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#### **Author**

Montt, Santiago

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# THE BIT GENERATION'S EMERGENCE AS A COLLECTIVE ACTION PROBLEM: PRISONER'S DILEMMA OR NETWORK EFFECTS?

Santiago Montt\*

*Abstract: This paper presents a new theory that explains why developing countries have been entering into Bilateral Investment Treaties in the last 50 years. It disputes Andrew Guzman's account which depicts the BIT generation as a result of a prisoner's dilemma among developing countries. As explained here, the BIT "game" differs from a prisoner's dilemma in two key ways. First, the BIT game has a sequential/evolutionary nature, stemming from the fact that developing countries have been joining (and rejecting) the network at various times since 1959. Second, unlike the prisoner's dilemma, the BIT system demonstrates the positive externalities or network effects of having one system of treaties defined in closely similar terms. Taking into account those two differences leads to the emergence of a new theory: the BIT generation as a virtual network.*

## Introduction: Why Do Developing Countries Sign BITs?

From 1959, when Germany and Pakistan concluded the first bilateral investment treaty, to 2005, the number of BITs has grown globally to 2495.<sup>1</sup> With the intention of increasing the inflow of foreign direct investment (FDI), developing countries have massively embarked on an ongoing project to conclude these treaties with developed countries, and also among themselves.<sup>2</sup> As a result, at the beginning of the 21<sup>st</sup> century, we are witnessing the development of a structural pillar of the new world order: the BIT generation.<sup>3</sup>

The BIT generation is a network of treaties that are very similar, though not identical.<sup>4</sup> The network grew from 265 treaties network in mid-1987, to 700 in 1994,

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\* JSD Candidate, Yale Law School. Taught international commercial arbitration and a seminar on global constitutional law, on a full time basis, at Universidad de Chile, during the spring semester 2006 (July-Dec.). Now works at Weil, Gotshal & Manges LLP. The opinions expressed herein are those of the author, and do not represent the opinions of the author's employer. This paper is a summarized version of the Second Chapter of the author's JSD dissertation entitled "Global Constitutional and Administrative Law in the BIT Generation."

<sup>1</sup> UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT, WORLD INVESTMENT REPORT 26 (2006). About 70% of them are currently in effect.

<sup>2</sup> See Kenneth J. Vandeveld, *U.S. Bilateral Investment Treaties: The Second Wave*, 14 MICH. J. INT'L L. 621 (1993) and Jeswald W. Salacuse, *BIT by BIT: The Growth of Bilateral Investment Treaties and Their Impact on Foreign Investment in Developing Countries*, 24 INT'L L. 655 (1990). See also a list of BITs in UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT, BILATERAL INVESTMENT TREATIES IN THE MID-1990S (1998). A more recent list, though incomplete, is available at the UNCTAD website [http://www.unctadxi.org/templates/DocSearch\\_779.aspx](http://www.unctadxi.org/templates/DocSearch_779.aspx) (last visited Dec. 13, 2005).

<sup>3</sup> The expression was coined by W. Michael Reisman & Robert D. Sloane, *Indirect Takings and its Valuations in the BIT Generation*, 74 BRIT. Y.B. INT'L L. 115 (2003).

<sup>4</sup> Remark the similarity between BITs, see RUDOLF DOLZER & MARGRETE STEVENS, BILATERAL INVESTMENT TREATIES xii (1995), Calvin A. Hamilton & Paula I. Rochwerger, *Trade and Investment: Foreign Direct Investment Through Bilateral and Multilateral Treaties*, 18 N.Y. INT'L L. REV. 1, 8 (2005), and Vaughan Lowe, *Regulation or Expropriation*, 55 CURRENT LEGAL PROBS. 447, 451 (2002).

1857 in 1999,<sup>5</sup> and finally, to the current size of nearly 2500 treaties at the end of 2005. These treaties regulate the admission, treatment and expropriation of foreign investment, as well as the settlement of disputes. The common legal architecture of BITs is straightforward. Host states commit themselves to providing a stable regulatory system aimed at the protection of investments, including in most cases the provision of “fair and equitable” treatment, full protection and security, treatment no less favorable than that provided to nationals or to third-state nationals, and no direct or indirect expropriation without proper compensation.

A quick comparison of all the treaties that form this pool reveals two characteristics which, though crucial for understanding the emergence of the BIT generation, have been somewhat overlooked by scholars and commentators. The first of these is that BITs are written using extremely broad, and open-ended concepts. BIT language resembles Constitutional language, and it is no exaggeration to state that BITs represent actual Economic Constitutions for foreign investors doing business in countries that have adopted them. More importantly, not only do BITs contain specific “constitutional” provisions that favor foreign investors, but also give original “constitutional” jurisdiction to arbitral tribunals, thus replacing domestic courts.

The second somewhat underreported feature of BITs is that they are all worded in more or less the same terms.<sup>6</sup> As one French commentator remarks, “whilst these treaties are signed during different periods of time and with different states, they remain similar in content. Numerous provisions of these treaties are identical. They use specific investment law vocabulary,”<sup>7</sup> citing notions such as “fair and equitable treatment,” “expropriation,” “measures tantamount to expropriation,” “fork in the road,” and “umbrella clauses.”<sup>8</sup> Similarly, Douglas points out that “the striking feature of this collection of model BITs is that their formal layout and substantive content are very similar, often practically identical.”<sup>9</sup> We have witnessed a legal *de facto standardization*, in which all countries have adopted more or less the same basic treaty.

The combination of these two aspects means that BIT interpretation is giving rise to a genuine constitutional jurisprudence, by which I mean a process of judicial norm-creation that gives actual specific content to the overly general provisions of the treaties. What Stone Sweet has observed in other contexts of supranational adjudication perfectly fits the situation of BITs: “[j]ust inevitably, judges who enforce such standards

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<sup>5</sup> See UNITED NATIONS CENTRE ON TRANSNATIONAL CORPORATIONS, *BILATERAL INVESTMENT TREATIES* 6-7 (1988), DOLZER & STEVENS, *SUPRA* NOTE 4, xii and 267-326, and UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT, *BILATERAL INVESTMENT TREATIES 1959-1999* at 1 (2000) (available at <http://www.unctad.org/en/docs/poiteiad2.en.pdf>, last visited Aug. 4, 2006).

<sup>6</sup> In 1987, Eileen Denza & Shelag Brooks, *Investment Protection Treaties: United Kingdom Experience*, 36 INT’L L. & COMP. L. Q. 908, 913 (1987) commented that “nearly 300 treaties now exist worldwide—broadly similar in character, content, and standards, although there are important national differences in emphasis and detail. The effect has been to create an infrastructure of agreements based on realistic accommodations rather than political rhetoric, and to provide important support for those standards of customary international law which had seemed to be slipping away.”

<sup>7</sup> Pierre Duprey, *Do Arbitral Awards Constitute Precedents? Should Commercial Arbitration Be Distinguished from Arbitration Based on Investment Treaties*, in *TOWARDS A UNIFORM INTERNATIONAL ARBITRATION LAW?* 251, 276 (Emmanuel Gaillard ed., 2005).

<sup>8</sup> *Id.*

<sup>9</sup> Zachary Douglas, *The Hybrid Foundation of Investment Treaty Arbitration*, 74 BRIT. Y. B. INT’L L. 151, 159 (2004).

[balancing, proportionality, ‘least-means’ tests, and in general, incomplete or relational “contracts”] behave as relatively pure policymakers, in that they use their discretion to evaluate and control the law-making of others.”<sup>10</sup> We can thus see how, after the first arbitral award was rendered in 1990,<sup>11</sup> BIT case law has started to become its own distinct field of international law. This has resulted in “the establishment of a genuine arbitration case law specific to the field of investment.”<sup>12</sup>

This paper focuses on the descriptive side of this BITs’ story. Salacuse & Sullivan pose the relevant questions in very precise terms: “Why would developing countries enter into such agreements? Why would they constrain their sovereignty by entering into treaties that specifically limit their ability to take necessary legislative and administrative actions to advance and protect their national interests?”<sup>13</sup> These questions are of particular importance for Latin America, a region that defended the Calvo Doctrine — a doctrine that was really developed by Andres Bello in 1832 — and the Calvo Clause — a Latin American practice that also predated Calvo — for more than 150 years.<sup>14</sup> As one commentator ironically notes, “no region of the world has so completely moved from a principle-based rejection of any international role in the protection of foreign investment, to its near wholesale acceptance as reflected in the signing of investment treaties”.<sup>15</sup>

At present, Andrew Guzman has authored one of the best-articulated explanations for the emergence of the BIT generation, which he later refined in a piece written together with Elkins and Simmons (*hereinafter*, GES). In Guzman’s account, the current situation where thousands of BITs exist is the result of a prisoner’s dilemma among developing countries, in which these countries, competing against each other to attract FDI, have all ended up worse off.<sup>16</sup>

This paper presents a different theory of what transpired in the last fifty years. Although it acknowledges the existence of competition between developing countries to attract FDI, as well as a problem of collective action, this paper disputes the idea that the BIT generation might be explained as a prisoner’s dilemma. As some legal and game theory experts have also warned, this work claims that Guzman and GES have identified the situation “too quickly with a prisoner’s dilemma.”<sup>17</sup>

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<sup>10</sup> ALEC STONE SWEET, *THE JUDICIAL CONSTRUCTION OF EUROPE* 119 (2004).

<sup>11</sup> *See Asian Agric. Prod. Ltd. v. Sri Lanka*, ICSID Case No. ARB/87/3 (June 27, 1990).

<sup>12</sup> Duprey, *supra* note 7, 276-77.

<sup>13</sup> Jeswald W. Salacuse & Nicholas P. Sullivan, *Do BITs Really Work?: An Evaluation of Bilateral Investment Treaties and Their Grand Bargain*, 46 HARV. INT’L L. J. 67, 77 (2005).

<sup>14</sup> *See* Frank Griffith Dawson, *The Influence of Andres Bello on Latin-American Perceptions of the Non-Intervention and State Responsibility*, 57 BRIT. Y.B. INT’L L. 253 ss (1987).

<sup>15</sup> Carlos G. Garcia, *All the Other Dirty Little Secrets: Investment Treaties, Latin America, and the Necessary Evil of Investor-State Arbitration*, 16 FLA. J. INT’L L. 301, 318 (2004).

<sup>16</sup> Andrew T. Guzman, *Why LDCs Sign Treaties That Hurt Them: Explaining the Popularity of Bilateral Investment Treaties*, 38 VA. J. INT’L L. 639, 651 (1997-1998); and Andrew T. Guzman, Zachary Elkins, and Beth Simmons, *Competing for Capital: The Diffusion of Bilateral Investment Treaties, 1960-2000* (May 2005), AMERICAN LAW & ECONOMICS ASSOCIATION ANNUAL MEETINGS. AMERICAN LAW & ECONOMICS ASSOCIATION 15TH ANNUAL MEETING, Working Paper 31 at 11, available at <http://law.bepress.com/alea/15th/bazaar/art31> (last visited July 14, 2005).

<sup>17</sup> DOUGLAS G. BAIRD, ROBERT H. GERTNER, & RANDAL C. PICKER, *GAME THEORY AND THE LAW* 188 (1994).

In fact, the BIT “game” differs from a prisoner’s dilemma in two key ways. First, the BIT game has a sequential/evolutionary nature, stemming from the fact that developing countries have been joining (and rejecting) the network at various times since 1959. Second, unlike the prisoner’s dilemma, the BIT system demonstrates the positive externalities or network effects of having one system of treaties defined in closely similar terms. Taking into account those two differences leads to the emergence of a new theory: the BIT generation as a virtual network.

The BIT game bears remarkable similarity to a sequential/evolutionary collective action game. The most notable of these similarities is the fact that BITs have behaved like, and then become, a *de facto* standard. In the course of nearly half a century, most countries have adopted treaties containing the same or very similar provisions. My claim here is that network externalities — represented, in brief, by the players’ anticipation of the creation of a future BIT-case law by arbitral tribunals — not only explain this *de facto* standardization, but also support my most serious contention with Guzman and GES’s theory: that the equilibrium represented by BITs is not the worst-case scenario for developing countries.

