Title
Competing for Capital: The Diffusion of Bilateral Investment Treaties, 1960-2000

Authors
Elkins, Zachary
Guzman, Andrew T
Simmons, Beth

Publication Date
2004-08-01

Competing for Capital:

The Diffusion of Bilateral Investment Treaties, 1960-2000

Zachary Elkins
Political Science Department
University of Illinois
zelkins@staff1.cso.uiuc.edu

Andrew Guzman
Boalt Hall School of Law
University of California at Berkeley
guzman@law.berkeley.edu

Beth Simmons
Government Department
Harvard University
bsimmons@latte.harvard.edu

Competing for Capital:
The Diffusion of Bilateral Investment Treaties, 1960-2000

Abstract

Over the past forty-five years, bilateral investment treaties (BITs) have become the most important international legal mechanism for the encouragement and governance of foreign direct investment. Their proliferation over the past two decades in particular has been phenomenal. These intergovernmental treaties typically grant extensive rights to foreign investors, including protection of contractual rights and the right to international arbitration in the event of an investment dispute. We argue that the spread of BITs is driven by international competition among potential host countries – typically developing countries – for foreign direct investment. We design and test three different measures of competition. The evidence suggests that potential hosts are more likely to sign BITs when their competitors have done so. We also control for diffusion via coercion, social learning, and cultural networks. We find some evidence that coercion plays a role, but less support for learning or cultural explanations. Our main finding is that diffusion in this case is associated with competitive economic pressures among developing countries to capture a share of foreign investment. We are agnostic at this point about the benefits of this competition for development.

Competing for Capital:

The Diffusion of Bilateral Investment Treaties, 1960-2000

Economic globalization requires market-supporting institutions to thrive. The most salient international legal developments to date have clearly been in the trade of goods and services (through the World Trade Organization) and the monetary and exchange rate area (through the International Monetary Fund's Articles of Agreement).[1]

Multilateral rules to regulate foreign direct investment (FDI) have lagged conspicuously.[2] This is true despite phenomenal growth in FDI. According to World Bank data, total trade, as a percentage of the world's GDP, increased from 28% in 1970 to 45% in 2000. Over the same period gross foreign direct investment, as a percentage of the world's GDP, increased from 1.2% to 8.9%. Foreign direct investment is highly skewed geographically: developed countries account for over 93 per cent of outflows and 68 percent of inflows,[3] and these shares have not changed drastically over the past decade.

Direct investments in developing countries are overwhelmingly governed by bilateral investment treaties (BITs). BITs are agreements establishing the terms and conditions for private investment by nationals and companies of one country in the jurisdiction of another.[4] Virtually all BITs cover four substantive areas: FDI admission, treatment, expropriation, and the settlement of disputes.[5] These bilateral arrangements have proliferated over the past forty-five

---

1 Guzman and Simmons 2002; Simmons 2000; Simmons 2000.
2 For a review of the relevant legal literature see Dolzer 1981; Minor 1994; Sornarajah 1994; Vagts 1987.
3 UNCTAD, http://r0.unctad.org/en/subsites/dite/fdistats_files/Annextables/Annextab02.pdf
4 Automated System for Customs Data (AYSCUDA) , http://www.asycuda.org/cuglossa
5 ICSID Bilateral Investment Treaties, http://www.worldbank.org/icsid/treaties/intro.htm

years, and especially in the past fifteen, even as political controversies have plagued efforts to establish a multilateral regime for FDI.

Theories of diffusion provide a potential handle on why BITs have spread over time. The popularity of BITs is puzzling when contrasted with the collective resistance developing countries have shown toward pro-investment principles under customary international law and the failure of the international community to make progress on a multilateral investment agreement.[6] On its face, this seems to suggest that BITs do not simply reflect the ready acceptance of dominant international property rights norms. Our central contention is that bilateral investment treaties have proliferated because they generate competition among developing countries – a dynamic that is notably absent when multilateral international laws are at stake.

The diffusion of BITs, we argue, reflects competitive policy adjustments in the face of increasingly globalized capital markets. Governments that lack credible property rights regimes negotiate these treaties as a way to improve their ability to attract capital.[7] To get the benefits of a BIT the state must surrender significant control over the governance of direct investment and the resolution of disputes between investors and hosts. In this sense, developing states are trading sovereignty for credibility. The diffusion of BITs is propelled in good part by the competition for credible property rights protections that direct investors require.

The article is organized as follows. The first section describes the spread of BITs in some detail. The second section presents a model of competition for investment that could lead

---

[6] Guzman 1998.

to the observed pattern of treaty diffusion. The third section discusses the methods we use to test our propositions (and a range of alternatives), and the fourth section discusses our findings. Competitive pressures for BIT proliferation are consistent with the data: governments are influenced by competitors' policies and by the mobility of FDI in manufactures. Governments that lack credible domestic institutions to protect property rights are especially prone to sign BITs to attract capital. We interpret our findings as evidence of pressure for certain governments to adopt capital-friendly policies in highly competitive global capital markets.

I. Securing Investors' Legal Rights

From Custom to Bilateral Investment Treaties

Foreign direct investment has always been subject to contractual and political hazards that raise the expected costs of investing.[8] Before the use of BITs, few mechanisms existed to make state promises about the treatment of foreign investment credible.[9] Customary international law, expressed succinctly in the "Hull Rule," held that "no government is entitled to expropriate private property, for whatever purpose, without provision for prompt, adequate, and effective payment therefore."[10] Apart from the obvious problem of enforcement, this approach did not allow potential hosts to voluntarily signal their intent to contract in good faith.

---

[7] The economic benefits of FDI include increased labor productivity, the diffusion of technology and other forms of productive know how, which contribute overall to local growth. For a discussion of the net benefits of FDI see Graham 1995.

[8] Henisz 2000.

[9] For a discussion of the historical protection of foreign investment see Lipson 1985.

[10] This formulation is usually referred to as the Hull Rule. See Cordell Hull's note to the Mexican Minister of Foreign Affairs during 1938 dispute over land expropriations, reprinted in Green H. Hackworth, Digest of International Law v. 3, § 228 (1942). The Rule itself predates Cordell Hull's statement, and various statements of it can be found in decisions from the early part of the 20th century. See Concerning the Factory at Chorzow (Ger. v.

Moreover, both customary international law and its practice were under attack by developing country hosts by the 1950s. The nationalization of British oil assets by Iran in 1951, the expropriation of Liamco's concessions in Libya in 1955, and the nationalization of the Suez by Egypt a year later served notice of a new militancy on the part of investment hosts. The nationalization of sugar interests by Cuba in the 1960s further undercut assumptions about the security of international investments.[11] Meanwhile, collective resistance to the Hull Rule in the United Nations was on the rise. In 1962 the UN General Assembly adopted the 1962 "Resolution on Permanent Sovereignty over Natural Resources" which provided for merely "appropriate" compensation in the event of expropriation. Several more United Nations resolutions followed in the 1970s,[12] along with a string of under-compensated expropriations around the world.[13]

Bilateral treaties made their debut in the late 1950s, just as consensus on customary rules began to erode. BITs were innovative in a number of respects.[14] They required an explicit

---

Pol.), 1926-29 P.C.I.L. (ser. A), Nos. 7, 9, 17, 19; Norwegian Shipowners Claims Arbitration (U.S. v. Nor.) 1 Rep. Int'l Arb. Awards 307 (1922).

[11] Guzman 1998; Comeaux and Stephen 1994.

[12] These are discussed in Lipson 1985. In 1966 the General Assembly reaffirmed states' rights to nationalize resources without reference to international legal principles. In 1972 the general Assembly passed Resolution 3041 (XXVII), which contained an endorsement of the Trade and Development Board's resolution 88 (XII) of October 19, 1972, regarding permanent sovereignty over natural resources, and claimed that compensation natural resource nationalization cases was to be fixed by the nationalizing state with jurisdiction for such cases falling within the sole jurisdiction of the nationalizing country's courts. The 1973 Resolution on Permanent Sovereignty over Natural Resources (Resolution 3171) stated that in the event of nationalization "each State is entitled to determine the amount of possible compensation and the mode of payment." The Charter of Economic Rights and Duties of States (GA Res. 3281(xxix), UN GAOR, 29th Sess., Supp. No. 31 (1974) 50) which specified the right of each state "To nationalize, expropriate or transfer ownership of foreign property, in which case appropriate compensation should be paid by the State adopting such measures, taking into account its relevant laws and regulations and all circumstances that the State considers pertinent" with national courts taking jurisdiction in case of disputes (Art. 2(c)).

[13] See Kobrin 1980.

[14] Other mechanisms have been used to try to protect foreign investment, of course. One possibility since 1988 is to apply for insurance through the World Bank's Multilateral Insurance Guarantee Agency (MIGA). MIGA covers risks associated with transfer restriction, expropriation, breach of contract, and risks relating to war and civil

commitment on the part of the potential host government and involved direct negotiations with the government of potential investors. In this way, BITs upped the political ante for the host government by actively involving a third party and raising expectations of performance. Furthermore, the typical BIT offered a wider array of substantive protections than did the customary rule. For example, BITs typically require national treatment and most favored nation treatment of foreign investments in the host country,[15] protect contractual rights,[16] guaranty the right to transfer profits in hard currency to the home country, and prohibit or restrict the use of performance requirements.[17] Finally, and perhaps most importantly, BITs provide for international arbitration of disputes between the investor and the host country,[18] often through the International Center for Settlement of Investment Disputes (ICSID).

