The BIT Generation’s emergence as a collective action problem: prisoner’s dilemma or network effects?

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Abstract

This paper presents a new theory that explains why developing countries have been entering into Bilateral Investment Treaties (BITs) 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, a new theory may be presented: the BIT generation as a virtual network.

KEYWORDS: collective action problems, prisoner’s dilemma, network effects, bilateral investment treaty

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THE BIT GENERATION’S EMERGENCE AS A COLLECTIVE ACTION PROBLEM:

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By

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1. 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 2495.1 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.2 As a result, at the beginning of the 21st century, we are witnessing the development of a structural pillar of the new world order: the BIT generation.3

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The BIT generation is a network of treaties that are very similar, though not identical. The network grew from 265 treaties in mid-1987, to 700 in 1994, 1857 in 1999, 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 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 they also give original “constitutional” jurisdiction to arbitral tribunals, thereby replacing domestic courts.

The second, somewhat underreported feature of BITs is that they are all worded in more or less the same terms. As one French commentator

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5 Not many commentators have realized this fact. Among those who noted the similarity between BITs, see DOLZER & STEVENS, supra note 4, xii, 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). Already 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.”
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,” citing notions such as “fair and equitable treatment,” “expropriation,” “measures tantamount to expropriation,” “fork in the road,” and “umbrella clauses.” Similarly, Douglas points out that “the striking feature of this collection of model BITs [published by UNCTAD, models used by different States that Douglas considers a representative sample of all BITs] is that their formal layout and substantive content are very similar, often practically identical.” We have witnessed *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 [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.” We can thus see how, since the first arbitral award was rendered in 1990, BIT case law has gradually 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.”

This paper focuses on the descriptive side of the BIT revolution. Salacuse & Sullivan pose the relevant questions in very precise terms: “Why

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7 *Id.*


11 Duprey, *supra* note 6, 276-77.
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?"  

These questions are of particular importance for Latin America, a region that defended the Calvo Doctrine —developed by Andres Bello in 1832— and the Calvo Clause —a Latin American practice that actually predated Calvo— for more than 150 years. 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”.  

At present, Andrew Guzman has offered 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, EGS). In Guzman’s account, the current situation, in which 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 foreign direct investment (FDI), have all ended up worse off.  

This paper presents a different theory of what transpired in the last fifty years. While acknowledging the existence of competition between developing countries to attract FDI, as well as the problem of collective action, it disputes the idea that the BIT generation must be explained as a prisoner’s dilemma. This work claims, as some legal and game theory

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experts have also warned, that Guzman and EGS have identified the situation “too quickly with a prisoner’s dilemma.”

In fact, the BIT “game” differs from a prisoner’s dilemma in two key respects. First, it has a sequential/evolutionary nature, stemming from the fact that developing countries have been joining (and rejecting) the network at various times since 1959. Indeed, from 1959 on, developing countries have been constantly confronted with the decision of whether or not to adopt the BIT program. 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, a new theory emerges: the BIT generation as a virtual network.

The BIT system bears remarkable similarity to a sequential/evolutionary collective action game. The most notable of these similarities is the fact that the common language contained in BITs has become a de facto standard. As mentioned, over 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 that of a future BIT-case law will be created by arbitral tribunals) explain this de facto standardization. At the same time, the externalities support my most serious contention with Guzman and EGS’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 unanswered by Guzman’s and EGS’ 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?

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17 In fact, EGS, supra nota 15, 821, present evidence that the decision of whether or not to sign BITs is typically the decision of whether or not to adopt the BIT program, that is, the decision to conclude BITs on a systematic basis. I refer to this phenomenon as “joining the BIT network”.

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And, fourth, why did the standard BIT rules constitute a suboptimal equilibrium, i.e., why did States not erode all rents when concluding BITs?

This paper proceeds as follows. Section I presents Guzman’s and, to a lesser degree, EGS’ theory. Section II summarizes the two basic ideas underpinning 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 addressing the BIT generation must consider. The conclusions remark upon some of the normative implications of the new virtual network theory. In contrast to the prisoners’ dilemma model, this new theory posits that developing countries may actually end up better off.

2. The BIT Generation as a Prisoner’s Dilemma

The first BIT was concluded between Germany and Pakistan in 1959,18 and the ICSID Convention came into force on October 14, 1966.19 Both treaties came into being during the darkest days of “international minimum standards”20 and international arbitration,21 including the Hull Rule (“prompt, adequate, and effective compensation”).22 Yet, the BIT treaties and 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


20 There is ample literature that discusses the conflict between the “national treatment” standard and the “international minimum” standards. See the following classic works: Edwin M. Borchard, The Diplomatic Protection of Citizens Abroad; Or, The Law of International Claims 792 (1915), Edwin Borchard, The ‘Minimum Standard’ of the Treatment of Aliens, 33 Am. Soc’y Int’l L. Proc. 51, 55 (1939), Alwyn V. Freeman, The International Responsibility of States for Denial of Justice (1938), Clyde Eagleton, The Responsibility of States in International Law 107 (1928) y Harvard Law School (Research in International Law Series), The Law of Responsibility of States for Damage Done in Their Territory to the Person or Property of Foreigners (1929).


22 See the letter from Secretary of State Cordell Hull to the Mexican Minister of Foreign Affairs during 1938, reprinted in 3 G.H. Hackworth, Digest of International Law 655-65 (1940).
phenomenal pace at which BITs proliferated is already well-documented, and a good summary of it can be found elsewhere.\textsuperscript{23} I will simply present this graph as proof of the impressive rate at which BITs have been concluded in the last twenty years:

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{BITs_concluded_between_1959_and_2003.png}
\caption{BITs concluded between 1959 and 2003}
\end{figure}

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, 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\textsuperscript{24}—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 this game, “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,”\textsuperscript{25} 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.”\textsuperscript{26} 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.”\textsuperscript{27} In the end, “BITs increase global efficiency, [but] they likely reduce the overall welfare of developing states.”\textsuperscript{28}

In Guzman’s opinion, less developed countries [LDCs] face a prisoner’s dilemma. It is in the best interest of LDC, as a group, to reject the Hull Rule, but individually “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.”\textsuperscript{29} Assuming that the “market” for FDI is perfect, developing countries compete for larger portions of that FDI, and this competition comes at the expense of other developing countries (assuming a fixed pool of investment).\textsuperscript{30} In that highly competitive


\textsuperscript{25} Guzman, supra note 15, 643.