This new theory intends to answer four crucial questions left open by Guzman and GES’ account. First, why did all developing countries adopt more or less the same rules; that is, why did such a high level of uniformity prevail? Second, why did developing countries adopt the particular set of rules that we see today in BITs as opposed to others, be they more favorable or unfavorable for host states? Third, why did those rules exist in the “market” for more than 20 years without being widely adopted? And, fourth, why are the rules considered to be suboptimal in the eyes of investors?

Section I presents Guzman and GES’ theory. Section II gives a summary of the two basic ideas that underpins the new theory presented here: weak competition among countries and network effects. Section III presents a formal model of the BIT Generation as a virtual network. Section IV provides evidence, and Section V tries to answer the key questions that any theory approaching the BIT generation must consider. The conclusions remark upon some of the normative implications of the new virtual network theory. In contrast to the scenario of a prisoners’ dilemma, in this new theory developing countries may actually end up *better off*.

## 1. The BIT Generation as a Prisoner’s Dilemma

The first BIT was concluded between Germany and Pakistan in 1959 and the ICSID Convention came into force on October 14, 1966. Both treaties came into being during the darkest days of “international minimum standards” and international arbitration, including the Hull Rule. Yet both BIT treaties and the ICSID Convention went more or less unnoticed until the second half of the 1980s, when the BIT generation began to emerge. In any case, the phenomenal pace at which BITs proliferated is already well-documented, and a good summary of it can be found somewhere else.<sup>18</sup>

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<sup>18</sup> See UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT, *BILATERAL INVESTMENT TREATIES 1959-1999* at 1 (2000)), Eric Neumayer and Laura Spess, *Do Bilateral Investment Treaties Increase Foreign Direct Investment to Developing Countries* 11 (2005), and UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT, *RESEARCH NOTE: RECENT DEVELOPMENTS IN INTERNATIONAL INVESTMENT AGREEMENTS 2* (2005).

As mentioned in the introduction, Guzman explains the present popularity of BITs in terms of a prisoner's dilemma. In this game, developing countries, competing against each other to increase the flow of FDI,<sup>19</sup> bid away all their benefits and, in particular, any advantages that could have been secured under a multilateral treaty. For Guzman, the formerly collaborative dynamic among developing countries that had prevailed during the 1960s and 1970s — represented mainly by the Charter of Economic Rights and Duties of States (CERDS), enacted by the General Assembly of the U.N. in 1974 — was destroyed, because it was now in the best interest of each individual state to defect and sign BITs.

The core of his theory is the identification of a collective action problem, in which “an *individual* country has a strong incentive to negotiate with and offer concessions to potential investors — thereby making itself a more attractive location relative to other potential hosts,”<sup>20</sup> but where “developing countries *as a group* are likely to benefit from forcing investors to enter contracts with host countries that cannot be enforced in an international forum, thereby giving the host a much greater ability to extract value from the investment.”<sup>21</sup> He sees developing countries as a potential cartel: “developing countries as a group have sufficient market power in the ‘sale’ of their resources that they stand to gain more when they act collectively than when they compete against one another.”<sup>22</sup> In the end, “BITs increase global efficiency, [but] they likely reduce the overall welfare of developing states.”<sup>23</sup>

The premise of Guzman's work is that less developed countries [LDCs] face a prisoner's dilemma. In his opinion, it is optimal for LDC, as a group, “to reject the Hull Rule [prompt, adequate, and effective compensation in cases of expropriations], but in which each individual LDC is better off ‘defecting’ from the group by signing a BIT that gives it an advantage over other LDCs in the competition to attract foreign investors.”<sup>24</sup> Assuming that the “market” for FDI is perfect, developing countries compete for bigger portions of that FDI, this competition coming at the expense of other developing countries (assuming a fixed pool of investment).<sup>25</sup> In that highly competitive environment, the results for developing countries are unfavorable because “the potential hosts will continue to bid against one another until the benefit enjoyed by the host from the investment is zero.”<sup>26</sup>

In a world of collective action, all developing countries would be better off by colluding, and adhering to customary international law rules such as those contained in CERDS. In the absence of BITs, host countries can extract value from irreversible investment made by foreign investors, by unilaterally changing the conditions under which the firms operate.<sup>27</sup> Thus, “under the CERDS regime, hosts get more value from

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<sup>19</sup> *Id.* at 2.

<sup>20</sup> *Id.* at 643.

<sup>21</sup> *Id.*

<sup>22</sup> *Id.*

<sup>23</sup> *Id.*

<sup>24</sup> *Id.* at 666-667.

<sup>25</sup> *Id.* at 670.

<sup>26</sup> *Id.* at 671. He insists that “as in any competitive market, the seller — here the host country — will receive no economic profit. The entire profit will be enjoyed by the investor” (*Id.* at 672). Nevertheless, in a footnote, he accepts that the winner will not need to bid away all benefits in cases in which countries are not identical among them (*Id.* at 672 n.103).

<sup>27</sup> *Id.* at 673.

each investment. The disadvantage of CERDS, however, is that there will be fewer investments because of the inefficiencies of the regime make it more costly to invest.”<sup>28</sup>

Whether the net result of moving from CERDS to BITs is positive or negative is uncertain, but the critical issue here is the sensitivity of investment in relation to its costs. In other words, “[i]f the level of investment dropped below a certain point, LDCs would be worse off as a group under the CERDS regime that they would be under a BIT regime. On the other hand, if there is only a small reduction in the overall level of investment, LDCs may be better off under CERDS because they can receive a larger share of the return from investments.”<sup>29</sup> Although Guzman recognizes that a definitive answer will require empirical information not yet available,<sup>30</sup> he provides various arguments that make the CERDS case, *prima facie*, the better scenario for developing countries.<sup>31</sup>

In his opinion, developing countries as a group “may be better off in a regime that leaves them unable to enter binding contracts with investors.”<sup>32</sup> His main argument follows along these lines: As in the case of a cartel, developing countries acting together to support CERDS could have kept all rents, or at least a larger share of them, for themselves.<sup>33</sup> Collective action could have secured monopoly rents by using the market power that is essential to the cartel.<sup>34</sup>

In GES’s collective revision of Guzman’s earlier work, his prisoner’s dilemma scenario is significantly softened. They opt just to stress the competitive origins of the BIT generation. BITs are signed, most significantly, to “make credible commitments because they raise the *ex post* costs of noncompliance above those that might be incurred in the absence of the treaty.”<sup>35</sup> Notwithstanding the tautology of explaining a contract or treaty as a credible commitment device,<sup>36</sup> the use of game theory language permits them to highlight the strength of BITs, whose investor-state arbitration serves as the “teeth” for enforcement. This institutional design increases the *ex post costs* involved in either the observance or violation of BITs, including diplomatic costs, arbitration costs, reputation costs, and sovereignty costs.<sup>37</sup>

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<sup>28</sup> *Id.*

<sup>29</sup> *Id.* at 673-4.

<sup>30</sup> *Id.* at 674 ss.

<sup>31</sup> *Id.* He does not provide empirical information, but provides arguments that make his claim —high sensitivity of investment in relation to its costs, making developing countries better off under CERDS — to look reasonable.

<sup>32</sup> *Id.* Guzman assumes that without BITs, there are no contracts in international law. One possible explanation is that Guzman assumes that the New International Economic Order (NIEO) was, at some point of time, *ius cogens* in international law. But that is a claim that has been rejected in international law and which only a highly reduced number of commentators would agree with. *See e.g.* F.V. GARCÍA-AMADOR, EL DERECHO INTERNACIONAL DEL DESARROLLO. UNA NUEVA DIMENSIÓN DEL DERECHO INTERNACIONAL ECONÓMICO 251 (1987), and its rejection by an international law tribunal in the *Aminoil Case*, in *The Government of the State of Kuwait v. The American Independent Oil Company*, Final Award, (1982), reprinted in 21 I.L.M. 976, 1021 (1982).

<sup>33</sup> *Id.* at 683.

<sup>34</sup> *Id.* at 677.

<sup>35</sup> GES, *supra* note 16, 11-12.

<sup>36</sup> People make contracts because they need to commit themselves credibly. Explaining contracts as a credible commitment, then, does not add any new information. The relevant question is why people make credible commitments; here, why countries conclude BITs.

<sup>37</sup> GES, *supra* note 16, 14.

The collective action problem is still present in this second paper, but depicted in different terms. Acting individually, countries receive reputational advantages that may allow them to attract more FDI, investment which would otherwise have gone to other developing countries. However, signing BITs involves costs for the host government, the majority of which the authors characterize mainly as “sovereignty costs.” These include “the political costs of assembling a coalition in support of foreign investors’ rights, as well as the costs associated with giving up a broad range of policy instruments relevant to domestic social or developmental purposes (taxation, regulation, performance requirements, property seizure, currency and capital restrictions.)”<sup>38</sup> But most importantly, they include the costs associated with delegating adjudicative authority to international arbitral tribunals.<sup>39</sup>

If developing countries believed that the benefits of signing these treaties outweighed these sovereignty costs, GES argue, they were wrong: “in many cases, the answer is no.”<sup>40</sup> The writers do not provide any deeper explanation or empirical justification for the collective action problem, remaining silent, in fact, on the issue of prisoner’s dilemma.<sup>41</sup> But Guzman’s original account seems to be present here, however implicitly. While defecting is still a dominant strategy for developing countries, the more that sign BITs according to their individual interests, the more any benefits of defecting tend to be cancelled out. Assuming a fixed pool of foreign investment, the benefits of defecting eventually disappear entirely, and all former members of the cartel are left with “sovereignty costs.”

In the end, the competition created by this situation — “a competitive dynamic among potential hosts to reduce the risks and enhance the profitability of investing”<sup>42</sup> — makes developing countries, as a group, worse off. Competition, therefore, continues to play a key role in this model: “the diffusion of BITs — and the liberal property rights regime they embody — are propelled in good part by the competition among potential host countries for credible property rights protections that direct investors require.”<sup>43</sup>

## 2. Weak Competition and Network Effects

The theory that this paper advances asserts that the success of BITs is better explained using the model of a sequential/evolutionary game characterized by network effects. It is a well known fact that network effects create several collective action problems.<sup>44</sup> The sequential decisionmaking structure of these games clearly distinguishes them from a prisoner’s dilemma, in which non-cooperative forces lead the parties to adopt the worst possible solution (or, from the opposite perspective, an optimal equilibrium).

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<sup>38</sup> *Id.* at 14-15

<sup>39</sup> *Id.* at 15.

<sup>40</sup> *Id.*

<sup>41</sup> They just say, *id.* at 15-6, that “collectively, they might be better off resisting the demands of investors (avoiding the sovereignty costs described above), but individually, it is rational to sign, in hopes of stimulating capital inflows.”

<sup>42</sup> *Id.* at 11.

<sup>43</sup> *Id.* at 2.

<sup>44</sup> BAIRD (et. al.), *supra* note 17, 208.



However, before explaining the theory as such, two concepts need to be reviewed in this section: first, competition among States, and second, network externalities. The model described in this paper does not assume strong competition among developing countries. As noted above, states are not firms. Competition for FDI is a highly distorted process under any market-based account, so any model based on strong competition is necessarily a flawed representation of reality. As Bell & Parchomovsky reminds us in their recent study about U.S. states competition in property law, the supply side of government services is far way more complicate than any simple perfect market representation:

A variety of political institutions, most importantly elected legislative bodies, produce property laws. These bodies, in turn, are staffed by decisionmakers who ideally have no direct pecuniary interest in the legislative outcome, but who often seek to maximize ideological preferences, personal reputation, reelection opportunities, and other political rents, sometimes at the expense of state profits or the public welfare. The agency problem that plagues corporate law thus expresses itself even more sharply in the political context.<sup>45</sup>

In any case, any pure-market-based-competition account of the BIT generation leaves the story incomplete because it fails to explain at least four crucial aspects of this phenomenon. First, why all developing countries display such a high level of uniformity in adopting more or less the same rules. Second, why those countries adopted the particular set of rules that we see today in BITs, as opposed to others which could have been either more or less favorable for host states. Third, why those rules persisted in the “market” for almost 25 years (1959-1985) without being massively adopted? And, fourth, why the adopted rules are suboptimal, from the perspective of investors.