The Spread of BITs

Notwithstanding the aggressive campaign waged by developing countries against the customary international law rules relevant to investment, BITs were embraced by many potential host governments.[19] Figure 1 documents the geometric growth of both investment treaties and

---

disturbances. See http://www.miga.org/. US businesses can also insure against risks associated with currency inconvertibility, expropriation, and political violence by applying for investment insurance from the Overseas Private Investment Corporation (OPIC), a U.S. government agency. See http://www.opic.gov/Insurance/.

[15] E.g., The 1994 U.S. Prototype Bilateral Investment Treaty, Office of the Chief Counsel for International Commerce, U.S. Department of Commerce; Article 2(1), 2(2)(a). For convenience throughout this article we label the more developed partner in a BIT the "home" country (meaning the home of investors) and the less developed partner the "host." The treaty obligations bind both parties, but in the vast majority of treaties there is a developed country that will be the source of most FDI and a developing country that will be the recipient.

[16] E.g., 1994 U.S. Prototype BIT, Article I(d)(ii).

[17] E.g., 1994 U.S. Prototype BIT, Article V(1-2).

[18] E.g., 1994 U.S. Prototype BIT, Article IX.

[19] It is interesting to note, however, that some of the most vociferous opponents of the Hull Rule were in fact late comers to the BITs movement. As of the late 1990s, Mexico for example had signed only two BITs, with

mean inflows of foreign direct investment as a percentage of GDP from 1960 to 2000. Early BITs typically involved a mid-sized European power and one of the least developed countries, often in Africa. (See Table 1.) The negotiation of BITs proceeded at a moderate pace until the mid-1980s, rarely exceeding 20 new treaties per year. Late in the decade, however, the rate of signings accelerated dramatically, with an average of more than one hundred new treaties a year throughout the 1990s.

[Table 1 and Figure 1 about here]

The United States embraced BITs later than its northern European counterparts. Between 1962 and 1972, during which time West Germany entered into 46 BITs and Switzerland entered into 27, the U.S. signed no such treaties and only two Friendship Commerce and Navigation Treaties – with Togo and Thailand.[20] One reason for the delayed US participation in bilateral arrangements may have been the hope of retaining a multilateral approach. The United States was one of the most aggressive proponents of the Hull Rule and may have feared that BITs represented a threat to its claim that investment was already protected under customary international law. Another reason may relate to the relatively onerous provisions the U.S. government tried to secure from host states. One of the prime differences between the terms typically offered by the Europeans and U.S. at this time was the formers' emphasis on investment protection and the latter's additional insistence on liberalization.[21]

Spain and Switzerland. Brazil did not sign a BIT until 1994, and of the late 1990s none of its 10 bilateral agreements had entered into force. India's pattern is similar to that of Brazil. See http://www.worldbank.org/icsid/treaties/treaties.htm (accessed 10 December 2003).

[20] Vandevelde 1988.

[21] "Multilateral or Bilateral Investment Negotiations: Where Can Developing Countries Make Themselves Heard?" Briefing Paper No.9, http://cuts.org/9-2002.pdf. Some observers note that the insistence on liberalization explains the inability of the US to secure agreements with East and Southeast Asian countries until quite recent years. See Reading 1992.

It was not until 1981 that the United States changed its view on BITs. There is evidence that some officials in the Reagan administration viewed BITs as an alternative way to protect the principles contained in the embattled Hull Rule. Secretary of State George Schultz argued that BITs were designed "to protect investment not only by treaty but also by *reinforcing traditional international legal principles* and practice regarding foreign direct private investment" [emphasis added].[22] By the mid-1980s, the U.S. pursued investor protection in the same fashion as did European BITs. George Schultz noted in his communication with the President upon completion of six BITs in 1986[23] that, "[o]ur approach followed similar programs that had been undertaken with considerable success by a number of European countries, including the Federal Republic of Germany and the United Kingdom since the early 1960s."[24] By the late-1980s, it is safe to say that governments in countries home to large MNCs had nearly converged on a single treaty model. Developing countries could, increasingly, opt to take it or to leave it. As Figure 1 attests, many did the former.

Early on, BITs were primarily agreements between countries of starkly varying property rights traditions and resources. Figure 2, which plots the mean difference in GDP per capita between those countries signing BITs and all others "at risk" of signing in a given year, demonstrates that the economic differences within these dyads have declined fairly substantially over time, even while the wealth disparities between non-BIT dyads have increased. As is the case with wealth, the "political gap" between new BIT signers has also diminished significantly

---

[22] George P. Schultz, transmission letter to the president recommending transmission of the US-Turkey Bilateral Investment Treaty, 1985. http://ankara.uembassy.gov/IRC/treaty/1985BIT.HTM

[23] Turkey, Morocco, Haiti, Panama, Senegal, and Zaire.

[24] George P. Schultz, transmission letter to the president recommending transmission of the US-Turkey Bilateral Investment Treaty, 1985. http://ankara.uembassy.gov/IRC/treaty/1985BIT.HTM

over the last thirty years. Figure 3 plots the mean difference in the level of democracy (as measured by the Polity scores) of BIT partners in the year of their signing against all other dyads at risk of signing. Over time new BIT partners have become more similar, evidence that the institution is spreading.

[Figure 2 and Figure 3 about here]

By late in the 1990s there were a few twists to the basic theme of wealthy countries picking off potentially lucrative but risky venues one at a time. From about 1999, developing countries began a rather more proactive effort to create bilateral investment treaties among themselves. These activities have been coordinated through UNCTAD, and sometimes with the assistance of a major capital exporting country, such as Germany or France. During a meeting jointly sponsored by UNCTAD, the Swiss government, and a group of 15 developing countries (G-15), seven developing countries signed eight bilateral treaties among themselves.[25] Individual developing countries soon began to seize the initiative. At the request of Thailand, a mini-lateral conference yielded seven more developing country BITs,[26] and furthered discussions on several more. Bolivia (2000), India (2001) and Croatia (2001) initiated mini-lateral discussions on a similar model. France financed a round of discussions primarily among the Franco-phone countries in 2001 that attracted 20 participants and yielded 42 BITs, many of which involved non-contiguous, poor, highly indebted African countries for which it is difficult to imagine much benefit. (What are the chances that capital from Burkina Faso would flow to Chad, or investors from Benin would soon demand entrée to Mali?) More understandable, from an economic point

[25] Egypt, India, Indonesia, Jamaica, Malaysia, Sri Lanka and Zimbabwe.

of view, was the German funded and supported meeting in October 2001 that drew together seven capital-poor countries (five of which were officially "highly indebted poor countries") and four wealthy European countries,[27] yielding both understandable (Belgium-Cambodia) and bizarre (Sudan-Zambia) bilateral treaty combinations.[28] This recent turn toward BITs between developing states is more difficult for our theory to explain, and we leave their analysis to future research.

Leaders and Followers in BIT Agreements

BITs present potential benefits for both capital exporting and capital importing countries. But which group of countries initiates and drives the signing of such agreements? Our theory, to anticipate the following section, assumes that potential *host* countries have an important role in initiating or nurturing BIT negotiations. Is this a plausible assumption? After all, power-based theories suggest that dominant capital exporting countries such as Germany or the United States control the agenda and begin BIT negotiations according to their own schedule and needs. Indeed, the chronology described above suggests that some home countries establish BIT "programs" and sign agreements with a slate of developing countries in concentrated periods of time.

---

[26] Thailand-Zimbabwe, Thailand-Croatia, Thailand-Iran, Zimbabwe-Croatia, Zimbabwe-Sri Lanka, Croatia-Iran, Thailand Kazakhstan, Zimbabwe-Kazakhstan, Croatia-Kazakhstan. Sweden also participated and concluded a BIT with Thailand.

[27] Participants included Cambodia, Eritrea, Malawi, Mozambique, Sudan, Uganda, and Zambia. Upon the request of these countries, Belgium, France, the Netherlands and Sweden were both invited to participate and responded affirmatively.

[28] Notice that even multilateral meetings of this sort have not yielded multilateral treaties on investment. The states involved have always chosen instead to sign a series of BITs. The question of why multilateral approaches are not adopted is interesting, but we leave it for another day.

If the dominant powers determine the BIT schedule, then we should see evidence of home country "programs" when we look at BITs, by country, across time. Programs would look like clusters, or peaks, of activity in certain eras in a home country's history. By the same logic, if host countries take a lead role in producing BITs, their histories would also show some evidence of concerted, programmatic activity. Figure 4 and Figure 5 chart the number of BITs signed since 1959 for the 12 most active BIT signatories from both home (Figure 4) and host (Figure 5) countries. It appears that most home countries have BIT activity that lasts at least 20 years; most of these countries, in fact, sign BITs throughout the forty-year period. Spain is an exception, with a short spate of BITs in the 1990's only. Potential hosts, however, demonstrate a very different pattern: their BIT signings spike up in a more clustered pattern, one indicative of programmatic activity (Figure 5).

[Figure 4 and Figure 5 about here]

Of course, these figures chart the history of only the 12 most active BIT signers from each group. What about the rest? Appendices 1 and 2, available online,[29] also organized by capital exporting and importing countries, summarize the BIT history for all 178 countries that have ever signed a BIT. Two statistics – the kurtosis[30] and the standard deviation – give us a sense of how well distributed BITs are over the 40 year period of observation. Comparing the average kurtosis scores for the home and host countries, it is clear that the distribution of BITs over time is significantly more peaked (less uniform) for the host than it is for home countries (4.48 and 9.11, respectively). The standard deviation of their distributions is also higher for the

[29] [author's website]

[30] Kurtosis is the degree to which a distribution is peaked, or clustered with high kurtosis indicating clustered data, and low kurtosis indicating a more uniform distribution.

hosts (9.39 and 7.08, respectively). These findings suggest that the BIT "programs" of home countries are not especially apparent in the data. Rather, it appears that it is potential hosts that sign in clusters – suggesting that when a potential host decides to sign BITs, home countries stand ready with model treaties in hand. Accordingly, we focus our theory on host country behavior.

