# Complying with Unwelcome Rules? Developing Countries and the TRIPs Agreement

Poppy S. Winanti and Alasdair R. Young\*

### **A**BSTRACT

The Trade Related Intellectual Property Rights (TRIPs) Agreement, concluded as part of the Uruguay Round of multilateral trade negotiations, is a particularly ambitious international agreement in that aims to set a common floor for intellectual property protection in all World Trade Organization (WTO) members. Leading developing country governments vigorously resisted the conclusion of the agreement for philosophical and economic reasons, but under heavy pressure from developed country governments eventually accepted it. Despite their objections, almost all developing country governments have taken steps to comply with the TRIPS Agreement, many have done so before they were required to and many adopted more rigorous IPR rules than strictly required by TRIPs. This article seeks to explain this puzzle by testing explanations compliance derived from realism, which emphasizes the importance of great power coercion; neo-liberalism, which stresses coercion, but also the costs associated with reciprocal withdrawal of benefits and a loss of reputation as a reliable partner; and constructivism, which tends to focus on the legitimacy of the international rule. It finds that none of these explanations accounts for the observed variance and argues for closer analysis of the domestic politics of developing countries' compliance.

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<sup>\*</sup> Poppy Winanti works in the Department of International Relations at the Gadjah Mada University. Dr. Alasdair Young BA (Pennsylvania) MA (Columbia) D Phil (Sussex) is a Senior Lecturer in Politics at the University of Glasgow. His area of focus is the interaction between trade and regulatory politics, with particular reference to the European Union and World Trade Organisation.

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#### I. Introduction

The Trade Related Intellectual Property Rights (TRIPs) Agreement, concluded as part of the Uruguay Round of multilateral trade negotiations, is a particularly ambitious international agreement in that aims to set a common floor for intellectual property protection in all World Trade Organization (WTO) members. In doing so it went significantly beyond existing international property protection by requiring rigorous domestic enforcement and introducing robust international enforcement of national compliance through binding dispute settlement. Many developing country governments, led by those of Brazil and India, vigorously resisted the conclusion of the TRIPs Agreement because of concerns about the associated administrative burdens and the costs of compliance for firms and thus for development. Moreover, developing countries also tend to have a different, less individualist conception of intellectual property than that enshrined in TRIPs. Due to hard bargaining by the European Union and, particularly, the United States, however, developing countries acceded to the agreement. Despite their resistance to the agreement, almost all developing countries have taken steps to comply with it; many have done so before they were required to and many have adopted more rigorous IPR rules than they are strictly required by TRIPs.

This article seeks to explain this anomaly. It does so by applying the leading International Relations theories of compliance derived from realism, neoliberal institutionalism and constructivism. Both realism and neo-liberal institutionalism expect states not to comply with international obligations if it is inconvenient to do so, but offer different explanations as to why states

might. Realism emphasizes that a credible threat of great power coercion, through the imposition of sanctions or the withholding of benefits, increases the likelihood of compliance. Neo-liberal institutionalism also thinks that the threat of coercion increases the likelihood of compliance, but emphasizes collective enforcement. Neo-liberalism also stresses the importance of other costs associated with non compliance, such as the reciprocal withdrawal of benefits of the loss of reputation as a reliable partner. Constructivism contends that the likelihood of compliance depends on the perceived legitimacy of the international obligation. The existing literature on developing country compliance with the TRIPs Agreement, at least implicitly, echoes these expectations; the way the TRIPs Agreement was reached undermines its legitimacy and thereby reduces the likelihood of compliance; and what compliance exists is due to coercion by advanced developed countries, particularly the United States, either directly or through the WTO's dispute settlement mechanism. This article argues, however, that none of the prevailing International Relations accounts of compliance satisfactorily explain the variance in the behaviour of developing countries. The article, therefore, makes the case for disaggregating the treatment of developing countries and focusing on the domestic politics of compliance.

The article begins by highlighting the most contentious aspects of the TRIPs Agreement and summarizing the negotiation process that led to its agreement. It then sets out the compliance expectations of the rival International Relations theories and notes how these are reflected in the existing literature on developing country compliance with the TRIPs. The article then surveys developing country compliance with TRIPs, highlighting findings at odds with the expectations derived from IR theories. The article concludes by making the case for the importance of understanding domestic politics when explaining compliance with international agreements.

## II. TRIPs and Developing Countries: An Unwelcome Agreement

The TRIPs Agreement's substance and the process by which it was concluded make it a hard case for developing country compliance. The TRIPs agreement went substantially beyond the existing intellectual property regime

under the World Intellectual Property Organisation (WIPO) by establishing minimum standards for members' domestic intellectual property laws with respect to terms and scope of protection for a wide range of IPRs categories under a single multilateral agreement, including not only patents and copyrights but also trademarks, undisclosed information and trade secrets, geographical indications, industrial designs, and integrated circuit layout designs.¹ The TRIPs Agreement also governs national enforcement mechanisms, including common procedural requirements for the administration and maintenance of IP rights. In addition, because the TRIPs Agreement is as part of the WTO, members' compliance with its obligations is subject to binding dispute settlement with third-party adjudication. There is, consequently, strong external enforcement of the agreement². The TRIPs Agreement thus involves both the approximation of national rules and the strengthening of enforcement mechanisms.

The increasing importance of intellectual property in international trade<sup>3</sup> and greater recognition of the contribution of technology to competitiveness<sup>4</sup> began to push intellectual property protection up the international trade agenda during the 1970s. US firms were at the forefront of these efforts and with the support of business groups in the European Union and Japan managed to persuade the US, EU and Japanese governments, among others, that intellectual property was an important issue to address in the Uruguay Round of multilateral trade negotiations.<sup>5</sup>

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The TRIPS Agreement sets up a minimum standard of terms of protection for each IPRs category. For example, it does not only incorporate a minimum fifty-year term of copyrights protection as required in the Berne Convention but also introduces a minimum twenty-year term of patent protection which was not covered in the Paris Convention. In addition, it extends the scope of copyrights protection not only for literary, artistic, and scientific works but also including new areas such as software and databases. For detailed information *see* TRIPs: A More Detailed Overview of the TRIPs Agreement, *available at* http://www.wto.org/english/tratop\_e/trips\_e/intel2\_e.htm; WIPO Administered Treaties, *available at* http://www.wipo.int/treaties/en.

MITSUO MATSUSHITA, THOMAS J. SCHOENBAUM AND PETROS C. MAVROIDIS, THE WORLD TRADE ORGANIZATION, LAW, PRACTICE, AND POLICY, 704-705 (2nd edn., 2006); Dilip K. Das, Intellectual Property Rights and the Doha Round, (2005) 8(1) THE JOURNAL OF THE WORLD INTELLECTUAL PROPERTY 37.

Robert J. Gutowski, *The Marriage of Intellectual Property and International Trade in the TRIPs Agreement: Strange Bedfellows or a Match Made in Heaven*, (1999) 47 Buffalo Law Review 714.

<sup>&</sup>lt;sup>4</sup> South Centre, The TRIPs Agreement a Guide for the South: The Uruguay Round Agreement on TRIPs, (Geneva) 10 (1997).

Susan Sell, Big Business and the New Trade Agreements: The Future of the WTO? in Richard Stabbs and Geoffrey R.D. Underhill, Political Economy and the Changing Global Order (2<sup>nd</sup> edn. 2000) 176.

During the Uruguay Round, the US, the EU and Japan advocated a new and comprehensive agreement on intellectual property, which would cover a wider range of IPRs, introduce harmonization of domestic laws, and provide a strong dispute settlement system.<sup>6,7</sup> They were opposed by the G10 developing countries, led by Argentina, Brazil, Egypt, and India, which resisted negotiations on IPRs beyond a discussion of trade in counterfeit goods.<sup>8,9</sup> These deep divisions led to the TRIPs negotiations being characterized as 'a battle between 'developed' and 'developing' countries, the 'industrial countries' versus the 'Third World', the 'North' versus the 'South.''<sup>10</sup>

The developing countries had both philosophical and economic objections to the TRIPs Agreement. More philosophically, they tended to see the TRIPs Agreement as promoting a Western industrialized-society concept of intellectual property. Contrary to Western liberal tradition which perceives

ANN CAPLING, TRADING IDEAS: THE POLITICS OF INTELLECTUAL PROPERTY, IN TRADE POLITICS (2<sup>nd</sup> edn. 2000) (Brian Hocking and Steven McGuire eds.) 184; BERNARD M. HOEKMAN AND MICHAEL M. KOSTECKI, THE POLITICAL ECONOMY OF THE WORLD TRADING SYSTEM, (2<sup>nd</sup> edn., 2001) 283; See Daniel Gervais, THE TRIPS AGREEMENT DRAFTING HISTORY AND ANALYSIS (2<sup>nd</sup> edn., 2003).

