTO members to "exclude from patentability inventions . . . [when it] is necessary to protect *ordre public* or morality, including to protect human, animal or plant life or health or to avoid serious prejudice to the environment."[62] Article 27.3(b) also permits members to exclude from patentability "plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes."[63] Notwithstanding these two sub-provisions, the TRIPS Agreement did not anticipate many of the latest developments in the biotechnology area.[64] Had it been otherwise, the negotiations on the provisions relating to the treatment of biologics might have been less controversial at the TPP and other negotiations.[65]

Research, *in* 2 INTELLECTUAL PROPERTY AND INFORMATION WEALTH, *supra* note 54, at 347.

[61] *See* Convention on the Grant of European Patents art. 53(a), Oct. 5, 1973, *as amended by* Decision of the Administration Council of the European Patent Organization of Dec. 21, 1978, 1065 U.N.T.S. 255, 272 (excluding from protection those inventions "the publication or exploitation of which would be contrary to *ordre public* or morality").

[62] TRIPS Agreement, *supra* note 2, art. 27.2.

[63] *Id.* art. 27.3(b).

[64] *See* Antonio Gustavo Trombetta, *Negotiating for Argentina*, *in* MAKING OF TRIPS AGREEMENT, *supra* note 9, at 257, 260 (noting that "[b]iotechnology was a relatively new field and international experience was scarce"); *see also* J.H. Reichman, *From Free Riders to Fair Followers: Global Competition Under the TRIPS Agreement*, 29 N.Y.U. J. INT'L L. & POL. 11, 36–37 (1996) (stating that it is "unlikely that states could use the WTO framework to oblige other states to adopt high levels of patent protection for [biotechnological] inventions for the foreseeable future").

[65] *See* Frederick M. Abbott, *The Evolution of Public Health Provisions in Preferential Trade and Investment Agreements of the United States*, *in* CURRENT ALLIANCES IN INTERNATIONAL INTELLECTUAL PROPERTY LAWMAKING: THE EMERGENCE AND IMPACT OF MEGA-REGIONALS 45, 55 (Pedro Roffe & Xavier Seuba eds., 2017) (noting that "negotiation

The third area that is relevant to the discussion, and that TRIPS negotiators largely ignored, involves protection for traditional knowledge and traditional cultural expressions.[66] To be fair to these negotiators, the WIPO

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of the duration of the biologics exclusivity period was perhaps the most controversial part of the TPP negotiations"); Burcu Kilic & Courtney Pine, *Inside Views: Decision Time on Biologics Exclusivity: Eight Years Is No Compromise*, INTELL. PROP. WATCH (July 27, 2015), http://www.ip-watch.org/2015/07/27/decision-time-on-biologics-exclusivity-eight-years-is-no-compromise [https://perma.cc/5BAE-5K98] ("As the Trans-Pacific Partnership . . . negotiations approach their endgame, biologics exclusivity is still considered 'one of the most difficult outstanding issues in the negotiation.'").

[66] As Piragibe dos Santos Tarragô, the chief TRIPS negotiator for Brazil, recounted:

Brazil is one of the world's largest agricultural producers, and its local communities have been using the fruits of the country's immense biodiversity for medicinal and farming purposes, through traditional knowledge. So it was quite natural that Brazil kept the matter under close scrutiny and that it saw it as in its interests that no new standard should be created in haste. In the end, despite extending considerably the frontiers of patentability, the TRIPS negotiators were not able to find appropriate answers to resolve the quandary of the compatibility with the criteria for patent protection and their application to living materials in a manner that could also take into account the genuine concerns of farmers and holders of traditional knowledge.

Piragibe dos Santos Tarragô, *Negotiating for Brazil*, *in* MAKING OF TRIPS AGREEMENT, *supra* note 9, at 239, 246; *see also* A.V. Ganesan, *Negotiating for India*, *in* MAKING OF TRIPS AGREEMENT, *supra* note 9, at 211, 229–30 (noting that the "recognition and rewarding of traditional knowledge of indigenous communities" was "outside the purview of the TRIPS Agreement"). For my discussions of traditional knowledge and traditional cultural expressions, see generally Peter K. Yu, *Cultural Relics, Intellectual Property, and Intangible Heritage*, 81 TEMP. L. REV. 433 (2008); Peter K. Yu, *Traditional Knowledge, Intellectual Property, and Indigenous Culture: An Introduction*, 11 CARDOZO J. INT'L & COMP. L. 239 (2003). *See also* Symposium, *Traditional Knowledge, Intellectual Property, and Indigenous Culture*, 11 CARDOZO J. INT'L & COMP. L. 239 (2003) (providing the first academic symposium on traditional knowledge and traditional cultural expressions in a U.S. law school).

Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore was not established until September 2000, more than five years after the adoption of the TRIPS Agreement.[67] Even with the establishment of this intergovernmental committee, it took a few more years before developing countries advanced their so-called Article 29*bis* proposal, which would require patent applicants to disclose the traditional knowledge and genetic resources used in their inventions.[68] Notwithstanding these late-occurring developments, the protection of traditional knowledge and traditional cultural expressions was not new—even at the beginning of the TRIPS negotiations. Such protection can be traced back to the adoption of the Tunis Model Law on Copyright in 1976,[69] or even earlier to the African Study Conference on Copyright in Brazzaville, Congo in August 1963.[70]

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[67] *Intergovernmental Committee (IGC)*, WORLD INTELL. PROP. ORG., http://www.wipo.int/tk/en/igc [https://perma.cc/Z6JS-829A] (last visited July 30, 2018). *See generally* PROTECTING TRADITIONAL KNOWLEDGE: THE WIPO INTERGOVERNMENTAL COMMITTEE ON INTELLECTUAL PROPERTY AND GENETIC RESOURCES, TRADITIONAL KNOWLEDGE AND FOLKLORE (Daniel F. Robinson et al. eds., 2017) (collecting articles that offer detailed analyses of the Intergovernmental Committee's effort).

[68] *See* Communication from Brazil, China, Colombia, Cuba, India, Pakistan, Peru, Thailand, and Tanzania, *Doha Work Programme—The Outstanding Implementation Issue on the Relationship Between the TRIPS Agreement and the Convention on Biological Diversity*, WTO Doc. WT/GC/W/564/Rev.2 (July 5, 2006).

[69] TUNIS MODEL LAW ON COPYRIGHT (1976), *reprinted in* 12 COPYRIGHT 165 (1976); *see also* Paul Kuruk, *Protecting Folklore Under Modern Intellectual Property Regimes: A Reappraisal of the Tensions Between Individual and Communal Rights in Africa and the United States*, 48 AM. U. L. REV. 769, 813–17 (1999) (discussing the Tunis Model Law on Copyright).

[70] *See* Monika Dommann, *Lost in Tradition? Reconsidering the History of Folklore and Its Legal Protection Since 1800*, *in* INTELLECTUAL PROPERTY AND TRADITIONAL CULTURAL EXPRESSIONS IN A DIGITAL

Finally, the past decade alone has seen the emergence of many new technologies, including "digital communication, Big Data, [the] Internet of Things, 3D printing, blockchains, artificial intelligence, robotics, autonomous vehicles, nanotechnology, and synthetic biology."[71] To be sure, it would be unrealistic to expect international agreements to be able to keep pace with all of the latest technological developments, especially considering the usual cat-and-mouse chase between international agreements and such developments.[72]

ENVIRONMENT 3, 11 (Christoph Beat Graber & Mira Burri-Nenova eds., 2008) (tracing the protection of folklore to the Brazzaville Conference); Peter K. Yu, *A Tale of Two Development Agendas*, 35 OHIO N.U. L. REV. 465, 473 (2009) (noting the introduction of "special provisions for the protection of African folklore" as one of the three specific recommendations at the Brazzaville Conference). For discussions of the Brazzaville Conference, see generally SAM RICKETSON & JANE C. GINSBURG, INTERNATIONAL COPYRIGHT AND NEIGHBOURING RIGHTS: THE BERNE CONVENTION AND BEYOND 888–90 (2d ed. 2005); Charles F. Johnson, *The Origins of the Stockholm Protocol*, 18 BULL. COPYRIGHT SOC'Y U.S.A. 91, 103–08 (1970).

[71] Peter K. Yu, *A Half-Century of Scholarship on the Chinese Intellectual Property System*, 67 AM. U. L. REV. 1045, 1089 (2018).

[72] *See* Colin B. Picker, *A View from 40,000 Feet: International Law and the Invisible Hand of Technology*, 23 CARDOZO L. REV. 149, 184 (2001) ("[D]elay is the rule in the formation of international law. Usually, international law is created over long periods, by the gradual acceptance of customary state practice or after long treaty negotiations."); Peter K. Yu, *Trade Agreement Cats and the Digital Technology Mouse*, *in* SCIENCE AND TECHNOLOGY IN INTERNATIONAL ECONOMIC LAW: BALANCING COMPETING INTERESTS 185, 202 (Bryan Mercurio & Ni Kuei-Jung eds., 2014) ("[F]rom initial negotiation to final ratification to full implementation, it takes a considerable amount of time, effort, energy, and resources to complete a trade agreement. The rate at which such an agreement is developed can hardly keep pace with the rate of technological change."). *But see* Patricia L. Judd, *Toward a TRIPS Truce*, 32 MICH. J. INT'L L. 613, 615–16 (2011) ("TRIPS contains features that give it the pliability necessary to keep up with the times, adapting to an intellectual property environment driven by the internet and by a decreasing emphasis on territoriality.

Nevertheless, the emergence of these technologies does suggest that the TRIPS Agreement may no longer be at the center of the international intellectual property debate, at least as far as new technologies are concerned. With the ongoing efforts to address some of these technological issues under the electronic commerce or digital trade umbrella, one may also wonder if and how these efforts will ultimately affect the protections offered by the TRIPS Agreement.[73]

C. TRIPS Is Flexible

The third explanation is that the TRIPS Agreement is more flexible than what policymakers and commentators have given it credit for. Since the Agreement's adoption, Graeme Dinwoodie and Rochelle Dreyfuss have done important work articulating the benefits of viewing this Agreement through a neo-federalist lens.[74] As they observed:

> We do not subscribe to the supranational code view of the TRIPS Agreement. Rather, we see the Agreement as reflecting a

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The TRIPS Agreement is both more equitable and more malleable than its longtime reputation suggests.").

[73] *See* Mira Burri, *The Governance of Data and Data Flows in Trade Agreements: The Pitfalls of Legal Adaptation*, 51 U.C. DAVIS L. REV. 65, 77–99 (2017) (discussing the digital trade issues at the WTO); Henry Gao, *Digital or Trade? The Contrasting Approaches of China and US to Digital Trade*, 21 J. INT'L ECON. L. 297, 318–20 (2018) (discussing the different approaches to digital trade by China and the United States); Peter K. Yu, *Fitting Machine-Generated Data into Trade Regulatory Holes*, *in* THE TRADE IN KNOWLEDGE: ECONOMIC, LEGAL AND POLICY ASPECTS (Antony Taubman & Jayashree Watal eds., Cambridge Univ. Press, forthcoming 2020) (discussing how the protection, regulation, and overall governance of machine-generated data may not fit well with the existing international trade regime).

[74] DINWOODIE & DREYFUSS, *supra* note 15.

> different paradigm in knowledge governance, which we term a "neofederalist regime." In our view, member states retain considerable discretion under TRIPS, but agree to operate within an international framework. This framework is substantially less powerful than the central administration of a federal government. However, it is federalist in the sense that the regime comprises a series of substantive and procedural commitments that promote the coordination of both the present intellectual property system and future international intellectual property lawmaking. Thus, while we recognize that TRIPS negotiators reached a series of compromises among the social and technological policies of countries with different cultures, education levels, and economic needs, we see these compromises not as a code, but rather as defining the parameters of national autonomy.[75]

In the past two decades, policymakers, commentators, and nongovernmental organizations have worked hard to expand the flexibilities found in the TRIPS Agreement and the WTO.[76] While it is impossible to list all the experts who have made important contributions in

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[75] *Id.* at 5–6.

[76] *See* Yu, *supra* note 16, at 869–70 (discussing the limitations, flexibilities, and public interest safeguards in the TRIPS Agreement). For commentaries emphasizing the flexibilities within the TRIPS Agreement, see generally CARLOS M. CORREA, TRADE RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS: A COMMENTARY ON THE TRIPS AGREEMENT (2d ed. 2020); UNCTAD–ICTSD PROJECT ON INTELLECTUAL PROP. RIGHTS & SUSTAINABLE DEV., RESOURCE BOOK ON TRIPS AND DEVELOPMENT (2005) [hereinafter RESOURCE BOOK].

this area[77]—from both developed and developing countries—one project that has captured this effort well is the *Resource Book on TRIPS and Development*, put together by the United Nations Conference on Trade and Development and the Geneva-based International Centre for Trade and Sustainable Development.[78] As I noted in the 2006 article:

> Conceived as a practical guide to the TRIPs Agreement, the book seeks to improve understanding of the development implications of the Agreement. It offers detailed analysis of each provision of the Agreement and highlights areas in which the Agreement leaves WTO member states "wiggle room" to pursue their own policy objectives based on their levels of development.[79]

For illustrative purposes, consider the many flexibilities that the TRIPS Agreement has retained in the pharmaceutical area. As Frederick Abbott reminded us:

> The TRIPS Agreement . . . does not . . . restrict the authority of governments to regulate prices. It . . . permits [compulsory

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[77] *See* SAM F. HALABI, INTELLECTUAL PROPERTY AND THE NEW INTERNATIONAL ECONOMIC ORDER: OLIGOPOLY, REGULATION, AND WEALTH REDISTRIBUTION IN THE GLOBAL KNOWLEDGE ECONOMY 63 (2018) (listing scholars who have actively engaged in advocacy and scholarly exploration regarding the TRIPS Agreement).

[78] RESOURCE BOOK, *supra* note 76.

[79] Yu, *TRIPS and Its Discontents*, *supra* note 1, at 369; *see also* Reichman, *Fair Followers*, *supra* note 64, at 28 (contending that "the TRIPS Agreement leaves developing countries ample 'wiggle room' in which to implement national policies favoring the public interest in free competition").

> or government use licenses] to be granted. It permits governments to authorize parallel importation. The TRIPS Agreement does not specify that new-use patents must be granted. It allows patents to be used for regulatory approval purposes, and it does not require the extension of patent terms to offset regulatory approval periods. The TRIPS Agreement provides a limited form of protection for submissions of regulatory data; but this protection does not prevent a generic producer from making use of publicly available information to generate bioequivalence test data. The TRIPS Agreement provides substantial discretion for the application of competition laws.[80]

To a large extent, the developed countries' efforts to set new and higher intellectual property standards through bilateral, regional, and plurilateral trade negotiations were strategically designed to remove these flexibilities.[81]

In a recent article, I explained how the disagreements between developed and emerging countries in international intellectual property norm-setting have resulted in the creation of "contestation-driven flexibilities," which provide developing countries with benefits that are comparable to the "consensus-based flexibilities" found in the TRIPS Agreement.[82] A case in

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[80] Frederick M. Abbott, *The Cycle of Action and Reaction: Developments and Trends in Intellectual Property and Health*, *in* NEGOTIATING HEALTH: INTELLECTUAL PROPERTY AND ACCESS TO MEDICINES 27, 30 (Pedro Roffe et al. eds., 2006) (citations omitted).

[81] *See* Yu, *International Enclosure Movement*, *supra* note 16, at 866–70 (discussing TRIPS-plus enclosure of the developing countries' policy space in the intellectual property area).