II. A Competitive Theory of BIT Diffusion

Our theory of BIT diffusion has a simple structure. BITs are viewed as devices that raise the expected rate of return on investment. These agreements are able to provide a higher return on investment because they serve as a credible commitment device, because they provide a meaningful signal to investors, or both.[31] Potential hosts have incentives to compete for investment by committing to respect contracts and protect investors' property rights. But precisely because BITs are costly to enter into, governments are more likely conclude them (1) when competition for capital is stiff; (2) where their inherent credibility is low, and (3) when competitors' policies raise incentives for them to sign.

When a host country signs a BIT with another sovereign state, it commits itself to a series of investor-friendly legal rules. We argue that BIT-inconsistent behavior is more costly than identical behavior in the absence of the legal agreement. First, a BIT involves an investor's

[31] Whether BITs are a commitment device or a signal does not affect our approach to the problem of diffusion addressed in this paper. It does affect precisely which countries will sign BITs: if a BIT is a signaling device, then only good property rights protectors will sign them. If they are devices for making credible commitments, even poor rights protectors might benefit from signing a BIT. In either case, competition should ensue, though in the case of a credible commitment device competition might be broader. This is an issue for future research.

government. It is a state-to-state legal instrument, drawing in the interests of the home government in a much more explicit way than does a simple investment contract between private parties alone. The host government has an interest not only in the fair treatment of its investors, but in broader principles of treaty observance. An unjustified property rights violation will have broader implications when it is placed in the context of the violation of a treaty which the home government entered into in good faith. The potential reputational damage is consequently much more significant – and can damage important foreign policy interests –when treaty violations are alleged.

Second, treaty violations reduce ambiguity. We have noted above that BITs are much more precise than the relevant international custom. Precision removes potential avenues of plausible deniability, making it clearer to a broader range of audiences (domestic audiences, other foreign investors, other governments) that an obligation has been disregarded.

Third, BITs raise costs associated with formal disputes. Should a government fail to live up to its commitment, or should an investor believe that the host has violated the agreement, the dispute can be taken by the investor to binding arbitration before a neutral international tribunal such as ICSID. A pre-commitment to delegate – effectively agreeing to have its performance judged by an arbitral tribunal – makes it harder to control the legal outcome of the case and makes it more difficult to refuse to comply. The decision of a neutral international tribunal is likely to be viewed as less biased than a local court decision, and a broad range of potential international investors will have an interest in the host's attitude toward compliance.

For these three reasons – involvement of governments as parties, the precision of the agreement, and the delegation of enforcement – BITs can be thought of as commitments that effectively raise the costs of BIT-inconsistent behavior. As a result, we expect some violations

to be deterred in the presence of BITs, reducing transactions costs for the investor and raising expected returns to investment.

An alternative, though not mutually exclusive, channel through which BITs may increase investment is by providing a costly signal that the host will treat investors well. From a signaling perspective, a single bilateral BIT could influence investors from any nationality. For example, even if a bilateral United States-Egypt agreement provides no legal protection for German investors, taking on a costly obligation toward U.S. investors may signal that Egypt welcomes foreign investment, the domestic polity embraces it, and the government intends to adopt pro-investor policies toward all investors. A bilateral BIT, viewed as a signaling device, could encourage capital of any nationality to invest locally.

Both a credible commitment framework and a signaling framework establish our central expectation: BITs are anticipated to help attract capital by increasing the expected return on investment.[32] They can attract capital from two broad resource pools. First, they can shift resources from current consumption (effectively, stimulating new capital investments that would not have been made in the absence of reduced transactions costs). Second, and more importantly for our theory, BITs can attract capital by *redirecting* it from a high transactions cost venue to a lower cost one. A BIT gives the signatory a "reputational advantage" over its rivals in the competition for (re)distribution of an existing stock of investment. The possibility of investment diversion means that governments face incentives under certain conditions to implement BITs

[32] There is at least some skepticism in the literature regarding the magnitude of a BITs impact on investment flows. Hallward-Driemeier 2003, Tobin and Rose-Ackerman 2003, UNCTAD 1998. For our purposes it makes no difference whether BITs in fact influence FDI flows or whether they are simply perceived by host states to do so.

competitively.[33] We hypothesized that it is the ability of a BIT to give one country an advantage over others in the competition for investment that provokes BIT signings.[34]

Ironically, potential host countries face a classic collective action problem when it comes to making costly commitments to protect investors' interests. As we have emphasized, these agreements are costly to violate. They are also costly if they are *not* violated: governments agree to give up the use of a broad range of policy instruments (taxation, regulation, currency and capital restrictions) they might have legitimately wanted to use to achieve domestic political, social or economic purposes. BITs' diversionary potential, however, gives early signers an advantage over their rivals in the competition to attract investment. If developing countries were able to act collectively,[35] they might have preferred that the first BIT never be signed, but once these treaties were available, the possibility of capital diversion has made BITs increasingly attractive, at least in some cases.[36] As with any cartel, this sort of collective refusal to sign is

---

[33] Notice how this contrasts with customary international law. All potential hosts enjoy the same benefits from customary international law rule that protect investment, so these rules do not affect the distribution of investment among developing countries.

[34] Guzman 1998 provides a more complete discussion of the potential impact of competition on BITs.

[35] There have been efforts on the part of potential hosts precisely to overcome such collective action problems. Typically this involves coordinating to resist particular BIT provisions, rather than eschewing then altogether. CARICOM countries, for example, produced a document entitled "Guidelines for use in the Negotiation of Bilateral Treaties" that states, among other things, that CARICOM countries should not accept any restriction on the use of performance obligations and that they should retain the right to nationalise and to "determine at the time of nationalization the quantum of compensation and the terms of payment." Source: Caribbean Community Secretariat, reproduced in "UNCTAD, International Investment Instruments: A Compendium," v. III.

[36] Consider, for example, the CARICOM guidelines mentioned in the prior footnote. Jamaica, a member of Caricom when the guidelines were adopted singed a string of BITs with important partners in the late 1980s and early 1990s, entering into treaties with the U.K. (1987); Switzerland (1990); the Netherlands (1991); Germany (1992); France (1993); Italy (1993); U.S. (1994); Argentina 19(94); China (1994). These BITs include performance requirements and compensation provisions that are inconsistent with the CARICOM guildelines. The U.S.-Jamaica BIT, for example, requires "prompt, adequate and effective compensation in the event of expropriation. Cooperation is made still more difficult because the sets of competing states may overlap. For example, suppose state A competes for capital in two separate groups – a group of geographically proximate states that offer comparable proximity to large markets and a group of geographically dispersed states that have similar natural resource endowments. Imagine that the geographically close states all refuse to sign BITs because each state knows that once one state signs all of them will. In the other group, however, there is no such spirit of collective action and states

likely to break down eventually. Once the cartel starts to break down, however, it is likely that states will rush to sign BITs in an attempt to compete with those that have already done so.

One might wonder why developing states do not universally and immediately sign BITs in order to get whatever investment gains may be available. The answer is that in many cases, the expected benefits will not exceed the costs. While BITs may attract capital, they also have the effect of redistributing some of the return to each unit of capital from host to investor (the result of investors enjoying more favorable terms for their investment). Moreover, there are significant sovereignty costs involved: BITs are beneficial to governments believed to constitute high political risks precisely because they reduce host governments' freedom of action with respect to foreign investments.[37] For this reason, we should expect competition most acute among governments that lack the domestic institutions to assure creditors' property rights.

The changing nature of FDI itself has fed host country competition in two important ways. First, as FDI has shifted from investments in extractive and primary production to light manufactures, competition among potential hosts has intensified. A state that attracts investment in its extractive industry faces relatively little competition in that sector – its only competition is other states with similar natural resources. A country that attracts investment in manufactures, in contrast, competes with many more countries. *Any* country that can host the manufacturing process is a potential competitor. The rise of manufacturing as a central feature of FDI should

---

begin to sign BITs with the home countries of likely investors. State A faces mounting pressure to start signing BITs in order to remain competitive in its natural resource sector. When state A responds by entering into one or more BITs, the implicit agreement among the geographically close states may collapse.

[37] The most obvious sovereignty costs relate to relinquishing the right to use domestic courts in case of disputes. The range of domestic law decisions that could be brought before an arbitral body for review is striking – including everything from actual seizures of property to much more mundane matters of domestic law including rules of taxation, employment law, environmental requirements, court decisions, and so on. Virtually any legal change or rule that affects foreign investors is potentially subject to review by a foreign tribunal.

lead to an acceleration in the number of BITs signed. Moreover, we should be able to observe a higher rate of BIT acceptance among manufacturing hosts relative to producers of extractive goods. If this is true, it is in clear contrast with a more coercive explanation: from an investor's point of view, it is precisely extractive and primary sector investments that are subject to obsolescing bargains. A model based on competition among hosts, however, predicts that manufacturing should be linked to BITs signings.