See Suggestion by the United States for Achieving the Negotiating Objective, document MTN.GNG/NG11/W/14 (20 October 1987) available at http://www.wto.org/gatt\_docs/english/sulpdf/92030039.pdf; Guidelines Proposed by the European Community for the Negotiations on Trade-Related Aspects of Intellectual Property Rights, document MTN.GNG/NG11/W/16 (20 November 1987) available at http://www.wto.org/gatt\_docs/english/sulpdf/92030129.pdf; Suggestion by Japan for Achieving the Negotiating Objective, document MTN.GNG/NG11/W/17 (23 November 1987) available at http://www.wto.org/gatt\_docs/english/sulpdf/92030131.pdf (accessed 7 March 2009).

Supra note 6; Duncan Matthews, Globalising Intellectual Property Rights: the TRIPs Agreement 32 (2002).

A group of 12 developing countries proposed a draft of agreement which is then known as developing countries proposal. *See* Communication From Argentina, Brazil, Chile, China, Colombia, Cuba, Egypt, India, Nigeria, Peru, Tanzania And Uruguay, document MTN.GNG/NG11/W/71 (14 May 1990) *available at* http://www.wto.org/gatt\_docs/english/sulpdf/92100147.pdf; In addition, during the early stage of the negotiations, some developing countries individually expressed their concerns related to the scope of the agreement, *see* for example Standards and Principles Concerning the Availability Scope and Use of Trade-Related Intellectual Property Rights Communication from India document MTN.GNG/NG11/W/37 (10 July 1989) *available at* http://www.wto.org/gatt\_docs/english/sulpdf/92070115.pdf; Submission from Brazil, document MTN.GNG/NG11/W/30 (31 October 1988) *available at* http://www.wto.org/gatt\_docs/english/sulpdf/92060074.pdf. (All accessed 7 March 2009).

Ann Capling, *supra* note 6 at 185.

Akalemwa Ngenda, The Nature of International Intellectual Property System: Universal Norms and Values or Western Chauvinism, (2005) 14 INFORMATION AND COMMUNICATIONS TECHNOLOGY LAW 60.

IPRs as natural individual rights,<sup>12</sup> most developing countries consider knowledge and other forms of IPRs as collective goods and should be shared freely,<sup>13</sup> although crucially there are constituencies, such as 'local inventors' and government officials eager to attract higher quality foreign direct investment, within developing countries that favour the protection of intellectual property rights.<sup>14</sup> Furthermore, in contrast to liberal traditions which regard material incentives as vital to encouraging innovative activities, most traditions in developing countries recognize the contribution to society as well as cultural esteem rather than material benefit as the driving force for creativity.<sup>15</sup>

Developing countries were also concerned about the potentially adverse affects for their development of adopting developed country standards of intellectual property protection.\(^{16}\) In particular, they were concerned that extending the duration of existing intellectual property protection and about broadening the coverage of protection to new areas would increase royalty payments for use of developed countries-owned intellectual property products.\(^{17}\) Their concerns were not unfounded as the World Bank in 2001 estimated that developing countries would have to pay foreign companies US\$ 20 billion more in technology-related payments if they were to implement fully the TRIPs Agreement.\(^{18}\) The implementation of TRIPs Agreement, therefore, implies a transfer of wealth from consumers in developing countries to multinational corporations based primarily in developed countries.\(^{19}\)

<sup>&</sup>lt;sup>12</sup> Supra note 3 at 745.

Donald B. Marron and David G. Steel, *Which Countries Protect Intellectual Property? The Case of Software Piracy*, (2000) 38(2) Economic Inquire 166.

Supra note 3 at 756; Keith Maskus, Intellectual Property Rights in the Global Economy (2000); Yong Jian Wang, Further Protection of Intellectual Property Rights in the WTO Linking Transfer of Technology with Foreign Direct Investment, (2005) 8(6) The Journal of World Intellectual Property.

Supra note 13.

Communication From Argentina, Brazil, Chile, China, Colombia, Cuba, Egypt, India, Nigeria, Peru, Tanzania And Uruguay, supra note 9; Standards and Principles Concerning the Availability Scope and Use of Trade-Related Intellectual Property Rights Communication from India, supra note 9; Submission from Brazil, supra note 9.

<sup>&</sup>lt;sup>17</sup> *Supra* note 3 at 751.

Ruth Mayne, The TRIPs Agreement and Access to Medicines: An NGO Perspective, in The WTO and Developing Countries (Homi Katrak and Roger Strange eds.) 155 (2004); Graham Dutfield, 'To Copy is to Steal': TRIPs, (Un)free Trade Agreements and the New Intellectual Property Fundamentalism, (2006) 1 The Journal of Information Law and Technology 7, available at <a href="http://www2.warwick.ac.uk/fac/soc/law/elj/jilt/2006\_1/dutfield">http://www2.warwick.ac.uk/fac/soc/law/elj/jilt/2006\_1/dutfield</a> (accessed 10 April 2008).

<sup>&</sup>lt;sup>19</sup> Dutfield, *Id.* 

In addition, developing countries were concerned about the administrative costs associated with implementing the TRIPs Agreement, which implies reforming legal systems, including drafting new laws; enhancing administrative capacity, as well as strengthening enforcement mechanisms, including legal systems. <sup>20</sup> Such changes entail real costs, not least in terms of purchasing equipment and training of people. For example, the cost of World Bank projects to improve the IPR regulatory framework in Indonesia during 1997 – 2003 was around US\$ 14.7 million. Meanwhile, despite its relatively advanced starting point, the cost of World Bank projects to establish an agency to implement industrial property laws in Mexico between 1992 and 1996, reached over US\$ 30 million. <sup>21</sup> In other words, developing countries' compliance with TRIPs Agreement involves significant costs.

Despite their objections the developing countries eventually accepted the TRIPs agreement both because they were given inducements to do so and because of the high costs of not agreeing. The cost of not agreeing was particularly high because of the US and EU decided that the Uruguay Round Agreement would be a 'single undertaking,' with all of the individual agreements as 'integral parts' binding on all members<sup>22</sup> and because they, upon joining the WTO, withdrew from the 1947 General Agreement on Tariffs and Trade (GATT). As a consequence, any country that did not accept the Uruguay Round Agreement, including TRIPs, would lose the access they had had to the US and EU markets under the GATT.<sup>23</sup> There was thus a fair degree of coercion in the conclusion of the Uruguay Round and, with it, the TRIPs Agreement.

Michael J. Finger and Philip Schuler, *Implementation of Uruguay Commitments: The Development Challenge*, (2000) 23(4) The World Economy 521; William A. Kerr, *The Efficacy of TRIPs: Incentives, Capacity and Threats*, (2003) 4(1) The Estey Centre Journal of International Law and Trade Policy 8.

MICHAEL J. FINGER AND PHILIP SCHULER, id at 522; Christopher May, Capacity Building and the (Re) Production of Intellectual Property Rights, (2004) 25(5) THE WORLD QUARTERLY 826.

<sup>&</sup>lt;sup>22</sup> Richard H. Steinberg, *In the Shadow of Law or Power? Consensus-Based Bargaining and Outcomes in the GATT/WTO*, (2002) 56(2) INTERNATIONAL ORGANIZATION 360.

JOHN H. BARTON *ET AL*, THE EVOLUTION OF THE TRADE REGIME: POLITICS, LAW AND ECONOMICS OF THE GATT AND THE WTO 66 (2008); Jeffrey J. Schott, *The Future of the Multilateral Trading System in a Multi-Polar World*, Discussion Paper (Bonn: Deutsches Institut für Entwicklungspolitik).