[82] Yu, *supra* note 32, at 703–04.

point concerns the differing international intellectual property standards in the TPP Agreement and the draft intellectual property chapter of the Regional Comprehensive Economic Partnership (RCEP) Agreement.[83] While these two agreements are unlikely to have precipitated any major direct conflicts, due to the fact that both agreements aim to establish international minimum standards,[84] the disagreements between the TPP and RCEP negotiating parties and the lack of international

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[83] *Single Working Document on the Intellectual Property Chapter Regional Comprehensive Economic Partnership (RCEP) Free Trade Agreement*, https://www.keionline.org/wp-content/uploads/RCEP-IP-Chapter-15October2015.docx [https://perma.cc/P6P8-JXJM] (providing the unofficial October 15, 2015 draft of the RCEP intellectual property chapter); *see also* James Love, *2015 Oct 15 Version: RCEP IP Chapter*, KNOWLEDGE ECOLOGY INT'L (Apr. 19, 2016), https://www.keionline.org/23060 [https://perma.cc/JF2Q-2NWQ] (providing the leaked text). For my discussions of the RCEP negotiations, see generally Peter K. Yu, *The RCEP Negotiations and Asian Intellectual Property Norm Setters*, *in* THE FUTURE OF ASIAN TRADE DEALS AND IP 85 (Liu Kung-Chung & Julien Chaisse eds., 2019); Peter K. Yu, *TPP, RCEP, and the Crossvergence of Asian Intellectual Property Standards*, *in* GOVERNING SCIENCE AND TECHNOLOGY UNDER THE INTERNATIONAL ECONOMIC ORDER: REGULATORY DIVERGENCE AND CONVERGENCE IN THE AGE OF MEGAREGIONALS 277 (Peng Shin-yi et al. eds., 2018) [hereinafter Yu, *Crossvergence*]; Peter K. Yu, *TPP, RCEP and the Future of Copyright Norm-setting in the Asian Pacific*, *in* MAKING COPYRIGHT WORK FOR THE ASIAN PACIFIC: JUXTAPOSING HARMONISATION WITH FLEXIBILITY 19 (Susan Corbett & Jessica C. Lai eds., 2018) [hereinafter Yu, *Copyright Norm-setting*]; Peter K. Yu, *The RCEP and Trans-Pacific Intellectual Property Norms*, 50 VAND. J. TRANSNAT'L L. 673 (2017) [hereinafter Yu, *RCEP and Trans-Pacific Norms*].

[84] *See* Anupam Chander & Madhavi Sunder, *The Battle to Define Asia's Intellectual Property Law: From TPP to RCEP*, 8 U.C. IRVINE L. REV. 331, 333 (2018) (discussing the struggle between the TPP and the RCEP and its implications for Asia); Yu, *Crossvergence*, *supra* note 83, at 290–91 (discussing the rivalry between the TPP and the RCEP); Yu, *Copyright Norm-setting*, *supra* note 83, at 42–45 (discussing the battle between the TPP, the CPTPP, and the RCEP).

consensus in the areas implicating such disagreements have provided an additional layer of flexibilities to the developing countries' benefit.

Finally, flexibilities can be developed outside the TRIPS Agreement, the intellectual property field, or even the WTO. Sam Halabi coined the term "intellectual property shelters" to illustrate the many active developments that have now taken place in the international arena.[85] Taking advantage of the developing countries' regime-shifting efforts[86] and utilizing "the language of biodiversity, public health, and food security," these shelters have provided an under-analyzed "body of international economic law that . . . has emerged in response to intellectual property protections expanding through trade and investment agreements."[87] Examples of these shelters include the Pandemic Influenza Preparedness Framework developed under the auspices of the World Health Organization (WHO),[88] the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization to the Convention on Biological Diversity,[89] and the WHO

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[85] HALABI, *supra* note 77, at iii.

[86] For discussions of "forum shifting" or "regime shifting" strategies, see generally JOHN BRAITHWAITE & PETER DRAHOS, GLOBAL BUSINESS REGULATION 564–71 (2000); Laurence R. Helfer, *Regime Shifting: The TRIPs Agreement and New Dynamics of International Intellectual Property Lawmaking*, 29 YALE J. INT'L L. 1 (2004); Yu, *supra* note 26, at 408–16.

[87] HALABI, *supra* note 77, at iii.

[88] World Health Organization [WHO], *Pandemic Influenza Preparedness: Sharing of Influenza Viruses and Access to Vaccines and Other Benefits*, World Health Assembly Res. WHA64.5 (May 24, 2011), http://apps.who.int/gb/ebwha/pdf_files/WHA64/A64_R5-en.pdf [https://perma.cc/VQ6D-MYD7]; *see also* HALABI, *supra* note 77, at 162–65 (discussing this framework as an intellectual property shelter).

[89] Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization to the

Framework Convention on Tobacco Control.[90] Although Professor Halabi did not include among his examples activities in the human rights area[91]—due perhaps to insufficient space or a lack of formal shelter-related initiatives—I would have included those activities,[92] given

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Convention on Biological Diversity (Oct. 29, 2010), http://www.cbd.int/abs/doc/protocol/nagoya-protocol-en.pdf [https://perma.cc/99BD-5EHQ]; *see also* HALABI, *supra* note 77, at 175–84 (discussing this protocol as an intellectual property shelter).

[90] WHO Framework Convention on Tobacco Control, May 21, 2003, 2302 U.N.T.S 166; *see also* HALABI, *supra* note 77, at 189–97 (discussing this framework as an intellectual property shelter).

[91] Some of the key documents in this area, in chronological order, include: Sub-Comm'n on Human Rights Res. 2000/7, Intellectual Property Rights and Human Rights, U.N. Doc. E/CN.4/Sub.2/RES/2000/7 (Aug. 17, 2000); Sub-Comm'n on Human Rights Res. 2001/21, Intellectual Property and Human Rights, U.N. Doc. E/CN.4/Sub.2/RES/2001/21 (Aug. 16, 2001); U.N. Econ. & Soc. Council, Comm. on Econ., Soc. & Cultural Rights, *General Comment No. 17: The Right of Everyone to Benefit from the Protection of the Moral and Material Interests Resulting from Any Scientific, Literary or Artistic Production of Which He or She Is the Author (Article 15, Paragraph 1(c), of the Covenant)*, U.N. Doc. E/C.12/GC/17 (Jan. 12, 2006); Farida Shaheed (Special Rapporteur in the Field of Cultural Rights), *Copyright Policy and the Right to Science and Culture*, U.N. Doc. A/HRC/28/57 (Dec. 24, 2014); Farida Shaheed (Special Rapporteur in the Field of Cultural Rights), *Cultural Rights*, U.N. Doc. A/70/279 (Aug. 4, 2015).

[92] For my discussions of the tension between intellectual property and human rights, see generally Peter K. Yu, *Biobanking, Scientific Productions and Human Rights*, *in* GLOBAL GENES, LOCAL CONCERNS: LEGAL, ETHICAL, AND SCIENTIFIC CHALLENGES IN INTERNATIONAL BIOBANKING 73 (Timo Minssen et al. eds., 2019); Peter K. Yu, *Challenges to the Development of a Human Rights Framework for Intellectual Property*, *in* INTELLECTUAL PROPERTY AND HUMAN RIGHTS 87 (Paul L.C. Torremans ed., 4th ed., forthcoming 2020); Peter K. Yu, *Digital Copyright Enforcement Measures and Their Human Rights Threats*, *in* RESEARCH HANDBOOK ON HUMAN RIGHTS AND INTELLECTUAL PROPERTY 455 (Christophe Geiger ed., 2015); Peter K. Yu, *Intellectual Property, Human Rights and Methodological Reflections*, *in* HANDBOOK ON INTELLECTUAL PROPERTY RESEARCH

their importance to the intellectual property field and their heavy reliance on regime-shifting efforts to create "counterregime norms."[93] When all of these inter- and cross-regime developments are considered together, they have assisted in preserving the flexibilities developing countries fought hard to retain during the TRIPS negotiations. They have also strengthened the developing countries' ability to resist the developed countries' incessant demands for increased intellectual property protection and enforcement.[94]

(Irene Calboli & Lillà Montagnani eds., Oxford University Press, forthcoming 2020); Peter K. Yu, *Intellectual Property, Human Rights and Public-Private Partnerships*, *in* THE CAMBRIDGE HANDBOOK OF PUBLIC-PRIVATE PARTNERSHIPS, INTELLECTUAL PROPERTY GOVERNANCE, AND SUSTAINABLE DEVELOPMENT 398 (Margaret Chon, Pedro Roffe & Ahmed Abdel-Latif eds., 2018); Peter K. Yu, *Intellectual Property and Human Rights 2.0*, 53 U. RICH. L. REV. 1375 (2019); Peter K. Yu, *Intellectual Property and Human Rights in the Nonmultilateral Era*, 64 FLA. L. REV. 1045 (2012); Peter K. Yu, *Reconceptualizing Intellectual Property Interests in a Human Rights Framework*, 40 U.C. DAVIS L. REV. 1039 (2007); Peter K. Yu, *Ten Common Questions About Intellectual Property and Human Rights*, 23 GA. ST. U. L. REV. 709 (2007); Peter K. Yu, *The Anatomy of the Human Rights Framework for Intellectual Property*, 69 SMU L. REV. 37 (2016).

[93] *See* Donald J. Puchala & Raymond F. Hopkins, *International Regimes: Lessons from Inductive Analysis*, *in* INTERNATIONAL REGIMES 61, 66 (Stephen D. Krasner ed., 1983) (defining "counterregime norms" as norms that "either circulate in the realm of rhetoric or lie dormant as long as those who dominate the existing regime preserve their power and their consequent ability to reward compliance and punish deviance"); Helfer, *supra* note 86, at 14 (defining "counter-regime norms" as "binding treaty rules and nonbinding soft law standards that seek to alter the prevailing legal landscape").

[94] *See* P. BERNT HUGENHOLTZ & RUTH L. OKEDIJI, CONCEIVING AN INTERNATIONAL INSTRUMENT ON LIMITATIONS AND EXCEPTIONS TO COPYRIGHT: FINAL REPORT 41 (2008), https://www.eifl.net/sites/default/files/resources/201409/conceiving_an_international_instrument_on_limitiations_and_exceptions_to_copyright.pdf [https://perma.cc/

D. TRIPS Does Not Harmonize

The fourth explanation is that the TRIPS Agreement fails to harmonize the diverging national intellectual property standards of WTO members. Although international harmonization has always been described as a goal, this Agreement actually has not harmonized intellectual property laws as much as we have assumed.[95] As Susy Frankel provocatively noted, "TRIPS did not harmonize and, as its negotiating history shows, could not have harmonized many intellectual property standards."[96]

8HJV-BFN9] (underscoring "the suitability of using multiple international institutions for the development of the new multilateral framework on [limitations and exceptions], as such an approach may benefit from norm competition across different fora as well as from inter-agency competition and collaboration"); Peter K. Yu, *Virotech Patents, Viropiracy, and Viral Sovereignty*, 45 ARIZ. ST. L.J. 1563, 1637 (2013) ("[F]ragmentation will allow less developed countries to better protect their interests by mobilizing in favorable fora, laying down the needed political and diplomatic groundwork, and establishing new 'counter-regime norms' that help restore the balance of the international intellectual property system.").

[95] For discussions of the harmonization process, see generally John F. Duffy, *Harmony and Diversity in Global Patent Law*, 17 BERKELEY TECH. L.J. 685 (2002); Amy Kapczynski, *Harmonization and Its Discontents: A Case Study of TRIPS Implementation in India's Pharmaceutical Sector*, 97 CALIF. L. REV. 1571 (2009); Yu, *supra* note 26, at 429–35; Peter K. Yu, *The Harmonization Game: What Basketball Can Teach About Intellectual Property and International Trade*, 26 FORDHAM INT'L L.J. 218 (2003).

[96] Susy Frankel, *The Fusion of Intellectual Property and Trade*, *in* FRAMING INTELLECTUAL PROPERTY LAW IN THE 21ST CENTURY: INTEGRATING INCENTIVES, TRADE, DEVELOPMENT, CULTURE, AND HUMAN RIGHTS 89, 102 (Rochelle Cooper Dreyfuss & Elizabeth Siew-Kuan Ng eds., 2018); *see also* Yu, *supra* note 32, at 702 (noting that "one should be cautious when evaluating the successes and limitations of the TRIPS harmonization project").

To be sure, the TRIPS Agreement has had far-reaching impacts on developing countries, sparking concerns and discontents. Nevertheless, most of the harmonization efforts originate in the Paris Convention for the Protection of Industrial Property (Paris Convention)[97] and the Berne Convention for the Protection of Literary and Artistic Works (Berne Convention).[98] Established in the 1880s, both conventions predated the TRIPS Agreement by more than a century before they were finally incorporated into the Agreement.[99] If anything, the TRIPS Agreement has merely amplified the harmonization efforts driven by these two cornerstone instruments.

As far as new intellectual property norm-setting is concerned, two sets of TRIPS norms stand out. The first set concerns intellectual property enforcement.[100] As the

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[97] Paris Convention for the Protection of Industrial Property, Mar. 20, 1883, 21 U.S.T. 1538, 828 U.N.T.S. 305 (last revised at Stockholm July 14, 1967) [hereinafter Paris Convention].

[98] Berne Convention for the Protection of Literary and Artistic Works, Sept. 9, 1886, 828 U.N.T.S. 221 (last revised at Paris July 24, 1971) [hereinafter Berne Convention].

[99] *See* TRIPS Agreement, *supra* note 2, art. 2.1 ("In respect of Parts II, III and IV of this Agreement, Members shall comply with Articles 1 through 12, and Article 19, of the Paris Convention (1967)."); *id.* art. 9.1 ("Members shall comply with Articles I through 21 of the Berne Convention (1971) and the Appendix thereto.").

[100] *See* Carlos M. Correa, *The Push for Stronger Enforcement Rules: Implications for Developing Countries*, *in* THE GLOBAL DEBATE ON THE ENFORCEMENT OF INTELLECTUAL PROPERTY RIGHTS AND DEVELOPING COUNTRIES 27, 34 (Int'l Ctr. for Trade & Sustainable Dev. ed., 2009) ("The TRIPS Agreement is the first international treaty on IPRs [intellectual property rights] that has included specific norms on the enforcement of IPRs." (footnote omitted)); DANIEL GERVAIS, THE TRIPS AGREEMENT: DRAFTING HISTORY AND ANALYSIS 440 (3d ed. 2008) ("The enforcement section of the TRIPS Agreement is clearly one of the major achievements of the negotiation."); RESOURCE BOOK, *supra* note 76, at 629 ("The introduction of a detailed set of enforcement rules as part of TRIPS has been . . . one of the major

WTO panel observed in *United States—Section 211 Omnibus Appropriations Act of 1998*:

> The inclusion of [Part III] on enforcement in the TRIPS Agreement was one of the major accomplishments of the Uruguay Round negotiations as it expanded the scope of enforcement aspect of intellectual property rights. Prior to the TRIPS Agreement, provisions related to enforcement were limited to general obligations to provide legal remedies and seizure of infringing goods.[101]

With twenty-one provisions on obligations ranging from civil and administrative remedies to border measures

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innovations of this Agreement."); Adrian Otten & Hannu Wager, *Compliance with TRIPS: The Emerging World View*, 29 VAND. J. TRANSNAT'L L. 391, 403 (1996) ("[The enforcement] rules constitute the first time in any area of international law that such rules on domestic enforcement procedures and remedies have been negotiated.").

[101] Panel Report, *United States—Section 211 Omnibus Appropriations Act of 1998* ¶ 8.97, WTO Doc. WT/DS176/R (adopted Aug. 6, 2001). As I noted in an earlier article:

[T]he enforcement provisions in [the Paris and Berne Conventions] are generally rare and piecemeal. These provisions include Articles 13(3), 15 and 16 of the Berne Convention and Articles 9, 10(1), 10*bis* and 10*ter* of the Paris Convention. All of these provisions have been largely limited to the seizure of goods upon importation, the institution of infringement proceedings, and the right to obtain appropriate legal remedies.