\textsuperscript{26} Id.

\textsuperscript{27} Id.

\textsuperscript{28} Id.

\textsuperscript{29} Id. at 666-667.

\textsuperscript{30} Id. at 670 and 674. He states this condition in the following terms: “[Guzman’s theoretical claims] are true only if the flow of investment into LDCs as a group is relatively insensitive to the terms on which that investment is made as compared to the flow of investment into a single developing country. In economic terms, the demand for resources of LDCs as a group must be relatively inelastic while the demand for the resources of a single country must be elastic” (Id. at 674-75).
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.”

By contrast, 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. However, “[t]he disadvantage of CERDS, however, is that there will be fewer investments because of the inefficiencies of the regime [CERDS] make it more costly to invest.”

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.”

Although Guzman recognizes that a definitive answer will require empirical information not yet available, he provides various arguments that make the CERDS case, *prima facie*, the better scenario for developing countries. In his opinion, developing countries as a group “may be better off in a regime that leaves them unable to enter binding contracts with

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31 *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 in nature and characteristics (*Id.* at 672 n.103).

32 *Id.* at 673.

33 *Id.*

34 *Id.* at 673-4.

35 *Id.* at 674 et seq.

36 *Id.*
investors.” 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. Collective action could have secured monopoly rents by using the market power that is essential to the cartel.

In the later EGS’ work, the prisoner’s dilemma scenario is significantly softened, as they opt just to stress the competitive origins of the BIT generation. The authors remain in fact silent on the issue of the prisoner’s dilemma. According to EGS, 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.” Notwithstanding the tautology of explaining a contract or treaty as a credible commitment device, the use of game theory language permits EGS to highlight the strength of BITs, whose investor-state arbitration serves as the “teeth” for enforcement. This institutional design, hence, increases the ex post costs involved in the violation of BITs, including diplomatic costs, arbitration costs, reputation costs, and sovereignty costs.

The collective action problem is still present in this second paper, but depicted in different terms. Acting individually, countries receive

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37 Id. Guzman assumes that without BITs, there are no contracts in international law. One possible explanation is that Guzman considers the New International Economic Order (NIEO) to have been, at some point of time, jus cogens in international law. But that is a claim that has been rejected in international law and which only a very small number of commentators would agree with. See e.g. F.V. GARCÍA-AMADOR, EL DERECHO INTERNACIONAL DEL DESARROLLO. UNA NUEVA DIMENSIÓN DEL DERECHO INTERNACIONAL ÉCONOMICO 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).

38 Guzman, supra note 15, 683.

39 Id. at 677.

40 They just say 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.” (Id.).

41 EGS, supra note 15, 823.

42 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.

43 EGS, supra note 15, 824.
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 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.)” But most importantly, they include the costs associated with delegating adjudicative authority to international arbitral tribunals.

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

In the end, the competition created by this situation — i.e., “a competitive dynamic among potential hosts to reduce the risks and enhance the profitability of investing” — makes developing countries, as a group, worse off. Competition is responsible for this outcome: “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.”

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44 Id. at 825.
45 Id.
46 Id.
47 Id. at 823.
48 Id. at 812.
3. **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. 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.

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. States are not and do not behave as firms. Competition for FDI is a highly distorted process under any market-based account, thus any model based on strong competition is necessarily a flawed representation of reality. As Bell & Parchomovsky remind us in their recent study about U.S. states’ competition in property law, the supply side of government services is far more complicated than any idealized 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, re-election 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.50

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49 BAIRD (et. al.), *supra* note 16, 208.

50 Abraham Bell & Gideon Parchomovsky, *Of Property and Federalism*, 115 YALE L. J. 72, 98 (2005). See also, 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) (analyzing state competition in trust funds regulation in the U.S.) (“On a theoretical level, our findings are relevant to the ongoing scholarly debate over the nature of jurisdictional competition. Our findings not only contradict the simple, state-revenue-based model but also cast doubt on recent high-profile work that, by showing a lack of tax revenue from attracting new business, questions the existence of the phenomenon.”).
In any case, any account which is purely based on perfect market competition is an incomplete representation of the BIT phenomenon, one that fails to answer too many important questions, including those identified in the introduction of this paper. By contrast, the network theory of the BIT generation does not assume such a form of State competition. While it accepts the fact that countries have competed for FDI, it depicts this competition as a “weak” version of the classic market-based process. Indeed, 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, but only up to a certain point, and subject to all the distortions of the political process. In this context, competition may only 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.

In addition to weak competition, the theory developed here relies on the notion of network effects and, more precisely, on the previous applications of that idea in the field of corporate law, particularly in the context of States’ competition for corporate charters in the U.S. Network effects —also referred to as “bandwagon effects”— is an economic concept describing those markets in which the utility derived from the consumption of a good or service increases, as more users consume the same good or service. Network effects are positive consumption externalities. 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

51 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, last visited Jan. 21, 2006) (“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.”).


53 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.”).

users. 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. The most typical examples of network products are telephones and faxes, where the individual products lack any inherent value outside the physical network. Other 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 total 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.” 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.” 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. 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.”