In addition, developing countries hoped that accepting the multilateral TRIPs Agreement would protect them from the imposition of unilateral sanctions, particularly by the US, for failing to protect adequately intellectual property rights.<sup>24</sup> Moreover, the Uruguay Round Agreement promised improved access to developed country markets in important developing country exports, especially agriculture and textiles.<sup>25</sup>

There was also some acknowledgement of developing country concerns with respect to TRIPs as they were given an extended period in which to implement it (initially until 2000 for developing countries and countries in transition and 2006 for least developed countries, but subsequently extended (see Table 1)). In addition to later implementation deadlines, developing countries can take advantage of other 'flexibility arrangements,' including exempting certain types of patentable products, such as plants, animals, and micro-organisms, from patentability; allowing some of uses of copy-righted work, such as for private use; modifying the exhaustion regime, so that the duration of protection suits their domestic policy objectives; and authorizing compulsory licensing of patented products for in the public interests, or to protect public health or the environment.<sup>26</sup> Moreover, developed country governments undertook to provide financial and technical assistance to support the legislative and administrative reforms associated with implementing the TRIPs Agreement, a commitment incorporated in Article 67 of the TRIPs Agreement. Developing country governments, therefore, accepted an unpalatable agreement because of the costs associated with rejecting it and in exchange for promised benefits in other areas. They had also managed to negotiate some concessions in order to mitigate the impact of complying with the agreement.

Ann Capling, *supra* note 3 at 186; Keith Maskus, *supra* note 14 at 4; Susan Sell, *supra* note 5.

Ann Capling, supra note 6 at 188; Frank Emmert, Intellectual Property in the Uruguay Round Negotiating Strategies of the Western Industrialised Countries, (1990) 11 Michigan Journal of International Law 1385; supra note 3 at 756; Duncan Matthews, supra note 8 at 45; Donald G. Richards, Intellectual Property Rights and Global Capitalism: The Political Economy of the TRIPs Agreement 133-138 (2004); Susan Sell, supra note 5.

<sup>&</sup>lt;sup>26</sup> CAROLYN DEERE, THE IMPLEMENTATION GAME: THE TRIPS AGREEMENT AND THE GLOBAL POLITICS OF INTELLECTUAL PROPERTY REFORM IN DEVELOPING COUNTRIES 68-69, 75 (2008); supra note 4 at 25-32.

1996	Deadline for industrialized countries
2000	Deadline for developing countries and economies in transition
2005	Additional deadline for developing country products not previously patented
2006	Original, Uruguay Round deadline for LDCs
2013	Revised deadline for LDCs to implement the general obligations except for Article 3 (National Treatment), Article 4 (Most Favored Nation), and Article 5 (Multilateral Agreements on Acquisition or Maintenance of Protection) agreed by the TRIPs Council on 29 November 2005
2016	Revised deadline for LDCs' patents, test data protection, and exclusive rights for pharmaceuticals agreed at the Doha

Table 1 Deadlines for Implementing the TRIPs Agreement

Note: States acceding to the WTO after the conclusion of the Uruguay Round are not eligible for transition periods and must comply with the TRIPs Agreement by the time they accede.

Ministerial (November 2001).

## III. Rival Compliance Expectations

There is a lively debate in the International Relations literature about why states comply (or do not) with international rules.<sup>27</sup> These rival explanations, which reflect the dominant traditions in International Relations, are reflected, at least implicitly, in many of the existing accounts of developing country compliance with the TRIPs Agreement although rival explanations are not considered. This article attempts to test systematically the rival explanations derived from International Relations theory and present in the existing literature on developing countries and the TRIPs Agreement (see Table 2).

See Kal Raustiala and Anne-Marie Slaughter, International Law, International Relations and Compliance, in Handbook of International Relations (W. Carlsnaes et al, eds.) 538-58 (2002); Beth A. Simmons and Lisa L. Martin, International Organizations and Institutions, in Handbook of International Relations (W. Carlsnaes. et al, eds.) 192-211 (2002).

Realism contends that international rules reflect the underlying balance of power.<sup>28</sup> International rules, therefore, reflect the interests of the most powerful states. Moreover, the dominant state (the hegemon) plays an important role in preventing defection from those rules (non-compliance) through the use of side-payments and the imposition of sanctions.<sup>29</sup> Realism would therefore suggest that developing countries, which are much weaker economically, militarily and politically - than the US, would comply with the TRIPs Agreement for fear of punishment. Several authors argue that this is precisely what has happened.<sup>30</sup> Realism would expect compliance to be particularly likely if the US had explicitly identified a developing country as not complying with the TRIPs Agreement. Given its emphasis on relative power, Realism would expect the weakest (least developed) countries to be the most responsive to US pressure, although they would expect all developing countries to be susceptible. Realism would, however, also expect developing countries to do the minimum necessary to comply with the TRIPs Agreement and that compliance would occur by the deadline and not before.

Neo-liberal institutionalism also views coercive enforcement as a consideration influencing compliance, but sees it as institutionalized rather than residing with a hegemon, and also emphasizes the costs of non-compliance in terms of reduced prospects for future cooperation (reputation) and of encouraging the non-compliance of others (reciprocity),<sup>31</sup> all of which are weighed against the benefits associated with non-compliance. As the WTO is commonly regarded as a particularly highly institutionalized and legalized form of international cooperation – it provides information about violations, defines compliance and provides mechanisms for enforcing commitments<sup>32</sup>

John J. Mearsheimer, The False Promise of International Institutions, (1994/95) (19/3) INTERNATIONAL SECURITY 5-49.

ROBERT GILPIN, GLOBAL POLITICAL ECONOMY: UNDERSTANDING THE INTERNATIONAL ECONOMIC ORDER 67 (2001).

James McIlroy, American Enforcement of Intellectual Property Rights: A Canadian Perspective, (1998) 1(3) The Journal of World Intellectual Property 445-464; Joshua J. Simons, Cooperation and Coercion: The Protection of Intellectual Property in Developing Countries, (1999) 11(1) Bond Law Review 74.

JACK L. GOLDSMITH AND ERIC A. POSNER, THE LIMITS OF INTERNATIONAL LAW, (2005); ANDREW T. GUZMAN, HOW INTERNATIONAL LAW WORKS: A RATIONAL CHOICE THEORY, (2008).

Judith Goldstein et al, Introduction: Legalization and World Politics, (2000) 54/3 INTERNATIONAL ORGANIZATION.

– neo-liberal institutionalism would expect a high degree of compliance with the TRIPs Agreement. Otten<sup>33</sup> has argued that the detailed scrutiny process of the TRIPs review under the TRIPs Council encourages members to take a great care in complying with the TRIPs Agreement. As with Realism, neoliberal institutionalism would expect developing countries to do the minimum necessary to comply and to do so only by the deadline. Neo-liberal institutionalism would explain non-compliance with reference to the high costs of compliance; countries with higher costs would be less likely to comply. Neo-liberal institutionalism, however, does not provide a detailed explanation of how the costs and benefits of non-compliance are weighed. It would, however, be reasonable to expect the relative benefits of compliance to increase with the level of development as it is more likely that there would be domestic producers that would benefit from IPR protection and that the economy would be more integrated into the global economy and therefore more susceptible to sanctions and the loss of reputation. Moreover, the relative costs of compliance (given economies of scale) would be expected to decrease the more developed the country.

Constructivist accounts of compliance tend to contend that states comply with international rules because they perceive them to be legitimate and that following legitimate rules is part of the domestic identity of the state.<sup>34</sup> Developing countries, however, might well be expected to view the TRIPs Agreement as illegitimate given that they opposed it, coercive pressure was applied to get them to sign, and the issue-linkage from which they hoped to benefit has been limited and slow in coming. Shanker makes this argument, contending that the contentious and coercive nature of the TRIPs negotiations renders the agreement illegitimate and, therefore it inherently generates incentives for non-compliance.<sup>35</sup> Other constructivists argue that the likelihood that an international rule will be complied with depends on how

A. Otten, *Implementation of the TRIPs Agreement and Prospects for its Further Development*, (1998) 1(4) JOURNAL OF INTERNATIONAL ECONOMIC LAW 523-536.