Peter K. Yu, *Enforcement: A Neglected Child in the Intellectual Property Family*, *in* THE INTERNET AND THE EMERGING IMPORTANCE OF NEW FORMS OF INTELLECTUAL PROPERTY 279, 294–95 (Susy Frankel & Daniel Gervais eds., 2016); *see also* Yu, *Achilles' Heel*, *supra* note 19, at 486 (discussing Articles 9, 10(1), 10*bis*, and 10*ter* of the Paris Convention and Articles 13(3), 15, and 16 of the Berne Convention).

to criminal sanctions,[102] "the TRIPS Agreement, for the first time, provides comprehensive international minimum standards on the enforcement of intellectual property rights."[103] Nevertheless, these new standards have not been very effective, and some commentators have referred to them as the "Achilles' [h]eel of the TRIPS Agreement."[104] Had these provisions been more successful, developed countries would not have been so disappointed that they and their likeminded trading partners moved outside the WTO and WIPO to negotiate ACTA.[105] As Jeffery Atik reminded us, "ACTA is a critique of TRIPS—its very core signals a diagnosis that TRIPS inadequately addressed the problem of [intellectual property] enforcement."[106]

The second area in which TRIPS negotiators sought to set new norms relates to undisclosed test or other data that have been submitted to regulatory authorities for the marketing approval of pharmaceutical and agrochemical

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[102] TRIPS Agreement, *supra* note 2, arts. 41–61.
[103] Yu, *Achilles' Heel*, *supra* note 19, at 481–82.
[104] J.H. Reichman & David Lange, *Bargaining Around the TRIPS Agreement: The Case for Ongoing Public-Private Initiatives to Facilitate Worldwide Intellectual Property Transactions*, 9 DUKE J. COMP. & INT'L L. 11, 34–40 (1998); *see also* Yu, *Achilles' Heel*, *supra* note 19 (explaining why the enforcement provisions are the "Achilles' heel of the TRIPS Agreement").
[105] *See* Press Release, Office of the U.S. Trade Representative, Ambassador Schwab Announces U.S. Will Seek New Trade Agreement to Fight Fakes (Oct. 23, 2007), https://ustr.gov/ambassador-schwab-announces-us-will-seek-new-trade-agreement-fight-fakes [https://perma.cc/W6FG-GJKB] (noting the goal of ACTA is "to set a new, higher benchmark for enforcement").
[106] Jeffery Atik, *ACTA and the Destabilization of TRIPS*, *in* SUSTAINABLE TECHNOLOGY TRANSFER: A GUIDE TO GLOBAL AID & TRADE DEVELOPMENT 121, 145 (Hans Henrik Lidgard et al. eds., 2012); *see also* Yu, *Achilles' Heel*, *supra* note 19, at 513 ("To a great extent, the ACTA negotiations make salient the TRIPS Agreement's failure to meet the enforcement needs of developed countries, which already existed before the beginning of the Uruguay Round.").

products.[107] As noted by Jayshree Watal, a former TRIPS negotiator for India who recently retired from the WTO Intellectual Property, Government Procurement and Competition Division, the protection of undisclosed information "ha[d] never been the subject of any multilateral agreement" until the adoption of the TRIPS Agreement.[108] Despite the TRIPS negotiators' pioneering efforts to multilateralize standards for such protection, WTO members remain deeply divided as to how much additional protection they need to provide after fulfilling the two basic obligations of Article 39.3—that is, the protection against unfair commercial use and the protection against disclosure.[109] That test data protection has remained highly controversial in bilateral, regional, and plurilateral trade negotiations strongly indicates the TRIPS Agreement's ineffectiveness in harmonizing national standards in this area.[110]

Indeed, because of the Agreement's limited harmonizing ability, whether a country will introduce new

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[107] *See* TRIPS Agreement, *supra* note 2, art. 39.3 (offering such protection).

[108] JAYASHREE WATAL, INTELLECTUAL PROPERTY RIGHTS IN THE WTO AND DEVELOPING COUNTRIES 4 (2001).

[109] *See* Yu, *supra* note 32, at 654–68 (discussing the various areas in which the TRIPS language remains highly contested and in which the TRIPS negotiating parties eventually failed to achieve any international consensus); *see also* Peter K. Yu, *Data Exclusivities in the Age of Big Data, Biologics, and Plurilaterals*, 6 TEX. A&M L. REV. ARGUENDO 22, 23–26 (2018) (noting the five concerns policymakers and commentators in, or sympathetic to, developing countries have over the interpretation or implementation of Article 39.3 of the TRIPS Agreement).

[110] *See* Yu, *supra* note 32, at 672–85 (discussing the use of TRIPS-plus bilateral, regional, and plurilateral negotiations to develop new international minimum standards for the protection of undisclosed test or other data for pharmaceutical, agrochemical, and biological products).

standards that align with those of developed countries often depends on economic power and ideological persuasion.[111] Thus far, the results have been quite inconsistent. For instance, thanks to the United States' aggressive push for higher intellectual property standards through the Section 301 process,[112] emerging countries have introduced standards that mirror those of the United States.[113] By

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[111] As Carolyn Deere Birkbeck observed:

> *Economic power* was used where players deliberately deployed their material resources and capacities to manipulate the strategic and economic constraints of other countries, to push them to do something that they would not otherwise do, or to compel them to desist from a particular action. . . . *Ideational power* was also at play. Each team used the power of ideas to advance distinctive perspectives on the pros and cons of different approaches to TRIPS implementation, to dominate the political environment for [intellectual property] reforms, to influence the terms of debate in international negotiations, and to shape how developing countries behaved at the national level. Ideational power operated through efforts to influence expertise, know-how, and institutional capabilities on [intellectual property] matters in developing countries, as well as understandings, beliefs, and discourses about [intellectual property].

DEERE, *supra* note 15, at 19 (footnotes omitted).

[112] Section 301 permits the U.S. President to investigate and impose sanctions on countries engaging in unfair trade practices that threaten the United States' economic interests. *See* 19 U.S.C. §§ 2411–2420 (2018). *See generally* PETER DRAHOS WITH JOHN BRAITHWAITE, INFORMATION FEUDALISM: WHO OWNS THE KNOWLEDGE ECONOMY? 85–107 (2002) (discussing the United States' use of the Section 301 process, the Generalized System of Preferences, and other measures to push through intellectual property and trade demands); Joe Karaganis & Sean Flynn, *Networked Governance and the USTR*, *in* MEDIA PIRACY IN EMERGING ECONOMIES 75 (Joe Karaganis ed., 2011) (critically evaluating the USTR's Section 301 process); Paul C.B. Liu, *U.S. Industry's Influence on Intellectual Property Negotiations and Special 301 Actions*, 13 UCLA PAC. BASIN L.J. 87 (1994) (discussing the operation of the Section 301 process and its relation to U.S. trade negotiations).

[113] *See generally* Peter K. Yu, *The Transplant and Transformation of Intellectual Property Laws in China*, *in* GOVERNANCE OF INTELLECTUAL PROPERTY RIGHTS IN CHINA AND EUROPE 20 (Nari Lee

contrast, African countries have yet to face the same amount of pressure from the United States, due in part to the Executive Order that President Bill Clinton signed following the pharmaceutical industry's disastrous challenge to the Medicines and Related Substances Control Amendment Act, 1997 in South Africa.[114] Since that Executive Order, the U.S. administration has not put any African country on the Section 301 watch list or priority watch list.[115] Thus, when the experiences of these two groups of countries are juxtaposed against each other, they

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et al. eds., 2016) (providing a history of the transplant of intellectual property laws in China and discussing the strengths, weaknesses, and future of such efforts); Assafa Endeshaw, *The Paradox of Intellectual Property Lawmaking in the New Millennium: Universal Templates as Terms of Surrender for Non-Industrial Nations; Piracy as an Offshoot*, 10 CARDOZO J. INT'L & COMP. L. 47 (2002) (criticizing the application of universal templates to non-industrial nations).

[114] Exec. Order No. 13,155, 65 Fed. Reg. 30,521 (May 12, 2000) (enabling countries in sub-Saharan Africa to enhance access to HIV/AIDS medicines and related medical technologies without fear of trade retaliation); *see also* SUSAN K. SELL, PRIVATE POWER, PUBLIC LAW: THE GLOBALIZATION OF INTELLECTUAL PROPERTY RIGHTS 151–55 (2003) (discussing the pharmaceutical industry's legal challenge and the Executive Order).

[115] *See* DEERE, *supra* note 15, at 306 ("[N]o African [least developed country] has ever been cited on the US Special 301 list or subject to a WTO dispute."); Peter K. Yu, *Intellectual Property and Asian Values*, 16 MARQ. INTELL. PROP. L. REV. 329, 380 (2012) (listing the USTR's lack of Special 301 actions on South Africa from 2001 to 2011). Nevertheless, the U.S. International Trade Commission recently "launched an investigation to examine U.S. trade in goods and services and investment in Sub-Saharan Africa." Press Release, U.S. Int'l Trade Comm'n, USITC to Study U.S. Trade and Investment in Sub-Saharan Africa (June 14, 2019), https://www.usitc.gov/press_room/news_release/2019/er0614ll1115.htm [https://perma.cc/EZZ9-QLKV]. Among other objectives, the study will "describe the intellectual property environment in key [Sub-Saharan African] markets including national and regional laws, enforcement measures, and infringement issues as well as the effects of this environment on trade and investment in these markets." *Id.*

show that TRIPS standards have been largely transplanted through geopolitical, economic, or ideational power, as opposed to the Agreement's harmonizing ability.

E. Developing Countries Have Improved

The final explanation is that many developing countries have greatly improved since the adoption of the TRIPS Agreement. Although they considerably struggled in the first decade of the WTO, many developing countries, especially emerging ones, have now successfully adjusted to the TRIPS-based international intellectual property regime.[116] Some countries have even managed to secure benefits from that regime.[117] As WTO Director-General Roberto Azevêdo recalled:

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[116] *See generally* Peter K. Yu, *The Middle Intellectual Property Powers*, *in* LAW AND DEVELOPMENT OF MIDDLE-INCOME COUNTRIES: AVOIDING THE MIDDLE-INCOME TRAP 84 (Randall Peerenboom & Tom Ginsburg eds., 2014) (discussing the changing international intellectual property landscape caused by the rise of emerging countries).

[117] As A.V. Ganesan, a former chief negotiator for India during the Uruguay Round and a former chair of the WTO Appellate Body, observed in the Indian context:

[T]he TRIPS Agreement has almost become a blessing in disguise for India. Having become a signatory to it, and having a good track record of abiding by international agreements it has entered into, India can now confidently assure foreign investors and technology suppliers that their IPRs will be protected in accordance with internationally accepted standards as embodied in the TRIPS Agreement. The TRIPS Agreement can also help India avoid unnecessary trade frictions with other countries by suggesting that a grievance over protection of [intellectual property] can be resolved through the dispute settlement mechanism of the WTO. Given the size of the Indian domestic market, and its projected growth rates, such an assurance of protection of IPRs (in addition to other supportive policies) may well encourage foreign investors to establish manufacturing facilities in India through subsidiaries and joint ventures or to license their technologies to domestic manufacturers.

> [I]n 1995, and earlier in the negotiations leading to the conclusion of TRIPS, the international [intellectual property] system was largely seen as a trade interest of the developed economies. Today, the picture differs dramatically. Some middle-income countries are among the major users of the global [intellectual property] system, and many other developing countries are increasingly engaged with it.[118]

Out of these middle-income countries, China provides the most dramatic example, due to its struggle before and immediately after WTO accession in December 2001[119] and the fact that it "has [now] built a new intellectual property system from the ground up faster than any other country in history."[120] Today, China has slowly

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Ganesan, *supra* note 66, at 232; *see also* Yu, *RCEP and Trans-Pacific Norms*, *supra* note 83, at 722 (noting that "China, India, and other emerging countries within ASEAN+6 . . . have begun to appreciate the strategic benefits of stronger intellectual property protection and enforcement").

[118] Roberto Azevêdo, *Foreword* to MAKING OF TRIPS AGREEMENT, *supra* note 9, at xiii.

[119] *See generally* Peter K. Yu, *The First Decade of TRIPS in China*, *in* CHINA AND GLOBAL TRADE GOVERNANCE: CHINA'S FIRST DECADE IN THE WORLD TRADE ORGANIZATION 126 (Zeng Ka & Liang Wei eds., 2013) (reviewing the intellectual property developments in China in its first decade of the WTO membership); Yu, *supra* note 71, at 1064–79 (discussing China's preparation to join the WTO and its eventual integration into the TRIPS-based international intellectual property regime).

[120] Peter K. Yu, *Trade Secret Hacking, Online Data Breaches, and China's Cyberthreats*, 2015 CARDOZO L. REV. DE NOVO 130, 139; *see also* Peter K. Yu, *Building the Ladder: Three Decades of Development of the Chinese Patent System*, 5 WIPO J. 1, 2 (2013) ("China . . . has accomplished what no other country has ever achieved in such a short period of time—be it Germany, Japan or the United States. While it

emerged as an innovative power.[121] Based on the latest WIPO statistics, in 2018 China stood behind only the United States in terms of the number of international applications under the Patent Cooperation Treaty.[122] In addition, Huawei Technologies, ZTE Corporation, and BOE Technology Group—all Chinese companies—ranked among the world's top ten corporate applicants.[123] For the same year, China also ranked third in the number of

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took the now-developed countries centuries to establish their patent systems, the same feat took China only three decades.").

[121] *See* JOHN L. ORCUTT & SHEN HONG, SHAPING CHINA'S INNOVATION FUTURE: UNIVERSITY TECHNOLOGY TRANSFER IN TRANSITION ix (2011) (noting the many notable achievements China has made in space technology, biotechnology (including genomics and stem cell research), information technology, nanotechnology, and advanced energy technology); SHAUN REIN, THE END OF COPYCAT CHINA: THE RISE OF CREATIVITY, INNOVATION, AND INDIVIDUALISM IN ASIA xv (2014) ("Chinese companies no longer just copycat business models from America and Europe. They still grab low-hanging fruit but focus more on innovation."); Richard P. Suttmeier & Yao Xiangkui, *China's IP Transition: Rethinking Intellectual Property Rights in a Rising China* 6–7 (Nat'l Bureau of Asian Research, NBR Special Report No. 29, 2011) ("China is . . . poised for an [intellectual property] transition. Yet whether this transition will lead to greater harmonization with international [intellectual property] norms and practices, toward 'destroying the [intellectual property] regime' . . . , or to some other departure from the given order remains unclear."); Peter K. Yu, *The Rise and Decline of the Intellectual Property Powers*, 34 CAMPBELL L. REV. 525, 529–32 (2012) (noting that China is at the cusp of crossing over from a pirate nation to a country respectful of intellectual property rights). *See generally* DENIS FRED SIMON & CAO CONG, CHINA'S EMERGING TECHNOLOGICAL EDGE: ASSESSING THE ROLE OF HIGH-END TALENT (2009) (examining the rapid expansion of China's science and technology capabilities, focusing in particular on the contributions provided by an increasingly large and well-educated talent pool).

[122] *Who Filed the Most PCT Patent Applications in 2018?*, WORLD INTELL. PROP. ORG. (Mar. 19, 2019), https://www.wipo.int/export/sites/www/ipstats/en/docs/infographic_pct_2018.pdf [https://perma.cc/9QM8-ZXKQ].

[123] *Id.*

international trademark applications under the Madrid Agreement Concerning the International Registration of Marks and its related protocol.[124]

At the domestic level, the total number of patent applications has been equally impressive. According to the National Intellectual Property Administration of China (CNIPA), China processed over 4.3 million patent applications in 2018, with over 4.1 million originating in domestic applicants.[125] While these figures included three types of patents—those for inventions, designs, and utility models—the total number of invention patents issued in China in 2018 (432,147) compared favorably with the total number of utility patents issued in the United States in the same year (306,909).[126]

To be sure, questions have arisen over the quality of patents issued by CNIPA and its predecessor, the State Intellectual Property Office.[127] Nevertheless, Chinese firms

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[124] *Who Filed the Most Madrid Trademark Applications in 2018?*, WORLD INTELL. PROP. ORG. (Mar. 19, 2019), https://www.wipo.int/export/sites/www/ipstats/en/docs/infographic_madrid_2018.pdf [https://perma.cc/KTR3-GTED] (last visited June 23, 2019).

[125] *Total Applications/Grants/In Force for Three Kinds of Patents Received from Home and Abroad*, NAT'L INTELL. PROP. ADMIN. CHINA, http://www.cnipa.gov.cn/tjxx/jianbao/year2018/a/a1.html (last visited Aug. 4, 2019).