The network theory of BITs intends to answer these questions. It assumes competition among states, but of a weaker nature. In a weak competition model, developing countries who wish to attract FDI are interested in signaling their commitment to property rights and the rule of law, up to a certain point, and subject to all the distortions of the political process. In this context, competition may still partially explain why countries accept rules that, *prima facie*, are not “favorable” to them, and that would never have been adopted in the absence of those competitive forces. It is indeed difficult to deny UNCTAD’s general observation in the sense that,

The signing of a BIT has the effect of signaling that a country wishes to provide a stable, transparent and predictable investment environment in which investments can thrive — an effect independent of whether the BIT is actually in force. In other words, signing is signaling — enforcing is another matter. However, the longer the BIT remains not ratified, the weaker that signal becomes.<sup>46</sup>

Besides weak competition, the network theory developed here relies on the notion of network effects and, more precisely, on the applications of that idea that have been

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<sup>45</sup> Abraham Bell & Gideon Parchomovsky, *Of Property and Federalism*, 115 YALE L. J. 72, 98 (2005). See also, in the context of state competition in the U.S. for trust funds, Robert T. Sitkoff & Max M. Schanzenbach, *Jurisdictional Competition for Trust Funds: An Empirical Analysis of Perpetuities and Taxes*, 115 YALE L. J. 356, 363 (2005).

<sup>46</sup> See UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT, SOUTH-SOUTH COOPERATION IN INTERNATIONAL INVESTMENT ARRANGEMENTS (UNCTAD SERIES ON INTERNATIONAL INVESTMENT POLICIES FOR DEVELOPMENT) 7 (2005) (available at [http://www.unctad.org/en/docs/iteiit20053\\_en.pdf](http://www.unctad.org/en/docs/iteiit20053_en.pdf), last visited Jan. 21, 2006).

done previously in the field of corporate law, particularly in the context of States' competition for corporate charters in the U.S.<sup>47</sup> Network effects — also referred to as “bandwagon effects” — is an economic concept describing those markets in which the utility derived from consumption of a good or service increases, as more users consume the same good or service.<sup>48</sup> Network effects are positive consumption externalities.<sup>49</sup> They are external demand-side scale economies arising from the fact that the number of users who demand a product or service increases the future number of users.<sup>50</sup> Each consumer who decides to buy the product affects the decision of the rest, increasing the utility that the latter would derive from consuming the same good.<sup>51</sup> The most typical examples of network products are telephones and faxes, where the individual products lack any inherent value outside the physical network. Similarly typical examples are computers and their operative systems and typewriter standards (such as QWERTY), among others, which form “virtual networks”: here the products have inherent value, but their complete worth appears only when bound to a group of people using the same standard.

Networks effects produce considerable distortions within standard microeconomic models of competition. They may even lead to market failure. Products that have network effects “have dynamics that differ from those of conventional products and services. They are quite difficult to get started and often end up in a ditch before they can get under way. Once enough consumers have gotten on a bandwagon, however, it may be unstoppable.”<sup>52</sup> These products are especially prone to “tipping” or *de facto* standardization, “which is the tendency of one system to pull away from its rivals in popularity once it has gained an initial edge.”<sup>53</sup> For the same reasons, once a product has become the dominant standard in the market, accrued network externalities lend it an advantage over newly introduced innovations.<sup>54</sup> Changing such a product would be costly “because new relation-specific investments have to be made. In such a situation, systems that are expected to be popular — and thus have widely available components — will be more popular for that very reason.”<sup>55</sup>

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<sup>47</sup> See Michael Klausner, *Corporations, Corporate Law, and Network of Contracts*, 61 Va. L. Rev. 757 (1995). For a general analysis of network effects and the law, see Mark A. Lemley & David McGowan, *Legal Implications of Network Economic Effects*, 86 CAL. L. REV. 479, 491 (1998).

<sup>48</sup> See Michael Katz & Carl Shapiro, *Network Externalities, Competition and Compatibility*, in 75 AMERICAN ECONOMIC REVIEW 424, 424 (1985) (“The utility that a given user derives from the good depends upon the number of other users who are in the same ‘network’ as is he or she.”).

<sup>49</sup> Robert B. Ahdieh, *Making Markets: Networks Effects and the Role of Law in the Creation of Strong Securities Markets*, 76 S. Cal. L. Rev. 277, 288 (2003).

<sup>50</sup> JEFFREY H. ROHLFS, BANDWAGON EFFECTS IN HIGH-TECHNOLOGY INDUSTRIES 20-21 (2001).

<sup>51</sup> Ahdieh, *supra* note 49, 298.

<sup>52</sup> ROHLFS, *supra* note 50, 4.

<sup>53</sup> Michael Katz & Carl Shapiro, *System Competition and Network Effects*, 8 J. ECON. PERSP. 93, 106 (1994).

<sup>54</sup> Klausner, *supra* note 47, 791.

<sup>55</sup> Katz & Shapiro, *supra* note 53, 94. See also, BAIRD, *supra* note 17, 212 (“In products with network externalities, the size of the installed customer base matters a great deal, and, as the formal analysis suggested above, a consumer may reject a new, superior product because a network already exists for the old one.”).

These products also display lock-in effects — also called “excess inertia”<sup>56</sup> or inertia<sup>57</sup> — that enables them to outsell competitors even in the event that those competitors are inherently superior. As Rohlfs explains, “the best product does not necessarily win the bandwagon effect. On the contrary, if an inferior product for any reason gets an early edge in number of customers, it may well win the race.”<sup>58</sup> That is, “once one option has enough of a head start, superior technological alternatives may never get the chance to develop.”<sup>59</sup> Alternative products that fail to infiltrate the market may perfectly have yielded to a more efficient equilibrium.<sup>60</sup>

This means that in the presence of network effects, an equilibrium may not exist or multiple equilibria may exist<sup>61</sup>, but in any event, nobody can assure that the optimal result will be reached.<sup>62</sup> An important consequence is that, as Katz & Shapiro remark, if someone is trying to explain the actual equilibrium reached by a product with network effects, “one would like to have a theory that includes the factors that lead to one outcome or the other.”<sup>63</sup> The same idea is endorsed by Peyton, according to whom “equilibrium can be understood only within a dynamic framework that explains how it comes about (if in fact it does).”<sup>64</sup> Moreover, as David posits, “any economist who would explain the particular equilibrium outcome (among the multiplicity of eligible candidates) towards which this system converges must necessarily have recourse to the historical details of its evolution.”<sup>65</sup>

As mentioned, the first detailed application of network effects to the field of law was put forth by Michael Klausner in a groundbreaking article about corporate law’s role as a virtual network of contracts.<sup>66</sup> The core concept of Klausner’s theory is that corporate contracts form networks. These contracts “have network externality qualities, and the firms that use a particular contract term form a ‘network’ analogous to the network of PC users. Unlike a telephone network, where units are physically connected, a contractual network (like a PC network) is linked together by commonly used complementary products.”<sup>67</sup>

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<sup>56</sup> See Joseph Farrell & Garth Saloner, *Standardization, Compatibility, and Innovation*, 16 RAND J. ECON. 70, 71 (1985) (“[E]xcess inertia impedes the collective switch from a common standard or technology to a possibly superior new standard or technology.”). See also, BAIRD, *supra* note 17, 209.

<sup>57</sup> See H. PEYTON YOUNG, *INDIVIDUAL STRATEGY AND SOCIAL STRUCTURE* 15 (1998) (“Thus, from a short perspective, a key property of the system is its *inertia*, that is, the expected waiting time until the process tips from the less favorable to the more favorable regime.”).

<sup>58</sup> ROHLFS, *supra* note 50, 43.

<sup>59</sup> AVINASH DIXIT & BARRY NALEBUFF, *THINKING STRATEGICALLY* 238 (1991).

<sup>60</sup> PEYTON, *supra* note 57, 14.

<sup>61</sup> See Katz & Shapiro, *supra* note 53, 94.

<sup>62</sup> See Brett H. McDonnell, *Getting Stuck*, 31 HOFSTRA L. REV. 681, 704-5 (2003). See also, Paul A. David, *Path Dependence, its critics and the quest for ‘historical economics’*, 9 (emphasis added) (available at <http://129.3.20.41/eps/eh/papers/0502/0502003.pdf>, last visited Aug. 23, 2006). See also his seminal work on the subject, Paul A. David, *Clio and the Economics of QWERTY*, 75 AM. ECON. REV. 332 (1985).

<sup>63</sup> Katz & Shapiro, *supra* note 53, 96-7.

<sup>64</sup> PEYTON, *supra* note 57, 4.

<sup>65</sup> Paul A. David, *Path Dependence and the Quest for Historical Economics: One More Chorus of the Ballad of Qwerty*, 21 (available at <http://www.nuffield.ox.ac.uk/economics/history/paper20/david3.pdf>, last visited Aug. 23, 2006).

<sup>66</sup> Klausner, *supra* note 47, 761.

<sup>67</sup> *Id.* at 774-5.

According to Klausner, when a contract clause or term is widely used, many factors contribute to elevate its value, all of which share in common at least one thing: they enhance predictability, one of the main values of the rule of law.<sup>68</sup> In his view:

More judicial precedents can be expected, on average, to enhance the clarity of the term. Common business practices implementing the term may become established, further reducing uncertainty. Legal advice, opinion letters and related documentation will be more readily available, more timely, less costly, and more certain. Finally, firms may find it easier to market their securities.<sup>69</sup>

Network effects are directly tied to the vagueness and ambiguity that is pervasive, and sometimes desirable, in law. On the one hand, the inherent value of a clause or legal term depends on its individual-autonomous clarity. On the other hand, network benefits derive from several different sources, the most important of which is the interpretative network externalities that reduce uncertainty. The more firms that adopt the same charter term, the more the term will be litigated, and therefore, the more future judicial interpretations will be provided.<sup>70</sup> In other words, “the expected quantity and frequency of judicial interpretations is positively related to the number of firms that adopt the term. Thus, to the extent that future judicial interpretations are beneficial, they are network benefits associated with particular corporate contract terms.”<sup>71</sup> Hence, a substantial source of value for the term lies in *future* interpretations.<sup>72</sup>

Alec Stone Sweet, in the context of judicial governance, also provides valuable insights that may be applied here.<sup>73</sup> He focuses more specifically on the network effects of litigation and judicial lawmaking. Stone Sweet argues that legal institutions and adjudication are “fundamentally conditioned by how earlier legal disputes in that area of the law have been sequenced and resolved.”<sup>74</sup> The essential element in his account is the existence of “*some minimally robust conception of precedent.*”<sup>75</sup> Sweet describes his theory in the following terms:

How courts typically operate and how legal actors typically behave are likely to provoke and then sustain the path dependent development of litigation and judicial rule-making. Given some underlying notion of precedent, these processes can be expected to exhibit some significant degree of randomness—through the vagaries of sequencing—and non-ergodicity—through the survival of rules announced in past rulings; and judicial rule-making can be expected to provoke positive feedback effects—more litigation and the construction of litigation networks—and to move the law along paths that are relatively inflexible—that is, costly or impossible to reverse.<sup>76</sup>

Stone Sweet’s starting point is that legal norms are essentially indeterminate, and all bodies of law are imperfect and incomplete.<sup>77</sup> But legal reasoning has the precise

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<sup>68</sup> See also, McDonnell, *supra* note 62, 701.

<sup>69</sup> Klausner, *supra* note 47, 761.

<sup>70</sup> See *Id.* at 776.

<sup>71</sup> *Id.*

<sup>72</sup> *Id.* at 778. Past decisions are not network effects, but learning effects (past and future in relation to the adoption of the term by the party).

<sup>73</sup> See Alec Stone Sweet, *Path Dependency, Precedent, and Judicial Power*, in MARTIN SHAPIRO & ALEC STONE SWEET, *ON LAW, POLITICS, AND JUDICIALIZATION* 112 ss (2002).

<sup>74</sup> *Id.* at 113.

<sup>75</sup> *Id.* at 118 (emphasis on the original).

<sup>76</sup> *Id.* at 120-121.