Jan Hurd, Legitimacy and Authority in International Politics, (1999) 53(2) International Organization 379-408; Harold H. Koh, Why do Nations Obey International Law?, 106 Yale Law Journal 2599-659; Kal Raustiala and Anne-Marie Slaughter, supra note 27; Beth A. Simmons, Compliance with International Agreements, (1998) 7(1) Annual Review of Political Science 75-93.

Daya Shanker, Legitimacy and the TRIPs Agreement, (2003) 6(1) THE JOURNAL OF WORLD INTELLECTUAL PROPERTY 169-177.

compatible it is with existing national norms.<sup>36</sup> Given that the TRIPs Agreement embodies a different conception of intellectual property rights than that found in most developing countries, compliance would seem unlikely. Thus both strands of constructivist argument suggest that developing countries should not be expected to comply with the TRIPs Agreement.

Table 2 Summary of developing country compliance expectations

	Overall expectation	Timing of compliance	Quality of compliance	Explanation of variance
Realism	Compliance	On time	Minimum	Compliance more likely the more US pressure; the less developed the country
Neo-liberal institutionalism	Compliance	On time	Minimum	Compliance more likely the more developed the country
Constructivism	Non-compliance	_		_

#### IV. Means of Assessment

In order to test the rival compliance expectations provided by leading IR theories, compliance in this article is defined and operationalized by using the following two dependent variables: the timing of the adoption of major IPR laws and the quality of the legislation adopted.

Jeffrey Checkel, Norms, Institutions and National Identity in Contemporary Europe, (1999) 43 International Studies Quarterly 83-114; Jeffrey Checkel, Why Comply? Constructivism, Social Norms and the Study of International Institutions, (2001) 55(3) International Organization 553-88; Andrew P. Cortell and James W. Davis, When Norms Clash: International Norms, Domestic Practices and Japan's Internalization of the GATT/WTO, (2005) 31(1) Review of International Studies 3-25.

We considered the timing of the adoption of major IPR law in developing countries relative to the deadline for compliance for each country (see Table 1). The timing of the adoption of the IPRs laws is based on the first legislation adopted by developing countries immediately prior to or after the conclusion of the Uruguay Round as reported in official notifications to the TRIPs Council and the WIPO's country profiles. Additional information related to developing country's adoption of laws was also gathered from the USTR Special 301 Reports from 2001 to 2008. We focus on the timing of the adoption of legislation concerning three major types of IPR - patents, copyrights, and trademarks – which are of particular concern to the US, as evident from the USTR Special 301 Annual Report. Based on the timing of the adoption of these three types of IPRs, developing countries' compliance can be categorized into four categories: early, on time, late and not yet. We consider compliance to have been 'on time' if the law was adopted in the year immediately prior to or of the deadline.

The adoption of legislation is an imperfect measure of compliance as it does not capture the quality of the law adopted nor does it address issues of implementation and enforcement. The adoption of legislation, however, is a necessary if not sufficient step for compliance. Such a short-cut is necessary when trying to provide an overview of the behaviour of such a large number of countries. One implication of using this measure is that we are more likely to over-estimate the degree of developing country compliance than under-estimate it. Our second measure of compliance, however, addresses directly the quality of compliance.

We assess the quality of the legislation with regard to whether the law adopted goes beyond the standard required by TRIPs (TRIPs+). For these purposes we use Deere's classifications of a country's IPR laws (see Table 3). This classification is a based on a survey of the extent to which developing countries took advantage of TRIPs options and safeguards as reflected in their legislation.<sup>37</sup> It pays particular attention to some of the most contentious flexibilities in the area of patents, copyright, and plant variety protection. It also covers the use of specific TRIPs flexibilities, including the choice of exhaustion regime for industrial property, the use of exclusions and exceptions

<sup>&</sup>lt;sup>37</sup> Carolyn Deere, supra note 26 at 74.

of patent rights, the use of compulsory licenses, the availability of data protection for new chemical entities, and the scope, coverage, and protection term of plant variety protection, as well as the length of copyright term protection (Deere, 2008: p. 74-98).

Table 3 Classification of the quality of TRIPs legislation

	Overall IP protection
TRIPs-Plus	Early implementation, standards go beyond minimum, laws that supplement TRIPs standards, efforts to enforce IP standards that go beyond TRIPs.
TRIPs-minimum	Comply by deadline, meet minimum standards, have effective enforcement.
TRIPs-minus	Delayed implementation, lower that TRIPs standards, and weak enforcement.

Source: Carolyn Deere, The Implementation Game: The TRIPs Agreement and the Global Politics of Intellectual Property Reform in Developing Countries 68-69, 75 (2008).

As the WTO has no formal definitions of developing countries,<sup>39</sup> this article relies on the World Bank's categories of developing countries: upper middle income, lower middle income, and low income economies. Most of the World Bank's low income economies are WTO LDC members (see the notes of Appendix 1 for details on the exceptions).

We use pressure by the US as a proxy for the independent variable of great power coercion – particularly important in the realist accounts. The US is widely regarded as being particularly aggressive in pursuing trade barriers and in protecting IPRs.<sup>40</sup> This aggressiveness is underpinned by US

Carolyn Deere, *supra* note 26 at 74-98.

Each WTO member decides whether it wishes to be considered a developing country, although other members can challenge that decision. Nevertheless, the WTO recognizes the United Nations' Least Developed Countries (LDC) List. As of November 2008, there were 32 WTO LDC Members <a href="http://www.wto.org/english/tratop\_e/devel\_e/d1who\_e.htm">http://www.wto.org/english/tratop\_e/devel\_e/d1who\_e.htm</a> (accessed 18 November 2008).

<sup>40</sup> Greg Shaffer, Defending Interests: Public Private Partnerships in WTO Litigation (2003).

trade laws and the need for the United States Trade Representative (USTR) to report to Congress. Unfortunately, it is difficult to get systematic information on US pressure regarding IPR protection prior to 2000. We surveyed the USTR's National Trade Estimate Reports for 1996-99 for all developing countries searching for mentions of IPR violations and the USTR's Special 301 reports, which assess countries' IPR policies, and practices, for 2001-08 for mentions of IPR concerns prior to 2000. Additional information came from Deere. We paid particular attention those countries on the USTR's priority watch list (PWL) and those classed as 'priority foreign countries' (PFC) or subject to Section 306 action (see Table 4). It is worth noting that the US demands a higher standard of IPR protection than that agreed in the TRIPs Agreement.

Table 4 The USTR Special 301 Report Categories

Watch List (WL)	Countries that merit bilateral attention to address underlying IPR problems.
Priority Watch List (PWL)	Countries that do not provide adequate level of IPR protection or enforcement or market access for persons relying on IP protection.
Priority Foreign Country (PFC)	Countries whose acts, policies, or practices are 'the most onerous or egregious' and have the greatest adverse impact on relevant US products, and that have not entered into or made significant progress in negotiations to provide adequate and effective IPR protection. These countries are subject to accelerated investigations and possible sanctions
Section 306	Countries are subject to immediate trade sanctions if there is slippage in the enforcement of bilateral IPRs agreement

We also consider WTO complaints in order to get at neo-liberal institutionalist explanations of compliance. Because such complaints may lead to binding third-party adjudication and ultimately to the imposition of

<sup>&</sup>lt;sup>41</sup> Carolyn Deere, *supra* note 26.

sanctions (formally withholding of concessions) in the event of non-compliance, WTO complaints represent the high-watermark of institutionalized enforcement of the TRIPs Agreement. Strikingly, however, only five developing countries – Argentina (twice), Brazil, India (two complaints regarding the same issue), Pakistan, and China - have been respondents in a TRIPs complaint as of the end of 2008 (see Appendix 2). Moreover, there has not been an increase in the use of WTO dispute settlement mechanism since the end of the transition period, as predicted by Otten (1998, p. 527),<sup>42</sup> with only one such complaint (against China) having been filed since 2000. Why so few complaints have been brought given that there has been some non-compliance or at least imperfect compliance is beyond the scope of this article. It is significant, however, in that the most potent form of enforcement and thus most likely cause of compliance according to neoliberal institutionalism has been used only exceptionally.