56 Ahdieh, supra note 54, 298.
57 ROHLFS, supra note 55, 4.
58 Michael Katz & Carl Shapiro, System Competition and Network Effects, 8 J. ECON. PERSP. 93, 106 (1994).
59 See Klausner, supra note 52, 791.
60 Katz & Shapiro, supra note 58, 94. See also, BAIRD, supra note 16, 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 display lock-in effects —also called “inertia”\(^{61}\) or “excess inertia”\(^{62}\)— that enables them to outsell competitors even in the event that those competitors are inherently superior. As Rohlf's 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.”\(^{63}\) That is, “once one option has enough of a head start, superior technological alternatives may never get the chance to develop.”\(^{64}\) Alternative products that fail to infiltrate the market may have yielded to a more efficient equilibrium.\(^{65}\)

This means that in the presence of network effects, an equilibrium may not exist or multiple equilibria may exist,\(^{66}\) but regardless, nobody can assure that the optimal result will be reached.\(^{67}\) 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.”\(^{68}\) 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).”\(^{69}\) Moreover, as David posits, “any economist who would explain the particular equilibrium outcome (among

\(^{61}\) 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.”).

\(^{62}\) 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 16, 209.

\(^{63}\) ROHLFS, supra note 55, 43.

\(^{64}\) AVINASH DIXIT & BARRY NALEBUFF, THINKING STRATEGICALLY 238 (1991).

\(^{65}\) PEYTON, supra note 61, 14.

\(^{66}\) See Katz & Shapiro, supra note 58, 94.


\(^{68}\) Katz & Shapiro, supra note 58, 96-7.

\(^{69}\) PEYTON, supra note 61, 4.
the multiplicity of eligible candidates) towards which this system converges must necessarily have recourse to the historical details of its evolution.”

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. The core concept of Klausner’s theory is that corporate contracts, if worded using the same terms, 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.”

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 core attributes of the rule of law. 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.

Network effects are directly tied to the vagueness and ambiguity that is pervasive, and sometimes desirable, in law. On the one hand, the


71 Klausner, supra note 52, 761.

72 Id. at 774-5.

73 See also, McDonnell, supra note 67, 701.

74 Klausner, supra note 52, 761.

inherent value of a clause or legal term depends on its autonomous clarity (i.e., textual interpretation). On the other hand, network benefits derive from several different sources, the most important of which is the 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.\textsuperscript{76} 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.”\textsuperscript{77} Hence, a substantial source of value for the term lies in future interpretations.\textsuperscript{78}

Alec Stone Sweet, in the context of judicial governance, also provides valuable insights that may be applied here.\textsuperscript{79} 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.”\textsuperscript{80} An essential element in his account is the existence of “\textit{some minimally robust conception of precedent}.”\textsuperscript{81} Stone 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

\textsuperscript{76} See Klausner, \textit{supra} note 52, 776.

\textsuperscript{77} Id.

\textsuperscript{78} Id. at 778. Past decisions are not network effects, but learning effects (“past” with respect to the date of adoption of the term by the party).


\textsuperscript{80} Id. at 113.

\textsuperscript{81} Id. at 118 (emphasis on the original).
move the law along paths that are relatively inflexible, that is, costly or impossible to reverse.82

As shown in the following figure, Stone Sweet’s starting point is that legal norms are essentially indeterminate, and all bodies of law are imperfect and incomplete (point ID in the figure).83 But legal reasoning has the precise 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.”84 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’.”85 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.”86 The outcome is that, over time, we move from ID towards AD:

Figure 2: Stone Sweet’s propagation of argumentation frameworks
In any case, future interpretation of ambiguous language is not the only bandwagon externality that a network of contracts may display. First, certain common business practices also constitute network externalities, as in the case of future precedents, by reducing 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.”

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.” 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. Similarly, with a commonly used term, the judiciary will become more experienced and be able to decide cases in an expeditious and well-considered way. Firms can trust that future decisions will be consistent and correct.

Third, there are marketing externalities. Firms need to attract shareholders and bondholders to analyze and price the new stocks. A common term may permit investors and securities analysts to estimate the value of the firm’s securities through routine financial analysis, at relatively low cost. 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.”

87 Klausner, supra note 52, 780.
88 Id. at 782.
90 See McDonnell, supra note 67, 703-4.
91 Klausner, supra note 52, 785.
92 Id.
4. 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-identical terms, particularly when those terms are as broad as the ones contained in BITs. In this Section, I will provide a formal model for this theory.

This model uses as one of its starting point an important assumption regarding the different credibility and commitments mechanisms available for developing countries. Considering that developing countries are reasonably interested in attracting FDI and in protecting property rights, I assume here that the following ranking is decreasing in sovereignty costs for all given levels of investment (i.e., investment is a constant). These costs that include, in summary, loss of governmental regulatory power over internal economic activity, and the loss of jurisdiction by domestic tribunals:

- Only domestic law remedies plus customary international law (state of affairs before the emergence of the BIT generation). This means, essentially, no international forum in which to litigate investment disputes, which are therefore left to domestic courts and diplomatic protection under customary international law.93
- BIT-like-minus treaties, that is, treaties with standards less convenient to foreign investors, worded in terms different from those actually used in BITs;
- BITs as we know them today;
- BIT-like-plus treaties, that is, treaties with standards more convenient to foreign investors, worded in terms different from those actually used in BITs;
- Tailor-made contracts that fully extract all rents, containing ICSID arbitration clauses. This category may include BITs that contain

93 In contrast to Guzman, I do not consider CERDS to be the best alternative for developing countries. Instead, I assume that the best option for developing countries in terms of sovereignty costs is for them simply to retain full control over their own domestic legal systems and institutions, signaling their commitment to property rights using domestic constitutional and public law.
umbrella clauses, clearly the category of BITs most harmful in terms of “sovereignty costs.”\textsuperscript{94}

The formal model of network externalities I am following here tries to explain the jump from the first to the third —i.e., the emergence of the BIT Generation— and was created by Farrell & Saloner.\textsuperscript{95} The game 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 ($Y$).

In this game, 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 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 under 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 net benefits associated with any extra FDI/sovereignty costs that a country can induce/bear from being the first and lone mover.\textsuperscript{96} The idea underlying this assumption is that the inherent value of BITs is much lower than normally regarded; the first treaty is merely an

\textsuperscript{94} Guzman’s theory, \textit{supra} note 15, 655 and 680 seems to assume — incorrectly — that all BITs contain umbrella clauses.