Second, as the global volume of FDI has risen, the stakes in the competition for investment have increased. With a larger amount of investment available, an advantage in the competition for investment (such as that conferred by a BIT) yields a larger marginal increase in FDI inflows. More global foreign investment, then, means greater benefits from BITs, and we expect to see the total number BIT signings to increase along with FDI, even after controlling for other factors. On this view, the dramatic increase in BIT signings is in significant part a product of the dramatic increase in FDI, especially over the 20 years. Notice how this prediction would be different if, for example, social emulation is driving the increase in BITs. On that theory, there would be no particular prediction about the impact of increased FDI on BIT signings.

The competition model we describe predicts a clear pattern to BIT adoption. We should expect to see BITs proliferate, not randomly, but among competitors. Competition should be keenest among potential hosts with less credible domestic property rights institutions. We should see BITs proliferate where the competition for international capital is most intense – the manufacturing sector. Finally, BIT signings should be positively influenced by the rise if FDI.

Before proceeding to the evidence linking BITs to competition, we point out that this explanation does raise some interesting recent anomalies. If competitive dynamics are the main engine in the move toward bilateral investment arrangements, then many of the agreements

concluded within the past few years are quite puzzling indeed. For example, there have been a series of bilateral treaties between non-contiguous countries with official Highly Indebted Poor Country (HIPC) status. It is hard to see how a BIT between such partners could have been worth a couple of negotiators' fares to Paris. Many of these BITs were entered into during mini-lateral sessions among states, including a major European capital exporter (France, Germany, Switzerland for example). The true goal of the developing country negotiators may have been to secure an agreement with the lone (or few) capital exporters, and the BITs with other attendees may represent little more than symbolic acts of cooperation. Or the goal of these mini-lateral gatherings may be something unrelated to investment. While not a single agreement involving France itself came out of the Francophone mini-lateral in Paris in January 2001, Francophone solidarity alone might have justified the effort and expense.[38] The BITs that emerged may have been arranged to provide leaders with a tangible product they could use to justify the event to their domestic constituents. Finally, the explanation may lie in theories of institutional isomorphism.[39] This approach suggests that where we observe hard-to-rationally-justify agreements we might attribute it to the influence of the dominant western culture. These treaties may not have spread as a result of their functional virtues as much as their external legitimation. Whatever the true reason for the signing of these very recent BITs, we acknowledge their

---

[38] It is also possible that these mini-laterals are hands-on tutoring sessions. As the French report writes, "Cette ronde a permis aux negociateurs d'enrichir leur experience et leurs connaissances dans le domaine de la negociation internationale." ("This round allowed negotiators to deepen their experience and knowledge with respect to international negotiations.") Rapport Final, Ronde de negociations de conventions bilaterales de promotion et de protection des investissements pour les pays les moins avances Francophones, Paris, January 2001. As such, these apparently irrational treaties may be a rational exercise in strengthening the international capacities and competencies of one's cultural and political allies.

[39] DiMaggio and Powell 1991; Meyer and Rowan 1977; Meyer, Boli, Thomas and Ramirez 1997; Scott and Meyer 1994.

apparently uneasy fit with the model we have sketched above. Further research will be required to fully understand the motives in these cases.

III. Empirical Methods and Data

Methodology

We use an event history framework to estimate the duration of time before two countries sign a BIT. Our analysis begins in 1959, the year of the first BIT and includes those BITs signed up to January 1, 2000, the last year for which we have accurate data.[40] Since the focus of the analysis is a bilateral agreement between governments in a given year, the appropriate unit of analysis is the country dyad-year. In each dyad, we identify the potential "home" and the potential "host" country based on their relative level of development, as measured by GDP per capita. Of course, such designations become less meaningful the closer the members of the dyad are in their level of development. But treaties among countries of a similar level of development – especially at the higher end – are considerably less likely. In the reported analyses we exclude "developed dyads" from the sample in order to maximize the efficiency of our estimates.[41]

Event history methods offer a convenient way to incorporate time dependence in models of policy or innovation adoption. Our formulation is slightly more complicated than most since the unit of analysis is the country dyad and the model includes variables measured for one or the other member of the dyad as well as for the dyad itself. We estimate the following equation:

---

[40] For tractability we have eliminated states with fewer than one million inhabitants. As a practical matter, this has no effect on the results because there is insufficient data to include them in our regressions.

$$Y_{ab} = aX + ßZ + dV_{ab} + ?Wy$$

where Y_{ab} is a BIT between country A and B, X is a vector of conditions that affect country A's calculations, Z is a vector of conditions that affect country B's calculations, V is a matrix of characteristics of the relationship between country A and B, and Wy is a count of BITs among a group of host countries specified by the spatial weight W (spatial lags). We estimate this equation with a Cox proportional hazard model, a useful estimator when one does not have strong assumptions about the effect of time on the baseline hazard.

Data and Measures

Our dependent variable is the year of a treaty's signing, rather than the year in which it enters into force. We reason that the former not only approximates the time during which a government deliberates over the treaty, but is also the more important event for purposes of sending a pro-investment signal to international markets.[42] Both UNCTAD and the World Bank's ICSID track the date and signatories of BITs. While the two sources basically agree, UNCTAD's list is more recent and more comprehensive.[43] As the equation above indicates, our independent variables take on one of four analytic forms: (1) independent factors associated with the 'home" country; (2) independent factors associated with the host country; (3) factors

---

[41] We exclude dyads in which both members are classified as "highly developed" by the World Bank in that year.

[42] See UNCTAD 1998.: "As the great majority of BITs are ratified, it is reasonable to assume that, in the perception of investors, signing a BIT is the crucial action: Once a BIT is signed, or expected to be signed, the market has absorbed it or begins to absorb it."

[43] Our comparison of the two datasets found that, for the years they overlapped (1959-1997), UNCTAD included over two hundred treaties not included in the ICSID database.

associated with the relationship between host and investing countries; and (4) spatial lags of the dependent variable.

Spatial Lags as Diffusion Indicators: Competition, Cultural Emulation, and Learning.

To assess the source and strength of the various influences of policy diffusion we construct a series of spatial lags, modeled largely after those in Simmons and Elkins 2004. Spatial lag models treat spatial dependence in the same way time-series models treat serial correlation. Instead of lagging the value of the dependent variable one unit in time, one "lags" it one unit in space. The spatial lag is the weighted average of the dependent variable in the host country's "neighborhood."[44] The neighborhood is mapped by an N by N by T spatial weights matrix conventionally labeled W. Thus, the spatial lag for host country i can be written as

$$Wy_i = \sum_{j=1,\ldots N} W_{ij} \cdot y_j$$

where W is the spatial weights matrix and y_j is the dependent variable for country j (in our case, the number of BITs that j has signed). In matrix form we write the relationship as Wy, where y is an N by 1 vector of observations on the dependent variable. These measures vary by year as well.[45]

The spatial weights of central interest for BITs diffusion capture "competitive distance" in three ways. The first measures the degree to which host governments compete in the same

[44] For example, we compute "cultural distances" such as common language with this method of spatial lags.

[45] W, then, is an N x N x T matrix and y is an N x T matrix.

foreign markets; that is, whether they have the same export trade relationships.[46] This is a useful indicator because trade competitors are also likely to be competitors for FDI. Empirical studies show that the two are strongly correlated.[47] We reason that countries that compete for export markets are structurally positioned to compete for the same sources of FDI as well. The second measure records the degree to which nations export the same basket of goods. This neatly captures the fact is that investors choose between alternative locations for direct investment that they consider close substitutes. An automobile manufacturer, for example will consider investing in countries that produce steel; cocoa producers are not in the pool of comparable potential investment sites.[48] Our third measure captures the degree to which countries have similar educational and infrastructure resources. Assuming that potential foreign direct investors are concerned with a country's human assets as well as its technological and communications infrastructure, we reason that countries with similar educational and infrastructural profiles will compete for the same pool of capital.[49] For all three competition measures, we compute a spatial lag by anchoring the distances at zero (adding 1 to each score) and then calculating the yearly sum of BITs in force weighted by each countries competition matrix.

---

[46] We use the IMF Direction of Trade data to produce an n by n by t matrix of correlations (between countries) across the countries' proportion of exports to each of the 182 partner countries. Two countries that export goods in the same proportions to 182 countries will have a score of 1; while those with entirely opposite relationships will have score of –1. For a similar approach see Finger and Kreinen (1979). Network analysts often use this sort of measure to identify competitors (see Wasserman and Faust 1994).

[47]

[48] We calculate the distance between countries according to their export products, using information from the World Bank's World Development Indicators (WDI) that describe a country's export mix. These indicators tap the value of exports (in 1995 US dollars) in sectors such as food, fuel, agricultural raw materials, ores and metals, and arms. We calculate the correlation between countries for each year across 13 such indicators. The result is a measure, ranging from –1 to 1, of the similarity between countries according to the products they export.

[49] We compare such investment profiles by calculating correlations, by year, between countries across roughly 15 educational and infrastructural variables selected from the WDI. These distances also range from –1 to 1.

These competition measures appear to have a fair degree of face validity. For example, Figure 6 plots the values for the "distance" in export products between Brazil and select countries across time. If these values are to be believed, Brazil's products correlated quite highly with those of most Latin American countries in the 1960's and 1970's. This correlation decreased in the 1990's, at which time Brazil's export profile began to resemble that of the United States and Canada more than that of its Latin American neighbors. This finding is consistent with the common interpretation of the increasingly diversified Brazilian economy, one whose exports in everything from technology to agriculture now compete directly with the United States and less directly with smaller Latin American nations.