<sup>77</sup> *Id.* at 122.

power, through analogy, to create doctrinal or argumentation frameworks, i.e. “discursive structures that organize (1) how parties to a legal dispute as questions of judges and engage one another’s respective arguments, and (2) how courts frame their decisions.”<sup>78</sup> These doctrines and frameworks reduce the degree of indeterminacy of legal norms. According to the author, “by formalizing the results of analogic reasoning into precedents. . . judges give the legal system a measure of ‘relative determinacy’.”<sup>79</sup> More precisely, “judicial rule-making, being more or less authoritative, should function to reduce uncertainty about the nature and scope of the standard, and also to provoke and reinforce feedback effects.”<sup>80</sup>

In any case, future interpretation of ambiguous language is not the only bandwagon externality that a network of contracts may display. First, certain common practices constitute network externalities. As in the case of future precedents, common business practices reduce uncertainty. The assumption here is that the more firms use a given contract term, “the larger, and possibly more varied, the base of common practice will be.”<sup>81</sup>

Second, legal services and an experienced judiciary are crucial sources of externalities. “The legal services available for a commonly used term may be superior, either in terms of cost or quality, to those provided for a less commonly used term.”<sup>82</sup> Once a term is adopted, firms need not expend money in drafting and negotiation costs. The costs of research and interpretation of a term are also reduced when the term is widely used.<sup>83</sup> Similarly, with a commonly used term, the judiciary will become more experienced and be able to decide cases in an expedient and well-considered way.<sup>84</sup> Firms can trust that future decisions will be consistent and correct.

Third, there are marketing network externalities. Firms need to attract shareholders and bondholders to analyze and price those stocks. A common term may permit investors and securities analysts to estimate the value of its securities through routine financial analysis, at relatively low cost.<sup>85</sup> In contrast, an idiosyncratic or uncommon term will be priced in a manner reflecting the uncertainty and lack of knowledge that is associated with it, and the costs of pricing services will be higher. In consequence, “the cost of capital for firms that use common charter terms may be lower than the cost for those that use uncommon terms.”<sup>86</sup>

### 3. A Formal Model of the BIT Generation as a Virtual Network

The theory of the BIT generation as a virtual network rests on a fairly simple idea: there are economies of scale in having a global regime of treaties worded in near-

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<sup>78</sup> *Id.* at 124.

<sup>79</sup> *Id.* at 124. *See Id.* (“Prior legal decisions constitute the materials that enable the construction of such frameworks. Legal systems are webs or clusters of relatively autonomous argumentation frameworks.”).

<sup>80</sup> *Id.* at 117.

<sup>81</sup> *Id.* at 780.

<sup>82</sup> *Id.* at 782.

<sup>83</sup> *See* Roberta Romano, *Law as a Product*, 1 J. L. ECON. & ORG. 225, 274-75 (1985).

<sup>84</sup> *See* McDonnell, *supra* note 62, 703-4.

<sup>85</sup> Klausner, *supra* note 47, 785.

<sup>86</sup> *Id.*

identical terms, particularly when those terms are as broad as the ones contained in actual BITs. In this subsection I will provide a formal model of this theory.

As a starting point, it must be noted that an explanation of the BIT generation that includes network effects must start exploring the two key questions: whether the change from domestic law plus customary international law to the BIT generation was efficient for developing countries as a group (i.e., a Pareto-superior movement); and, whether the equilibrium represented BIT generation may be suboptimal.

For that purpose, I present the following Pareto-ranking of different credibility and commitments mechanisms available for developing countries (assuming the latter are committed to property rights and the rule of law). The ranking order decreases with “sovereignty costs,” which include loss of governmental control over internal economic activity, and the loss of jurisdiction by domestic tribunals. Note that this ranking is made taking into consideration only the inherent value of each alternative; that is, it does not include possible network benefits:

- a) Only domestic law remedies plus customary international law. This means, essentially, no international forum in which to litigate investment disputes, which are therefore left to diplomatic protection under customary international law.<sup>87</sup>
- b) BIT-like-*minus* treaties, that is, treaties with standards less convenient to foreign investors, worded in terms different from those actually used in BITs;
- c) BITs as we know them today;
- d) BIT-like-*plus* treaties, that is, treaties with standards more convenient to foreign investors, worded in terms different from those actually used in BITs;
- e) Tailor-made contracts that fully extract all rents, containing ICSID arbitration clauses. This category may include BITs that contain umbrella clauses, clearly the category of BITs most harmful in terms of “sovereignty costs.”

In contrast to Guzman, I do not consider CERDS to be the best alternative. Instead, I assume that the best option for developing countries in terms of sovereignty costs is simply to retain full control over their domestic legal systems and institutions, the assumption being that commitment via constitutional law is the optimum. But now, if we add the positive externalities of having a system of nearly identical bilateral treaties, the ranking changes. Proving this assertion is the central aim of this section.

The formal model of network externalities I am following here was created by Farrell & Saloner.<sup>88</sup> The game here has two players/countries. There is one original standard (*X*), which faces competition from a new one (*Y*). Adapting the model to our case, it can be said that the use of domestic law plus customary international law is the old standard (*X*), and the emergence of BITs, the new competing standard (*Y*).

At time  $t_1$ , players can switch to the new standard (an irreversible decision) or stay with the older; at time  $t_2$ , those who stayed with the old standard may decide to switch to the new one. *Each player is uncertain of whether the other would follow if he switched* (incomplete information). A particularly important assumption for our purpose

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<sup>87</sup> This is different from saying that CERDS is the highest pay-off for developing countries, as Guzman affirms.

<sup>88</sup> Farrell & Saloner, *supra* note 56, 70.

is that because of network effects, it is better for both parties to be under the same standard. Both parties are better off together in  $X$ , or, in  $Y$ , than they would be if one were in each standard. If  $B^i(a,U)$  is the benefit function of each country, where  $i$  represents the type of country according to its political/legal/cultural preferences, and  $a$  the number of countries adopting standard  $U$  — be it  $X$  or  $Y$  — then  $B^i(2,X) > B^i(1,X)$  and  $B^i(2,Y) > B^i(1,Y)$ .

The latter assumption means that even in the case that the first country to sign a BIT captures a higher proportion of FDI, the net benefits are smaller than if the two countries had joined the system together. This is due to the presence of network effects. In other words, network benefits are assumed to be higher than the benefits associated with any extra FDI that a country can induce from being the first and lone mover.<sup>89</sup> The idea underlying this assumption is that the inherent value of BITs is much lower than normally regarded; the first treaty is merely an esoteric document with extremely broad provisions, and nobody knows whether it will really work, or how it will work.

As explained before,  $i$  reflects the individual country's preferences, where higher types of  $i$  (indexed by higher values of  $i$ ) "are more eager to switch to  $Y$ , both unilaterally and if the other firm [countries] also switches."<sup>90</sup> It is possible to classify developing countries according to three general types of  $i$ . First, those that were not interested in attracting foreign investment (lower values of  $i$ , in the extreme  $i=0$ ).<sup>91</sup> Second, countries that urgently needed to attract foreign investment and were therefore anxious to signal their commitment to protect foreign property, whatever the sovereignty costs (higher values of  $i$ , in the extreme,  $i=1$ ). Third, countries in the intermediate scenario, who valued attracting foreign investment, but were particularly sensitive to the sovereignty costs of signing BITs (middle values of  $i$ ).

Farrell & Saloner make a particularly interesting assumption that turns out to suit the modeling of the BIT generation very well; namely, that  $B^1(1,Y) > 0$  and that  $B^0(2,Y) < B^0(1,X)$ . Their explanation is clear:

Unilateral switching is worthwhile for at least one possible type of firm [country], and (at the other end of the spectrum) there are some types that would rather remain alone with the old technology [legal standard] than join the other firm [country] with the new technology [legal standard]. This assumption also implies that for intermediate values of  $i$ , a firm's [country's] decision will at least sometimes depend on its predecessor's decision: this is what makes the model interesting.<sup>92</sup>

This means that whereas some countries were ready to sign BITs whatever their sovereignty costs, at the same time, there were countries that preferred to preserve the integrity of their domestic legal system and institutions at any price.

Using these assumptions, as well as some more technical ones that do not alter the basic idea explained here, Farrell & Saloner prove that there exists a unique "bandwagon

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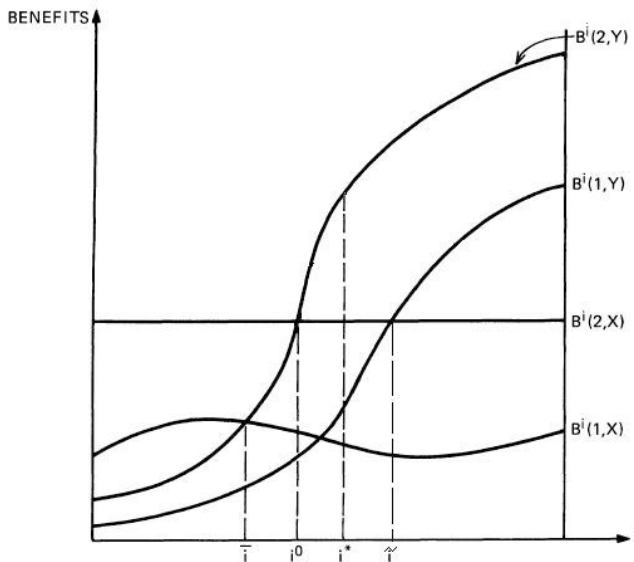
<sup>89</sup> Not accepting this assumption see Ryan Bubb & Susan Rose-Ackerman, *BITs and Bargains: Strategic Aspects of Bilateral and Multilateral Regulation of Foreign Investment*, Yale Law School, Draft, January 2006, 6, 7 and 9.

<sup>90</sup> Farrell & Saloner, *supra* note 56, 76.

<sup>91</sup> As was the case for countries involved in import substitution industrialization policies. According to Paul C. Szasz, *The Investment Disputes Convention and Latin America*, 11 VA. J. INT'L L. 256, 260 (1970), "It must be recognized that not all governments are uniformly eager to attract foreign private investment".

<sup>92</sup> Farrell & Saloner, *supra* note 56, 76.

equilibrium.”<sup>93</sup> That is, there is a perfect Bayesian Nash equilibrium in which each country plays the following “bandwagon strategy”: First, if  $i > i^*$ , then the country switches at time 1. Second, if  $i^* > i \geq \bar{i}$ , then the country waits until time 2 and changes only after observing that the other country switched at time 1. Third, if  $i < \bar{i}$ , then the country does not move away from standard  $X$  (for a full proof of the value and existence of  $i^*$ , see Farrell & Saloner).<sup>94</sup> This equilibrium, in which each player follows the strategy depicted above, is shown in the following figure:



**Source:** Joseph Farrell & Garth Saloner, *Standardization, Compatibility, and Innovation*, 16 RAND J. ECON. 70, 78 (1985) (the original graph has been simplified and slightly modified).

The difference between the curves  $B^i(1,Y)$  and  $B^i(2,Y)$  shows the network effects of standard  $Y$ . These benefits will be explained in full detail in the next section, though it can be said for now that they follow the profile suggested by Klausner in the corporate law field. Similarly, the difference between the curves  $B^i(1,X)$  and  $B^i(2,X)$  corresponds to the network effects of standard  $X$ . The network benefits of domestic law plus customary international law represent the flipside of BITs’ inherent *and* network value. Indeed, if a country can get a bigger slice of the FDI pie by signing BITs, then countries abandoning domestic law plus customary international law may impose costs (externalities) — a smaller FDI pie — on countries remaining under those rules. In any case, for this theory to work, these externalities must not be particularly large.

Note that the point  $\bar{i}$  corresponds to the country which is indifferent with respect to staying with the old standard or switching to the new one (i.e.  $B^{\bar{i}}(2,Y) = B^{\bar{i}}(1,X)$ ). On the other hand, it must be emphasized that  $i^*$  is located above  $i^0$ . The intuitive explanation of that relative position is that a country which is thinking of changing at

<sup>93</sup> More specifically, this is a symmetric bandwagon equilibria, in which the pair  $(\bar{i}, i^*)$  is the same for every player. According to Farrell & Saloner, *Id.* at 77, “asymmetric bandwagon equilibria only exist for some specifications of the benefit functions, and will come in mirror-image pairs if they occur.”