\textsuperscript{95} Farrell & Saloner, \textit{supra} note 62, 70.

\textsuperscript{96} Not accepting this assumption see Ryan Bubb & Susan Rose-Ackerman, \textit{BITs and Bargains: Strategic Aspects of Bilateral and Multilateral Regulation of Foreign Investment}, Yale Law School, Draft, January 2006, 6, 7 and 9.
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.”\(^{97}\) It is possible to classify developing countries according to three general types of \( i \): first, those that were not interested in attracting foreign investment, including countries that strongly preferred to protect their sovereignty and countries that did not place too much faith in the new standard as a means for attracting FDI (lower values of \( i \), in the extreme \( i=0 \));\(^{98}\) 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, including countries that did not particularly value their sovereignty and countries that had high expectations about the effectiveness of BITs for increasing FDI (higher values of \( i \), in the extreme, \( i=1 \)); and, third, countries in the intermediate scenario, who valued attracting foreign investment, but were sensitive to the sovereignty costs of signing BITs and reasonably optimistic regarding their efficacy (middle values of \( i \)).

Farrell & Saloner make a particularly interesting assumption that suits the BIT model 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.\(^{99}\)

\(^{97}\) Farrell & Saloner, supra note 62, 76.

\(^{98}\) 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”.

\(^{99}\) Farrell & Saloner, supra note 62, 76.
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 and political systems 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 equilibrium.”\textsuperscript{100} That is, there is a perfect Bayesian Nash equilibrium in which each country [firms] plays the following “bandwagon strategy”: First, if $i > i^*$, then the country switches at time $t_1$. Second, if $i^* > i \geq \bar{i}$, then the country waits until time $t_2$ and changes only after observing that the other country switched at time $t_1$. Third, if $i < \bar{i}$, then the country does not move away from standard $X$.\textsuperscript{101} This equilibrium, in which each player follows the strategy depicted above, is shown in figure 3:

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure3.png}
\caption{An illustration of Farrel & Saloner’s derivation of critical levels $\bar{i}$, $\bar{i}'$, and $i^*$ ($\bar{i}$ is also included)}
\end{figure}

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

\textsuperscript{100} More specifically, this is represented by two symmetric bandwagon equilibria, in which the pair $(\bar{i}, i^*)$ is the same for every player. According to Farrell & Saloner, \textit{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.”

\textsuperscript{101} \textit{Id.} at 76. For a full proof of the value and existence of $i^*$, see Farrell & Saloner, \textit{id.}
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. 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.

Before continuing with the explanation of the model’s operation, it is necessary to stop and note the relative position of $\tilde{i}$, $i^0$, $i^*$, and $\tilde{i}$. First, note that the point $\tilde{i}$ corresponds to the country which is indifferent with respect to staying with the old standard or switching to the new one (i.e., $B^i(2,Y) = B^i(1,X)$). Second, 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 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 $i < \tilde{i}$ (an information not known by the first country at time $t_1$). Third, 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 $B^i(1,Y) = B^i(2,X) = 0$; 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 of switching 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 $\tilde{i} \leq i < i^*$). According to Farrell & Saloner,

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102 If BITs have inherent value, then countries signing BITs (or at least, some of them) should be able to decrease the cost of capital and redirect some portion of FDI from the limited common pool available for all developing countries. Then the decision of one country to abandon the standard represented by domestic law plus customary international law imposes a negative externality over the rest of the group (a smaller portion of FDI).

103 Farrell & Saloner, supra note 62, 77. See id., where they also formally prove that $B^{i*}(1,Y) < 0$ and $B^{i*}(2,Y) > 0$. 

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There are also some types just above $i^*$ for which $B^i (I, Y) < 0$ [i.e., $i^* \leq i < \bar{i}$]. 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.104

Hence, given these values of $\bar{i}$, $i^0$, $i^*$, and $\bar{i}$, developing countries can be classified according to one of the following four types (from left to right). 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 $\bar{i}$: the country changes at time $t_1$, but takes a risk because it will be better off only if the other country changes at times $t_1$ or $t_2$. Fifth, above $\bar{i}$: 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 remaining under the old standard ($i > \bar{i}$), or because it anticipates that future countries will follow its lead ($i^* > i > \bar{i}$). 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; as noted in the previous extended citation, “[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.”

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

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104 Id. at 79.
one ($i \leq i < i^0$), 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 along.\textsuperscript{105} “If polled about their intentions \textit{ex ante}, they would vehemently claim that they would not switch even if the other switched.”\textsuperscript{106} More specifically, they would try to give the appearance of being a country with preferences such that $i < i$, 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 $i$, to above $i$, or even above $i^*$). The experience of China and Eastern Europe in the 1980s proves that a country may jump from $i < i$ 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 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 —therefore, opposing any change in customary international law and any attempt to create a 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. 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

\textsuperscript{105} Id.

\textsuperscript{106} Id.
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.\(^{107}\)

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”:\(^{108}\) “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.”\(^{109}\) However, this is only a hypothesis, not a necessary result.

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 occurred? 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,”\(^{110}\) defined as a situation “that impedes the collective switch from a common standard or technology to a possibly superior new standard or technology.”\(^{111}\)

If two countries belong to the area where \( i^0 \leq i < i^* \)—area where \( B'(2,Y) > 0 \)— “the switch will not be made, although it would have been

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\(^{107}\) The model of Bubb & Rose-Ackerman, supra note 96, 10, in contrast to the model of Guzman, includes 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”.

\(^{108}\) Farrel & Saloner, supra note 62, 79.

\(^{109}\) Id. at 78-9.

\(^{110}\) Id. at 78.

\(^{111}\) Id. at 71.
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.”

This result occurs even more in the case where one country fits the previous description, but the other is located in the area $i \leq i < i^0$: area where $B'(2,Y) < 0$. 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 for the group of developing countries.

In other words, countries do not abandon a bandwagon treaty, because they are “reluctant to give up the bandwagon benefits that they currently enjoy.” 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.