[Figure 6 about here]

We also use spatial lags in a similar way to measure the influence of an important alternative explanation, that of cultural peers. We use three measures of cultural distance: predominant religion, predominant colonial heritage, and predominant language. Unlike the competition measures, the cultural measures are binary; a country is either affiliated with another in terms of common language, or it is not. The spatial lag amounts to the mean number of BITs in force among those countries with the same cultural identity (religion, language, or colonial heritage). This measure captures an important possibility: that BITs result more from socially constructed emulation of policies of important reference groups than from hard-nosed economic competition.

Finally, spatial lags are used to capture the effects of policy learning. Our notion of learning, consistent with that articulated in Simmons, Dobbin, and Garrett (this issue), implies that policy makers from host countries are motivated to sign BITs based on the treaties' demonstrated benefits (specifically, increased FDI). Our model does not invest policy makers

with Herculean powers of observation or analysis; nor does it treat them as remedial statisticians. We assume simply that policy makers assess the success of countries in attracting investment over recent years and compare this average with the countries' number of treaties in force during this time. We replicate this cognitive process by regressing, each year, the average gross foreign direct investment as a percentage of GDP for the previous five years on the average number of treaties in force for that country during that period. The regression coefficient in each of these yearly bivariate equations is our estimate of the policy maker's estimate of the payoff of these treaties in terms of increased investment.[50]

[Table 2 about here]

Table 2 lists the results of these regressions. Because foreign direct investment data is sparse in the 1960's, the effect of the treaties is incalculable, both for us and for policy makers at the time. Throughout the 1970's and most of the 1980's the apparent effect of BITs is effectively zero. However, by the late 1980's – the period in which well over half of existing BITs were signed – BITs appear to have obvious payoffs. Those countries with BITs in force in those years are very clearly also the recipients of investment. The coefficient in 1990, for example, suggests that each BIT in force is associated with an extra .05 percent of GDP in investment. A country with 50 BITs (e.g., Chile) has almost 2.5 percent of its GDP in investment dollars more than a country without a BIT. This is the difference between having no foreign direct investment and having the worldwide average for a low or middle-income country

[50] In order to compute these results, we use only those data that are immediately available to us (and, more to the point, to policy makers). We reason that our informational constraints should match those of policy makers. As such, we use data reported in the World Bank's World Development Indicators and do not make efforts to impute or otherwise fill in missing data in these equations.

(gross foreign direct investment averages around 2.3 percent of GDP for low-income countries). To an observant host country in 1990, BITs would certainly *appear* to have some demonstrable benefits.

We consider one final explanation for diffusion, which is coercion. It may be that potential hosts are coerced or at least encouraged to enter into BITs. If so, on of the likely ways for this to be done is at the time a country seeks IMF credits. Though we do not believe the pursuit of or entry into BITs is explicitly stipulated in formal loan conditions, there may be more subtle pressures on a state to use these treaties.

Home Country Considerations. The proliferation of BITs could be explained by two home-country considerations: the desire to protect existing overseas capital, and the desire for additional investments. These considerations could significantly influence the pool of BITs that are potentially available, independently of any competitive dynamic among potential hosts. In the analysis that follows we control for the total FDI "exposure" of the home country; that is, the degree to which a country's capital is actually invested abroad. For this we use a measure of net foreign direct investment as a proportion of GDP (scored negatively when outflows outweigh inflows and positively when inflows outweigh outflows). On average, we expect high outflows to produce a greater willingness to supply BITs on the part of investors' governments.

We also include country dummies for the identity of home governments with the most active BIT programs (Germany, Switzerland, France, the UK, Italy, and the United States) to absorb any idiosyncratic tendencies to pursue BITs and to capture the effect of large BIT programs.

Host Country Considerations. The next set of variables identifies those host countries for which the marginal impact of entering into a BIT is likely to be large. From an investor's point of view (and, therefore, from a host point of view as well), BITs are especially valuable when they reduce risk in a country that is an otherwise desirable site for investment. One of the clearest results in the literature on foreign direct investment is that the market size of the host country,[51] the host's wealth,[52] and the host's growth potential[53] are all important in the decision to invest. We control for these by including log of the host's GDP, its GDP per capita, its growth in GDP, and FDI flows in the current and the previous period.[54] Realizing that actual capital flows are themselves endogenous to more basic determinants of those flows, we capture the economic desirability of the potential host by controlling for the quality of its work force (the rate of illiteracy). We expect all of these factors to influence the attractiveness of a potential host and, therefore, to affect the impact of a BIT on investment flows.

Central to our competition model is the idea that competition among hosts is driven in part by the highly competitive efforts of a broad range of countries to attract manufacturing investments. Since we expect countries with natural resources to be much less affected by such competition, we construct a measure of extractive industry dependence by the summing share of exports in fuel and "ores and metals" for each country, as recorded in the WDI. Approaches emphasizing the coercive role of dominant powers would anticipate a positive coefficient for extractive industries, since these are most subject to obsolescing bargaining and hence intensified

---

[51] Kobrin 1976; Wheeler and Mody 1992.
[52] Henisz 2000.
[53] Kobrin 1976; Wheeler and Mody 1992.
[54] The literature on agglomeration economies, stressing the increasing benefits of co-location by economic units, provides a justification for including prior FDI inflows. See Wheeler and Mody 1992.

political risks. Our expectation, however, is that this effect will be swamped by competition among hosts for manufacturing FDI, and we anticipate a negative effect. The outcome on the extractive industry variable thus provides a fairly crisp test of the relative importance of competition among hosts in explaining the diffusion of BITs.

Our competitive story of the diffusion of BITs centers on the search for host government credibility to respect the rights of investors in an effort to attract external foreign direct investment. We have suggested how it is that competitive reputation building, through BITs, can set off the diffusion process among countries that compete with one another. In general, we expect governments with greater indigenous credibility to be less willing to pay the sovereignty and other political costs associated with concluding BITs. The quality of the legal system is key in this regard. A growing literature suggests that common law systems are systematically more attuned to property rights, in comparison most especially to systems modeled on the French civil law system. Early research in this genre tends to demonstrate the superiority of common law relative to civil law systems in the provision of investor protections. Common law countries tend to have broader and deeper capital markets as a result.[55] Civil law systems are more likely, it is argued, to implement regulatory solutions to perceived social conflict[56] – precisely the kind of approach likely to make external capital flinch. Judicial independence tends to be higher in common law countries, one indicator of which is the longer average tenure in office of Supreme Court justices in common law jurisdictions.[57] The upshot of this empirical research is that civil law systems seem much less oriented toward credible rules of capital protection. It is precisely

---

[55] La Porta, Lopez-De-Silanes, Shleifer and Vishny 1997. La Porta, Lopez-de-Silanes, Shleifer and Vishny 1998.

[56] Botero, Djankov, La Porta, Lopez-de-Silanes and Schleifer 2002.

these civil law countries we expect to see reach for an external commitment mechanism, such as a BIT.[58]

Characteristics of Country Pairs. In this category we identify *relational variables* that might be associated with the likelihood of an agreement between the two nations. One logical factor is the amount of investment activity between host and home. While we do not have data on bilateral investment flows across all nations, we can approximate this with measures of other business transactions (specifically, trade) between the countries.[59] The measure we employ for this is the volume of trade (imports and exports) between countries as a percentage of the host's GDP. It is also conceivable that countries sign BITs with those with whom they share cultural characteristics. The notion here is that it is easier for states with cultural similarities to negotiate successfully. However, if cultural similarities also reduce the perceived risks of investment, this might operate in the opposite direction – reducing the need for a BIT. We test the relationship between cultural characteristics and BITs signing by measuring country pairs with shared language, religious and colonial traditions.

Finally, some FDI may be motivated by a desire to tap into low wage labor pools. We capture the attractiveness of relatively inexpensive labor by controlling for the *difference* in per capita GDP between potential BIT partners.

---

[57] La Porta, Lopez-de-Silanes, Pop-Eleches and Schleifer 2002.

[58] We use an indicator of a English Common law tradition used by La Porta et. al.

[59] The literature that has focused on firm and industry level explanations for the location of foreign direct investment emphasize that firms that depend on foreign sales are more likely to invest overseas. For example, some research suggests that firms' decision to deepen their presence in a particular country is influenced by the extent of its prior experience in that jurisdiction (Ball and Tschoegl 1982.) Others have found that firms are more likely to invest where they have strategic advantages, and these are plausible connected with vertical downstream linkages (Kimura 1989.) The measure proposed here assumed these effects may show up in the aggregate trade relationships at the national level.

IV. Findings

We present four versions of our event history model (Table 3). The first includes the export partner lag together with the full set of covariates described above. The last three models include one of the three competitive spatial lags together with a reduced form of the model (excluding statistically insignificant covariates from model 1). Several clear empirical patterns begin to emerge. There is fairly consistent and convincing evidence of the importance of competition for capital among developing countries in explaining the proliferation of BITs over the past four decades. In all the models in which measures of competition were included, higher rates of BIT signing among competitors significantly increased the rate at which a given country would itself enter into a BIT. We find evidence of this relationship with each of our competition variables. The results indicate that there exists competition among countries that export similar products, countries whose exports compete in similar third markets, and countries that can be considered comparably "attractive" to investors in terms of their infrastructure and work force. A potential host government is more likely to sign a BIT when its rivals do so.

One can see the size of these effects quite clearly in Figure 7a, which plots the survival curve for two different values of the "export product similarity" variable. The results of these three competition variables alone provides preliminary evidence that competition is central to BIT diffusion.