[126] *Compare Distribution of Annual Grants for Three Kinds of Patents Received from Home and Abroad*, NAT'L INTELL. PROP. ADMIN. CHINA, http://www.cnipa.gov.cn/tjxx/jianbao/year2018/b/b1.html [https://perma.cc/5L7A-FYCJ] (last visited Aug. 4, 2019), *with* U.S. PATENT & TRADEMARK OFFICE, FY 2018 PERFORMANCE AND ACCOUNTABILITY REPORT 178 (2018) [hereinafter 2018 USPTO REPORT].

[127] As Dan Prud'homme observed:

While patents are exploding in China and certain innovation is also on the rise, patent quality has not proportionately kept up and in fact the overall strength of China's actual innovation appears overhyped. Statistical analysis . . . not only reveals concerning trends in the quality

have been actively applying for and obtaining patents at both the European Patent Office and the United States Patent and Trademark Office. Based on the 2017 statistics concerning patent applications filed in the United States, residents from mainland China (32,127) were behind only those of Japan (89,364), South Korea (38,026), and Germany (32,771).[128] According to the European Patent Office, about sixteen percent of its patent filings in that same year originated in China, which trailed behind only the United States and Japan.[129]

As if these statistics were not impressive enough, China ranks fourteenth in the 2019 Global Innovation Index,[130] having moved up from seventeenth in 2018, twenty-second in 2017, and twenty-fifth in 2016.[131] As the

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of China's patents at present, but suggests that while patent filings in China will likely continue to notably grow in the future, patent quality may continue to lag these numbers.

DAN PRUD'HOMME, DULLING THE CUTTING-EDGE: HOW PATENT-RELATED POLICIES AND PRACTICES HAMPER INNOVATION IN CHINA 1 (2012) (emphasis omitted). *See generally* Mark Liang, *Chinese Patent Quality: Running the Numbers and Possible Remedies*, 11 J. MARSHALL REV. INTELL. PROP. L. 478 (2012) (questioning the quality of Chinese patents and offering suggestions for reform).

[128] 2018 USPTO REPORT, *supra* note 126, at 184–85.

[129] *European Patent Filings per Country of Origin*, EUROPEAN PATENT OFFICE (Jan. 22, 2018), https://www.epo.org/about-us/annual-reports-statistics/annual-report/2017/statistics/patent-filings.html#tab3 [https://perma.cc/27Y7-UAQP].

[130] *Rankings*, *in* GLOBAL INNOVATION INDEX 2019: CREATING HEALTHY LIVES—THE FUTURE OF MEDICAL INNOVATION xxxiv (Soumitra Dutta et al. eds., 2019) [hereinafter GLOBAL INNOVATION INDEX 2019], https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2019.pdf [https://perma.cc/BY76-VBWW].

[131] *Rankings*, *in* GLOBAL INNOVATION INDEX 2018: ENERGIZING THE WORLD WITH INNOVATION xx (Soumitra Dutta et al. eds., 2018), https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2018.pdf [https://perma.cc/J76G-U2M7]; *Rankings*, *in* GLOBAL INNOVATION INDEX 2017: INNOVATION FEEDING THE WORLD xviii (Soumitra Dutta et al.

2019 report stated, "China continues its upward rise . . . and firmly establishes itself as one of the innovation leaders."[132] The country "was [also] responsible for 24% of the world's [research-and-development] expenditures in 2017, up from only 2.6% in 1996."[133]

Although China is arguably in a league of its own, many other emerging countries have greatly benefited from the TRIPS-based international intellectual property regime.[134] A few years ago, I conducted a study of what I called the "middle intellectual property powers."[135] This study focused on the ten largest economies outside the Organisation for Economic Co-operation and Development (OECD) that had a gross national income (GNI) per capita of less than fifteen thousand U.S. dollars but some of the world's highest volumes of high-tech exports.[136] In addition to the five BRICS countries,[137] which have

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eds., 2017), https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2017.pdf [https://perma.cc/D64H-9FVV]; *Rankings*, *in* GLOBAL INNOVATION INDEX 2016: WINNING WITH GLOBAL INNOVATION xviii (Soumitra Dutta et al. eds., 2016), https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2016.pdf [https://perma.cc/L268-9ZQ7].

[132] Soumitra Dutta et al., *The Global Innovation Index 2019*, *in* GLOBAL INNOVATION INDEX 2019, *supra* note 130, at 1, 9.

[133] *Id.* at 3.

[134] Another widely cited example is India. *See* Ganesan, *supra* note 66, at 232 (discussing the TRIPS Agreement's benefits to India).

[135] Yu, *supra* note 116.

[136] *Id.* at 89–91.

[137] The BRICS countries include Brazil, Russia, India, China, and South Africa. *See generally* BRICS AND DEVELOPMENT ALTERNATIVES: INNOVATION SYSTEMS AND POLICIES (José Eduardo Cassiolato & Virgínia Vitorino eds., 2009); ANDREW F. COOPER, THE BRICS: A VERY SHORT INTRODUCTION (2016); AMRITA NARLIKAR, NEW POWERS: HOW TO BECOME ONE AND HOW TO MANAGE THEM (2010); JIM O'NEILL, THE GROWTH MAP: ECONOMIC OPPORTUNITY IN THE BRICS AND BEYOND (2011); THE BRICS-LAWYERS' GUIDE TO GLOBAL COOPERATION (Rostam J. Neuwirth et al. eds., 2017) [hereinafter BRICS-LAWYERS' GUIDE].

received considerable attention from policymakers and commentators, the selected countries included Argentina, Indonesia, Malaysia, the Philippines, and Thailand. All of these countries ranked within the top eighty-five in the world in the 2019 Global Innovation Index, with Malaysia and Thailand at thirty-fifth and forty-seventh respectively.[138] Apart from these countries, Vietnam, a fast-growing country with the world's fifteenth largest population, also earned its top fifty spot, placing at forty-second.[139]

To some extent, the significant economic and technological progress these countries have made explains why they are increasingly willing to sign on to new TRIPS-plus bilateral, regional, or plurilateral agreements. It also shows why the draft RCEP intellectual property chapter included much higher standards than what the TRIPS Agreement requires, even though China and India have been dominant players in the RCEP negotiations.[140]

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[138] *Rankings*, *supra* note 130, at xxxiv–xxxv.

[139] *Id.*

[140] *See* Yu, *RCEP and Trans-Pacific Norms*, *supra* note 83, at 737–40 (explaining why the RCEP negotiating parties may accept higher intellectual property standards); *see also* Sonia E. Rolland, *Developing Country Coalitions at the WTO: In Search of Legal Support*, 48 HARV. INT'L L.J. 483, 536 (2007) (noting that those "medium-income developing countries [that] have gained relatively more than their poorer counterparts from the multilateral trade process have increasingly found themselves adopting positions divergent from those of [their counterparts] on the question of preferential access to rich country markets"); Peter K. Yu, *China's Innovative Turn and the Changing Pharmaceutical Landscape*, 51 U. PAC. L. REV. (forthcoming 2020) (discussing how the proposed amendments to Chinese patent law and pharmaceutical regulations would move China's position close to that of developed countries); Yu, *Copyright Norm-setting*, *supra* note 83, at 40 ("[T]he technological rise of China, India and other emerging countries in the Asian Pacific region in the past decade has called for a

III. SELECT OBSERVATIONS

The previous Part explains why developing countries have slowly changed their perception and assessment of the TRIPS Agreement. This Part draws observations from the Agreement's developments in the past twenty-five years. These observations not only provide the contexts needed to evaluate the five explanations offered earlier, but also remind us why it is unsurprising for countries to change their views on international intellectual property agreements. These observations also offer insight into the ongoing and future development of the TRIPS Agreement and the larger international intellectual property regime.

A. Pendulum Swings

The first observation concerns the pendulum swings that are at play in the international intellectual property regime, which commentators have pointed out in the past.[141] For instance, Ruth Okediji alluded to the "pendulum swings in international intellectual property protection" in a symposium on comparative intellectual property and cyberlaw at the Faculty of Law of the University of Ottawa.[142] In a book chapter published in *The SAGE Handbook of Intellectual Property*, I observed: "[I]nternational intellectual property developments are

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pause to rethink appropriate intellectual property norm-setting strategies.").

[141] *See, e.g.*, Marianne Levin, *The Pendulum Keeps Swinging—Present Discussions on and Around the TRIPS Agreement*, *in* INTELLECTUAL PROPERTY RIGHTS IN A FAIR WORLD TRADE SYSTEM: PROPOSALS FOR REFORM OF TRIPS 3 (Annette Kur & Marianne Levin eds., 2011) (using "pendulum swings" in the title); Ruth L. Okediji, *Back to Bilateralism? Pendulum Swings in International Intellectual Property Protection*, 1 U. OTTAWA L. & TECH. J. 127 (2004) (same).

[142] Okediji, *supra* note 141.

influenced by the repeated swings of an invisible pendulum. As this pendulum swings back and forth, history will repeat itself, causing us to feel like it is déjà vu all over again."[143]

To a large extent, these pendulum swings explain how the position of WTO members—including those in the developing world—have swung back and forth over the years and will continue to do so in the future. Taking a step back to observe these swings over a long period of time will also help locate instructive parallels that enrich our understanding of the international intellectual property regime.

At the time of writing, this regime has already seen many recurring activities. For example, when developing countries pushed hard to establish the Development Agenda at WIPO in the mid-2000s,[144] one could recall a similar agenda in the 1960s and 1970s.[145] The Old

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[143] Peter K. Yu, *Déjà Vu in the International Intellectual Property Regime*, *in* THE SAGE HANDBOOK OF INTELLECTUAL PROPERTY 113 (Matthew David & Debora Halbert eds., 2015).

[144] *See* World Intellectual Prop. Org., *Proposal by Argentina and Brazil for the Establishment of a Development Agenda for WIPO*, WIPO Doc. WO/GA/31/11 (Aug. 27, 2004) (advancing the proposal for the WIPO Development Agenda); Press Release, World Intellectual Prop. Org., Member States Adopt a Development Agenda for WIPO (Oct. 1, 2007), https://www.wipo.int/pressroom/en/articles/2007/article_0071.html [https://perma.cc/MF48-MGAG] (announcing the adoption of this Agenda). For discussions of the WIPO Development Agenda, see generally IMPLEMENTING THE WORLD INTELLECTUAL PROPERTY ORGANIZATION'S DEVELOPMENT AGENDA (Jeremy de Beer ed., 2009) [hereinafter IMPLEMENTING WIPO DEVELOPMENT AGENDA]; THE DEVELOPMENT AGENDA: GLOBAL INTELLECTUAL PROPERTY AND DEVELOPING COUNTRIES (Neil Weinstock Netanel ed., 2008) [hereinafter DEVELOPMENT AGENDA]; Yu, *supra* note 70, at 515–22.

[145] *See* Yu, *supra* note 70, at 468–511 (discussing the Old Development Agenda). This earlier agenda included "(1) the drafting of the

Development Agenda actually paved the way for the formation of WIPO as a U.N. specialized agency.[146] Likewise, the past two decades of development of TRIPS-plus bilateral, regional, and plurilateral agreements remind us of the negotiations for bilateral treaties before the adoption of the Paris and Berne Conventions.[147] Professor Okediji even traced the bilateral and regional agreements in the mid-2000s back to the United States' "friendship, commerce and navigation" treaties in the nineteenth century and the first half of the twentieth century.[148] As if these resemblances were not remarkable enough, there are strong historical parallels between the ACTA negotiations and the push for an anti-counterfeiting code towards the end of the Tokyo Round of Multilateral Trade Negotiations, between the "common heritage of humankind" concept advanced in the late 1960s and today's free software, open source, free culture, and access to knowledge movements, and between the early

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Stockholm Protocol, (2) the formation of WIPO as a specialized agency of the United Nations, (3) the establishment of the International Code of Conduct, and (4) the revision of the Paris Convention." *Id.* at 471.

[146] *See id.* at 484–93 (discussing the formation of WIPO as a U.N. specialized agency).

[147] *See* Yu, *supra* note 143, at 117–21 (noting the similarities between recent bilateral, regional, and plurilateral agreements and older agreements of the same type). Similarly, Bryan Mercurio declared in the trade context:

By the mid-1800s, . . . trading nations had created a complex web of agreements in which [most-favored-nation and national treatments] applied bilaterally. When the "spaghetti bowl" agreements became unmanageable, practitioners and government[s] realized the rights needed to be formally adopted in an international framework. Such efforts built upon the bilateralism by filling gaps and providing coherence to [intellectual property rights]. This process culminated in the Paris Convention . . . and the Berne Convention.

Bryan Mercurio, *TRIPS-Plus Provisions in FTAs: Recent Trends*, *in* REGIONAL TRADE AGREEMENTS AND THE WTO LEGAL SYSTEM 215, 217 (Lorand Bartels & Federico Ortino eds., 2007).

[148] *See* Okediji, *supra* note 141, at 130–31.

transplants of intellectual property laws during the colonial era and the much more recent transplants through the TRIPS Agreement and TRIPS-plus trade, investment, and intellectual property agreements.[149]

All of these similarities not only place the earlier explanations in the proper context, but they also explain why the developing countries' position shift is not unusual. Although this Article focuses primarily on developed countries, these parallels will inform the developed countries' position shift as well.[150] Moreover, if the parallels listed in this Section provide any predictive value, the positions of developed and developing countries may swap once again in the near future. Only time will tell whether developing countries will switch their position again and when and why they will do so. Should that switch happen, this Article will need a redux treatment, the same way the 2006 article did.

B. Action and Reaction

The second observation relates to the paired opposite of action and reaction, made memorable by Newton's Third Law of Motion.[151] Translated into the intellectual property context, any action in intellectual property norm-setting, such as a push to adopt new TRIPS-plus standards, can result in corresponding reactions in the

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[149] Yu, *supra* note 143, at 124–25 (citations omitted).

[150] *See supra* text accompanying note 19 (noting the developed countries' position shift).

[151] Sir Isaac Newton's three laws of motion were first propounded in *Philosophiæ Naturalis Principia Mathematica*, published in Latin in 1687. His third law of motion is usually reduced to the following: "For every action, there is an equal and opposite reaction." Rhett Allain, *A Closer Look at Newton's Third Law*, WIRED (Oct. 3, 2013), https://www.wired.com/2013/10/a-closer-look-at-newtons-third-law [https://perma.cc/W4RL-JJ9M].

political arena—whether domestic or global. These dynamics have played out in the developing countries' engagement with the TRIPS Agreement and the larger international intellectual property regime.[152]

In the mid-1990s, shortly after the adoption of the TRIPS Agreement and when the Internet started to enter the mainstream, James Boyle made a pioneering call for the creation of "a politics of intellectual property."[153] As he observed:

> A successful political movement needs a set of (popularizable) analytical tools which reveal common interests around which political coalitions can be built. Just as "the environment" literally disappeared as a concept in the analytical structure of private property claims, simplistic "cause and effect" science, and markets characterized by negative externalities, so too the "public domain" is disappearing, both conceptually and literally, in an intellectual property system built around the interests of the current stakeholders and the notion of the original author. In one very real sense, the environmental movement invented the

[152] For discussions of intellectual property politics, *see generally* SEBASTIAN HAUNSS, CONFLICTS IN THE KNOWLEDGE SOCIETY: THE CONTENTIOUS POLITICS OF INTELLECTUAL PROPERTY (2015); POLITICS OF INTELLECTUAL PROPERTY: CONTESTATION OVER THE OWNERSHIP, USE, AND CONTROL OF KNOWLEDGE AND INFORMATION (Sebastian Haunss & Kenneth C. Shadlen eds., 2009) [hereinafter POLITICS OF INTELLECTUAL PROPERTY]; KENNETH C. SHADLEN, COALITIONS AND COMPLIANCE: THE POLITICAL ECONOMY OF PHARMACEUTICAL PATENTS IN LATIN AMERICA (2017); 4 WIPO J. 1–138 (2011).

[153] James Boyle, *A Politics of Intellectual Property: Environmentalism for the Net?*, 47 DUKE L.J. 87, 89 (1997).