Then, setting aside the fact that the OECD Multilateral Agreement on Investment (MAI) failed mainly due to disagreement among developed countries as well as developing countries’ nonparticipation in the negotiations, 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). The BIT virtual network displays lock-in effects which explain why countries sign BITs and why, at the same time, they do not make any efforts to reach a new treaty that may be inherently superior.

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112 Id. at 78 (emphasis added).

113 Id.

114 ROHLFS, supra note 55, 43.

115 Bubb & Rose-Ackerman, supra note 96, 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.”

5. Evidence of the BIT Generation as a Virtual Network

5.1 Five Structural Arguments

This Section presents five structural arguments in favor of the BIT generation as a virtual network, which seek to prove that the BIT generation shares many of the typical characteristics of products presenting network externalities. The first of these arguments is that, as required by the network effects theory, there exists a “community of interests” among players. Following the logic of Guzman and EGS, it is undeniable that there is a group of developing countries interested in attracting FDI; investments which presumably must be obtained from a limited common pool controlled by investors of developed countries. Again, the assumption here is that of only “weak” competition.

In order to illustrate some of the propositions of this Section and the next, I will use Chile as a case study. The Chilean case is particularly interesting because that country was a pioneer in liberalizing its economy; by the mid-1980s, it had already become internationally renowned in demonstrating its commitment to property rights and economic liberties through domestic constitutional and public law. Notwithstanding that reality, Chile joined the BIT system in the early 1990s. Competition to attract FDI did in fact play an important role, at least judging from the rhetoric used by the dominant coalition who were pitching the ICSID Convention and first BITs to congressmen at the beginning of the 1990s. There were special concerns about the movement toward economic liberalization in formerly Communist European countries, as well as the rest of Latin America. At the time, Chile was losing its competitive edge.

117 ROHLFS, supra note 55, 21.

118 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 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 37ª, martes 12 de marzo de 1991, Legislatura 321ª 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 39ª,
However, not all developing countries have been ongoing players in this race, and certainly, not all have displayed the same intensity of preference for competing/attracting FDI over that relevant period. Indeed, from 1959 to the mid-1980s, and especially during the period when support for CERDS was high, a prominent group of countries displayed a very weak interest in attracting FDI. Instead, they were involved in import substitution industrialization policies, that made them 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 \( i \) in the formal model— were real barriers that, again, in hindsight, cast into doubt the idea of strong competition for FDI.

The second structural argument is represented by the notion of de facto standardization. As explained in the Introduction, all BITs signed from 1959 up until today, though not identical, have very similar substantive provisions. The four most important of these —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). We have witnessed a clear convergence toward a “non cooperative standard,”\(^{119}\) one created very early in BIT history.

Indeed, the wording of these provisions remains relatively consistent across treaties.\(^{120}\) For instance, according to Wälde, the fair and equitable treatment clause is “a standard that is repeated, more or less identically, in

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\(^{119}\) Farrell & Saloner, *supra* note 62, 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 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.”).

\(^{120}\) See *supra* notes 5, 6, and 8.
most of the other over 2000 investment treaties in force at present.”

Furthermore, any small difference in scope and effect may even end up being erased by the very application of the MFN clause.

Lawyers —whose practice owes an important debt to language nuances— could retort that all BITs are different, and that indeed it is not unusual that BIT awards take the differences among treaties into account. But this critique does not really contradict the idea of the BIT Generation as a network. The degree to which all treaties must be similar is a sociological question; that is, how similar BITs must be in order to be able to have a common professional practice. Of course, there is a legal component to that sociological question as well: legal language must show sufficient commonality to permit that social practice to even exist.

In my opinion, the way that international investment law is practiced today in the BIT context displays that necessary level of similarity for network effects. Today, we can talk about a BIT law because there is already a common professional practice. As indicated in the main empirical work on BIT precedents available today, “the development of an investment treaty case law or jurisprudence is unmistakable, and has not gone unnoticed in recent times, by treaty tribunals, and by those appearing before them.”

Indeed, there is already a series of BIT awards that have noted this fact. For example, in Bayindir Insaat Turizm Ticaret Ve Sanayi A.Ş. v. Pakistan, the Tribunal held that “[i]n support of their position, both parties relied extensively on previous ICSID decisions or awards, either to conclude that the same solution should be adopted in the present case or in an effort to explain why this Tribunal should depart from that solution. . . The Tribunal agrees that it is not bound by earlier decisions, but will certainly carefully consider such decisions whenever appropriate.”

121 International Thunderbird Gaming Corporation v. Mexico (UNCITRAL ad-hoc case), Award (Jan. 26, 2006), separate opinion, para. 25.

122 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.


124 Bayindir Insaat Turizm Ticaret Ve Sanayi A.Ş. v. Pakistán, ICSID Case No. Arb/03/29, Decision on Jurisdiction (Nov. 15, 2005), paras. 73 y 75. See also ADC Affiliate Limited et.at. v. Hungary, ICSID Case No. ARB/03/16, Award (Oct. 2, 2006), para. 293 (“The Parties to the present case have also debated the relevance of international case law relating to expropriation. It is true that arbitral awards do not constitute binding precedents. It is also true that a number of cases are fact-driven and that the finding in those cases
The present situation is depicted in Figure 4. The four circles represent the protection that four different BITs afford to investors. The four BITs are not identical, but they all share an important area (area X). Moreover, three of the four BITs still share an additional area (area Y). And, of course, there are areas that are specific to each BIT (for example, area Z is unique to BIT D). The relevant point is that the four circles must be sufficiently close to each other so that area X may be sufficiently broad to permit the development of a common practice. And again, my impression and experience —still to be empirically verified— is that this is the case for BITs.