The competition model also predicts that higher extractive production by the potential host would reduce the propensity to negotiate a BIT (contrary to expectations based on investors' demands to address obsolescing bargains). The competition model is again born out in this respect. In every version of the model, a higher proportion of extractive industries in exports *reduced* the likelihood of a BIT. Figure 7b, which compares the signing rates for a government

with an extractive-based economy versus one with an exclusively manufacturing-based economy, suggests that – *ceteris paribus* – signing rates can differ by as much as 20 percentage points depending upon a state's level of extractive material exports. Both the magnitude and stability of this effect across models suggests that it is a fairly robust finding. It is also a surprising finding if we had expected BITs to address the concerns of the most vulnerable investors.

The dynamics of international competition also show up in the influence of host country domestic institutions on the propensity to sign a BIT. We have characterized a BIT as a developing government's way to compete for international capital by making a credible commitment to respect property rights. Investment treaties, we have argued, are a way to enhance a reputation as a safe venue for capital investment when domestic institutions themselves can't deliver. But they involve sovereignty costs, which governments are loathe to pay unless they have no reasonable domestic alternative.

The evidence provides strong support for this argument. One of the clearest results is that common law host countries are significantly less likely to enter into BITs than are similarly situated governments of civil law countries.[60] Common law hosts were only about half as likely to commit to a BIT as were their civil law counterparts. This suggests that common law countries have less need for an external source of credibility to be attractive to investors; theirs is built into the legal system itself.[61]

---

[60] Most of which are of the French civil law tradition, but including socialist legal traditions and German and Scandinavian civil law countries.

[61] Interestingly, none of the tests we ran indicate similar effects for participatory democracy. Jensen, however, argues that democracies are better able to make credible commitments and that they are therefore better able to attract FDI. Jensen 2003.

The competition theory is also supported by large and highly significant coefficient on average annual FDI flows. These provide strong evidence that increase global FDI increases the willingness of states to enter into BITs, as predicted by our theory.

In addition to the competition variables, our coercion variable (use of IMF credits) is significant in each of the models. This may mean that states seeking assistance from the IMF are encouraged to enter into BITs. Alternatively, it may be that the conditionality of IMF loans overlaps with the obligations of the BIT, reducing the costs of the latter. Furthermore, a government appealing to the IMF for assistance may have the sovereignty cost of surrendering authority to foreigners. The additional step of signing BITs may have quite modest costs. This alternative explanation is consistent with our basic competition model, though we are unable to whether it is coercion or competition that is at work with this variable.

Other diffusion processes may account for the spread of BITs over the past four decades, but the evidence is far less convincing than for competition dynamics. The claim that learning is taking place is only mildly supported: the direction of the effect of a demonstrated correlation between BIT signing and FDI inflows has a positive effect, but the results are never statistically significant. Social emulation also received weak support. BITs signed by hosts' religious network had consistent positive effects on the propensity to enter into a BIT, but those of the language and colonial heritage networks were insignificant.

Many of the variables that would predict home country interest in offering a BIT to a developing country performed quite well and generally as expected. The size of the host economy, relatively low host country wealth, and economic growth all increased the likelihood of a BIT. Our work also comports with that of previous studies with respect to the attractiveness of low-wage, high quality work forces: large GDP per capita differentials and high literacy rates

were good predictors of a BIT. BITs are also more likely to be concluded with developing countries whose current accounts tend toward surplus, indicating that an export orientation is a plus. All of the country dummies (the five most active hosts and the five most active home countries) were highly significant, with the partial exceptions of Germany and the United States. Their inclusion reduces the potential concern that BITs diffusion is driven by idiosyncratic policies in a few of the most active countries.

Control variables describing the economic *relationships* between home and host countries were important predictors of BITs. In accordance with expectations, BITs are more likely when a country pair already has extensive trading relationships. A common language within the dyad makes it much more likely a pair of countries will negotiate a BIT, but a colonial link reduces by about two-thirds the likelihood that a country pair will do so. Perhaps investors in home countries perceive the risk in their country's former colonies to be lower than in other states. After all, colonies' legal institutions are likely to be similar to, if not partially overlap with, legal institutions in the mother country. This fits with our conception of BITs as created largely to establish a credible legal framework for investment that is otherwise lacking.

Finally, we consider the potential impact of commonly experienced "shocks" on the propensity to sign BITs. All countries could have been affected by the end of the cold war, and our results indicate a significantly lower propensity to sign BITs during that era. There is also evidence that the commonly experienced density in these bilateral arrangements has influenced further signing. The number of BITs in force globally seems to affect the propensity to sign.

V. Conclusion

The use of bilateral investment treaties has grown significantly since the early 1960s. These treaties are meant to improve conditions under which global capital relocates, prospers,

and repatriates. They are also meant to raise the stakes for governments of capital-poor economies by committing them to respect property and contractual rights of foreign investors and to agree to arbitration – effectively clipping their sovereignty – in the event of any disagreement over subsequent investment contracts. There are clearly possibilities here for mutual gain, though we are agnostic about the global welfare effects of these treaties, given their potential redistributive consequences. We also admit that some of the more recent treaties between very poor countries do not square with our straightforward competitive model.

There was plenty of support in the data for a range of economic control variables. The most important drivers of the spread of BITs are very likely factors that drive investment decisions more generally. The pattern of BITs shows that home governments want to secure investments in developing markets that are large, vibrant, somewhat open, with competitively priced, high quality labor. On the other hand, BITs are most valuable where political risk is endemic. China would be the quintessential BIT partner, according to our model.

Of course, much remains to be done to fully understand the diffusion of a bilateral regime that is highly favorable to the interests of investors. Theoretically, it might be useful to flesh out the conditions under which a multilateral regime could enhance the ability of host governments to make credible commitments. It would also be more satisfying if we could understand the current spate of "strange" poor-poor country BITs in a way that is consistent with our central dynamic of competition. At present, however, sociological theories of institutional isomorphism seem an obvious if ad hoc theoretical shift that may be useful in these cases.

Much also remains to be done empirically. The encouraging finding on domestic institutions that enhance credible commitments could be extended in various ways. A different cut at this problem of domestic credibility would be to turn from the institutional environment to

direct evidence about investors' perceptions of government credibility, using indices based on investor surveys of the strength of the rule of law in various potential host countries.[62] A hypothesis compatible with the spirit of the work we have done here would be that countries with a reputation among investors for a strong rule of law tradition are less likely to reach for the external credibility we have argued BITs potentially provide.

On the whole, however, we have argued that the diffusion of BITs reflects competition for access to global capital. BITs are efforts to make credible commitments or to send credible signals to investors that property rights will be respected. Our model suggests that a BIT could potentially change the expected return to capital for a host country, with implications for its competitors. Three expectations follow from our theory of host country competition for capital. We expected BITs to spark a response in kind among economic competitors. Three measures of competition were developed and tested – competition for export markets, competition within particular export sectors, and competition among similar investment venues as measured by comparable labor force and infrastructure. In all cases, where a host country's closest competitors had negotiated a BIT, there was a higher tendency for the potential host government to do so as well. We expected more BITs where the market for FDI is most competitive – the manufacturing sector. We found, in contrast to what theories of obsolescing bargaining would predict, that dependence on extractive industries reduced the probability that a host would make such a commitment. We expected BITs to be pursued most assiduously by governments whose domestic institutions make them least able to make credible commitments to protect property rights. We found this to be supported by one institutional measure relating to the nature of

---

[62] See Knack and Keefer 1995:225.

domestic legal system. Other diffusion processes may potentially be at work, but these findings increase our confidence that the spread of BITs over the past forty-five years has much to do with a systematic dynamic of competition for international capital.

Table 1 The First 40 Bilateral Investment Treaties Signed

Universe: States with over 1 Million Inhabitants between 1959 and 1999

Investing Country	Host Country	Year BIT Signed
Germany	Dominican Republic	1959
Germany	Pakistan	1959
Germany	Malaysia	1960
Germany	Greece	1961
Switzerland	Tunisia	1961
Germany	Togo	1961
Germany	Thailand	1961
Germany	Liberia	1961
Germany	Morocco	1961
Switzerland	Niger	1962
Switzerland	Cote d'Ivoire	1962
Switzerland	Guinea	1962
Germany	Cameroon	1962
Switzerland	Congo	1962
Switzerland	Senegal	1962
Germany	Guinea	1962
Germany	Turkey	1962
Germany	Madagascar	1962
Switzerland	Rwanda	1963
Netherlands	Tunisia	1963
Switzerland	Liberia	1963
Switzerland	Cameroon	1963
Germany	Sri Lanka	1963
Germany	Tunisia	1963
Germany	Sudan	1963
Italy	Guinea	1964
Switzerland	Togo	1964
Germany	Senegal	1964
Germany	Niger	1964
Switzerland	Madagascar	1964
Belgium-Lux.	Tunisia	1964
Germany	Korea	1964
Switzerland	Tanzania	1965
Switzerland	Malta	1965
Germany	Sierra Leone	1965
Switzerland	Costa Rica	1965
Germany	Ecuador	1965
Netherlands	Cameroon	1965
Netherlands	Cote d'Ivoire	1965
Sweden	Cote d'Ivoire	1965

Figure 1 Number of Bilateral Investment Signed, relative to Global Foreign Direct Investment as a proportion of Global GDP, by year