<sup>94</sup> *Id.* at 76.



time  $t_1$  needs to obtain substantial benefits from network effects, in order to balance the risk that the other country will not change at time  $t_2$  because it has  $i < \bar{i}$  (an information not known by the first country at time  $t_1$ ).<sup>95</sup>

At the same time, given the assumption of incomplete information mentioned before,  $i^*$  has a lower value than  $\tilde{i}$  (i.e.,  $i^* < \tilde{i}$ ). This is a key aspect of this model. Note that  $\tilde{i}$  represents the point where  $B^{\tilde{i}}(1,Y) = B^{\tilde{i}}(2,X) = 0$ ; therefore, for values of  $i$  above  $\tilde{i}$  the country will be better off switching to  $Y$  in time  $t_1$  whether or not the other country follows the lead later in time  $t_2$ . Yet, for values of  $i$  between  $i^* < \tilde{i}$  (i.e.,  $i^* \leq i < \tilde{i}$ ), the country will take the risk to switch to  $Y$  in time  $t_1$ , hoping that the other country belongs to the group that changes in time  $t_2$  (i.e., that has an  $i$  so that  $\bar{i} \leq i < i^*$ ). According to Farrell & Saloner:

There are also some types just above  $i^*$  for which  $B^i(1,Y) < 0$  [i.e.,  $i^* \leq i < \tilde{i}$ ]. These types start the bandwagon rolling, but if it turns out that the other firm was of a type below  $\bar{i}$  (so that their lead is not followed), they regret their decision *ex post*. Here, again, there is straightforward intuition. Types in this range sufficiently favor technology  $Y$  that they risk starting the bandwagon even though they know with positive probability that they are up against an ‘intransigent’ with type less than  $\bar{i}$  and will end up worse off if this turns out to be so.<sup>96</sup>

So, to summarize, from left to right it is possible to find the following cases. First, from 0 to  $\bar{i}$ : the country does not change at time  $t_1$  nor at time  $t_2$ . Second, from  $\bar{i}$  to  $i^0$ : the country does not change at time  $t_1$  but changes at time  $t_2$  if the other country already did so at time  $t_1$ ; however, these changes are considered to represent a negative outcome. Third, from  $i^0$  to  $i^*$ : same scenario as b), but the country is better off under the new standard. Fourth, from  $i^*$  to  $\tilde{i}$ : the country changes at time  $t_1$ , but it takes a risk because it will be better off only if the other country changes at times  $t_1$  or  $t_2$ . Fifth, above  $\tilde{i}$ : the country changes at time  $t_1$  and is better off whether or not the other country changes to the new standard.

Following this framework, there are several reasons why a country signs a BIT (standard  $Y$ ). First, if a country has  $i > i^*$ , then it will join the BIT network at time  $t_1$  simply because it benefits more from the inherent value of BITs than it would by staying in the old standard ( $i > \tilde{i}$ ), or because it is the first actor anticipating that future countries will follow the lead ( $i^* > i > \tilde{i}$ ). For the first group, the inherent value of BITs is significant enough to justify the change to the new standard. For the other, network effects are essential: “[t]hese types start the bandwagon rolling, but if it turns out that the other firm [country] was of a type below  $\bar{i}$  (so that their lead is not followed), they regret their decision *ex post*.”<sup>97</sup>

Second, a country may join the BIT network at time  $t_2$  after seeing that other countries have joined it ( $\bar{i} \leq i < i^*$ ). Here again, it is possible to identify two different groups. One is comprised of countries that switch to the new standard but would have preferred that everybody stayed in the old one ( $\bar{i} \leq i < i^0$ ), and the other, of countries that find themselves better off with the new standard ( $i^0 < i < i^*$ ). The former group is of particular importance, because it represents countries that switch if and only if the other country also switches, yet would have preferred that the new technology had not come

<sup>95</sup> *Id.* at 77, proves formally that  $B^{i^*}(1,Y) < 0$  and  $B^{i^*}(2,Y) > 0$ .

<sup>96</sup> *Id.* at 79.

<sup>97</sup> *Id.* at 79.

along.<sup>98</sup> “If polled about their intentions *ex ante*, they would vehemently claim that they would not switch even if the other switched.”<sup>99</sup> More specifically, they would try to give the appearance of being a country with preferences such that  $i < \bar{i}$ , in order to dissuade the others from switching.

Third, a simpler explanation exogenous to this model should not be rejected. Basic changes in domestic political preferences may increase the value of  $i$ , to the point that a previously recalcitrant country finds itself under values of  $i$  in which it will sign BITs — from below  $\bar{i}$ , to above  $\bar{i}$ , or even above  $i^*$ ). The experience of China and Eastern Europe in the 1980s proves that a country may jump from  $i < \bar{i}$  to  $i > i^*$ . In fact, as it was already said, it is difficult to deny that the emergence of the BIT generation during the late 1980s and early 1990s is indisputedly linked with the fall of the Soviet Union and consequently the Communist Bloc. In other words, the value of  $i$  increased for the entire world.

It must be acknowledged that it is difficult, even impossible, to know which of the previous reasons explains why a particular country began or did not begin to sign BITs. Nevertheless, the bandwagon effect model remains a valid one. Crucially, it provides an explanation of why countries that would have preferred to remain in full control of their domestic legal system and institutions — and therefore, opposing any change in customary international law and any attempt to create a multilateral treaty on investment — were forced by circumstance to join the BIT network.

One of the main advantages of this model is how helpful it is in providing answers to efficiency questions. Here, I use the term efficiency in its Kaldor-Hicks version. The movement away from domestic law plus customary international law toward a BIT network, in order to be considered a Pareto-superior movement, would require that all countries should have  $i > i^0$ , a condition obviously too strong to exist in reality. The analytic structure of Farrell & Saloner demonstrates that this movement might or might not be efficient from the perspective of developing countries. It is certainly possible that winners won more than what losers lost. But it is also possible that losers lost more, and that therefore, it would have been better for the entire group to stay with the old standard. Ultimately, the solution is empirical in nature, and would require us to know the values of  $i$  for all countries.<sup>100</sup>

It is worth noting that the movement from domestic law plus customary international law to BITs may have been inefficient even without having resulted from a prisoner’s dilemma. In network effect terms, this is a case of “excess momentum.”<sup>101</sup>: “It is possible that the switch will be made even though the sum of the benefits is negative. This occurs when one of the firms [countries] favors the switch and, although the other opposes it strongly, the latter prefers switching to remaining alone with the old technology.”<sup>102</sup> However, this is only a mere hypothesis, not a necessary result. In the case of BITs, the empirical answer would not only require us to know all values of  $i$ , but

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<sup>98</sup> *Id.*

<sup>99</sup> *Id.*

<sup>100</sup> Indeed, the model of Bubb & Rose-Ackerman, *supra* note 89, 10, in contrast to the model of Guzman, shares this feature: “The model makes no assumption that capital-importing countries ended worse-off in the full or partial BIT equilibria relative to the state of the world without any BIT signed”.

<sup>101</sup> Farrell & Saloner, *supra* note 56, 79.

<sup>102</sup> *Id.* at 78-9.

also to know the outcome regarding an important network effect: how favorably or unfavorably the BIT jurisprudence will crystallize with respect to foreign investors.

Following the same analysis, we can now invert the roles and compare the BIT network — now the current standard  $X$  — with a potential new standard  $Y$ . One might envision developing countries meeting around the table (even as a very small group), creating a new BIT-like-*minus* treaty with provisions more favorable to them than actual BITs, and then proposing it to the rest of the world. Why, then, has this not come to pass? Aside from the reality that developing countries lack the bargaining capacity to impose such a standard on developed countries, the answer may be in part that developing countries are prone to a situation of “excess inertia,”<sup>103</sup> defined as a situation “that impedes the collective switch from a common standard or technology to a possibly superior new standard or technology.”<sup>104</sup>

If two countries belong to the area where  $i^0 \leq i < i^*$  — area where  $B^i(2, Y) > 0$  — “the switch will not be made, although it would have been made in a world of complete information and although both firms [countries] would then be better off. . . *The intuition is clear. Both firms [countries] are fencesitters, happy to jump on the bandwagon if it gets rolling but insufficiently keen to set it rolling themselves.*”<sup>105</sup> This result occurs even more in the case where one country fits the previous description, but the other is located in the area  $\bar{i} \leq i < i^0$  — area where  $B^i(2, Y) < 0$ . In some of those cases, the sum of the benefits may be positive, and therefore the switch — if it had occurred — would have been efficient from a collective perspective.<sup>106</sup>

If this account is correct, network effects and the concept of excessive inertia would explain at least two mysteries of the BIT generation. One the one hand, why developing countries rushed to join the BIT network during the 1990s, more than 30 years after the program was created.<sup>107</sup> On the other, why developing countries strongly opposed abandoning domestic law plus customary international law, and why they have rejected the idea of any multilateral investment treaty.

Indeed, as shown earlier, network effects explain why an important group of countries — those whose  $i$  is such that  $\bar{i} < i < i^*$  — prefer to stay during time  $t_1$  with the old standard (here domestic law plus customary international law), and switch to BITs only after a reasonable number of countries have already concluded such treaties. Note that there is an important subgroup of countries that switch — those whose  $i$  is such that  $\bar{i} < i < i^0$  — who would have ideally preferred to remain permanently with the old standard, rather than to switch to the new one.

Then, putting aside the fact that the OECD Multilateral Agreement on Investment (MAI) failed mainly due to disagreement among developed countries as well as

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<sup>103</sup> *Id.* at 78.

<sup>104</sup> *Id.* at 71.

<sup>105</sup> *Id.* at 78 (emphasis added).

<sup>106</sup> *Id.* at 78.

<sup>107</sup> Bubb & Rose-Ackerman, *supra* note 89, 11, recognize how problematic this fact is for all theories that attempt to explain the emergence of the BIT generation: “An empirical puzzle outside the framework of our model is the timing of the sudden increase in BIT signings that occurred in the 1990s. Although the first BIT was signed in 1959, by the end of 1989 there were only 385 BITs in the world economy. However, from 1990 – 2004 almost 2400 BITs were signed worldwide”.

developing countries' nonparticipation in the negotiations,<sup>108</sup> excessive inertia proves that it may not be in the best interest of any individual state to advance or to ascribe to a new standard, be it bilateral or multilateral, until enough countries have already done so (unless the new standard has enough substantial inherent benefits). There may be individual states "*happy to jump on the bandwagon if it gets rolling but insufficiently keen to set it rolling themselves.*"<sup>109</sup>

Countries do not abandon a bandwagon treaty, because they are "reluctant to give up the bandwagon benefits that they currently enjoy."<sup>110</sup> Uncertainty about whether other users will follow the same path impedes them from changing to a more efficient standard, or even making an effort. Once the extremely high organizational and transactional costs of concluding a new bilateral or multilateral treaty are taken into account (particularly when countries with  $i < \bar{i}$  are also at the table), the failure to reach such a treaty should be clear.<sup>111</sup>

#### 4. Evidence of the BIT Generation as a Virtual Network

##### *a. Four structural arguments*

There exists evidence to support the network account of the BIT generation. I will begin by presenting four structural arguments. First, all BITs signed from 1959 up until today, though not identical, have very similar substantive provisions. The four most important substantive provisions of modern BITs — expropriation with compensation, fair and equitable treatment, national treatment, and most favored nation — appeared as early as the two first years of the network's existence (1959-1961).

The wording of these provisions remains relatively consistent across treaties. For instance, according to Wälde, the fair and equitable treatment clause is "a standard that is repeated, more or less identically, in most of the other over 2000 investment treaties in force at present."<sup>112</sup> Furthermore, any small difference in scope and effect may even end up be erased by the application of the MFN clause itself.<sup>113</sup> Hence, there has been a clear convergence toward a "non cooperative standard,"<sup>114</sup> one created very early in BIT history.

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<sup>108</sup> M. SORNARAJAH, *THE INTERNATIONAL LAW OF FOREIGN INVESTMENT* 291 ss (2004). *See also*, David Singh Grewal, *Network Power and Global Standardization: The Controversy Over the Multilateral Agreement on Investment*, 36 *METAPHILOSOPHY* 128 (2005).

<sup>109</sup> Farrell and Saloner, *supra* note 56, 78 (emphasis added).

<sup>110</sup> ROHLFS, *supra* note 50, 43.

<sup>111</sup> Bubb & Rose-Ackerman, *supra* note 89, 13, reach a similar conclusion: "Negotiating and concluding a MAI is a costly process. As the surplus achievable by a MAI narrows, it is less likely that countries will be willing to bear the transaction costs of creating a MAI."

<sup>112</sup> *International Thunderbird Gaming Corporation v. Mexico* (UNCITRAL ad-hoc case), Award (Jan. 26, 2006), separate opinion, para. 25.