Figure 4: Representation of BITs’ similarity

The third structural argument is related to the fact that this “standard” very much resembles the legal structure of Constitutions: it contains

cannot be transposed in and of themselves to other cases. It is further true that a number of cases are based on treaties that differ from the present BIT in certain respects. However, cautious reliance on certain principles developed in a number of those cases, as persuasive authority, may advance the body of law, which in turn may serve predictability in the interest of both investors and host States”), and Fireman’s Fund Insurance Company v. Mexico, ICSID Case No. ARB(AF)/02/01, Award (Jul. 17, 2006), para. 172. In AES Corporation v. Argentine, ICSID Case No. ARB/02/17, Decision on Jurisdiction (April 26, 2005), para. 31, the tribunal also held that “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.”
extremely open-ended and ambiguous provisions quite wide in scope, which do not provide immediate answers for resolving cases. And, as Klausner observed, this lack of determinacy is an essential condition for observing network effects in the law.

Indeed, the conceptual hurdles and corresponding lack of determinacy that characterize regulatory takings and State liability are well-known throughout the world. Furthermore, it is difficult or even impossible to envision a broader standard than “fair and equitable treatment.” As one NAFTA Chapter 11 Tribunal has said, “[t]he Article 1110 [of NAFTA] language is of such generality [the expropriation clause] as to be difficult to apply in specific cases.”125 Another BIT Tribunal held that “the exact content of this standard [fair and equitable treatment] is not clear.”126

Although there is not enough space here to explore this idea, 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 by the several awards that we are just beginning to see.127 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 previous awards must be at least somewhat valued in BIT adjudication. And, as previously explained in the second structural argument, this is the case in BIT law practice. Any recent award, demand or brief contains multiple references to previous decisions. These decisions prove to play a much more important role than that of mere citations: they structure the debate and form in which both the parties and tribunals advance their legal arguments and reasons. As an aside, it is worth noting that the lack of a central authority as the WTO Appellate Body in the BIT context, though slowing the impact of network effects, does not completely erase them.

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


127 As mentioned *supra* note 10, the first BIT award is from 1990.
The fourth structural argument stems from the fact that BITs are not the best institutional alternative for foreign investors. If BITs are the product of competition among developing countries, then that competition still did not erode all rents for those developing countries. As I have shown before, there were even more costly alternatives for the latter. 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 convenient result of a race to the top. Indeed, in 1990, when there was no BIT jurisprudence, Detlev Vagts commented that tailor-made contracts were quite 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.¹²⁸

Therefore, BITs are clearly not the outcome of a race to the top. Even if it is true that there was a race between developing countries, the race ended up neither at the top nor at the bottom. In summary, the history of BITs cannot be compared to a Bertrand equilibrium in a free market context, where as a consequence of the free market forces the price ends up equaling marginal costs, eroding all producer’s rents.¹²⁹


¹²⁹ As Guzman, supra note 15, 672 n.104, explains: “this situation is referred to as ‘Bertrand equilibrium.’ Under a Bertrand equilibrium, two or more sellers compete with one another by lowering prices. The result is that prices are driven down to the point at which they are equal to cost. Sellers receive no profit from the sale because all surplus go to consumers.”
The fifth and final structural argument is that the historical pattern of BITs perfectly fits the S-shape diffusion curve of network effect products (See Figure 5).\textsuperscript{130} 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, countries concluding BITs were only those that strongly valued BITs and for whom the sole inherent benefits outweighed all sovereignty costs.\textsuperscript{131} It is worth noting that during this period, the predominant BIT format did not have investor-state arbitration (only state-to-state arbitration), and therefore, had much lower sovereignty costs (see Table 1 below). After the critical point was reached —sometime between 1986 and 1988— BIT development began to display 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.\textsuperscript{132} It seems that the incorporation of China, Russia, and former Communist countries into the BIT program played an enormous role in reaching that critical mass. Of course, the U.S.’s adoption of the BIT program highly influenced this outcome, as well.

\begin{center}
Figure 5. The “S-Shaped” BIT diffusion curve
\end{center}

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{s_shape_curve}
\caption{The “S-Shaped” BIT diffusion curve}
\end{figure}

\begin{footnotesize}
\begin{enumerate}
\item[\textsuperscript{130}] See DIXIT & NALEBUFF, supra note 64, 231.
\item[\textsuperscript{131}] ROHLFS, supra note 55, 23-4.
\end{enumerate}
\end{footnotesize}
Percentages of countries already joining the BIT network

5.2 Identifying the positive externalities of the BIT system

If the BIT system is really a virtual network, then these treaties’ provisions must display both inherent value and network effects. The idea of inherent value is straightforward. By signing BITs, countries commit themselves to protecting foreign investors’ property rights. This signals the host State’s credibility to investors of the contracting State, 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. But 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 the case—is far from being obvious. From an empirical perspective, the extent to which concluding BITs reduces the cost of capital in countries that lack 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.

What then, exactly, are the network effects of BITs? As suggested earlier, it is possible to discover the same network externalities previously identified by Klausner in the corporate context. Most of these effects derive

from the fact that BITs are worded using extremely broad and open-ended terms. The following four are the main network effects of BITs.

First, there are interpretative externalities. As previously explained, although arbitral awards applying BITs do not formally carry precedential value for future cases (future cases regarding the same BIT as well as other BITs), in practice they have strong persuasive force. In the absence of a formal doctrine of stare decisis in international law, we can justly speak about soft precedents in BIT law. 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.” Similarly, Duprey remarks that this soft precedential value specifically permits “the establishment of a genuine arbitration case law specific to the field of investment.” In the end, future decisions, on the whole, will reduce the high uncertainty of the BIT standard.

Note that the beneficial character of the interpretative network effects depends on whether future BIT jurisprudence will stabilize at levels of protection of investments that are reasonable. To simplify, I envision two types of BIT jurisprudence crystallization. The first is the good case, which I refer to as 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, which I refer to as BITs-as-gunboat-arbitration, corresponds to a libertarian jurisprudence that is not currently in place in any developed country. In this scenario, BITs would end up functioning as a kind of insurance for foreign investors, where all diminutions in value resulting from state action give the latter the right to be compensated. Undoubtedly, when developing countries concluded BITs they expected the good case, though they might have anticipated the bad case as a possible scenario.

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135 *Thunderbird*, Separate Opinion, *supra* note 121, 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.”).