## V. Empirical Evidence: Testing Expectations

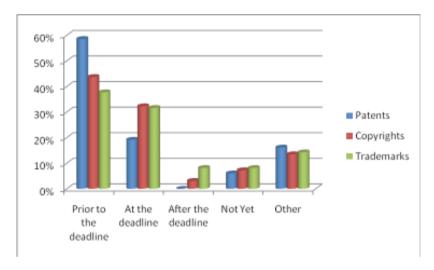
Our point of departure with respect to the empirical evidence is to observe that out of 105 developing countries the vast majority, but far from all, developing had adopted IPR legislation by the end of 2008 (see Figure 1). For each of the three types of IPRs fewer than 20 percent of developing countries that should have adopted legislation by the end of 2008 had not done so. Particularly striking is that, despite their persistent objections during the negotiation process, Argentina, Brazil and India adopted IP legislation before or by the deadline. The finding of wide-spread adoption of TRIPs-related legislation is most awkward for the constructivist account of compliance, which lead us to expect very high levels of non-compliance. Non-compliance, at least in terms of whether IPR laws have been adopted or changed in the light of TRIPs, however, is the exception, not the rule.

Closer consideration of the timing of the adoption of legislation, however, reveals problems for both the realist and neo-liberal institutionalist accounts because, contrary to their expectations, significant numbers of developing countries adopted national legislation early (see Figure 1): 59 percent adopted

<sup>&</sup>lt;sup>42</sup> Otten, *supra* note 33.

patent laws more than a year prior to the deadline, 44 percent copyright law, and 38 percent trademark legislation. Moreover, relatively few developing countries adopted IPR legislation just in time to meet the deadline, while both realism and neo-liberal institutionalism would lead us to expect just-in-time compliance to be the norm.

Figure 1 The timing of developing countries' adoption of TRIPs legislation



Note: 'other' captures those WTO members whose transposition deadlines are after 2008.

It is worth noting here that some<sup>43</sup> have argued that early compliance with international agreements can be best explained by constructivist accounts, which emphasize that 'states' internalize international norms and therefore act independent of obligation to do so. The internalization of international norms, however, is expected to be most likely when they resonate with existing domestic norms and is expected to be unlikely when they clash with domestic norms,<sup>44</sup> as is the case here. Consequently, with respect to TRIPs constructivism does not seem to provide a plausible explanation for early adoption of legislation.

<sup>43</sup> Richard Price, Reversing the Gun Sights: Transnational Civil Society Targets Land Mines, (1998) 52 International Organization.

Jeffrey Checkel, supra note 35; Thomas Risse et al, Europeanization and Domestic Change: Introduction, in Transforming Europe: Europeanization and Domestic Change (M. G. Cowles et al eds.) 8 (2001).

Constructivist, neo-liberal institutionalist and realist expectations are further confounded by the variance in the timing of the adoption of laws protecting different IPRs within the same country (as suggested by Figure 1; see Appendix 1). Less than 30 percent of developing countries adopted legislation on the three types of IPR at broadly the same time. That the same country would adopt legislation on different types of IPR at different times, let alone not at the deadline, suggests that neither external pressure, which is central to the realist and neo-liberal institutionalist accounts of compliance, nor persuasion, central to contructivism, was the driving factor.

A second striking feature of developing country compliance with the TRIPs Agreement is that many developing countries have adopted more stringent IPR protection than required by TRIPs or not made use of flexibility arrangements available to them (see Table 5 and Figure 2).

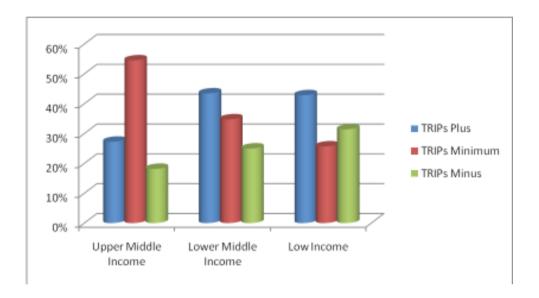
Table 5 Variation in IP standards World Bank country classification

	Upper-middle	Lower-middle-	Low-Income
	-income	income	
TRIPs Plus	Chile, Gabon, Mexico	Cameroon, Colombia, Dominican Republic, Guatemala, Honduras, Jordan, Mongolia, Morocco,	Benin, Burkina Faso, Cambodia, Central African Republic, Chad, Congo, Côte d'Ivoire, Guinea, Guinea Bissau, Mali, Mauritania, Nepal,
TRIPs Minimum	Argentina, Brazil, Cuba, Malaysia, South Africa, Venezuela s	Peru, Tonga  Bolivia, China, Ecuador, Egypt, India, Indonesia, Philippines, Thailand	Niger, Senegal, Togo  Bangladesh, Ghana, Kenya, Malawi, Nigeria, Pakistan, Tanzania, Uganda, Zambia
TRIPs Minus	Grenada, Suriname	Angola, Djibouti, Lesotho, Maldives, Namibia	Burundi, Gambia, Haiti, Madagascar, Mozambique, Myanmar, Papua New Guinea, Rwanda, Sierra Leone, Solomon Islands, Zimbabwe

Source: Carolyn Deere, The Implementation Game: The TRIPs Agreement and the Global Politics of Intellectual Property Reform in Developing Countries

(Oxford: Oxford University Press) 98 (2008). Some countries have been excluded because they are not WTO members (Equatorial Guinea, North Korea, and Sudan) or do not fall into the World Bank's developing country criteria (Bahrain, Oman, South Korea, and Singapore)

Figure 2 Variation in IP standards World Bank country classification



Developing countries' 'excessive' compliance presents a particular problem for neo-liberal institutionalism. The monitoring and enforcement of the TRIPs agreement by the WTO, while providing incentives for meeting the obligations, provides no incentive to go beyond the minimum. Moreover, the variation in the quality of developing countries' compliance is contrary to what neo-liberal institutionalism would lead us to expect. Higher proportions of low-income and lower-middle-income countries have adopted more stringent IPR protections than upper-middle-income countries. Upper-middle-income countries, by contrast, have been the most likely to just meet the TRIPS standards.

A state being specifically targeted in a WTO complaint, however, does seem to have an impact on the quality of IPR protection. All five instances in which a developing country's IPR legislation was challenged before the WTO prior to 2001<sup>45</sup> led to the reform of legislation, whether the complaint went to adjudication or, as was more common, was resolved through a mutually agreed solution. For example, in the wake of a US complaint Argentina began to issue pharmaceutical patents for the first time in 2000<sup>46</sup> and amended its patent law in December 2003 to fulfill its obligations under mutually agreed solution reached in 2002.<sup>47</sup> The complaints by the EU and US against India's patent protection for pharmaceutical and agricultural chemical products were subject to adjudication, which found India's measures insufficient to realize its TRIPs obligations. In response India reformed its patent legislation, and India's decision in August 1998 to join the Paris Convention and the Patent Cooperation Treaty can be regarded as part of India's effort to fulfill its obligations under the TRIPs Agreement.<sup>48</sup> Thus at the sharp end of institutionalized enforcement, at least, it would seem that neo-liberal institutionalism's expectations are met.

Realism, however, arguably could explain better the anomalies associated with developing countries' 'excessive' compliance. As the US tends to demand IPR protection beyond what is required by TRIPs, US pressure might be able to explain why developing countries have not taken advantage of flexibility mechanisms. Second, realism, given its emphasis on relative power, would expect the weakest (least developed) to be the most susceptible to US pressure. The pattern of variation in the quality of developing country compliance, however, does not, as realism would expect, correspond to US pressure. Of the nine countries – Argentina, the Dominican Republic, Ecuador, Egypt, India, Indonesia, Paraguay, Peru and Turkey – that we were able to identify as being clearly subject to substantial pressure from the US<sup>49</sup> prior to 2000 five —Argentina, Ecuador, Egypt, India and Indonesia – adopted legislation

The two complaints by the EU and US against India's patent protection for pharmaceutical and agricultural chemical products are treated as one. The panel ruling in the complaint against China is too recent to evaluate.