<sup>113</sup> I say "may be erased" and not "are erased" because the proper scope and reach of the MFN clause in BITs is a contested subject in investment law jurisprudence.

<sup>114</sup> Farrell & Saloner, *supra* note 56, 72 ("One of the clearest features of noncooperative standards setting is its bandwagon quality. When compatibility is an important consideration for a firm setting its product specifications, early movers can influence later movers' decisions."). *Id.* at 72 n.5 ("To be clear, what we have in mind is that those producers who adhere to the standard do so purely because others do so. There is

Second, this “standard” very much resembles the legal structure of Constitutions: it contains *extremely* open-ended and ambiguous provisions quite wide in scope, which do not provide immediate answers for resolving cases. As one BIT tribunal has said, “The Article 1110 [of NAFTA] language is of such generality [the expropriation clause] as to be difficult to apply in specific cases.”<sup>115</sup> Another held that “the exact content of this standard [fair and equitable treatment] is not clear.”<sup>116</sup>

BITs are, in a sense, concise *Economic Constitutions* that apply to foreign investors. Because the resolution of cases depends on the jurisprudential developments among international tribunals, the ultimate payoff of BITs, depends not so much on the text of already concluded BITs but on the interpretations adopted for the several awards which we are just beginning to see.<sup>117</sup> As with domestic Constitutions, which are essentially linked to present and future judicial interpretation, BIT provisions are more likely to have network value than inherent value. Of course, as Sweet Stone demonstrates, for this to be the case *precedents* must be at least somewhat valued in BIT adjudication. And the lack of a central authoritative Appellate Body in BIT law, though slowing the impact of network effects, does not completely erase them.

Third, BITs represent a suboptimal equilibrium from the perspective of investors. If BITs are the product of competition among developing countries, that competition still did not erode all rents for developing countries. As I have shown, there were alternatives even more costly. Those included what I have called “BIT-like-*plus* treaties,” that is, treaties that could have offered more convenient standards to foreign investors — as the U.S. Friendship, Commerce and Navigation (FCN) program — and tailor-made contracts containing ICSID clauses, that would fully extract all rents. In other words, for investors, BITs are not necessarily the most efficient result of a race to the top.<sup>118</sup> Indeed, in 1990, when there wasn’t any BIT jurisprudence, Vagt commented that tailor-made contracts were much preferable from the perspective of the investor:

A priori it would seem that such an agreement [BIT], with a clause providing for resort to the International Court of Justice or an ad hoc international tribunal, would be comforting to the investor. One does have the suspicion that specific investor-host contracts would be better at addressing the specific problems that worry that particular investor.<sup>119</sup>

Fourth, the historical pattern of BITs perfectly fits the S-shape diffusion curve of network effect products.<sup>120</sup> The period from 1959 to 1986-1988 corresponds to the stage at which the network had not yet reached its critical mass. In that period, only countries that strongly valued BITs, and for whom the sole inherent benefits outweighed all sovereignty costs, concluded these kind of treaties.<sup>121</sup> It is worth noting that during this period, the predominant BIT did not have investor-state arbitration, therefore had much lower sovereignty costs. After the critical point was reached — sometime between 1986

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neither a standard-enforcing authority nor a system of binding though voluntary contracts to adhere to standards, though both of these possible institutions would be interesting to analyze.”)

<sup>115</sup> *Marvin Feldman v. Mexico*, ICSID Case No. ARB(AF)/99/1, Award, (Dec. 16, 2002), para. 98.

<sup>116</sup> *Genin v. Estonia*, ICSID Case No. ARB/99/2, Award, (June 25, 2001), para. 367.

<sup>117</sup> The first BIT case award is from 1990: *Asian Agric. Prod. Ltd. v. Sri Lanka*, ICSID Case No. ARB/87/3, Award, (June 27, 1990), para. 77.

<sup>118</sup> Or of a race to the bottom (where bottom is from the perspective of developing countries)

<sup>119</sup> *Id.* at 112 (emphasis added).

<sup>120</sup> See DIXIT & NALEBUFF, *supra* note 59, 231.

<sup>121</sup> ROHLFS, *supra* note 50, 23-24.

and 1988 — BIT development indicates a pronounced bandwagon roll. As for other network products, once a critical mass of users is reached, the effect may in fact be almost unstoppable.<sup>122</sup> It seems that the incorporation into the BIT program of China, Russia, and former Communist countries played an enormous role in reaching that critical mass. Of course, the U.S.’s adoption of the BIT program also highly influenced this outcome as well.

*b. Weak Competition among Countries for FDI*

In addition to the structural arguments, there is evidence of a more precise nature that supports the network theory. To make it more concrete, I would like to illustrate some points using Chile as a case study. The first issue is that, as required by the network effects theory, there exists a “community of interests” among players.<sup>123</sup> Following the logic of Guzman and GES, it is undeniable that there is a group of developing countries interested in attracting FDI, investments which presumably must be obtained from a common pool controlled by the investors of developed countries. Again, the assumption here is only that of “weak” competition.

In the case of Chile, competition to attract FDI did in fact play an important role, at least judging from the rhetoric used by the dominant coalition to sell the ICSID Convention and the first BITs to congressmen at the beginning of the 1990s. In fact, at the time there were special concerns about the movement toward economic liberalization in formerly Communist European countries, as well as the rest of Latin America.<sup>124</sup> Chile, as one of the first countries to liberalize its economy, which by mid-1980s had already demonstrated commitment toward property rights via domestic constitutional law, was losing its competitive edge at the time.

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<sup>122</sup> Nicholas Economides & Charles Himmelberg, *Critical Mass and Network Size with Application to the US Fax Market*, available at <http://raven.stern.nyu.edu/networks/95-11.pdf> (last visited Jan. 6, 2006).

<sup>123</sup> ROHLFS, *supra* note 50, 21.

<sup>124</sup> The discussion in the Chilean Congress constitutes clear evidence of the importance that both the President of the country and legislators attached to competition among developing countries. See the following documents relating to the discussion ICSID Convention and the first BIT to be signed by Chile: (1) *Mensaje de Su Excelencia el Presidente de la República con el que inicia un proyecto de Acuerdo que aprueba el Convenio sobre Arreglo de Diferencias Relativas a Inversiones entre Estados y Nacionales de Otros Estados*, Senado, Sesión 37<sup>a</sup>, martes 12 de marzo de 1991, Legislatura 321<sup>a</sup> Extraordinaria, 3574-75: “[V]arios países de América Latina están tratando de salir de las dificultades económicas y políticas que los afectaron en la década pasada. Estos hechos hacen prever que la competencia internacional por atraer capitales extranjeros se hará cada vez más difícil y que nuestro país deberá esforzarse para mantener los índices de inversión extranjera alcanzados. Una condición básica para continuar atrayendo a los inversionistas es que Chile no pierda ventajas frente a otros países competidores. En este orden de ideas, el Gobierno ha reestructurado la postura de Chile respecto de tratados que tienen por propósito la protección de inversiones extranjeras entre los Estados signatarios. . .”. (2) *Discusión General*, Senado, Sesión 39<sup>a</sup>, miércoles 20 de marzo de 1991, Legislatura 321<sup>a</sup> Extraordinaria, 3950 y ss., where Senator Navarrete said: “No obstante, en los últimos dos o tres años, el escenario mundial ha experimentado cambios importantes que podrían afectar el flujo de capitales extranjeros hacia nuestro país. La competencia para que los capitales extranjeros concurren a sus respectivos países se hace cada vez más compleja y difícil. . .” (*id.* at 3850) and Senator Urenda: “Cabría sí destacar, como lo señala el Mensaje de Su Excelencia el Presidente de la República, que en este momento hay en el mundo una gran competitividad por atraer recursos externos. La apertura de la Europa del Este; los cambios en las políticas económicas de Latinoamérica, y aun el despertar de África y los cambios que se producen en Sudáfrica, significan que hay muchos países que hoy tienen interés en atraer capitales extranjeros” (*id.* at 3852).

It must be noted once more that not all developing countries have been constant players in this competition. Indeed, during the period that runs from 1959 to the mid-1980s, and especially during the period when support of CERDS was high, several countries were simply not interested in attracting FDI. Instead, they were involved in import substitution industrialization policies and were reluctant to allow foreigners to own and control any fraction of the national economy. Ideology and strong political opposition to liberalization and FDI — i.e. low values of  $i$  — were real barriers that impeded many countries from joining the BIT network for a good portion of the period from 1959 to 1986-1988.

*c. Identifying the positive externalities of the BIT system*

As a virtual network, BITs must display both inherent value and network effects. The first criterion appears to be straightforward. By signing BITs, countries commit themselves to protecting foreign property rights. This commitment signals their credibility to investors of the contracting party, and to a lesser extent, investors of other developed countries. The object is, of course, to reduce the cost of capital, and therefore to increase FDI.<sup>125</sup> But note again that the strength of this commitment depends at least partially on network effects: investors will rely on BITs only when they receive assurance that the system works, and the reliability of that system depends — as I argue here — on the number of countries joining the system.

With respect to inherent value, it should be noted that BITs do not replace domestic law and institutions, so their real effectiveness in reducing the cost of capital — although intuitively correct — is far from being obvious. From an empirical perspective, the extent to which concluding BITs reduces the cost of capital in countries that lacks political and legal domestic stability is still not very clear. In fact, there may well exist a paradoxical situation in which those countries that are more willing to conclude BITs — those unable to send the appropriate signals of commitment through domestic institutions and constitutionalism — are the ones for whom BITs are less effective.<sup>126</sup>

What then, exactly, are the network effects of BITs? As was suggested earlier, it is possible to discover the same network externalities previously identified by Klausner and Stone Sweet in other contexts. Most of these effects derive from the fact that BITs are worded using *extremely* open-ended and wide-scope terms.

First, there are clearly interpretative externalities. Although arbitral awards applying to BITs do not formally carry precedential value for future cases, in practice they have strong persuasive force (as it occurs in continental constitutional law, and also in European law). In any case, in the absence of a formal doctrine of *stare decisis* in international law, we can justly speak about the existence of *soft precedents* in BIT

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<sup>125</sup> See Guillermo Aguilar-Alvarez & William W. Park, *The New Face of Investment Arbitration: NAFTA Chapter 11*, 28 YALE J. INT'L L. 365, 368 (2003).

<sup>126</sup> See Mary Hallward-Driemeier, *Do Bilateral Investment Treaties Attract FDI? Only a Bit. . . and They Bite*, (June 2003), World Bank Policy Research Working Paper No. 3121, available at <http://ssrn.com/abstract=636541>, at 23, and Eric Neumayer & Laura Spess, *Do Bilateral Investment Treaties Increase Foreign Direct Investment to Developing Countries*, (May 2005), available at <http://ssrn.com/abstract=616242>, at 5.

law.<sup>127</sup> As Wälde points out in his separate opinion in *Thunderbird*, “while there is no formal rule of precedent in international law, such awards and their reasoning form part of an emerging international investment law jurisprudence.”<sup>128</sup> Similarly, Duprey remarks that this soft precedential value specifically permits “the establishment of a genuine arbitration case law specific to the field of investment.”<sup>129</sup> In the end, future precedents, on the whole, will reduce the high uncertainty of the BIT standard.

A crucial point here is that the beneficial character of interpretative network effects depends on whether future BIT jurisprudence will stabilize at levels of protection of investments which are reasonable. To simplify, I envision two types of BIT jurisprudence crystallization. The first is *the good case*, that I will call *BITs-as-developed countries-constitutional law-and-no-more*, in which BIT jurisprudence recognizes standards of protection of investments only as high as those which Courts in developed countries apply to their own nationals. At the other end of the spectrum, *the bad case*, that I will call *BITs-as-gunboat-arbitration*,<sup>130</sup> corresponds to a jurisprudence that convert BIT into some kind of insurance for foreign investors, where all diminutions in value resulting from state action gives the latter the right to be compensated. Undoubtedly, when developing countries concluded BITs they expected *the good case*, to be achieved, though they might have anticipated *the bad case* as a possible scenario.

Second, it is highly probable that the same common practices that Klausner identifies in the corporate world will eventually infiltrate the BIT context. Developing countries will begin to treat BIT law as a new layer of the law which regulates state behavior. BITs will be assumed to fall under the jurisdiction of global constitutional and administrative law, and experts on foreign investment law will be consulted daily by states and firms about the compliance of regulatory reform and regulatory behavior with BIT law.