Universe: States with over 1 Million Inhabitants between 1959 and 1999

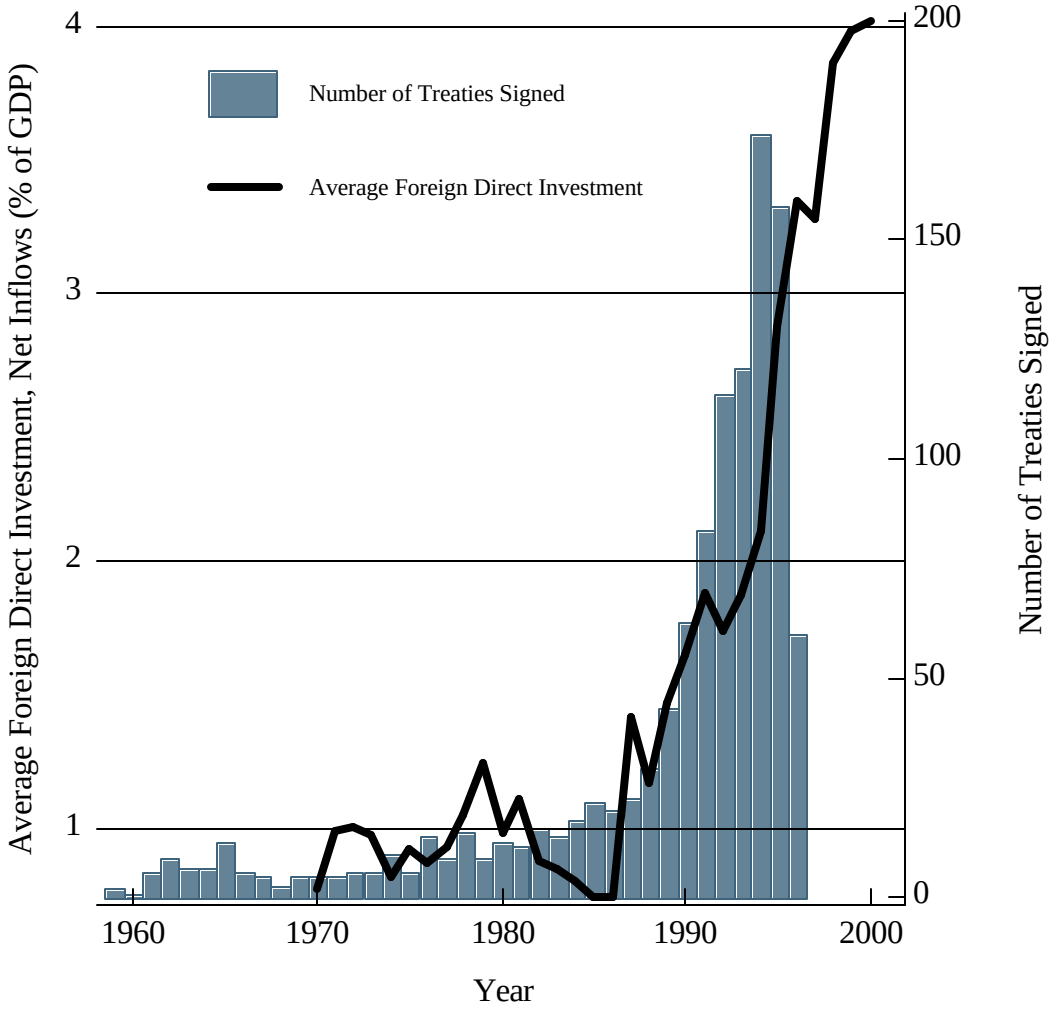


Figure 2 Mean Difference in GDP per Capita between Dyad Members
Universe: States with over 1 Million Inhabitants between 1960 and 1999

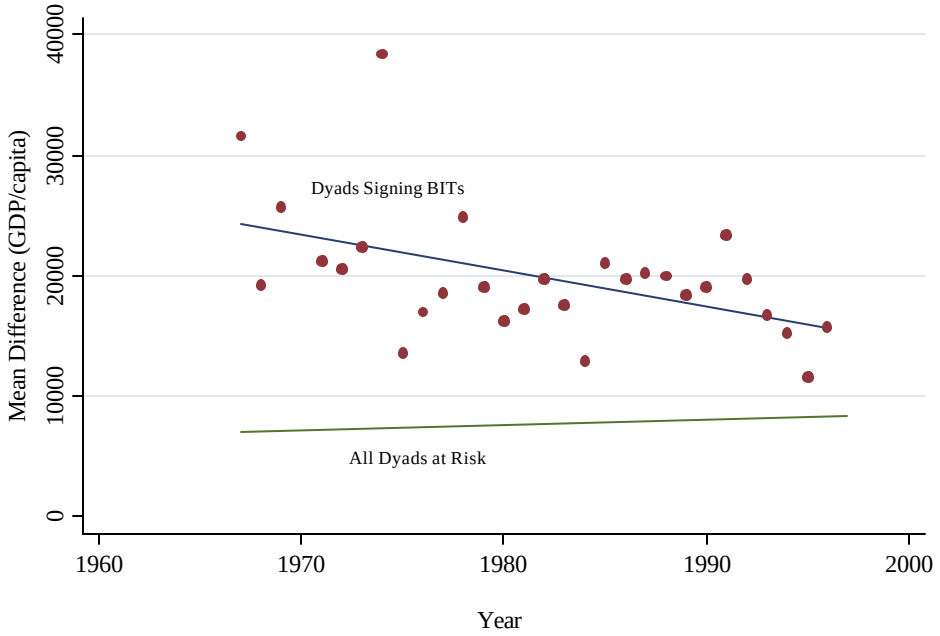


Figure 3 Mean Difference in Democracy between Dyad Members
Universe: States with over 1 Million Inhabitants between 1960 and 1999

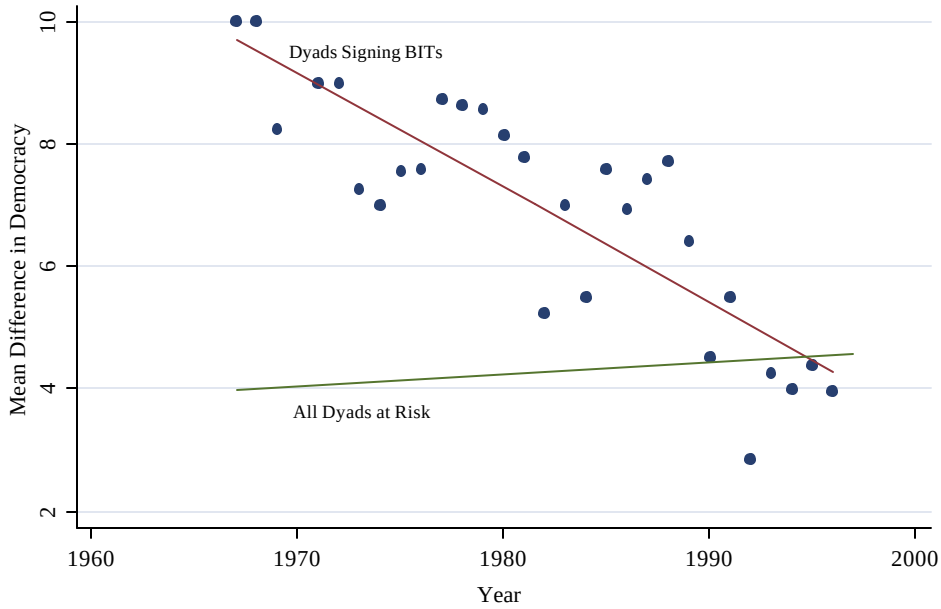


Figure 4 Number of BITs signed, by country (1959-1999)

Twelve most active BIT signers of capital exporting countries

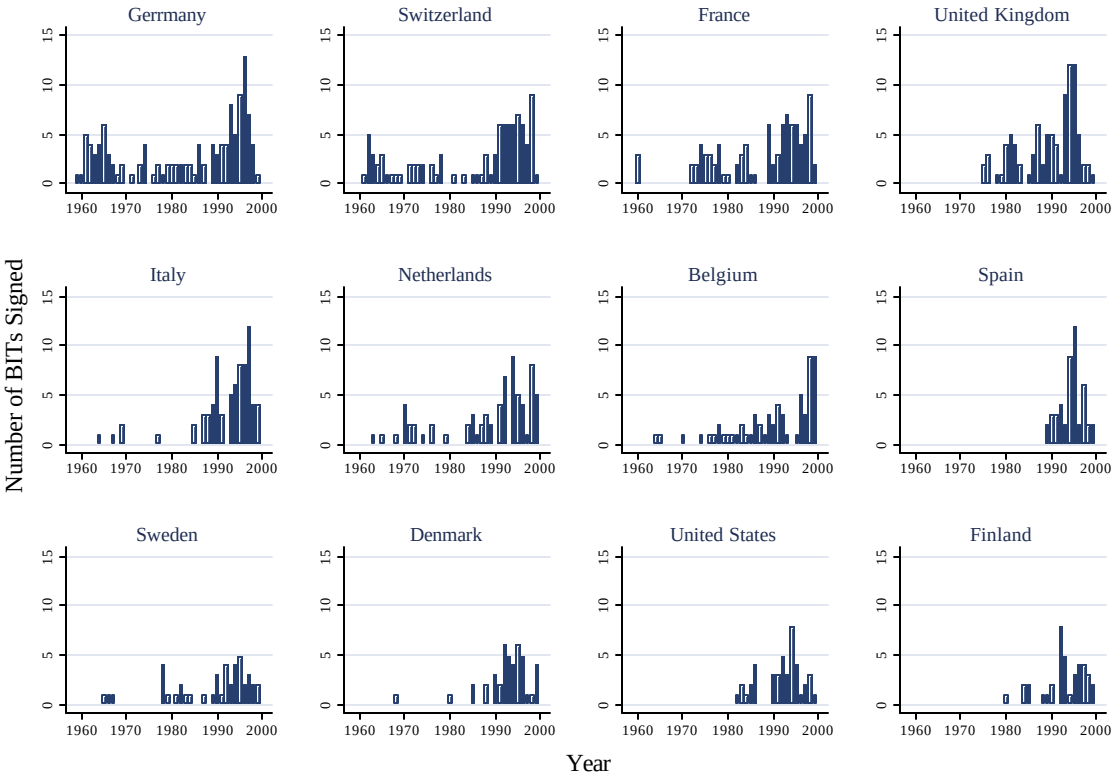


Figure 5 Number of BITs signed, by country (1959-1999)