USTR, Office of the USTR Press Release, available at <a href="http://www.ustr.gov/Document\_Library/Press\_Releases/2001/October/USTR\_Announces\_Results\_of\_October\_2001\_Special\_301\_Outof-Cycle\_Reviews\_on\_Intellectual\_Property\_Protection.html">http://www.ustr.gov/Document\_Library/Press\_Releases/2001/October/USTR\_Announces\_Results\_of\_October\_2001\_Special\_301\_Outof-Cycle\_Reviews\_on\_Intellectual\_Property\_Protection.html</a> (accessed 8 November 2008).

<sup>&</sup>lt;sup>47</sup> USTR Special Report 2004.

USTR, The US National Trade Estimate Reports 199-1999 and 2001, available at <a href="http://www.ustr.gov/Document\_Library/Reports\_Publications">http://www.ustr.gov/Document\_Library/Reports\_Publications</a> (accessed 6 - 8 November 2008).

<sup>49</sup> Substantial pressure means being on the USTR's priority watch list for more than a single year and/ or listed as a priority foreign country or subject to Section 306.

reflecting minimum compliance with TRIPs according to Deere's classification. Only the Dominican Republic and Peru clearly adopted TRIPs Plus protection (Paraguay and Turkey do not appear in Deere's classification). Conversely, at least 26 developing countries that were not subject to significant US pressure did adopt TRIPs Plus protection, according to Deere. Thus US pressure was neither necessary nor sufficient for explaining the quality of developing country compliance, realism's expectations are confounded.

## VI. Bringing Domestic Politics Back in

For the most part, therefore, International Relations theories seem to do a poor job of explaining the variance in developing country compliance with the TRIPs Agreement. These theories seek present general propositions about what affects state behaviour, essentially as *ceteris paribus* conditions; compliance is more likely if there is a credible threat of punishment either from a hegemon (realism) or through an international institution (neo-liberal institutionalism) or if institutions increase monitoring and transparency and thus raise the prospects of reciprocal abrogation of obligations or the loss of reputation (neo-liberalism) or if the international rule is considered legitimate (constructivism). While these propositions suggest how we should expect states to behave, they do not provide explanations of specific compliance decisions by individual governments, as demonstrated by the preceding discussion.

In order to explain compliance decisions one needs to look at politics within the state,<sup>52</sup> as Deere<sup>53</sup> has argued specifically with respect to developing countries' compliance with TRIPs. We do not contend that the factors International Relations theories identify as influencing compliance – coercion, reciprocity, reputation and legitimacy – are irrelevant, but we argue that to understand when and why they affect policies one must examine how they

<sup>&</sup>lt;sup>50</sup> Supra note 26 at 74.

<sup>&</sup>lt;sup>51</sup> Supra note 26.

Robert O. Keohane, *Compliance with International Commitments: Politics within Framework of Law*, (1992) American Society of International Law Proceedings; *see* for surveys Oliver Treib, *Implementing and Complying with EU Governance Outputs*, 3/5 Living Reviews in European Governance, *available at* <a href="http://www.livingreviews.org/lreg-2008-5">http://www.livingreviews.org/lreg-2008-5</a> (accessed 3 March 2009); Alasdair R. Young, *Analysing Compliance: The EU and the WTO* paper to the International Studies Association Conference, New York, 15-18 February (2009).

<sup>&</sup>lt;sup>53</sup> Supra note 26.

play out through domestic politics, including how they are weighed against competing considerations.

There are a number of accounts in the literature that explain compliance in specific instances in the light of domestic politics,<sup>54</sup> which also resonate with accounts of how states respond to external pressure, including in trade disputes.<sup>55</sup> Although these accounts are very different they share a number of common features, which suggest a framework for analyzing compliance with international obligations.<sup>56</sup>

At the core of this framework is the specification of the different constellations of actors' preferences relative to the status quo and to the international obligations. For these purposes, the government is considered to have distinct preferences, which may be, but cannot be assumed to be, the same as those of key societal actors.<sup>57</sup> The government's preferences reflect both party political considerations<sup>58</sup> and bureaucratic politics.<sup>59</sup>

See for instance Jeffrey Checkel, supra note 35; Andrew P. Cortell and James W. Davis, supra note 35; Gerda Falkner et al, Worlds of Compliance: Why Leading Approaches to European Union Implementation are only 'Sometimes-True Theories', (2007) 46 European Journal of Political Research 395-416; Marc A. Levy, Improving the Effectiveness of International Environmental Institutions, in Institutions for the Earth (Peter M. Haas et al eds.) 397-426 (1993); Thomas Risse and Kathryn Sikkink, The Socialization of International Human Rights Norms into Domestic Practices: Introduction, in The Power of Human Rights: International Norms and Domestic Change (Thomas Risse et al eds.) (1999); Bernard Steunenberg, A Policy Solution to the European Union's Transposition Puzzle: Interaction of Interests in Different Domestic Arenas, (2997) 30/1 West European Politics 23-49.

THOMAS O. BAYARD AND KIMBERLEY ANN ELLIOTT, RECIPROCITY AND RETALIATION IN US TRADE POLICY, INSTITUTE FOR INTERNATIONAL ECONOMICS (1994); ROBERT O. KEOHANE AND HELEN V. MILNER EDS., INTERNATIONALIZATION AND DOMESTIC POLITICS (1996); PAUL PIERSON, The New Politics of the Welfare State, (1996) 48/2 World Politics 143-79; Leonard J. Schoppa, Two-Level Games and Bargaining Outcomes: Why gaiatsu Succeeds in Japan in Some Cases but Not Others, (1993) 47/3 INTERNATIONAL ORGANISATION 353-86; DAVID VOGEL, TRADING UP: CONSUMER AND ENVIRONMENTAL REGULATION IN A GLOBAL ECONOMY, (1995)

<sup>&</sup>lt;sup>56</sup> For a detailed discussion, *see* Alasdair R. Young, *supra* note 52.

M. M. Atkinson and W. D. Coleman, State, Business and Industrial Change in Canada (1989); P. B. Evans et al eds., Double-Edged Diplomacy: International Bargaining and Domestic Politics, (1993); Andrew Moravcsik, Introduction: Integrating International and Domestic Theories of International Bargaining, in P. B. Evans et al eds., Double-Edged Diplomacy: International Bargaining and Domestic Politics; The Logic of Two-Level Games, (1988) 42/3 International Organization.

<sup>&</sup>lt;sup>58</sup> Bernard Steunenberg, *supra* note 54.

<sup>59</sup> GRAHAM ALLISON, ESSENCE OF DECISION: EXPLAINING THE CUBAN MISSILE CRISIS, (1971); Leonard J. Schoppa, supra note 55; Jerel A. Rosati, Developing a Systematic Decision-Making Framework: Bureaucratic Politics in Perspective, (1981) 33/2 World Politics 234-52.

The domestic politics of compliance literature also suggests three key types of societal actors: vested, committed and mobilized.<sup>60</sup> Vested societal actors favour the status quo, either because they materially benefit from it or because they have internalized a domestic norm that is at odds with the international obligation, and oppose policy change. Committed societal actors, whether motivated by self-interest or principled beliefs, want policy change for its own sake. In the case of developing country compliance with TRIPs this could include local producers of intellectual property and government officials eager to attract technologically sophisticated foreign direct investment. Committed actors are likely to favour policy change even more radical than required by compliance, since international obligations reflect a compromise. Mobilized societal actors do not care about the specific policy for its own sake, but are concerned about non-compliance – whether because they fear the costs of non-compliance or because they consider compliance appropriate. Their policy preference, therefore, is for whatever policy complies with international obligations. Such actors are much more likely to engage in the policy process in response to a dispute over compliance, particularly if the prospect of the imposition of costs is high. The government, or more accurately factions within the government, may also be vested, committed or mobilized. Whether compliance occurs in a specific instance depends on the relative power of these actors.

For compliance to occur there must be a 'compliance agent,' usually in the government or a mobilized societal actor, that tips the political balance in favour of compliance. Whether compliance actually occurs, however, also depends on whether vested actors are formal or informal 'veto players,' able to block policy change.