> environment so that farmers, consumers, hunters and birdwatchers could all discover themselves as environmentalists. Perhaps we need to invent the public domain in order to call into being the coalition that might protect it.[154]

Although intellectual property activism still has a long way to go before it reaches the level of activism in the environmental arena, the former has gone a long way and has shown some promising developments in the past two decades.[155]

As far as political reactions to the active push for stronger international intellectual property standards are concerned, there is no better example than the adoption of the Doha Declaration on the TRIPS Agreement and Public Health in November 2001.[156] Paragraph 6 of this declaration "recognized that WTO Members with insufficient or no manufacturing capacities in the pharmaceutical sector could face difficulties in making

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[154] *Id.* at 113.

[155] As Amy Kapczynski noted rhetorically:

Who would have thought, a decade or two ago, that college students would speak of the need to change copyright law with "something like the reverence that earlier generations displayed in talking about social or racial equality"? Or that advocates of "farmers' rights" could mobilize hundreds of thousands of people to protest seed patents and an [intellectual property] treaty? Or that AIDS activists would engage in civil disobedience to challenge patents on medicines? Or that programmers would descend upon the European Parliament to protest software patents?

Amy Kapczynski, *The Access to Knowledge Mobilization and the New Politics of Intellectual Property*, 117 YALE L.J. POCKET PART 262, 263 (2008) (footnotes omitted).

[156] World Trade Org., Declaration on the TRIPS Agreement and Public Health of 14 November 2001, WTO Doc. WT/MIN(01)/DEC/2, 41 I.L.M. 746 (2002).

effective use of compulsory licensing under the TRIPS Agreement."[157] Pursuant to this paragraph, the Council for Trade-Related Aspects of Intellectual Property Rights adopted the Decision on the Implementation of Paragraph 6 of the Doha Declaration on the TRIPS Agreement and Public Health on August 30, 2003.[158] This decision eventually led to the adoption of the new Article 31*bis* of the TRIPS Agreement.[159] Although it took more than a decade for two-thirds of the WTO membership to ratify the amendment protocol, the provision finally took effect in January 2017.[160]

The Doha Declaration and the related developments are particularly relevant to our discussion of the developing countries' changing view on the TRIPS Agreement. As WTO Director-General Roberto Azevêdo observed, "The adoption of the Doha Declaration on the TRIPS Agreement and Public Health in 2001, and [the TRIPS Agreement's] subsequent amendment, encouraged th[e] shift in perceptions" that the international intellectual property system was set up mostly for developed economies.[161] Likewise, Pedro Roffe made the observation that the satisfactory conclusion of the Doha Declaration would

[157] *Id.* ¶ 6.

[158] General Council, *Implementation of Paragraph 6 of the Doha Declaration on the TRIPS Agreement and Public Health: Decision of 30 August 2003*, WTO Doc. WT/L/540, 43 I.L.M. 509 (2004) [hereinafter *August 30 Decision*].

[159] *See* General Council, *Amendment of the TRIPS Agreement*, WTO Doc. WT/L/641 (Dec. 8, 2005), http://www.wto.org/english/tratop_e/trips_e/wtl641_e.htm [https://perma.cc/9PA3-CZV4] (providing the protocol to amend the TRIPS Agreement).

[160] Press Release, World Trade Org., WTO IP Rules Amended to Ease Poor Countries' Access to Affordable Medicines (Jan. 23, 2017), https://www.wto.org/english/news_e/news17_e/trip_23jan17_e.htm [https://perma.cc/A36S-PWR7].

[161] Azevêdo, *supra* note 118, at xiii.

cause developing countries "to see the TRIPS Agreement as an important tool to constrain developed country behavior."[162]

Similar action-reaction dynamics can be found at the domestic level. The past decade, for instance, has seen two sets of strong political reactions in the intellectual property arena, which occurred close in time. The first set of reactions concerned the resistance to the development of new and higher enforcement standards under ACTA.[163] To counteract the secretive process used to develop these standards and to highlight the danger of their potential erosion of online freedoms and other civil liberties, commentators, nongovernmental organizations, and individual volunteers filled the Internet with leaked negotiation texts, widespread online coverage of these draft texts, and updates on the latest negotiation rounds.[164] The European Union's effort to adopt the Agreement also led to massive street protests throughout Europe in the middle of

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[162] Abbott, *supra* note 10, at 22.

[163] ACTA, *supra* note 29.

[164] As I observed in an earlier article:

While disclosure of official information remained sparse at this stage of negotiations, civil liberties groups had been active in providing information to help the public understand the agreement's potential impact. For example, in March 2008, more than a couple of months before the first round of negotiations, IP Justice published a pioneering and very informative white paper discussing the potential negotiation items on ACTA. Academics and civil liberties groups across the world also worked hard to obtain information through [the Freedom of Information Act], the Canadian Access to Information Act, or their equivalents. Many of them even managed to obtain "leaked" information or documents, which were quickly posted onto the Internet via WikiLeaks and other websites. In addition, commentators—most notably Professor [Michael] Geist—offered concise yet valuable commentary on the potential provisions while keeping the public up-to-date about the state of the negotiations.

Yu, *Six Secret Fears*, *supra* note 29, at 1016–17 (footnotes omitted).

winter—in major cities such as Amsterdam, Berlin, Copenhagen, Krakow, Munich, Paris, Prague, Sofia, Stockholm, and Vienna.[165] In addition, "a petition of 2 million signatures was handed in to the European Parliament, and thousands of emails were sent to Members of the European Parliament."[166] These protests and signatures eventually led to the European Parliament's resounding rejection of ACTA in June 2012.[167] Thus, despite the adoption of this initially ambitious Agreement in April 2011, that Agreement has been ratified by only a single country—Japan, the country of depositary.[168]

The second set of political reactions involved the resistance to the development of new and higher intellectual property enforcement standards under the PROTECT IP Act[169] and the Stop Online Piracy Act.[170] Providing an American parallel to the ACTA protests in Europe, this resistance eventually led to an unprecedented,

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[165] *See* MONICA HORTEN, A COPYRIGHT MASQUERADE: HOW CORPORATE LOBBYING THREATENS ONLINE FREEDOMS 107–14 (2013) (discussing these protests).

[166] *Id.* at 115.

[167] *Id.* at 127; *see also* Monika Ermert, *Unprecedented Vote: EU Parliament Trade Committee Rejects ACTA*, INTELL. PROP. WATCH (June 21, 2012), http://www.ip-watch.org/2012/06/21/unprecedented-vote-eu-parliament-trade-committee-rejects-acta [https://perma.cc/9D7E-EW2M] (noting that the rejection of ACTA marked the first time the Committee on International Trade of the European Parliament struck down a trade agreement).

[168] *See* ACTA, *supra* note 29, art. 45 ("The Government of Japan shall be the Depositary of this Agreement."); *see also* Maira Sutton, *Japan Was the First to Ratify ACTA. Will They Join TPP Next?*, ELEC. FRONTIER FOUND. (Oct. 26, 2012), https://www.eff.org/deeplinks/2012/10/japan-ratify-acta-will-they-join-tpp-next [https://perma.cc/F5EJ-KD2H] (reporting Japan's ratification).

[169] Preventing Real Online Threats to Economic Creativity and Theft of Intellectual Property Act of 2011 (PIPA), S. 968, 112th Cong. (2011).

[170] Stop Online Piracy Act (SOPA), H.R. 3261, 112th Cong. (2011).

massive service blackout launched by Wikipedia, Reddit, WordPress, and other Internet companies.[171] This blackout, in turn, caused Congressional leaders to quickly withdraw support for the two controversial bills.[172] As Senator Ron Wyden succinctly summarized in his reminder to then USTR Ronald Kirk in a Senate Finance Committee hearing, "[t]he norm changed on Jan. 18, 2012, when millions and millions of Americans said we will not accept being locked out of debates about Internet freedom."[173]

Although these two sets of political reactions remain rare in the intellectual property field, and we have not seen similar resistance to other controversial intellectual property standards in either the TPP or the USMCA, these three examples show that an aggressive push for high intellectual property standards could sometimes result in political reactions that help fuel the resistance to those standards. To some extent, the action-reaction dynamics explain why developing countries were able to secure greater support after the introduction of the TRIPS Agreement.[174] Those dynamics also help drive the

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[171] *See* Jonathan Weisman, *In Fight Over Piracy Bills, New Economy Rises Against Old*, N.Y. TIMES, Jan. 18, 2012, at A1 (reporting the blackout).

[172] *See* Yu, *Alphabet Soup*, *supra* note 40, at 32–33 (noting the loss of support for these bills). *See generally* EDWARD LEE, THE FIGHT FOR THE FUTURE: HOW PEOPLE DEFEATED HOLLYWOOD AND SAVED THE INTERNET—FOR NOW 55–78 (2013) (discussing the blackout and its aftermath).

[173] Joseph J. Schatz, *Technology Groups Worry About Trade Pact*, CQ TODAY ONLINE NEWS (Mar. 13, 2012), http://public.cq.com/docs/news/news-000004045563.html [https://perma.cc/HY6X-2HG6].

[174] As I noted in an earlier article:

> Since the adoption of the TRIPS Agreement, . . . civil society organizations have become much more active in the intellectual property arena. Indeed, many NGOs found themselves "woken up" by the harsh realities the unbalanced TRIPS Agreement brought and the

development of what Professor Halabi refers to as

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public health crises the Agreement precipitated in the less developed world. In retrospect, Sisule Musungu and Graham Dutfield considered "civil society groups . . . the single most important factor in raising the issue of the impact of the international intellectual property standards, especially TRIPS standards, on development issues such as health, food and agriculture." Andrea Menescal also observed that "the most welcome news to emerge from the 2004 [WIPO Development Agenda] debate is that developing countries' governments are no longer alone in opposing an even further strengthening of the [intellectual property] holders' rights and the prevalence of private interests in the [intellectual property] field."

Yu, *supra* note 94, at 1639–40 (quotations omitted); *see also* DEERE, *supra* note 15, at 134 ("The participation of NGOs [nongovernmental organizations] in global debates on TRIPS began in the late stages of the Uruguay Round. From 1993 to 1995, NGOs such as [Third World Network], Health Action International (HAI), and GRAIN published concerns about the implications of TRIPS for development, public health, and farmers." (footnote omitted)); DUNCAN MATTHEWS, INTELLECTUAL PROPERTY, HUMAN RIGHTS AND DEVELOPMENT: THE ROLE OF NGOS AND SOCIAL MOVEMENTS 26 (2011) ("Th[e] process of [nongovernmental organization] engagement with the scope and effective of in-built TRIPS flexibilities began soon after the TRIPS Agreement came into force in 1995"); Keith E. Maskus, *The WIPO Development Agenda: A Cautionary Note*, *in* DEVELOPMENT AGENDA, *supra* note 144, at 163–64 ("Policymakers, non-governmental organizations, the media, and even many legal scholars have awakened to the fact that [intellectual property] regulations have rather fundamental implications for the processes of economic development."); SELL, *supra* note 114, at 181 ("When I asked some public-regarding copyright activists 'where they had been' during TRIPS, they told me they had been 'sleeping' but that because of TRIPS they had 'woken up.'"); Ellen 't Hoen, *The Revised Drug Strategy: Access to Essential Medicines, Intellectual Property, and the World Health Organization*, *in* ACCESS TO KNOWLEDGE IN THE AGE OF INTELLECTUAL PROPERTY 127, 131 (Gaëlle Krikorian & Amy Kapczynski eds., 2010) (stating that it was at the International Conference on National Medicinal Drug Policies in Sydney in 1995 that "for the first time public-health advocates raised the concern that the globalization of new international trade rules and the harmonization of regulatory requirements would restrict countries' ability to implement drug policies that would ensure access to medicine for all").

"intellectual property shelters" in the areas of public health, biological diversity, and food security.[175]

Understanding the action-reaction dynamics in the intellectual property arena is important because context is always needed to develop a full understanding of laws and policies. As Sebastian Haunss and Kenneth Shadlen observed in the introduction to *Politics of Intellectual Property*:

> [W]hile laws are the solidified results of social struggles and political conflicts, understanding the law itself tells us little about the social processes that lay behind laws and even less about the social dynamics that will eventually challenge and often change them. Laws establish opportunities for action, and strictly legal perspectives in most cases say little about different actors' motivations and capacities to exploit these opportunities and how the motivations and capacities change over time.[176]

Moreover, the action-reaction dynamics remind us of the importance of mobilization and resistance,[177] as well

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[175] *See* discussion Section I.C.

[176] Sebastian Haunss & Kenneth C. Shadlen, *Introduction: Rethinking the Politics of Intellectual Property*, *in* POLITICS OF INTELLECTUAL PROPERTY, *supra* note 152, at 1, 2.

[177] *See* Susan Sell, *Intellectual Property and Public Policy in Historical Perspective: Contestation and Settlement*, 38 LOY. L.A. L. REV. 267, 321 (2004) ("Each new round of contestation and settlement produces new winners and losers. History has shown that depending on how well mobilized and badly threatened the losers are, they can rise up to challenge the settlement."); Yu, *supra* note 143, at 125 ("[W]hether reforms will succeed will ultimately depend on whether the relevant

as the strong "resilience of local interests."[178] As Ruth Okediji observed when the TRIPS Agreement reached its adult age, "[a]t a minimum, twenty-one years of TRIPS should have taught the global community that national welfare considerations will inevitably resist, and legal innovation will invariably emerge, to counter the imprudence of a treaty that attempts to subvert the very territorial and self-seeking national ends for which IP law exists."[179]

C. *Selective Adaptation*

The third observation pertains to the compromises developing countries have struck in response to the external pressure exerted by the European Union, the United States, and other developed countries. Although commentators often criticized the TRIPS Agreement for transplanting inappropriate legal standards in developing countries,[180] the Agreement is filled with compromises and ambiguities,[181]

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constituencies could sustainably mobilize to protect their gains while challenging the undesirable status quo." (citations omitted)); Yu, *supra* note 19, at 527–28 ("If the TRIPS Agreement is . . . a work in progress, [developing] countries will have their opportunities. Whether they can succeed . . . will depend on whether they can rise up to the challenge of pushing for the adoption of their preferred norms.").

[178] *See* Okediji, *supra* note 27, at 199 (noting "the resilience of local interests, sometimes working in concert with transnational actors, in identifying those domestic considerations that could successfully blunt the toughest edges of multilateral [intellectual property] obligations").

[179] *Id.* at 267.

[180] *See supra* note 113 (providing sources that have made similar arguments).

[181] *See* DINWOODIE & DREYFUSS, *supra* note 15, at 34–39 (discussing the compromise narrative); Thu-Lang Tran Wasescha, *Negotiating for Switzerland*, *in* MAKING OF TRIPS AGREEMENT, *supra* note 9, at 159, 165–66 ("I remember thinking that when no one was happy with the result it must mean that the text is somewhere mid-way. The TRIPS Agreement was a text no one was entirely happy with—this, in itself, could be an achievement."); WATAL, *supra* note 108, at 7 (advancing

and many countries have declined to introduce the developed countries' standards verbatim.[182] Instead, many of these countries adopt compromising solutions or hybrid standards that were mid-way between the *demandeur* countries' standards and the developing countries' original standards.[183] Other than the usual political resistance, the preferences for adopting these compromises can be attributed to the effort to preserve the residual strengths of the original standards, the mismatch between local conditions and the new standards, and inertia on the part of both policymakers and legislators.[184]

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the concept of "constructive ambiguities"); Judd, *supra* note 52, at 531 ("The TRIPS constituencies harbor too many opposing viewpoints for the instrument to please everyone all the time."); Peter K. Yu, *The Objectives and Principles of the TRIPS Agreement*, 46 HOUS. L. REV. 979, 1022–23 (2009) (discussing the ambiguities within the TRIPS Agreement).

[182] *See* DINWOODIE & DREYFUSS, *supra* note 15, at 14 ("The BRICS . . . tend to see the TRIPS Agreement as providing them with a menu of flexibilities. They are working within that understanding to enact what they view as TRIPS-consistent laws, but laws that are different from those of the main proponents of the Agreement." (footnote omitted)); SHADLEN, *supra* note 152, at 85 ("Although Argentina adopted a new patent system as demanded by the WTO in the 1990s, the outcome differs—in fundamentally key ways—from the desires of the transnational pharmaceutical industry and US Government, as well as from the initial desires of the Argentinean Executive.").