Third, the quality/price ratio of legal services — both during bargaining and implementation of treaties — may be substantially increased by having one BIT standard. Consider first the legal cost of bargaining and drafting. It is precisely the network effects of BITs that have enabled countries to sign thousands since 1990 without even discussing their terms. Probably the most dramatic — and amusing — example of this is the experiments conducted by UNCTAD. The organization puts several developing and developed countries into the same room for a short period of time, and asks them to

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<sup>127</sup> As one BIT tribunal explains, see *AES Corporation v. Argentine*, ICSID Case No. ARB/02/17, Decision on Jurisdiction (April 26, 2005), para. 31, “one may even find situations in which, although seized on the basis of another BIT as combined with the pertinent provisions of the ICSID Convention, a tribunal has set a point of law which, in essence, is or will be met in other cases whatever the specificities of each dispute may be. Such precedents may also be rightly considered, at least as a matter of comparison and, if so considered by the Tribunal, of inspiration.”

<sup>128</sup> *Thunderbird*, Separate Opinion, *supra* note 112, para. 15. See also, *Id.* at para. 16 (“While individual arbitral awards by themselves do not as yet constitute a binding precedent, a consistent line of reasoning developing a principle and a particular interpretation of specific treaty obligations should be respected; if an authoritative jurisprudence evolves, it will acquire the character of customary international law and must be respected.”).

<sup>129</sup> Duprey, *supra* note 7, 276-77.

<sup>130</sup> I am following the classic characterization of diplomatic protection as “gunboat diplomacy.”



conclude treaties.<sup>131</sup> At the end of the meeting, thanks to network effects, they usually conclude a fair number of them.

The cost of research and interpretation are also reduced when a term is widely used. Lawyers can invest in this transaction-specific asset — knowledge of BIT law — and are equipped to deal with those rules on a long-term basis.<sup>132</sup> More treatises, books and law journal articles are published every year on the topic of BITs. More seminars, professional gatherings, and even complete courses are dedicated to investment law in leading law schools all over the world. Top law firms are increasingly developing new departments and practices focused on investment arbitration.<sup>133</sup>

In the same vein, there is an increasing number of experienced arbitrators coalescing around a single body of international investment law. The accumulated expertise on BIT law should help to decide cases more efficiently and in a considered way (with the caveat expressed before, i.e. the *good case* and the *bad case*). Furthermore, the expertise which both lawyers and arbitrators can apply to an “average” BIT can result in a new BIT “litigation market.”<sup>134</sup>

Fourth, marketing externalities are extremely relevant in the case of BITs. Countries wish to attract foreign investors, and the latter must analyze and price political and regulatory risks. Treatises phrased in idiosyncratic terms will be priced higher than those using the generally accepted standard of BITs. Once a certain number of BITs are in existence, the cost of capital may be lower when adopting a BIT, rather than a different treaty. This may be true even in the event that some of those idiosyncratic provisions are, on their face, more favorable to investors.<sup>135</sup> Probably the best example is the case of political risk insurance. It seems that, in some cases, political risk insurance premiums have been priced lower for countries that have signed a BIT with the investor’ home state.<sup>136</sup>

In Chile, it was precisely this externality that was pivotal in their decision to join the BIT network. In the *travaux preparatoire* of the Statute that approved the ICSID

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<sup>131</sup> See e.g. [http://www.unctadxi.org/templates/Event\\_149.aspx](http://www.unctadxi.org/templates/Event_149.aspx) (last visited Apr. 23, 2006), where UNCTAD explains its strategy: “UNCTAD organized BITs signing ceremonies during UNCTAD X in 2000 and the LDC III Conference in Brussels in 2001. On the occasion of UNCTAD XI, the Secretariat organized a high-level signing ceremony for Bilateral Investment Treaties in Sao Paulo, Brazil on 15 and 16 June 2004. Six bilateral agreements were signed at the ministerial level by seven countries (Benin, Chad, Guinea, Lebanon, Lesotho, Mauritania and Switzerland). The BITs were signed by and between: Benin and Lebanon, Chad and Lebanon, Chad and Guinea, Guinea and Lebanon, Lebanon and Mauritania, Lesotho and Switzerland.” See also, [http://www.unctadxi.org/templates/Event\\_149.aspx?selected=context](http://www.unctadxi.org/templates/Event_149.aspx?selected=context) (last visited Apr. 23, 2006)..

<sup>132</sup> This argument is taken from Roberta Romano, *supra* note 83, 275-76, who explains the impact of legal counsel in helping Delaware dominate the corporate charter competition.

<sup>133</sup> As STONE SWEET, *supra* note 10, 41 remarks, “we have good reasons to think that the development of legal institutions will provoke the development of networks of legal actors specializing in that area of the law. For these actors, existing argumentation frameworks establish the basic parameters for action.”

<sup>134</sup> SHAPIRO & SWEET, *supra* note 73, 96 & 294 (2002).

<sup>135</sup> This paragraph assumes that the inherent value of an alternative treaty is not superior to the inherent value plus network effects of BITs.

<sup>136</sup> There is one international institution that provides insurance, MIGA (Multilateral Investment Guarantee Agency), several governmental agencies that provide subsidized insurance to their citizens (OPIC in the U.S., COFACE in France, ICEX in Spain, U.K. Trade & Investment, Netherlands Foreign Investment Agency, Germany’s KfW Bankegruppe), and also, private insurance companies (Lloyd’s of London, Citicorp International Trade Indemnity, Pan Financial, etc.).

Convention, the *mensaje* by which it was introduced by the Chilean President into the Senate cited this particular instance of externalities as one of the most important factors that should move Chile to join the BIT network: “[concluding BITs and the ICSID Convention] will permit foreign investors to obtain lower insurance premiums than those actually obtained in the normal situation [without a BIT]. Therefore, the accession of Chile to this type of treaties would permit the country to keep itself in an advantaged situation in order to attract foreign investment.”<sup>137</sup> After interviewing the former chief legal officer (*Fiscal*) of the Chilean Agency that studied and implemented foreign investment policies at the time — *Comité de Inversiones Extranjeras* — I can corroborate the fact that lower premiums were greatly relevant to Chile’s decision to join the BIT system.<sup>138</sup>

## 5. Providing answers for critical questions

The network model of the BIT generation explains several issues that Guzman and GES overlook or reject, both in the first stage — 1959 to late-1980s — and in the second stage — late-1980s to today. As network theories predicted, during the first stage only “initial users” adopted the standard.<sup>139</sup> Only developing countries that were highly interested in attracting FDI, and those that considered the inherent value of BITs to be higher than the sovereignty costs involved in the operation, concluded BITs. Still, it must be kept in mind that on the one hand, during this period, developing countries embarked on BIT programs only concluded a small number of BITs; and, on the other hand, the sovereignty costs of signing BITs were much lower than today since most treaties did not provide investor-state arbitration.

This first stage fits reasonably well, in various degrees and cases, with all the theories that Guzman and GES reject in their argument for a competition model. For example: a) The cases of Korea and Malaysia may well explained by “enlightenment theories”, as developing countries that understood that they would be better off under an institutional setting of free market and strong property rights; b) many of the Asian and African countries that signed treaties with Germany and Switzerland from 1959 to 1979 exemplify “power-based” or “coercive” theories, or perhaps maybe more accurately, of trade-off theories (in which developing countries sign BITs to obtain specific benefits from developed countries). Not surprisingly, this was indeed the explanation provided by

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<sup>137</sup> *Mensaje de Su Excelencia el Presidente de la República con el que inicia un proyecto de Acuerdo que aprueba el Convenio sobre Arreglo de Diferencias Relativas a Inversiones entre Estados y Nacionales de Otros Estados*, Senado, Sesión 37<sup>a</sup>, martes 12 de marzo de 1991, Legislatura 321<sup>a</sup> Extraordinaria, 3574, 3575: “Los tratados de protección de inversiones tienen dos ventajas para el inversionista: primero, representan una condición para que operen los mecanismos de seguros públicos de inversión de sus respectivos países. Esto último permite al inversionista acceder a pólizas de seguro para su inversión a un costo menor del que deberían afrontar normalmente. De este modo, la incorporación de Chile a este tipo de tratados permitiría mantener al país en una situación ventajosa para atraer inversión extranjera. En este aspecto Chile está concediendo actualmente una ventaja en favor de aquellos países que sí han suscrito estos tratados”.

<sup>138</sup> Interview with Roberto Mayorga, Former *Fiscal* of *Comité de Inversiones Extranjeras*, in Santiago, Chile (Nov. 9, 2005). In Chile, the decision whether or not to join the BIT network was assessed by the *Comité de Inversiones Extranjeras*.

<sup>139</sup> ROHLFS, *supra* note 50, 23 ([the initial user set] corresponds to “individual entities and small groups (mainly pairs) of entities that that (sic) can justify purchasing the service, even if no other purchase it.”).

Rudolf Dolzer — a prominent scholar in the field — in the early 1980s<sup>140</sup>, and still provided by Salacuse and Sullivan in 2005.<sup>141</sup>

During this stage, countries that were interested in increasing the inflow of FDI — though not all of them, as already explained — may have regarded the conclusion of BITs by competitor states as harmful. This corresponds to the network effects of domestic law plus customary international law. If BITs had inherent and/or network value, then countries signing BITs (or at least some of them) were able to lower their cost of capital and therefore, to redirect FDI from the common pool. One country's decision to abandon the old standard of domestic law plus customary international law, and to adopt the new one of BITs, produced negative externalities in the rest of the group. Nevertheless, for this group of countries, even after losing a fraction of FDI due to other countries' defection to the BIT system, the sovereignty costs of concluding BITs outweighed any possible extra investment that they would have derived from BITs.

There are three aspects of the first stage of the BIT system that reveal its network nature. First, for countries concluding BITs, the program might have appeared visibly less expensive in terms of sovereignty costs than its two main competitors: the U.S. FCN program and the original understanding of the ICSID Convention (i.e., contracts with ICSID clauses). Not surprisingly, BITs outperformed both of them.

Second, the BIT programs launched by Germany in 1959, and Switzerland in 1960, clearly served as a focal point for countries who later wanted to launch BIT programs, and also to signal their commitment to property rights and economic liberalization. Focal points are extremely relevant to network products. As Klausner explains, "the factors that make a contract term focal are matters of perception rather than logic."<sup>142</sup> This includes "historical accidents" of all types. The original German and Swiss BIT model was an excellent template: extremely brief, reasonable and open-ended provisions, and therefore relatively easy to negotiate.

Third, by the mid-1980s and even the late 1980s, there were doubts — even among experts — about whether this type of treaty would survive in the future. This proves that by that time, the breaking point of the bandwagon effect had not yet been reached, or if so, without anyone's knowledge. The following comment made by the UN Centre on Transnational Corporations in 1988 is more than clear on this point:

[I]n spite of their growing popularity, bilateral investment treaties remain a limited phenomenon. . . Nevertheless, it is obvious that the present number of bilateral investment treaties remains far below the number of treaties that could be concluded by all the countries concerned with such investment relations, if they were prepared to do so; and although the number of bilateral investment treaties will no doubt continue to increase in the coming years, it is doubtful whether the gap [between the actual number and the number of treaties and could be signed] will ever be closed.<sup>143</sup>

The second stage of the BIT network is the stage in which the bandwagon effect occurred. As normally occurs in network effect products, once the critical mass of users has been attained, the effect may be irreversible. With respect to the BIT context, it seems

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<sup>140</sup> See Rudolf Dolzer, *New Foundations of the Law of expropriation of Alien Property*, 75 AM. J. INT'L L. 553, 567 (1981).

<sup>141</sup> Salacuse & Sullivan, *supra* note 13, 77-78.

<sup>142</sup> Klausner, *supra* note 47, 800.

<sup>143</sup> UNITED NATIONS CENTRE ON TRANSNATIONAL CORPORATIONS, *BILATERAL INVESTMENT TREATIES* 105-106 (1988).

that the addition to the BIT program of China and the former Communist countries provided for that critical mass. These countries needed to send a clear signal to the world that, at least in their relations with foreign investors, they had abandoned the communist political and economic models and were now ready to embrace property rights and contracts.<sup>144</sup> They expected the inherent value of BITs to help them reduce the cost of capital; accordingly, they began using BITs that contained investor-State arbitration provisions.