Such a framework at least holds out the prospect for explaining some of the anomalies we have identified in developing country compliance with the TRIPs Agreement. Early and 'TRIPs Plus' compliance may well be due to committed actors within the government and/or society being able to leverage the TRIPs into policy change they wanted anyway. Deere<sup>61</sup> suggests a rival domestic politics explanation for at least some instances of TRIPs Plus

<sup>60</sup> See Alasdair R. Young, supra note 52.

<sup>61</sup> Supra note 26.

compliance, which is that a lack of capacity caused governments not to take full advantage of the opportunities available to them. The relative importance of these rival explanations would need to be established empirically. Our framework also provides a causal mechanism for explaining improved intellectual property protection in the wake of WTO complaints, even when the disputes were resolved through negotiation, by suggesting that new actors in society and government would engage in the policy process tipping the political balance in favour of compliance. <sup>62</sup>

#### VII. Conclusion

Our survey of developing country compliance with the TRIPs Agreement reveals several different patterns of behaviour that are inconsistent with the expectations of realism, neo-liberal institutionalism and constructivism and are contrary to explanations present in many existing accounts of developing countries' compliance with TRIPs. Contrary to the expectations of constructivism, neither the questionable legitimacy of the TRIPs Agreement in the eyes of developing countries nor incompatible domestic norms have prompted widespread non-compliance by developing countries. Contrary to the expectations of realism and neo-liberal institutionalism, many developing countries complied with TRIPs before they had to and/or adopted national legislation more stringent than that required by TRIPs. Moreover, the adoption of TRIPs Plus protection does not correspond neatly to the US's demands for stricter intellectual property rights protection in specific states. As neo-liberal institutionalism would expect, however, developing country intellectual property protection has improved in the wake of WTO complaints against them, but these instances are very few.

The unexplained variance among countries and across types of IPR indicates that systemic approaches to explaining developing country compliance with the TRIPs Agreement are insufficient. This suggests that domestic politics play an important role in determining whether and how external pressures translated into compliance. This article has suggested a framework for analyzing how external pressures translates into compliance. It particularly draws attention to the importance of mobilized actors in shifting

<sup>62</sup> Establishing how well this framework actually explains the variance in developing country compliance will require detailed case studies, which is what Poppy S. Winanti's PhD thesis aims to do.

the political balance in favour of policy change and to whether vested interests are veto player capable of thwarting it. This article thus contributes to the increasing emphasis in International Relations on the importance of domestic politics in explaining compliance.

VIII. Appendix 1

Timing of Major IPR Law Adoption in Developing Country
WTO Members and US Pressure

World Bank	Country	Year of	the First La	w Adoption	Year of the Last Amendment		US Pressure			
Classification		Patents	Copyrights	Trademarks	Patents	Copyrights	Trademarks	PWL	PFC	S306
	Argentina	1995(e)	1997(e)	1995(e)	2003(e)	1997(e)	1997(e)	1996-2008		-
	Belize	2000 (e)	2000 (ot)	2000 (ot)	2005 (ot)	2001 (I)	2005 (I)	-		-
	Botswana	1996 (e)	2000 (ot)	1996 (e)	1997 (e)	2000 (ot)	1997 (e)	-	-	-
	Brazil	1997 (e)	1998 (e)	1997 (e)	2003 (e)	1998 (e)	1997 (e)	1995, 2002-6	-	-
	Bulgaria	1993 (ot)	1993 (ot)	1999 (I)	1999 (I)	2000 (I)	1999 (I)	1998		-
	Chile	1994 (e)	1995 (e)	1994 (e)	1996 (e)	1996 (e)	1996 (e)	2007 - 8		-
	Costa Rica	2000 (e)	1995 (e)	2000 (ot)	2000 (e)	2000 (ot)	2000 (ot)	2001		-
	Croatia	1997 (ot)	1993 (ot)	1999 (ot)	1999 (ot)	1999 (ot)	1999 (ot)	-	-	-
	Cuba	1995 (e)	1994 (e)	1999 (ot)	1995 (e)	1994 (e)	2000 (ot)	-		-
	Dominica	1999 (e)	1999 (ot)	1999 (ot)	1999 (e)	1999 (ot)	1999 (ot)	-	-	-
ies	Fiji	-	1999 (ot)	1970 (nc)	-	1999 (ot)	1970 (nc)	-	-	-
	Gabon	1999 (e)	1999 (ot)	1999 (ot)	1999 (e)	1999 (ot)	1999 (ot)	-		-
COU	Grenada	-	1989 (nc)	-	-	1989 (nc)	-	-		-
e E	Jamaica	2001 (e)	1993 (e)	1999 (ot)	2001 (e)	1999 (ot)	2001 (I)	-		-
E	Latvia	1993 (ot)	1993 (ot)	1993 (ot)	1995 (ot)	1995 (ot)	1999 (ot)	-	-	
Ĕ	Lithuania	1994 (ot)	1999 (ot)	2000 (ot)	2001 (ot)	2003 (I)	2004 (I)	-	-	-
ge	Malaysia	1993 (e)	1996 (e)	1994 (e)	2004 (ot)	2000 (ot)	2001 (I)	2000 - 1		-
Upper-Middle-Income Economies	Mauritius	1998 (e)	1996 (e)	1993 (e)	2000 (e)	1997 (e)	1993 (e)	-		-
er-	Mexico	1994 (e)	1996 (e)	1994 (e)	1999 (e)	2005 (I)	1999 (ot)	-	-	-
ם	Panama	1996 (ot)	1994 (ot)	1996 (ot)	2004 (I)	1996 (ot)	2004 (I)	-		-
_	Poland	1993 (e)	1994 (e)	1993 (e)	2001 (e)	2000 (ot)	2001 (I)	2003	-	-
	Romania	1998 (e)	1996 (e)	1998 (e)	1998 (e)	1996 (e)	1998 (e)	-	-	-
	South Africa	1997 (e)	1997 (e)	1993 (e)	1997 (e)	1997 (e)	1997 (e)	-		-
	St Kitts & Nevis	1956(nc)	1919 (nc)	1958 (nc)	1956(nc)	1919 (nc)	1958 (nc)	-	•	-
	St. Lucia	2001 (e)	1995 (e)	2001 (I)	2001 (e)	2000 (ot)	2003 (I)	-		-
	St. Vincent & Grenadines	2004 (ot)	2003 (I)	2003 (I)	2004 (ot)	2003 (I)	2004 (I)	-	ē	-
	Suriname	1969(nc)	1981 (nc)	1984 (nc)	1969(nc)	1981 (nc)	1984 (nc)	-	-	-
	Turkey	1995 (e)	1995 (e)	1995 (e)	1998 (e)	2001 (I)	1999 (ot)	1992-2000, 2004 - 7	-	-
	Uruguay	1999 (e)	2003 (I)	1998 (e)	2000 (e)	2004 (I)	1999 (ot)	2001 - 2		-
	Venezuela	1997 (e)	1993 (e)	1997 (e)	1998 (e)	1995 (e)	1998 (e)	2005 - 8	-	-