[183] As Ruth Okediji observed:

[G]lobal friction over TRIPS implementation has not been focused on whether compliant legislative changes have been adopted. Rather, the friction is focused on the ways in which TRIPS flexibilities have been utilized, be they in the governing statutes, in the courts or in administrative agencies, which, as the following section suggests, are poised to be the leading laboratories of legal innovation.

Okediji, *supra* note 27, at 230; *see also* Peter K. Yu, *Fair Use and Its Global Paradigm Evolution*, 2019 U. ILL. L. REV. 111, 137–41 (discussing the introduction of hybrid transplants in the copyright context).

[184] *See* Yu, *supra* note 183, at 141–55 (explaining why policymakers and legislators have preferred a paradigm evolution to a paradigm shift

Indeed, as we have seen in both the TRIPS negotiations and WTO panel decisions, splitting the middle seems to be quite popular among those involved in the international trading body. Although least developed countries pushed hard for an extension of the TRIPS transition period for fifteen years in the run-up to the Hong Kong Ministerial, developed countries were reluctant to offer such an extension.[185] The two sides eventually settled on an extension for only seven and a half years, half of what developing countries requested.[186] Likewise, in the first TRIPS dispute between China and the United States, the panel found for China on the criminal threshold claim, but held for the United States on the formalities claim, with the claim on customs measures split between the two parties.[187] Because both sides had seemingly secured a 2-1 victory, neither side appealed the decision.[188]

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when importing foreign laws and legal models from abroad); *see also* SHADLEN, *supra* note 152, at 240–46 (noting the tension and contradictory relationship between tailoring strategies that make the patent regime compatible with local conditions and aspiring strategies that facilitate growth into a new patent regime).

[185] *See* Tove Iren S. Gerhardsen, *LDCs Agree to Shorter Extension for TRIPS Implementation*, INTELL. PROP. WATCH (Nov. 29, 2005), https://www.ip-watch.org/2005/11/29/ldcs-agree-to-shorter-extension-for-trips-implementation [https://perma.cc/983R-TBCB] ("[Least developed countries] collectively sought a 15-year extension but met with opposition from developed countries and ultimately agreed to 7.5 years in a 29 November meeting of the TRIPS Council.").

[186] LDC Extension Press Release, *supra* note 6.

[187] Panel Report, *China—Measures Affecting the Protection and Enforcement of Intellectual Property Rights* ¶ 8.1, WTO Doc. WT/DS362/R (adopted Jan. 26, 2009). For my discussions of this dispute, see generally Peter K. Yu, *The TRIPS Enforcement Dispute*, 89 NEB. L. REV. 1046 (2011) [hereinafter Yu, *TRIPS Enforcement Dispute*]; Peter K. Yu, *TRIPS Enforcement and Developing Countries*, 26 AM. U. INT'L L. REV. 727 (2011).

[188] Yu, *TRIPS Enforcement Dispute*, *supra* note 187, at 1082.

To some extent, the developing countries' active push for compromising solutions and hybrid standards have facilitated what commentators have termed "selective adaptation."[189] Seeking to "incorporat[e] . . . only beneficial features of the TRIPS Agreement without also transplanting its harmful and unsuitable elements,"[190] this process explains in part why the Agreement has had limited

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[189] *See* Wu Handong, *One Hundred Years of Progress: The Development of the Intellectual Property System in China*, 1 WIPO J. 117, 118–19 (2009) (discussing the stage of "selective arrangement in light of domestic development"); Peter K. Yu, *When the Chinese Intellectual Property System Hits 35*, 8 QUEEN MARY J. INTELL. PROP. 3, 12 (2018) ("[A]s China moved from the imitation and transplantation phase to the indigenization and transformation phase, it has skilfully deployed 'selective adaptation' strategies to ensure the incorporation of only beneficial features of the TRIPS Agreement without also transplanting its harmful and unsuitable elements."); *see also* Yu, *supra* note 113, at 26 (noting the transformation of transplant could result in "selective adaptation").

Amy Kapczynski advanced a similar concept, which she called mimicry:

One such strategy . . . can be called mimicry, which I define as a strategy of transformative copying. Here, "recipient" countries model and legitimate their local law with reference to the law of "dominant" countries. But rather than adopt wholesale the meanings of these provisions, these texts are revised or reinscribed. Mimicry is legal transplantation with a difference. Transplantation designates the simple "moving of a rule of law or a system of law from one country to another." It identifies a kind of mindless borrowing; "transplanted" rules are typically not transformed when adopted, though they may evolve once implemented. Mimicry, in contrast, is a dynamic reworking cast as a sharing or borrowing.

Kapczynski, *supra* note 95, at 1636 (footnotes omitted).

[190] Yu, *supra* note 189, at 12; *see also* Sunil Mani & Richard R. Nelson, *Conclusion*, *in* TRIPS COMPLIANCE, NATIONAL PATENT REGIMES AND INNOVATION: EVIDENCE AND EXPERIENCE FROM DEVELOPING COUNTRIES 222, 223 (Sunil Mani & Richard R. Nelson eds., 2013) [hereinafter TRIPS COMPLIANCE] (stating that "India, and to some extent Brazil and Thailand, "have used the TRIPS flexibilities as a window of opportunity for reducing the deleterious effects of TRIPS compliance on their domestic industry and indeed consumers").

ability to harmonize national intellectual property standards.[191] As Pitman Potter described the process in the Chinese context:

> Applied to China, selective adaptation analysis permits understanding of local responses to international legal obligations. China's interpretation and implementation of international agreements in trade, such as the General Agreement on Tariffs and Trade (GATT) and agreements associated with the . . . WTO . . . , for example, will depend on the extent to which interpretive communities—comprising government officials, socio-economic and professional elites, and other privileged groups exercising authority borne of political and/or professional position, specialized knowledge, and/or socio-economic status—assimilate norms of trade liberalization.[192]

At its core, selective adaptation is a strategic response that aims to avoid two evils. While developing country members of the WTO are unlikely to have the ability to fight off demands from the European Union, the United States, or other powerful WTO members for higher intellectual property standards, they are keenly aware of the mismatch between the demanded standards and their needs, interests, conditions, and priorities. To reduce the harm these ill-advised transplants would inflict upon them, they carefully pick their battles with developed countries and

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[191] *See* discussion *supra* Section I.D.

[192] Pitman B. Potter, *China and the International Legal System: Challenges of Participation*, *in* CHINA'S LEGAL SYSTEM: NEW DEVELOPMENTS, NEW CHALLENGES 145, 147–48 (Donald C. Clarke ed., 2008) (footnotes omitted).

modify the transplanted standards as much as they can, conscious of the latter's political pressure and the potential repercussions.[193]

In doing so, developing countries selectively adapt the developed countries' models and successfully retain some of their own standards. Such selective adaptation enables the former to undertake law and policy experiments[194] while facilitating jurisdictional competition

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[193] The most obvious repercussion is the developed countries' use of the WTO dispute settlement process to pressure developing countries to make further changes to their laws. *See* TRIPS Agreement, *supra* note 2, art. 64 (mandating the use of the WTO dispute settlement process to settle disputes arising under the TRIPS Agreement). *See generally* DISPUTE SETTLEMENT AT THE WTO: THE DEVELOPING COUNTRY EXPERIENCE (Gregory C. Shaffer & Ricardo Melendex-Ortiz eds., 2010) (documenting the developing countries' experiences at the WTO Dispute Settlement Body); Dreyfuss & Lowenfeld, *supra* note 18 (explaining the significance of linking the TRIPS Agreement to the WTO dispute settlement process); Joost Pauwelyn, *The Dog That Barked but Didn't Bite: 15 Years of Intellectual Property Disputes at the WTO*, 1 J. INT'L DISP. SETTLEMENT 389 (2010) (providing an analysis of the TRIPS disputes in the first fifteen years of the WTO); Gregory Shaffer, *Recognizing Public Goods in WTO Dispute Settlement: Who Participates? Who Decides? The Case of TRIPS and Pharmaceutical Patent Protection*, 7 J. INT'L ECON. L. 459 (2004) (discussing the WTO dispute settlement process in relation to the TRIPS Agreement in the pharmaceutical context); Peter K. Yu, *Are Developing Countries Playing a Better TRIPS Game?*, 16 UCLA J. INT'L L. & FOREIGN AFF. 311, 333–36 (2011) (discussing the developing countries' performance in the TRIPS interpretation game through the use of the WTO dispute settlement process).

[194] As Professor Kapczynski noted in the Indian context:

In the process of interpreting the TRIPS Agreement, and in part through the intervention of local industry and health advocates, India introduced robust versions of familiar flexibilities such as compulsory licensing, but also introduced some less common and even entirely new flexibilities. Among those innovations are novel limitations on subject matter, an exceptionally high inventive step standard, procedural requirements that could substantially decrease the grant rate, a patent misuse standard that may sharply constrain voluntary licensing activity,

at the global level.[195] One of the most widely discussed experiments in this area is the introduction of Section 3(d) of the Indian Patents (Amendment) Act of 2005, which prevents protection from being granted to the mere discovery of a new form of a known substance which does not result in increased efficacy of that substance or the mere discovery of any new property or new use for a known substance or of the mere use of a known process,

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and perhaps most strikingly, limits on injunctive remedies. Rather than rejecting TRIPS, India has entered fully into its terms.

Kapczynski, *supra* note 95, at 1589; *see also* Padmashree Gehl Sampath & Pedro Roffe, *The Technology Transfer Debates and the Role of Emerging Economies*, *in* EMERGING MARKETS AND THE WORLD PATENT ORDER 100, 102 (Frederick M. Abbott et al. eds., 2013) (noting that the experience of a new group of developing countries, such as Brazil, China, and India, "shows that numerous recipes exist to promote sustainable industrial development, and the question of when to grant [intellectual property rights] (at which stage) in the development process is often as important an issue as whether to grant it and in what forms"); Okediji, *supra* note 27, at 230–48 (discussing the role of legal innovation in shaping national development strategies and domestic policy prerogatives in India, Brazil, and Malta); Yu, *supra* note 193, at 324 ("India succeeded in delaying the introduction of a new patent law for pharmaceutical products until after the expiration of the transitional period."); Yu, *Six Secret Fears*, *supra* note 29, at 1037 ("[G]reater harmonization of legal standards could take away the valuable opportunities for experimentation with new regulatory and economic policies."). *See generally* TRIPS COMPLIANCE, *supra* note 190 (discussing the process through which Brazil, India, Thailand, and China achieved compliance with the TRIPS Agreement).

[195] *See* Duffy, *supra* note 95, at 685, 706–07 (discussing how diversity can promote jurisdictional competition); Yu, *Six Secret Fears*, *supra* note 29, at 1037 ("The creation of diversified rules could . . . facilitate competition among jurisdictions, thus rendering the lawmaking process more accountable to the local populations by allowing them to decide for themselves what rules and systems they want to adopt.").

machine, or apparatus unless such process results in a new product or employs at least one new reactant.[196]

The developing countries' effort to undertake policy experiments can be highly beneficial.[197] As Jerome Reichman suggested, these countries may want to refrain from following the developed countries' lead, and adopting their intellectual property models; instead, the former should consider taking the lead in the knowledge economy by building their own comparative advantages.[198] As he observed:

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[196] The Patents (Amendment) Act, No. 15 of 2005, § 3(d), INDIA CODE (2005); *see also* Kapczynski, *supra* note 95, at 1590–98 (discussing Section 3(d) of the Indian Patents (Amendment) Act of 2005).

[197] *See* 1 LADAS, *supra* note 16, at 9–16 (discussing the "laboratory effects" of legal innovation); Cho, *supra* note 24, at 238 (discussing the "laboratory effect" of regionalism, which allows countries to experience trial and error and learning-by-doing at the regional level); Duffy, *supra* note 95, at 707–08 (discussing how countries can develop legal systems by experimenting with new regulatory and economic policies through inter-jurisdictional competition); Rupprecht Podszun & Benjamin Franz, *Regulatory Innovation and the Institutional Design of the TRIPS Agreement*, *in* TRIPS PLUS 20, *supra* note 9, at 279, 307 ("[T]o rejuvenate TRIPS as an innovation-friendly treaty . . . would require making TRIPS a 'learning' institution that opens up diverse paths for members and allows for some experimentation.").

[198] As Professor Reichman explained:

To the extent that intellectual property laws do play an ancillary but important role, there are, roughly speaking, two different approaches on the table. One is to play it safe by sticking to time-tested [intellectual property] solutions implemented in OECD countries, with perhaps a relatively greater emphasis on the flexibilities still permitted under TRIPS (and not overridden by relevant [free trade agreements]). The other approach is to embark on a more experimental path . . . that advanced technology countries currently find so daunting.

Jerome H. Reichman, *Intellectual Property in the Twenty-First Century: Will the Developing Countries Lead or Follow?*, 46 HOUS. L. REV. 1115, 1126 (2009).

> Ideally, all developing countries should experimentally be testing different approaches to stimulating and disseminating innovation in their national and regional systems of innovation and to defining the relevant supporting legal standards that could prove effective for different players at different levels of development, all of whom are necessarily operating within the incipient transnational system of innovation. Valid experiments of this kind should eventually lead to bottom up proposals for future intellectual property standards that are demonstrably consistent with development goals and that suitably reconcile public and private interests at national, regional and, ultimately, global levels.[199]

D. Shifting Coalitions

The last observation regards the shifting coalitions in the international intellectual property regime. Because coalition building has remained a key strategy for developing countries to attain the needed leverage vis-à-vis developed countries, shifts in coalitions can be highly problematic for the former.[200] As I noted in an earlier article, the development of "intellectual property coalitions

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[199] Jerome H. Reichman, *Richard Lillich Memorial Lecture: Nurturing a Transnational System of Innovation*, 16 J. TRANSNAT'L L. & POL'Y 143 (2007).

[200] *See generally* Ahmed Abdel Latif, *Developing Country Coordination in International Intellectual Property Standard-Setting* (South Centre, Trade-Related Agenda, Development and Equity (T.R.A.D.E.) Working Paper No. 24, 2005) (discussing the developing countries' insufficient coordination in international intellectual property standard-setting fora); Yu, *supra* note 1, at 403–06 (discussing coalition building in the TRIPS context).

for development" can help developing countries strengthen their collective bargaining position, influence negotiation outcomes, and promote effective and democratic decision-making in the international intellectual property regime.[201]

Although policymakers and commentators often refer to the North–South Divide in addressing the intellectual property debate,[202] the continuous expansion of the international intellectual property regime and the economic and technological rise of emerging countries have made this traditional divide increasingly elusive.[203] Indeed, many developing countries have now taken policy and negotiation positions that they normally will not

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[201] *See generally* Peter K. Yu, *Building Intellectual Property Coalitions for Development*, *in* IMPLEMENTING WIPO DEVELOPMENT AGENDA, *supra* note 144, at 79.

[202] Despite its wide use, this divide does not adequately explain the dynamics in the TRIPS negotiations. *See* Ganesan, *supra* note 66, at 230 ("The Indian film industry was as vociferous as Hollywood on the prevention of piracy of cinematographic works."); Santos Tarragô, *supra* note 66, at 246 ("The question concerned the appropriation by patents of inventions involving living materials. In this case, even the developed countries could not agree on the extent to which that could be done."); Wasescha, *supra* note 181, at 178 (noting that the issue on geographical indications "was not a North–South confrontation, or a North–North one," but "a New World–Old World divide"); Jayashree Watal, *Patents: An Indian Perspective*, *in* MAKING OF TRIPS AGREEMENT, *supra* note 9, at 295, 309 ("On the optional exclusion of plant and animal inventions, there were considerable intra-North differences, with Canada in particular opposing the patenting of multicellular organisms."); Ruth L. Okediji, *Public Welfare and the Role of the WTO: Reconsidering the TRIPS Agreement*, 17 EMORY INT'L L. REV. 819, 840 (2003) ("Within the specific context of the TRIPS negotiations, alliances that formed over a variety of subjects crossed the traditional North–South divisions.").