136 See *supra* note 11.

137 I am following the classic characterization of diplomatic protection as “gunboat diplomacy.”
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 existing body of law regulating state behavior. BITs will be assumed to be a new form of global constitutional and administrative law, and experts on foreign investment law will be consulted on a daily basis by states and firms about the compatibility 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 basic 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 instance 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 conclude treaties.\textsuperscript{138} At the end of the meeting, thanks to network effects, they usually conclude a fair number of them.

The cost of research and interpretation is also reduced when a term is widely used. Lawyers can invest in this transaction-specific asset (knowledge of BIT law) and having done so, are equipped to deal with those rules on a long-term basis.\textsuperscript{139} 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

\textsuperscript{138} See e.g. 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 (last visited Apr. 23, 2006).

\textsuperscript{139} This argument is taken from Romano, supra note 89, 275-76, who explains the impact of legal counsel in helping Delaware dominate the corporate charter competition.
investment arbitration. 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).

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.

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’s home state. In fact, in Chile, this externality was pivotal in its decision to join the BIT network. In the travaux preparatoire of the Statute approving the ICSID Convention, the President of the Republic 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.” After interviewing the former chief legal officer

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140 As Stone Sweet, supra note 9, 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 are of the law. For these actors, existing argumentation frameworks establish the basic parameters for action.”

141 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, CESCE 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.).

142 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 37ª, martes 12 de marzo de 1991, Legislatura 321ª 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
(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 highly relevant to Chile’s decision to join the BIT system.\textsuperscript{143}

6. Providing answers for critical questions

In the Introduction, I identified four key questions that any theory of the BIT generation must necessarily confront: First, why did all developing countries adopt more or less the same rules? Second, why did developing countries adopt the particular set of rules that we see today in BITs, as opposed to others? Third, why did those rules exist in the “market” for more than 20 years without being widely adopted? And fourth, why do BITs constitute an equilibrium that is neither the worst possible scenario for host States nor the best scenario for investors?

In presenting my theory of the BIT generation as a virtual network, I already answered the first and last of these questions. Developing countries have concluded BITs, all worded in closely similar terms, because of the network effects implicit in a system of such treaties. Furthermore, I have already shown that the movement from domestic law plus customary international law to the BIT generation might or might not have been efficient for the group of developing countries. Even if inefficient, an excess of momentum would explain such a scenario without the need to have recourse to a prisoner’s dilemma. Finally, I have identified institutional arrangements even more costly than BITs —tailor-made contracts with ICSID clauses and more demanding treaties, such as the U.S. FCN program— which shows that BITs are not the worst possible case for developing countries.

In this Section, I will try to answer the two remaining questions. For that purpose, consistent with the lessons of network externalities, it will be

\textsuperscript{143} 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.
necessary to analyze the history and politics of the system in question. As explained before, an explanation of the equilibrium in these markets requires referring to “the factors that lead to one outcome or the other.” Indeed, any account trying to 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.” It is thus noteworthy that the BIT generation as a virtual network revisits several classical theories that both Guzman and EGS reject when presenting their competition model.

The political-historical account of the BIT system’s development requires that we separate the two stages of the bandwagon effect: from 1959 to the second half of the 1980s, and then up to the present. As the network externalities theory predicts, during the first phase only a small group of “initial users” adopted the standard. In our case, 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.

During this period, developing countries that joined the BIT system only concluded a small number of BITs. Indeed, developing countries individually signed fewer BITs than developed countries; compare the five developed and developing countries that, in each category, signed the most BITs in the first twenty years of the network’s history: Germany (45), Switzerland (32), France (19), Netherlands (15), Belgium (9), versus Egypt

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144 See supra note 68.

145 See supra note 70.

146 See Guzman, supra note 15, 667-669. See also, EGS, supra note 15, 826, who label these rejected theories as “hegemonic, cognitive or idealistic.”

147 ROHLFS, supra note 55, 23 ([the initial user set] corresponds to “individual entities and small groups (mainly pairs) of entities that (sic) can justify purchasing the service, even if no other purchase it.”).

148 In the period 1959-1979, the following developing countries concluded two or more BITs: Benin (2), Cameroon (3), Central African Republic (2), Chad (3), Congo (2), Cote d’Ivoire (5), Ecuador (2), Egypt (12), Gabon (5), Guinea (3), Indonesia (6), Jordan (4), Korea (7), Liberia (3), Madagascar (4), Malaysia (6), Mali (2), Malta (3), Mauritius (2), Morocco (6), Niger (2), Pakistan (2), Romania (7), Rwanda (2), Senegal (4), Singapore (7), Sudan (5), Syria (3), Tanzania (3), Thailand (3), Togo (2), Tunisia (6), Uganda (3), Yugoslavia (4), and Zaire (4).
Korea (7), Romania (7), Singapore (7), Malaysia (6). At the same time, the sovereignty costs of signing BITs were much lower than today, since most treaties did not provide investor-state arbitration (See Table 1).

Table 1: BIT I: treaties that only have state-to-state arbitration clauses; BIT II: treaties that have investor-state arbitration clauses, but the jurisdiction of such arbitral tribunales is restricted only to discuss the amount of compensation in case of expropriation; BIT III: treaties that have investor-state arbitration clauses without restrictions (by year and cummulative)

<table>
<thead>
<tr>
<th>Año (Year)</th>
<th>Total BITs (Cum.)</th>
<th>BIT I (Year)</th>
<th>BIT II (Year)</th>
<th>BIT III (Year)</th>
<th>BIT III + BIT II (Cum.)</th>
<th>Not reviewed (Year)</th>
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When looking at the whole period — 1959-2000 — due to the impact of what happened during the 1990s, EGS, supra note 15, 822, arrive at the opposite conclusion: “It is clear that the distribution of BITs over the past forty years is significantly more peaked (less uniform) for the host than it is for home countries. . . The standard deviation of their distributions is also lower for host countries than it is for home suggesting a more clustered pattern of activity for the host. If BITs are driven by home country programs, it is not especially apparent in the data.”
1987 23 0 112 5 29 11 95 124 7
1988 30 4 116 9 38 10 105 143 7
1989 43 2 118 24 62 13 118 180 4

As previously noted, this first stage fits reasonably well, to various degrees, with several of the theories that Guzman and EGS reject when arguing for their competition model. For example, the cases of Korea and Malaysia may well be explained by “enlightenment theories”, that is, there were developing countries which understood that they would be better off under an institutional setting of free market and strong property rights. At the same time, many of the Asian and African countries that signed treaties with Germany and Switzerland from 1959 to 1979 may exemplify “power-based” or “coercive” theories, or perhaps more accurately, trade-off theories (in which developing countries sign BITs to obtain specific benefits from developed countries). Indeed, this was the explanation provided by Rudolf Dolzer—a prominent scholar in the field— in the early 1980s, and more recently provided by Salacuse and Sullivan in 2005.