World Bank	Country	Year of	the First La	w Adoption	Year	of the Last A	mendment	US	Pressure	)
Classification		Patents	Copyrights	Trademarks	Patents	Copyrights	Trademarks	PWL	PFC	S306
	Albania	1994 (ot)	1995 (ot)	1994 (ot)	1999 (ot)	2000 (ot)	1999 (ot)		-	-
	Angola	1992	1990	1992	1992	1990	1992	-	-	-
	Armenia	1993 (ot)	1996 (ot)	2000 (ot)	2004 (I)	2006 (I)	2000 (ot)		-	-
	Bolivia	1993 (e)	1995 (e)	1918 (nc)	1993 (e)	1995 (e)	1918 (nc)		-	-
	Cameroon	1999 (e)	2000 (ot)	1999 (ot)	1999 (e)	2000 (ot)	1999 (ot)		-	-
	Cape Verde	-	-	-		-		-	-	-
	China	1997 (ot)	2001 (ot)	1993 (ot)	2001 (ot)	2005 (I)	2002 (I)	2005 - 8	1996	1997 - 2004
	Colombia	1993 (e)	1993 (e)	1993 (e)	2003 (e)	1998 (e)	2003 (I)	2002	-	-
	Congo Rep	1999 (e)	1982 (nc)	1999 (ot)	1999 (e)	1982 (nc)	1999 (ot)	-	-	-
	Djibouti	-	-	-					-	-
	Dominican	2000 (e)	2000 (ot)	2000 (ot)	2001 (e)	2000 (ot)	2001 (I)	1998 -2002	-	-
	Ecuador	1993 (ot)	1993 (ot)	1999 (ot)	1999 (I)	1999 (I)	1999 (I)	1997 - 8	-	-
	Egypt	2002 (e)	2002 (I)	2002 (I)	2002 (e)	2002 (I)	2002 (I)	1993, 1997- 2002, 2004-7	-	-
	El Salvador	1993 (e)	1993 (e)	1993 (e)	1993 (e)	1994 (e)	1993 (e)	-	-	-
	Georgia	1999 (ot)	1999 (ot)	1999 (ot)	1999 (ot)	2001 (I)	1999 (ot)		-	-
	Guatemala	2000 (e)	1998 (e)	2000 (ot)	2003 (e)	2003 (I)	2003 (I)	1999, 2000	-	-
as l	Guyana	1970(nc)	1999 (ot)	1972 (nc)	1970(nc)	1999 (ot)	1972 (nc)	-	-	-
Ĕ	Honduras	2000 (e)	2000 (ot)	2000 (ot)	2000 (e)	2000 (ot)	2000 (ot)		-	-
	India	1999 (e)	1994 (e)	1999 (ot)	2005(ot)	2000 (ot)	2002 (I)	1994 -2008	1991-3	-
Lower Middle Income	Indonesia	1997 (e)	1997 (e)	1993 (e)	2001 (e)	2004 (I)	2001 (I)	1996-9, 2001-6	-	-
Ĕ	Jordan	1999 (ot)	1994 (ot)	1999 (ot)	1999 (ot)	2005 (I)	1999 (ot)		-	-
- -	Lesotho	1993 (e)	1989	1997 (e)	1995 (e)	1989	1998 (e)		-	
Š	Macedonia	1993 (ot)	1996 (ot)	1994 (ot)	1994 (ot)	1998 (ot)	1994 (ot)		-	
	Maldives	-	-	-	-	-	-		-	
	Moldova	1993 (ot)	1994 (ot)	1994 (ot)	2003 (I)	2001 (ot)	2001 (ot)	-	_	
	Mongolia	1993 (ot)	1993 (ot)	1997 (ot)	1997 (ot)	1999 (I)	1997 (ot)		-	
	Morocco	1994 (e)	2000 (ot)	1994 (e)	2002 (e)	2000 (ot)	2002 (I)		-	-
	Namibia	1942(nc)	1994 (e)	1989 (nc)	1942(nc)	1994 (e)	1989 (nc)	-	-	-
	Nicaragua	2000 (e)	1999 (e)	-	2000 (e)	2006 (I)	-		-	
	Paraguay	1994 (e)	1998 (e)	1998 (e)	2000 (e)	1999 (ot)	1998 (e)	1997	1998	1999-
	· uruguu,	1001(0)	1000 (0)	.000 (0)	2000 (0)	1000 (01)	1000 (0)		.000	2008
	Peru	1996 (e)	1993 (e)	1996 (e)	2002 (e)	2001 (I)	2002 (I)	1999, 2000	-	-
	Philippines	1997 (e)	1998 (e)	1998 (e)	2002 (e)	2002 (I)	2000 (ot)	1992,2001-	-	-
	Sri Lanka	2003 (e)	1997 (e)	2003 (I)	2003 (e)	2000 (ot)	2003 (I)	5, 2008	-	-
	Swaziland	2000 (e)	1933 (nc)	1994 (e)	2000 (e)	1933 (nc)	1994 (e)	-	-	-
	Thailand	1999 (e)	1994 (e)	2000 (ot)	1999 (e)	1997 (e)	2000 (ot)	1993, 2007-8	1991-2	-
	Tonga	1994 (ot)	1986 (nc)	1994 (ot)	1994 (ot)	1986 (nc)	1994 (ot)	-	-	-
	Tunisia	1999 (e)	1994 (e)	2001 (I)	2001 (e)	1994 (e)	2007 (I)	-	-	-
	Ukraine	1993 (ot)	1993 (ot)	1993 (ot)	2006 (ot)	2005 (ot)	2008 (ot)	1999-2000, 2006-7	2001-5	-
a	Bangladesh	1911	2000 (e)	1940	1911	2000 (e)	1940		-	-
00[	Benin	1977	1984	1977	1977	1984	1977	.		-
Low Income	Burkina Faso	1977	1999 (e)	1977	1977	1999 (e)	1977		-	-
2	Burundi	1968	1978	1968	1968	1978	1968		-	

#### Notes:

- (e): early; (ot): on time; (l): late; (nc): non compliant as of the end of 2008;
- PFC: Priority Foreign Country; S306: Section 306; PWL: Priority Watch List.
- Underlined countries: members that joined after the establishment of the WTO and are obliged to adopt the TRIPs Agreement by the time of accession. These countries are (with year of accession): Upper-middle-income economies: Bulgaria (1996); Croatia (2000); Latvia (1999); Lithuania (2001); Panama (1997). Lower-middle-income economies: Albania (2000); Armenia (2003); Cape Verde (2008); China (2001); Ecuador (1996); Georgia (2000); Jordan (2000); Macedonia (2003); Moldova (2001); Mongolia (1997); Tonga (2007); Ukraine (2008). Lowincome economies: Kyrgyz (1998 and not recognized as WTO LDC member); Vietnam (2007 and not recognized as WTO LDC member).
- Countries in bold: WTO LDC members that do not fall into low-income economies categories. Required to fulfill its TRIPs Agreement obligations by the end of additional transition period in 2013 for general obligations and 2016 for patents, test data protection, and exclusive marketing rights for pharmaceuticals (as amended under the Doha Round).
- Countries in italic: low-income economies that are not recognized as WTO LDC members, and therefore should meet the deadline as developing countries in general.
- The deadline for implementing patent legislation for upper middle and lower middle countries is 2005 given the longer transition period (until 2005) for products not previously patented.
- The category of early compliance is started from 1993 when the Uruguay Round was nearly concluded, assuming those countries that adopted their IPRs laws during this period were fully aware of the content of what would be agreed under the TRIPs Agreement.
- The category of non compliance is only applicable to country under the category of upper-middle income and lower-middle income that at the time of the writing has still not adopted IPRs laws as required by TRIPs Agreement.

IX. Appendix 2
WTO TRIPs Disputes 1995 - 2007

Respondents	Complainant	Issue	Request for consultations	Status
Argentina	United States	Certain Measures on the Protection of Patents and Test Data	30 May 2000	Mutually agreed solution (20 June 2002)
Argentina	United States	Patent Protection for Pharmaceuticals and Test Data Protection for Agricultural Chemicals	6 May 1999	Mutually agreed solution (20 June 2002)
Brazil	United States	Measures Affecting Patent Protection	30 May 2000	Mutually agreed solution (19 July 2001)
India	European Union	Patent Protection for Pharmaceutical and Agricultural Chemical Products	28 April 1997	Appellate Body and Panel Reports Adopted (24 August 1998)
India	United States	Patent Protection for Pharmaceutical and Agricultural Chemical Products	5 September 1997	Appellate Body and Panel Reports Adopted (19 December 1997)
Pakistan	United States	Patent Protection for Pharmaceutical and Agricultural Chemical Products	30 April 1996	Mutually agreed solution (7 March 1997)
China	United States	Certain measures pertaining to the protection and enforcement of intellectual property rights	10 April 2007	Panel Report Adopted (26 January 2009)

Source: Data is compiled from the WTO Dispute Settlement <a href="http://www.wto.org/english/tratop">http://www.wto.org/english/tratop</a> e/dispu e/dispu subjects index e.htm#trips (accessed 26 January 2009)