When BITs began to be widely accepted, the calculus for developing countries changed. Note that in the second stage, as well as the first one, this model assumes that developing countries were rational actors.<sup>145</sup> For those wanting to attract FDI, BITs now offered not only the original inherent value of these treaties, but also network benefits. If they assumed that the network effects would be positive, as it is very probable that they did, then for many developing countries the net value of joining the BIT network — BIT inherent plus network benefits less sovereignty costs — may have begun to be positive. For others, it may have been better to join the BIT network than to remain isolated by the old standard of domestic law plus customary international law.

It should be reiterated that there was and still is great uncertainty about the main variable of this network calculus: whether the jurisprudence will crystallize at the equilibrium to which I have referred as *the good case (BITs-as-developed countries-constitutional law-and-no-more)*. The uncertain character of BIT jurisprudence is usually overlooked by commentators. The first BIT case was decided as recently as 1990.<sup>146</sup> That same year, Vagts commented that “BITs have not yet been put to the test so that we do not really know how much they enhance the security of foreign investment.”<sup>147</sup> Still eight years later, UNCTAD affirmed that “it is nevertheless remarkable that, after nearly 40 years of BIT practice, information on the experience with the application of BITs still remains rather sketchy and anecdotal.”<sup>148</sup> But given the apparently reasonable character of the main BITs provisions — ones that resemble the economic chapters of developed countries’ Constitutions — capital importing states during the 1990s might have assumed that the odds favored *the good case*.

Moreover, during this second stage, countries who did not conclude BITs may have begun to experiencing two adverse effects. First, they may have started to lose FDI from the common pool as it was redirected to countries concluding BITs; second, they may have been punished for sending the wrong message to the “market.” As Beth Simmons explains, “as more countries commit themselves to a rule, non-commitment

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<sup>144</sup> The signaling function of constitutional law for developing countries is studied by Daniel A. Farber, *Rights as Signals*, 31 J. LEGAL STUD. 83, 95-97 (2002), and those arguments can be transposed to international law. In general, for the case of the international law, see Beth A. Simmons, *Money and the Law: Why Comply with the Public International Law of Money*, 25 YALE J. INT’L L. 323 (2000).

<sup>145</sup> In the same sense, see Francisco Orrego Vicuña, *Keynote Address: Carlos Calvo, Honorary NAFTA Citizen*, 11 N.Y.U. ENVTL. L. J. 19, 30 (2002)

<sup>146</sup> *Asian Agric. Prod. Ltd. v. Sri Lanka*, ICSID Case No. ARB/87/3 (June 27, 1990).

<sup>147</sup> Detlev F. Vagts, *Protecting Foreign Direct Investment: An International Law Perspective*, in FOREIGN DIRECT INVESTMENT IN THE 1990S. A NEW CLIMATE IN THE THIRD WORLD 112, 112 (Cynthia Day Wallace ed., 1990).

<sup>148</sup> UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT, *supra* note 2, 141. Previously, it affirmed that “little is known about how individual protection standards have been applied in practice and, and there are few judicial or arbitral authorities to shed light on this aspect.” (*Id.* at 140).

sends a strong negative signal.”<sup>149</sup> Been & Beauvais recognize the same effect: “signaling in a competitive market can have a ‘snowball’ effect: As more countries commit themselves to a particular standard, ‘holdouts’ are more likely to develop a negative reputation, making it more difficult to attract investment”.<sup>150</sup> But Farber is the one who explains this effect with the greatest degree of precision, writing about constitutionalism in terms perfectly applicable to BITs:

[T]he collective surge by countries toward constitutionalism in regions like eastern Europe is also explainable on the basis of signaling. If no one else has adopted constitutionalism, failure to do so may not be particularly meaningful. When everyone is else in a region is adopting constitutionalism, however, failure to do so becomes a sharp negative signal. This signal is particularly important because other countries in the same region are likely to be in competition for the same sources of financial and human capital. Thus, being a holdout against a regional trend can be expensive, and as a result an entire region may shift suddenly into the constitutionalist column once a tipping point is reached.<sup>151</sup>

Finally, an important question must be addressed: how does this model explain the correlation (or lack of) between BITs and FDI? Studies to date have shown contradictory evidence for the correlation of BITs and FDI, most of them concluding that there is no correlation, or that it is very weak.<sup>152</sup> But these studies are only first efforts made to measure this correlation; as such, they acknowledge that their methodologies are a matter of great debate.<sup>153</sup>

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<sup>149</sup> See Simmons, *supra* note 144, 323.

<sup>150</sup> Vicki Been & Joel C. Beauvais, *The Global Fifth Amendment? NAFTA’s Investment Protections and the Misguided Quest for an International ‘Regulatory Takings’ Doctrine*, 78 N.Y.U.L. REV. 30, 120 (2003) summarizes this perspective: “signaling in a competitive market can have a ‘snowball’ effect: As more and more countries commit themselves to a particular standard, ‘holdouts’ are more and more likely to develop a negative reputation, making it more difficult to attract investment”.

<sup>151</sup> Farber, *supra* note 144, 96.

<sup>152</sup> There is only one study concluding that BITs fulfilled their expected objective: Neumayer & Spess, *supra* note 126, 27 (finding that “[d]eveloping countries that sign more BITs with developed countries receive more FDI inflows”, particularly in countries with poor institutional quality). *But see* the following for the non-clear-effect conclusion: Jennifer Tobin & Susan Rose-Ackerman, *Foreign Direct Investment and the Business Environment in Developing Countries: The Impact of Bilateral Investment Treaties*, Yale Law School, (May 2005), Center for Law, Economics and Public Policy, Research Paper No. 293, available at <http://ssrn.com/abstract=557121> (concluding that the relationship between BITs and FDI is weak): “BITs, by themselves, appear to have little impact on FDI”, *Id.* at 31; Hallward-Driemeier, *supra* note 126 (finding that BITs do not lead to increases in DFI); and Salacuse & Sullivan, *supra* note 13, 75 (finding a positive effect in U.S. BITs, but not in OECD countries’ BITs); and Peter Egger & Micheal Pfaffermayr, *The Impact of Bilateral Investment Treaties on Foreign Direct Investment*, 32 J. COMP. ECON. 788 (2004) (concluding that “BITs exert a positive and significant effect on real stocks of outward FDI” but that “the advantages of simply signing a BIT are inconsequential”, *Id.* at 801 and 790).

<sup>153</sup> Very recently, Jennifer Tobin & Susan Rose-Ackerman, *Bilateral Investment Treaties: Do They Stimulate Foreign Direct Investment?*, Yale Law School, Draft, (June 2006) (available at [www.upf.edu/dret/civil/clef/sra.pdf](http://www.upf.edu/dret/civil/clef/sra.pdf), last visited Aug. 23, 2006), after more detailed econometric analysis, have reached different conclusions than in their previous work. They summarized their conclusions in the following terms: “First, the number of BITs signed by a country (measured in various ways) has a positive effect on FDI in subsequent periods. Second, the total number of BITs in the developing world (also defined in different ways) has a positive effect on FDI in individual countries, indicating that there may be economies of scale in the global regime surrounding the growth of BITs. However, third, the interaction between these two variables is negative. This indicates that the marginal value of an extra BIT to a country

I should add here the following concerns. Comparing all BITs, without controlling for the type of BIT — i.e., whether they have investor-state arbitration provisions or not — could potentially lead to incorrect conclusions. Also, it will be interesting to see what results are obtained if we control for the inherent and network benefits of BITs. We still do not know if BITs really had inherent value; that is, if signing BITs could really reduce the cost of capital and induce FDI for countries with higher values  $i$  at a time when the BIT program was not popular (before reaching the necessary critical mass to set the bandwagon in motion, which occurred between 1959 and the late-1980s).<sup>154</sup>

Similarly, we still do not well understand the correlation between BITs' value, and the stability of domestic legal systems and institutions. One thing is clear: it is false to present the effectiveness of BITs as being mutually exclusive from domestic law.<sup>155</sup> BIT legal design does not replace domestic law and institutions, but rather controls them. As Reisman & Sloan assert, BITs require that developing countries “establish and maintain an appropriate legal, administrative, and regulatory framework” and “efficient and legally restrained bureaucracy.”<sup>156</sup> We therefore need to know which countries with high values of  $i$  could actually capitalize upon the alleged inherent value of BIT: all of them, or only those with well established legal systems and institutions? Only with more empirical information on inherent value will it be possible to effectively study the second stage of BIT history and network effects, and thus, the whole BIT system.

However, this network effect account of the BIT generation is problematic in terms of its possible verification or falsification as a theory. In network products, a standard may have been adopted for its focal properties. As Klausner explains, “the factors that make a contract term focal are matters of perception rather than logic.”<sup>157</sup> Therefore, if this model is correct, the more relevant factor in the adoption of BITs may have been developing countries' beliefs about inherent value and network effects in a particular case, rather than the empirical results that we can now show *ex post* about those benefits. In this respect, empirical results which show a low correlation between BITs and FDI do not necessarily falsify the theory.

### **Conclusions. Normative Implications of the Virtual Network Theory of the BIT Generation**

Undoubtedly, the theory advanced here requires more detailed empirical study. But I hope that I have been able to provide sufficient factual arguments for my belief that persuade the reader that a prisoner's dilemma model is an incomplete, and incorrect, picture of what occurred during the last 45 years of state responsibility for injury to aliens. There are collective action problems, but due to the non-simultaneous nature of

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falls the more BITs exist in countries competing for a limited pool of foreign direct investment. Thus, the marginal impact of the entry into force of an extra BIT falls as the number of world BITs increases.”

<sup>154</sup> Bubb & Rose-Ackerman, *supra* note 89, 7, establish their model assuming that “BITs do have a causal effect on foreign investment, as they enable host states to commit not to expropriate foreign investors.”

<sup>155</sup> The strict comparison should be between domestic law plus customary international law, and domestic law plus BITs.

<sup>156</sup> Reisman & Sloan, *supra* note 3, 117.

<sup>157</sup> Klausner, *supra* note 47, 800.

the game and the presence of network effects, the game scenario and its results vary considerably from the ones that that theory proposes.

The BIT generation, then, is depicted here as a virtual network of BITs. Because nearly all are worded in such similar terms, investors and countries are able to benefit from one single practice of international investment law. The most important aspect of these benefits is the formation of a single, unified body of BIT law. As illustrated, it is the anticipation of that future body of law by the relevant players that constitutes the bulk of network effects in this case, that gives BITs particular credibility as compared to more idiosyncratic and lesser known treaties. This is what ultimately moved all members of the network to adopt more or less the same standards.

In this conclusion, I would like to focus attention on the particular perspective that is being advanced here. The descriptive model defended in this paper has substantial implications for those normative questions which the emergence of the BIT generation raises. A theory in which competition leads capital-importing states to adopt the same standard treaty, containing no more than open-ended and reasonable provisions — a suboptimal equilibrium — appears much more favorable to developing countries than Guzman and GES's account, where countries erode all benefits in their race to attract investment.

Undoubtedly, when joining the BIT network, developing countries traded sovereignty for credibility. But as we have seen, this trade-off was made under essential conditions of uncertainty: as to whether the future BIT-case law would crystallize in what it may be referred as *the good case* — *BITs-as-developed countries-constitutional law-and-no-more* — or whether it would crystallize in what it may be referred as *the bad case* — *BITs-as-gunboat-arbitration*.<sup>158</sup> Even today, it is not possible to know which case ultimately prevails. BIT law remains open, and highly dependent upon the specifics of each case. But step by step, the jurisprudence is slowly crystallizing. The richness and complexity which characterizes the legal argumentation today would have been unheard of at the birth of the process ten years ago.

So, under a network effects theory there is still a place for the hope that the BIT generation will go down in history as a valuable experiment in global governance, which fosters a fair and just world order. By this I mean, following Slaughter, “a system of global governance that institutionalizes cooperation and sufficiently contains conflict such that all nations and their people may achieve greater peace and prosperity, improve their stewardship of the earth, and reach minimum standards of human dignity.”<sup>159</sup> My claim is that this goal can only be achieved when jurisprudence crystallizes according to what I have defined as *the good case*.

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<sup>158</sup> I am following the characterization of diplomatic protection as gunboat-diplomacy.

<sup>159</sup> ANNE-MARIE SLAUGHTER, A NEW WORLD ORDER 15 (2004).