In addition, there are three specific aspects of the first historical stage of BIT development that help us to understand its network aspects. First, as already mentioned, 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 that later wanted to launch BIT programs, and also 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.”

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150 As previously noted, I do not reject these classical theories. Indeed, a network theory is particularly interested in the history of how one standard overcame the others, and those theories play an important role in this regard.


152 Salacuse & Sullivan, supra note 12, 77-78.

153 Klausner, supra note 52, 800.
includes “historical accidents” of all types. The original German and Swiss BIT models served as an excellent template: extremely brief, reasonable and open-ended provisions, and therefore relatively easy to negotiate. Consequently, countries wishing to pursue property rights and economic liberties may have found in BITs an easy and inexpensive device to pursue that objective.154

Third, by the mid-1980s and as recently as the end of that decade, there were doubts —even among experts— about whether this type of treaty would survive in the future. This indicates that by that time, the critical threshold for 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.155

The second stage of BIT network development is that in which the bandwagon effect occurred. As normally occurs with 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 that the addition of China and the former Communist countries provided that critical mass in the 1980s. 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. 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. 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 began to be positive. For others, it may have still 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). Commentators usually overlook the uncertain character of BIT jurisprudence. As noted before, the first BIT case was decided in 1990. 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.”156 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.”157 Yet, given the apparently reasonable character of the main BIT 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 that did not conclude BITs may have begun to experience 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

156 Vagts, supra note 128, 112.

157 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).
more countries commit themselves to a rule, non-commitment sends a strong negative signal.” 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”. Farber, however, 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.

If this account is correct, network effects and the concept of excessive inertia would explain one of the big mysteries of the BIT generation: why developing countries suddenly rushed to join the BIT network during the second half of the 1980s, more than 20 years after the program was created (i.e., BITs existed in the “market” for a long time without being adopted). Similarly, network effects explain, in the terms previously noted, why developing countries strongly opposed abandoning domestic law plus

158 Simmons, supra note 154, 323.

159 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) summarize 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”.

160 Farber, supra note 154, 96.

161 Bubb & Rose-Ackerman, supra note 96, 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.”

http://services.bepress.com/lacjls/vol2/iss1/art6
customary international law, and why they have rejected the idea of any multilateral investment treaty. Indeed, network effects show 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. And, furthermore, 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 switch to the new one.

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. But these studies only represent early efforts at measuring this correlation; as such, they acknowledge that their methodologies to be a matter of great debate.

I should add here the following concerns. Comparing all BITs, without controlling for the type of BIT —i.e., whether they have investo-

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162 There is only one study concluding that BITs fulfilled their expected objective: Neumayer & Spess, supra note 134, 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 134 (finding that BITs do not lead to increases in DFI); and Salacuse & Sullivan, supra note 12, 75 (finding a positive effect for U.S. BITs, but not for 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).

163 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, last visited Aug. 23, 2006), after more detailed econometric analysis, 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 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.”
state arbitration provisions or not—could potentially lead to incorrect conclusions (i.e., comparing apples and oranges). Also, it would be interesting to see what results are obtained if we control for the inherent 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 attract FDI for countries with higher values of $i$ 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).164

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.165 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.”166 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 effects account of the BIT generation may be problematic in terms of being able to either verify or debunk it (even if the evidence regarding lower insurance premiums continues to be a solid empirical argument in its favor). Among other reasons, this occurs because in network products, a standard may have been adopted due to its focal properties, which depend more on perception than on logic. Therefore, if this model is correct, the more relevant factor in the adoption of BITs may have

164 Bubb & Rose-Ackerman, supra note 96, 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.”

165 The strict comparison should be between domestic law plus customary international law, and domestic law plus BITs.

166 Reisman & Sloan, supra note 3, 117.
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 that show little or no correlation between BITs and FDI do not necessarily falsify the theory.


The theory advanced here requires detailed empirical study. But I hope that I have been able to provide sufficient factual arguments for my belief 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 the decision to conclude BITs and the presence of network effects, the resulting game varies considerably from the one Guzman 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 international investment law, in the form 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, giving BITs a particular credibility as compared to more idiosyncratic and lesser known treaties. This is what ultimately motivated all members of the network to adopt essentially the same standards.

In conclusion, I would like to emphasize the particular perspective that is being advanced here. The descriptive model defended in this paper has substantial implications for those normative questions raised by the emergence of the BIT generation. 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 EGS’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 may be referred to as the good case (BITs-as-developed countries-constitutional law-and-no-more) or whether it would crystallize in what may be referred to as the bad case (BITs-as-gunboat-arbitration.)\textsuperscript{167} Even today, it is not possible to know which case ultimately prevails. BIT law is continuing to evolve, and remains 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 seventeen years ago.

So, under a network effects theory, there is still room 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, in the words of Slaugther, “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.”\textsuperscript{168} My claim is that this goal can only be achieved when jurisprudence crystallizes according to what I have defined as the good case.

\textsuperscript{167} I am following the characterization of diplomatic protection as gunboat-diplomacy.

\textsuperscript{168} ANNE-MARIE SLAUGHTER, A NEW WORLD ORDER 15 (2004).