[203] *See* Peter K. Yu, *Intellectual Property Negotiations, the BRICS Factor and the Changing North–South Debate*, *in* BRICS-LAWYERS' GUIDE, *supra* note 137, at 148–49 (noting the increasing difficulty in viewing the disagreement between developed and developing countries through a North–South lens).

assume under a Global South perspective.[204] These positions have been further complicated by the changing configurations of local industries.[205]

In the early 2000s, policymakers in developing countries and their supportive commentators began to push for stronger protection for traditional knowledge and traditional cultural expressions.[206] This effort put these policymakers and commentators in an awkward position that did not align well with their traditional pro-development views on intellectual property law and policy. As I noted in an earlier article:

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[204] *See supra* text accompanying note 140 (providing sources that discuss why many emerging countries are now willing to accept higher intellectual property standards); Yu, *supra* note 203, at 169 ("Although Brazil, China and India still want to retain leadership in the developing world, they have also sided with developed countries in many negotiations—or at least in the negotiation of many items."); Yu, *supra* note 32, at 704–05 (noting the "growing need to develop new taxonomies to describe the different, and at times complex, positions taken by China, India, and other emerging countries"); Yu, *supra* note 7, at 111 ("Although [emerging countries] continue to resist the positions taken by the European Union, the United States and other developed countries, and they may decline to take the same path trodden by these countries, they have also slowly embraced intellectual property reforms to promote economic and technological developments." (footnote omitted)).

[205] *See* Okediji, *supra* note 27, at 249 ("[A] variety of new actors will have the space to participate in shaping the intersection between multilateral [intellectual property] obligations and the domestic welfare imperatives that animate that generation and their communities."); Dwijen Rangnekar, *Context and Ambiguity in the Making of Law: A Comment on Amending India's Patent Act*, 10 J. WORLD INTELL. PROP. 365, 379–80 (2007) (noting the changing configuration of Indian pharmaceutical firms); Peter K. Yu, *Access to Medicines, BRICS Alliances, and Collective Action*, 34 AM. J.L. & MED. 345, 390–91 (2008) (noting the dynamic development of the pharmaceutical sector in the BRICS countries).

[206] *See supra* text accompanying notes 66–70.

> Those who are sympathetic to the plight of less developed countries often consider themselves low-protectionists, who favor limited protection of intellectual property. To them, it is very important to have more access to generic drugs, open source software, and non-copyright-protected textbooks. However, as far as traditional knowledge is concerned, this group often finds itself on the side of high-protectionists, along with Big Pharma and multinational agrochemical conglomerates. As much as they want to have free and open access to copyrighted and patented products, they also believe that the same free access to indigenous knowledge and materials would lead to biopiracy that could jeopardize the heritage and culture of indigenous communities—or worse, threaten the very survival of these communities.[207]

For instance, at the inaugural A2K conference at Yale Law School in April 2006, which took place shortly after the publication of the 2006 article, some advocates of open-source software were surprised that their developing country allies actually preferred stronger protection of intellectual property rights in the area of traditional knowledge and traditional cultural expressions.[208] There is simply no easy way to reconcile the two conflicting

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[207] Peter K. Yu, *Intellectual Property and the Information Ecosystem*, 2005 MICH. ST. L. REV. 1, 8–9 (footnotes omitted).

[208] Access to Knowledge Conference at Yale Law School (Apr. 21–23, 2006). This observation is based on my personal recollection of the conference. I moderated the panel on "Political Economy of A2K."

positions, unless one abandons doctrinal coherence to focus primarily on developing country interests.[209]

Today, we face a different set of conflicting positions—this time because of the rise of Brazil, China, India, and other emerging countries.[210] Policymakers in these countries and their supportive commentators have traditionally argued for weaker intellectual property protection and enforcement in view of the developing countries' weaker economic and technological conditions. Nevertheless, as emerging countries become more economically and technologically successful, this traditional position no longer fits well with the countries' current conditions and future aspirations.[211] This changing position is in large part why emerging countries have begun to embrace higher intellectual property standards, as revealed in the RCEP and other negotiations.[212]

To complicate matters even further, many of these emerging countries have highly uneven development across the country. Take China, for example. Although commentators have noted the country's economic rise and

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[209] *See* Yu, note 70, at 559 ("[F]rom a doctrinal standpoint, it is hard to reconcile this proposal with the other demands of less developed countries for greater autonomy, policy space, and flexibilities.").
[210] *See* discussion *supra* Section I.E.
[211] *See* Ganesan, *supra* note 66, at 250 ("The TRIPS Agreement is no longer as emotive and explosive an issue in India as it was at the time of its negotiation. The main reason behind this change is the increasing outward orientation of India's economic policies and the growing strength and confidence of its economy."); Hiroyuki Odagiri et al., *Conclusion*, *in* INTELLECTUAL PROPERTY RIGHTS, DEVELOPMENT, AND CATCH-UP: AN INTERNATIONAL COMPARATIVE STUDY 412, 424–26 (Hiroyuki Odagiri et al. eds., 2010) (noting that a desirable intellectual property regime may vary over the course of development stages).
[212] *See supra* text accompanying note 140.

its status as the world's second-largest economy,[213] China's economic power still does not compare favorably with that of the United States or the European Union. When analyzed on a per capita basis, China ranks in only the middle among upper-middle-income countries, which the World Bank defined as having "a GNI per capita between $3,996 and $12,375," calculated using the World Bank Atlas method.[214] While China had a GNI per capita of $9470 in 2018, the equivalent figures for Japan, South Korea, and the United States were around, or more than, four times that amount—$41,340, $30,600, and $62,850 respectively.[215] Even Malaysia's GNI per capita of $10,460 was higher than that of China.[216]

In the near future, we will likely see another awkward position shift in the electronic commerce or digital trade area.[217] Such a shift would complicate, if not

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[213] Although most commentators have placed China as the world's second largest economy, some suggested that China might already have been the largest based on select metrics. *See* Joseph E. Stiglitz, *The Chinese Century*, VANITY FAIR (Jan. 2015), https://www.vanityfair.com/news/2015/01/china-worlds-largest-economy [https://perma.cc/67XK-ELXF] ("2014 was the last year in which the United States could claim to be the world's largest economic power. China enters 2015 in the top position, where it will likely remain for a very long time, if not forever.").

[214] *World Bank Country and Lending Groups*, WORLD BANK, https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups [https://perma.cc/W427-ZC5K] (last visited Feb. 20, 2019).

[215] *GNI Per Capita, Atlas Method (Current US$)*, WORLD BANK, https://data.worldbank.org/indicator/ny.gnp.pcap.cd [https://perma.cc/494C-TD5V] (last visited Feb. 20, 2019); *see also* Yu, *supra* note 189, at 10 ("Given the 1.4 billion-high population, China's gross domestic product per capita will always remain low, even if it has actively and successfully competed with others on the aggregate level.").

[216] *GNI Per Capita, Atlas Method (Current US$)*, *supra* note 215.

[217] *See supra* note 73 (providing sources discussing trade-related developments in the electronic commerce or digital trade area).

upset, the developing countries' coalitions at the WTO, WIPO, and other international fora.[218] Thus far, those policymakers and commentators who are eager to support the development of strong intellectual property industries have argued for greater protection and enforcement as well as the affirmation of the territoriality principle, which they consider a bedrock of the intellectual property system.[219]

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[218] *See* Ruth L. Okediji, *The International Relations of Intellectual Property: Narratives of Developing Country Participation in the Global Intellectual Property System*, 7 SING. J. INT'L & COMP. L. 315, 373 (2003) ("[T]o the extent regime shifting upsets coalitional dynamics between developing countries, the loss on the development side is actually doubled. Not only is there a dilution of a normative proposition, however subtle, but there is also the political loss resulting from splinters between developing countries whose membership in various regimes may be different, or whose position on issues within the regimes may differ."); Yu, *supra* note 205, at 371–72 ("The growing complexities have . . . upset the existing coalition dynamics between actors and institutions within the international trading system, thus threatening to reduce the bargaining power and influence the less developed world has obtained through past coalition-building initiatives."); Peter K. Yu, *International Enclosure, the Regime Complex, and Intellectual Property Schizophrenia*, 2007 MICH. ST. L. REV. 1, 17–18 (discussing how "the increased complexity of the international intellectual property regime has upset existing coalition dynamics between actors and institutions within the regime complex"); *see also* Ruth L. Okediji, *The International Copyright System: Limitations, Exceptions and Public Interest Considerations for Developing Countries* 16 Int'l Ctr. for Trade & Sustainable Dev., Issue Paper No. 15 (2006), https://unctad.org/en/docs/iteipc200610_en.pdf [https://perma.cc/5368-Q4XL] ("In a digital era, the interests of developing countries ironically overlap with those of consumers in developed countries.").

[219] *See* Berne Convention, *supra* note 98, art. 5(3) ("Protection in the country of origin is governed by domestic law."); Paris Convention, *supra* note 97, art. 4*bis*(1) ("Patents applied for . . . by nationals of a country of the Union shall be independent of patents obtained for the same invention in other countries"); *August 30 Decision*, *supra* note 158, ¶ 6(i) (noting "the territorial nature of the patent rights"); Peter K. Yu, *A Hater's Guide to Geoblocking*, 25 B.U. J. SCI. & TECH. L. 503, 516 (2019) ("For many, territoriality remains the bedrock principile of

Yet, in the electronic commerce or digital trade area, these policymakers and commentators increasingly find themselves arguing for the free flow of information and deterritorialization.[220] Indeed, many intellectual property rights holders have found data localization requirements highly problematic.[221]

In sum, as the international intellectual property regime continues to expand, and as new issue areas are being incorporated into what commentators have described as the "international intellectual property regime complex,"[222] the law and policy debate will become

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the copyright system"); Peter K. Yu, *A Spatial Critique of Intellectual Property Law and Policy*, 74 WASH. & LEE L. REV. 2045, 2064 (2017) [hereinafter Yu, *Spatial Critique*] ("Territoriality is the bedrock principle of the intellectual property system, whether the protection concerns copyrights, patents, trademarks, or other forms of intellectual property rights.").

[220] *See* DAVID DELANEY, TERRITORY: A SHORT INTRODUCTION 2, 15 (2008) (advancing the concepts of "reterritorialization" and "deterritorialization"); Yu, *Spatial Critique*, *supra* note 219, at 2111 ("The introduction of the Internet and other new communications technologies has greatly eroded—or 'deterritorialized'—the traditional boundaries used to protect intellectual property rights." (footnote omitted)); *see also* Justice [Robin] Jacob, *International Intellectual Property Litigation in the Next Millennium*, 32 CASE W. RES. J. INT'L L. 507, 516 (2000) ("[A]s time goes on, . . . the world will realize that at least for intellectual property the days of the nation-state are over.").

[221] *See generally* Anupam Chander & Uyên P. Lê, *Data Nationalism*, 64 EMORY L.J. 677 (2015) (discussing data localization requirements from around the world); Gao, *supra* note 73, at 297 (discussing the difference between the Chinese approach and the U.S. approach to digital trade).

[222] *See* Yu, *supra* note 218, at 2 (coining the term "intellectual property regime complex"); *see also* David W. Leebron, *Linkages*, 96 AM. J. INT'L L. 5, 18 (2002) (discussing "conglomerate regime"); Kal Raustiala & David G. Victor, *The Regime Complex for Plant Genetic Resources*, 58 INT'L ORG. 277, 279 (2004) (introducing the term "regime complex" and discussing the development of a regime complex in the area of plant genetic resources). *See generally* Martti

increasingly fragmented and incoherent. In this environment, policymakers and commentators will have greater difficulty reconciling their doctrinally inconsistent positions. Such difficulty would not only undermine rhetorical effectiveness but would also deeply affect the developing countries' ability to build coalitions to strengthen their collective bargaining positions, influence negotiation outcomes, and promote effective and democratic decision-making in the international intellectual property regime.[223]

IV. FUTURE ROLES

The two previous Parts have explored TRIPS developments in the past twenty-five years, with a focus on developing countries. The lingering question is what will happen to the TRIPS Agreement in the near future, especially in light of the current deadlocks at the Doha Development Round of Trade Negotiations[224] and the United States' reduced support for the WTO Appellate Body?[225] Viewing the issue from the developing countries'

Koskenniemi, *Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law—Report of the Study Group of the International Law Commission*, U.N. Doc. A/CN.4/L.682 (Apr. 13, 2006) (identifying the challenges posed by the growing fragmentation of international law); Eyal Benvenisti & George W. Downs, *The Empire's New Clothes: Political Economy and the Fragmentation of International Law*, 60 STAN. L. REV. 595, 596–600 (2007) (discussing growing "proliferation of international regulatory institutions with overlapping jurisdictions and ambiguous boundaries"); Yu, *supra* note 218, at 13–21 (discussing development of "international intellectual property regime complex").

[223] *See generally* Yu, *supra* note 201.

[224] *See* Yu, *TPP and Trans-Pacific Perplexities*, *supra* note 40, at 1140 (noting the "deadlocks" at the Doha Round).

[225] *See generally* Joost Pauwelyn, *WTO Dispute Settlement Post 2019: What to Expect? What Choice to Make?*, 22 J. INT'L ECON. L. 297 (2019) (discussing the future of the WTO dispute settlement process).

perspective, this Part identifies three active roles that the TRIPS Agreement will continue to play in the near future.

A. Lingering Influence

The first active role concerns the TRIPS Agreement's lingering influence. Because the development of international intellectual property law has been highly path-dependent,[226] the TRIPS Agreement will continue to exert influence on WTO members. Although the Paris and Berne Conventions were established in the 1880s, both Conventions have now been incorporated by reference into the TRIPS Agreement.[227] Such incorporation explains in part why the TRIPS Agreement has had far-reaching impacts on developing countries, even though its new enforcement and test data norms have not had much success in harmonizing national intellectual property standards.[228]

In the future, the TRIPS Agreement will likely exert influence the same way the Paris and Berne Conventions do. First, the TRIPS provisions have been, and will continue to be, incorporated by reference into future

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[226] *See* SARA BANNERMAN, INTERNATIONAL COPYRIGHT AND ACCESS TO KNOWLEDGE 2 (2016) (noting that "[t]he international copyright system in its current form . . . is a set of principles that arose out of chance and path dependency"); Okediji, *supra* note 218, at 338 ("The progression from state practice to bilateralism, to multilateralism to regionalism[,] reveals a classic form of evolutionary path dependency in the development of international intellectual property law."); Yu, *supra* note 116, at 105 ("[T]he international intellectual property system is highly path-dependent. The impact of such dependency becomes even greater when the path is broadened to cover coevolutionary developments with the international economic and trading systems."); Yu, *supra* note 183, at 153–55 (discussing the path dependence in intellectual property law).

[227] TRIPS Agreement, *supra* note 2, arts. 2.1, 9.1.

[228] *See supra* text accompanying notes 100–10.

bilateral, regional, and plurilateral trade agreements. For instance, the TPP Agreement built on the TRIPS Agreement, and fifteen TPP provisions made references to the latter.[229] Second, developing countries can use TRIPS standards as negotiation baselines or the starting points for draft negotiation texts. Some developing countries have already used these standards to explain why their countries have offered sufficient levels of intellectual property protection and enforcement.[230] Third, technical assistance experts will use TRIPS standards as international benchmarks.[231] Given the wide adoption of the TRIPS

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[229] TPP Agreement, *supra* note 40, arts. 18.1, 18.6, 18.8, 18.10, 18.20, 18.39, 18.41, 18.50, 18.55, 18.64, 18.65, 18.71, 18.74, 18.78, 18.82.

[230] *See supra* text accompanying note 20. To preempt these defenses, the U.S. Trade Act of 2002 stipulates expressly that the USTR can take Section 301 actions against countries that have failed to provide "adequate and effective protection of intellectual property rights *notwithstanding the fact that [they] may be in compliance with the specific obligations of the [TRIPS] Agreement*." 19 U.S.C. § 2411(d)(3)(B)(i)(II) (2018) (emphasis added).

[231] Article 67 of the TRIPS Agreement lays down the obligation concerning technical cooperation:

In order to facilitate the implementation of this Agreement, developed country Members shall provide, on request and on mutually agreed terms and conditions, technical and financial cooperation in favour of developing and least-developed country Members. Such cooperation shall include assistance in the preparation of laws and regulations on the protection and enforcement of intellectual property rights as well as on the prevention of their abuse, and shall include support regarding the establishment or reinforcement of domestic offices and agencies relevant to these matters, including the training of personnel.

TRIPS Agreement, *supra* note 2, art. 67; *see also* DEERE, *supra* note 15, at 180–86, 278–85 (discussing institutional capacity building in the intellectual property context); Duncan Matthews & Viviana Muñoz-Tellez, *Bilateral Technical Assistance and TRIPS: The United States, Japan and the European Communities in Comparative Perspective*, 9 J. WORLD INTELL. PROP. 629, 632 (2006) (discussing the technical assistance provided by the United States, Japan, and the European Union in accordance with Article 67 of the TRIPS Agreement); Christopher May, *Capacity Building and the (Re)production of*

Agreement by more than 160 WTO members,[232] there are simply no better examples than these standards.

B. Catch-up Model

The second active role that the TRIPS Agreement will play relates to the catch-up model it offers. While the experiences of Brazil, China, India, and other emerging countries have shown the limitations of the TRIPS formula for strengthening economic and technological capabilities in developing countries, there are still many success stories. Indeed, without the reforms induced by the TRIPS Agreement and the WTO, many emerging countries are unlikely to quickly and greatly increase these capabilities.[233]

It is certainly fair to question whether these increased capabilities are attributed to the TRIPS Agreement or the WTO (which provides developing countries with concessions in other trade sectors, such as agriculture and textiles).[234] Nevertheless, the WTO's

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Intellectual Property Rights, 25 THIRD WORLD Q. 821 (2004) (discussing intellectual property capacity building in developing countries); Yu, *supra* note 44, at 109 (discussing technical assistance in relation to the TPP Agreement).

[232] *See Members and Observers*, WORLD TRADE ORG., https://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm [https://perma.cc/K397-4XWF] (last visited Aug. 22, 2019) (providing a list of WTO members).

[233] *See* discussion *supra* Section I.E.

[234] It is not uncommon for policymakers and trade negotiators in developed countries to point out that developing countries have secured significant gains in non-intellectual property areas through the WTO even if the standards in the TRIPS Agreement might not have been in their best interests. *See* Yu, *supra* note 1, at 371 ("While developed countries received stronger protection for intellectual property rights and a reduction in restrictions against foreign direct investment, less developed countries obtained, in return, lower tariffs on textiles and

"single undertaking" arrangement[235] has made it very difficult, if not impossible, to separate the TRIPS contributions from the WTO contributions.[236]

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agriculture and protection via the mandatory dispute settlement process against unilateral sanctions imposed by the United States and other developed countries."); *see also* Yu, *supra* note 26, at 385 ("The problem with the TRIPS Agreement is not that it is one-sided. It is expected to be one-sided, given the cross-sector bargaining undertaken during the negotiation process."). During the TRIPS negotiations, developing countries were also repeatedly told that the TRIPS Agreement, along with other commitments in the WTO, would provide the painful medicine they need to boost economic development. *See* Gervais, *supra* note 54, at 43 (noting that developing countries "were told to overlook the distasteful aspects of introducing or increasing intellectual property protection and enforcement in exchange for longer-term economic health"); *see also* Edmund W. Kitch, *The Patent Policy of Developing Countries*, 13 UCLA PAC. BASIN L.J. 166, 166–67 (1994) (arguing that developing countries agreed to stronger intellectual property protection during the TRIPS negotiations because they found such protection in their self-interests).

[235] *See How the Negotiations Are Organized*, WORLD TRADE ORG., https://www.wto.org/english/tratop_e/dda_e/work_organi_e.htm [https://perma.cc/X9F8-4KE8] (last visited Sept. 3, 2019) ("Single undertaking: Virtually every item of the negotiation is part of a whole and indivisible package and cannot be agreed separately. 'Nothing is agreed until everything is agreed.'").

[236] As I noted in an earlier article:

[D]espite having the burden of assuming WTO-plus obligations in intellectual property and other areas, China has been doing very well since it joined the international trading body. Although one can certainly debate whether the country's success in the intellectual property area actually originated from the WTO or its TRIPS Agreement—an important distinction—the WTO's "single undertaking" approach has virtually guaranteed that China could not have obtained benefits from non-intellectual property reforms without also implementing TRIPS-based reforms.

Yu, *supra* note 189, at 12; *see also* KURT M. CAMPBELL, THE PIVOT: THE FUTURE OF AMERICAN STATECRAFT IN ASIA 195 (2016) ("The last time China signed on to a difficult trade agreement was when it joined the WTO, and after a period of costly but necessary domestic reforms, it benefited dramatically."); Yu, *supra* note 121, at 550 ("[T]he push for China to strengthen intellectual property protection has resulted in

To a large extent, the TRIPS Agreement has provided an incomplete model for economic and technological catch-up. This model is neither sufficient nor necessary, but it can be beneficial. Economists have reminded us time and again the importance of introducing complementary policy reforms. For instance, Keith Maskus underscored the importance of the development of "an overall pro-competitive business environment," drawing on intellectual property protection, investment regulations, tax and production incentives, trade policies, and competition rules.[237] In relation to the use of intellectual property reform to attract foreign direct investment, Claudio Frischtak reminded us that a country's overall investment climate often has greater influence on

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the slow and paradoxical erosion of the United States' competitive position."); Gordon G. Chang, *TPP vs. RCEP: America and China Battle for Control of Pacific Trade*, NAT'L INTEREST (Oct. 6, 2015), http://nationalinterest.org/feature/tpp-vs-rcep-america-china-battle-control-pacific-trade-14021 [https://perma.cc/JB29-57FS] ("[China] reaped large gains after it joined the World Trade Organization in December 2001, due mostly to the reforms required by its accession agreement.").

[237] Keith E. Maskus, *The Role of Intellectual Property Rights in Encouraging Foreign Direct Investment and Technology Transfer*, 9 DUKE J. COMP. & INT'L L. 109, 129 (1998); *see also* DRAHOS WITH BRAITHWAITE, *supra* note 112, at 202 ("[S]ocieties must choose their system for regulating intellectual property with an eye to how it will fit other crucial legal and industry policy institutions, from competition policy to labour market policy."); Odagiri et al., *supra* note 211, at 420–21 (discussing the need to consider the role of an intellectual property regime alongside that of other government policies); Daniel Gervais, *Of Clusters and Assumptions: Innovation as Part of a Full TRIPS Implementation*, 77 FORDHAM L. REV. 2353, 2355 (2009) ("[M]echanical implementations of TRIPS are unlikely to generate positives measured in terms of domestic innovation and may generate significant administrative and welfare costs.").

investment decisions than the strength of intellectual property protection.[238] Jerome Reichman concurred:

> Intellectual property rights are but one component of overall economic growth; that different states have different factor endowments; and that in many countries, especially those at an early stage of development, a sound agricultural policy or a sound pro-competitive industrial policy with a supportive political and legal infrastructure are more likely to stimulate economic growth than intellectual property laws.[239]

Moreover, even if the development of a well-functioning intellectual property system is critical to improving the developing countries' economic and technological capabilities, policymakers in these countries should carefully optimize their system according to local conditions. As Josh Lerner wrote: "Almost all economists would agree that some intellectual property protection is better than no intellectual property protection at all. But this does not mean that very strong protection is better than a more moderate level of protection."[240] The need for more moderate levels of protection explains in part why emerging countries have chosen to undertake "selective adaptation."[241] It is also worth remembering that many developing countries start to find the TRIPS Agreement

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[238] Claudio R. Frischtak, *Harmonization Versus Differentiation in Intellectual Property Rights Regime*, *in* GLOBAL DIMENSIONS OF INTELLECTUAL PROPERTY RIGHTS IN SCIENCE AND TECHNOLOGY 68, 99–100 (Mitchel B. Wallerstein et al. eds., 1993).

[239] Reichman, *supra* note 198, at 1117.

[240] Josh Lerner, *The Patent System in a Time of Turmoil*, 2 WIPO J. 28, 32 (2010).

[241] *See* discussion *supra* Section II.C.

palatable, or at least more palatable, because they have attained the requisite levels of economic and technological developments that would allow the countries to benefit from the Agreement.[242]

C. Reinterpreted Safeguards

The third active role that the TRIPS Agreement will play pertains to its various safeguards that have now been strengthened or reinterpreted to the developing countries' benefit. Many of the Agreement's early critics will likely find the use of this Agreement as a shield to protect developing countries counterintuitive, if not absurd.[243] Nevertheless, three reasons explain why the TRIPS Agreement may now accommodate the developing countries' interests better than in the past.

First, as noted earlier, many developing countries have now risen to the level where TRIPS standards can be beneficial. Not only is it unlikely for these "relatively timid and permissive" standards—in Professor Sell's words[244]—to provide developed countries with comparative advantages, but these standards will actually help developing countries attain comparative advantages over other developing countries. In addition, because TRIPS standards were set up at the WTO, these standards will allow reformers in developing countries to push

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[242] *See* Yu, *Copyright Norm-setting*, *supra* note 83, at 39–41 (discussing whether the RCEP members would favor stronger levels of intellectual property protection and enforcement); Yu, *RCEP and Trans-Pacific Norms*, *supra* note 83, at 731–40 (discussing the dilemma confronting intellectual property policymakers in the Asia-Pacific region).

[243] *But see* Yu, *supra* note 181, at 1025–31 (discussing the use of Articles 7 and 8 of the TRIPS Agreement as a shield against aggressive demands for increased intellectual property protection).

[244] Sell, *supra* note 51, at 448.

through domestic intellectual property reforms without expending too much political capital.[245]

Second, in the past twenty-five years, policymakers in developing countries and their supportive academic commentators and nongovernmental organizations have worked hard to strengthen flexibilities in the TRIPS Agreement and to reinterpret that Agreement.[246] As Section I.C has noted, such reinterpretations have occurred both inside and outside the international intellectual

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[245] As I noted earlier in the RCEP context:

Some leaders in . . . emerging countries may . . . welcome new RCEP requirements for stronger intellectual property protection and enforcement. After all, those requirements will provide these leaders with the much-needed external push to accelerate domestic intellectual property reforms. In China, for example, the standards required by the TRIPS Agreement and the push for accession to the WTO led to a complete overhaul of its copyright, patent, and trademark laws in the early 2000s. To many reformist leaders, having their hands tied by international treaties can sometimes be used as an effective weapon against hardline leaders and conservative critics at home.

Yu, *RCEP and Trans-Pacific Norms*, *supra* note 83, at 726 (footnotes omitted); *see also* MARK A. GROOMBRIDGE & CLAUDE E. BARFIELD, TIGER BY THE TAIL: CHINA AND THE WORLD TRADE ORGANIZATION 41 (1999) ("An international institution such as the WTO can help bolster China's reform leadership against powerful hardliners. International institutions can tie the hands of leaders in ways that the ineffectual bilateral relationship is not able to do so."); Peter K. Yu, *Intellectual Property, Economic Development, and the China Puzzle*, *in* INTELLECTUAL PROPERTY, TRADE AND DEVELOPMENT: STRATEGIES TO OPTIMIZE ECONOMIC DEVELOPMENT IN A TRIPS-PLUS ERA 173, 192 (Daniel J. Gervais ed., 1st ed. 2007) (explaining the benefits of TRIPS standards to reformist leaders in China); Yu, *TRIPS Enforcement Dispute*, *supra* note 187, at 1107 ("By providing the much-needed external push that helps reduce resistance from conservative leaders, the panel report [in *China—Measures Affecting the Protection and Enforcement of Intellectual Property Rights*] has helped accelerate reforms in the area of intellectual property protection and enforcement.").

[246] *See supra* text accompanying notes 76–80.

property regime.[247] As a result, the TRIPS Agreement we have today better accommodates the interests of developing countries than the arguably draconian text that these countries and their policymakers felt was thrusted down their throats in the mid-1990s. Since the adoption of the TRIPS Agreement, many developing countries have greatly strengthened their capabilities to put its flexibilities to beneficial use.[248]

Finally, in the past three decades, developed countries have spent tremendous time, effort, and energy on putting TRIPS standards on the international pedestal, making them the de facto standards for the international intellectual property regime.[249] The developing countries' use of these standards, even if reinterpreted, has now created an estoppel effect. As the proverb goes, "Live by the sword, die by the sword."[250] After having pushed developing countries repeatedly—and, at times, aggressively—to embrace these standards in the past quarter-century, it will now be highly hypocritical for developed countries to insist that those standards are inappropriate for their less developed counterparts.

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247 *See* discussion Section I.C.

248 *See generally* Yu, *supra* note 193, at 329–36 (discussing the developing countries' growing abilities to play the TRIPS interpretation game).

249 *See* Assafa Endeshaw, *A Critical Assessment of the U.S.–China Conflict on Intellectual Property*, 6 ALB. L.J. SCI. & TECH. 295, 337 (1996) ("[T]he United States has achieved in placing intellectual property on an arguably 'international' pedestal (the TRIPs) after passing through long periods of bilateral arrangements.").

250 *See Matthew* 26:52 (King James) ("Put up again thy sword into his place: for all they that take the sword shall perish with the sword.").

V. CONCLUSION

When the TRIPS Agreement was adopted in April 1994, many developing countries were discontent with the high standards that the WTO had imposed upon them. Not only did they fear that the Agreement would slow down their catch-up efforts, but they were also concerned about the impacts TRIPS-related reforms might have on the countries' political, economic, social, cultural, and technological developments. As I noted in the 2006 article: "[From the developing countries' perspective, the TRIPS-based international intellectual property] system fails to take into consideration their needs, interests, and local conditions. The strong protection mandated under the TRIPs Agreement also threatens their much-needed access to information, knowledge, and essential medicines."[251]

By the time the TRIPS Agreement celebrated its silver anniversary, many developing countries seem to have become content with this once dreaded Agreement. Some emerging countries have also started to appreciate the benefits provided by the Agreement. While enough empirical evidence has shown the inappropriateness of fully implementing TRIPS standards in developing countries in the mid-1990s[252]—and, for some, even today[253]—the emerging countries' greatly improved

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[251] Yu, *supra* note 1, at 370.

[252] *See* Peter K. Yu, *The Comparative Economics of International Intellectual Property Agreements*, *in* COMPARATIVE LAW AND ECONOMICS 282, 283–84 (Theodore Eisenberg & Giovanni B. Ramello eds., 2016) (providing empirical evidence in this area).

[253] As Graeme Dinwoodie and Rochelle Dreyfuss observed:

Many of the Southern countries did not have a comprehensive intellectual property system prior to entry into the WTO. Despite WTO membership, a low level of protection is still appropriate for their internal needs and will likely remain so for a considerable length of time. In some, the population is largely impoverished. By raising the

economic and technological conditions have now made it possible for them to benefit from TRIPS-based reforms.

The past twenty-five years have therefore shown the gradual evolution of one of the most comprehensive and influential international intellectual property agreements, as well as the changing perceptions and assessments of that Agreement in both the developed and developing worlds. Although it remains to be seen whether developing countries will eventually extol the benefits of the TRIPS Agreement the same way developed countries did shortly after the Agreement's adoption, the developing countries' growing support of this Agreement reminds us of the dynamic nature of international intellectual property developments. Such dynamism explains why the Agreement has continued to attract attention from policymakers and commentators. It also suggests the need for redux treatments of those articles on the TRIPS Agreement that were published in the 1990s and 2000s.

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cost of food, medicine, and books, strong intellectual property protection can substantially decrease access to nutrition, health, and education. And because these countries are not operating at the technological frontier, they are unlikely to see many offsetting benefits from enhanced intellectual property protection. Indeed, under a variety of economic models, it is clear that any agreement that creates efficient levels of intellectual property protection, when measured from the perspective of developed countries, will have significant distributive consequences for the South. Even if strong protection were confined to the North, the South might suffer in that intellectual property rights can raise the cost of humanitarian efforts to create products—such as medicines and nutritious plants—that meet the needs of its citizens.
DINWOODIE & DREYFUSS, *supra* note 15, at 10–11 (footnote omitted).

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