Twelve most active BIT signers among capital importing countries

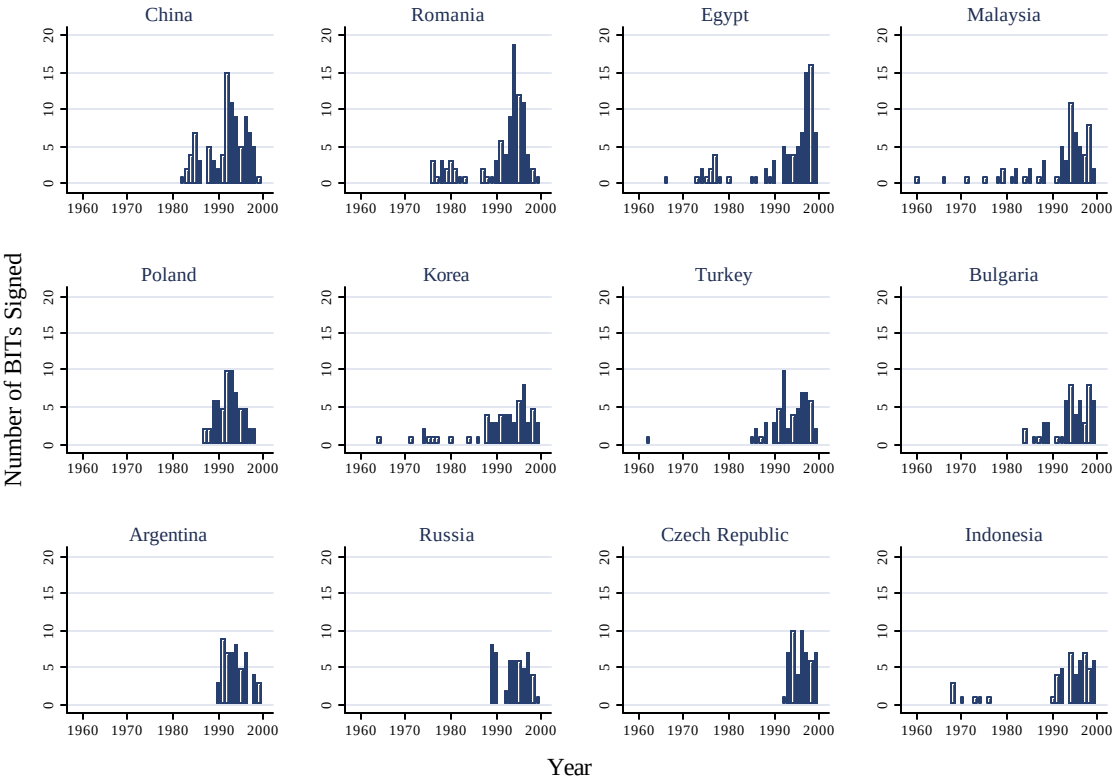


Figure 6 A Measure of Export Market Similarity, the Brazilian case

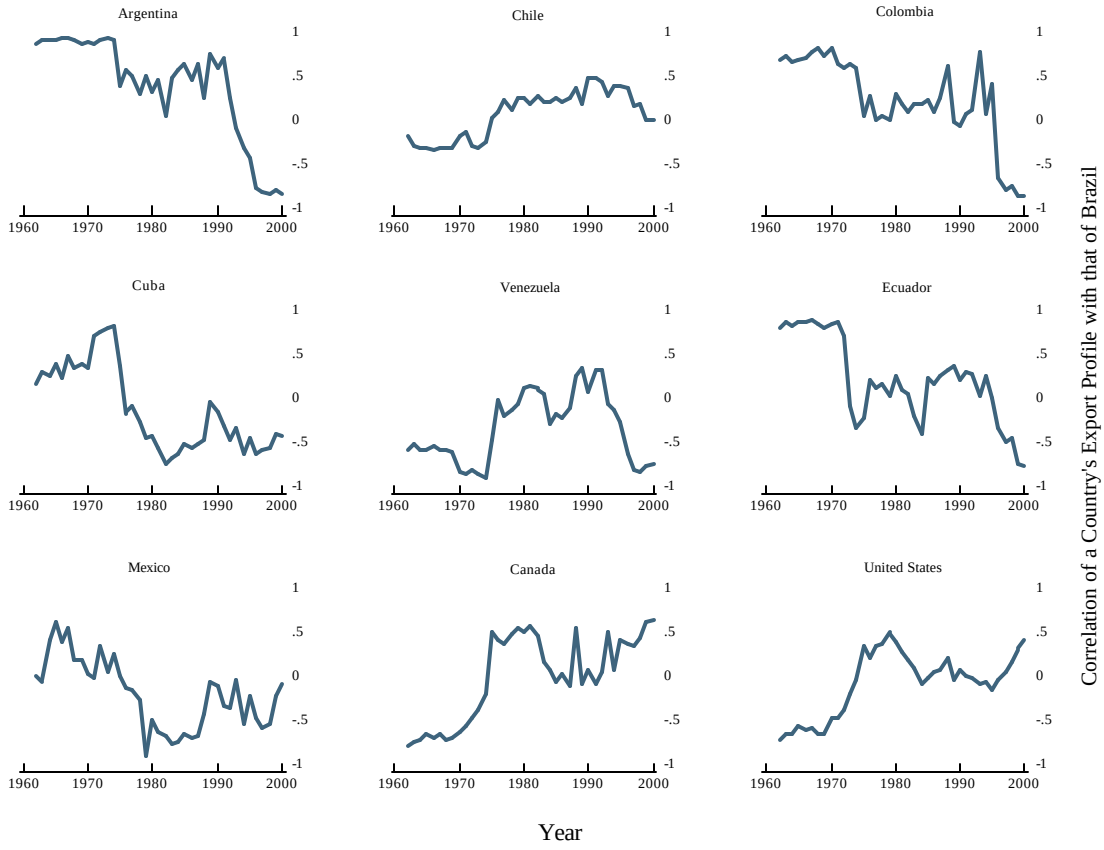


Table 2 BIT "Lessons" for Policy Makers

The effect of the number of BITs on FDI, by year (OLS results)

Year	b	N
1958	0	3
1959	0	3
1960	0	3
1961	0	3
1962	0	3
1963	0	3
1964	0	3
1965	0	3
1966	0	3
1967	0	3
1968	0	5
1969	0	7
1970	0	7
1971	0.277	12
1972	0.347	14
1973	-0.008	18
1974	-0.011	18
1975	-0.009	30
1976	-0.055	52
1977	-0.015	71
1978	-0.007	92
1979	-0.005	97
1980	-0.001	101
1981	-0.004	106
1982	0.003	108
1983	0.012	110
1984	0.011	112
1985	0.022	114
1986	0.034	116
1987	0.034	116
1988	0.036*	118
1989	0.045**	119
1990	0.053**	119
1991	0.083***	121
1992	0.070**	121
1993	0.036	126
1994	0.031	134
1995	0.019	134
1996	0.003	136
1997	-0.009	137
1998	-0.009	138
1999	-0.011	137

* significant at 10%; ** significant at 5%; * significant at10%

Table 3 A Model of BIT Signings

Cox Proportional Hazard Model

Explanatory Variables:	Model 1	Model 2	Model 3	Model 4
Competitive Theory:				
BITs among hosts with…				
similar export partners	1.03**	1.03**		
similar products			1.05**	
similar infrastructure and education				1.04*
Host's extractive industries/exports	0.86**	0.83***	0.88**	*0.89*
Host's common law tradition	0.54***	0.54***	0.56***	0.57***
Average Annual FDI flows (global)	1.51***	1.51***	1.60***	2.65***
Alternative Diffusion Explanations:				
Cultural Emulation, BITS among hosts of…				
similar religion	1.03**	1.03**	1.03**	1.03**
similar language	0.99			
similar colonial heritage	1.01			
Learning from success	1.01	2.24	1.34	3.67
Coercion: Host's use of IMF credits	1.23**	1.23**	1.25***	1.24**
Host Control Variables:				
Host's GDP	1.09***	1.09***	1.09***	1.09***
Host's GDP/capita	0.93***	0.93***	0.93***	0.93***
Host's Growth in GDP	1.03***	1.03***	1.02***	1.03***
Host's FDI (% of GDP)	1.61			
Host's FDI (% of GDP, t-1)	0.99			
Host's illiteracy rate	0.98***	0.98***	0.98***	0.98***
Host's Capital Account/GDP	1.02***	1.02***	1.02***	1.02***
China	2.91***	2.88***	3.03***	3.21***
Malaysia	6.92***	6.79***	6.65***	6.84***
Poland	2.98***	2.98***	3.30***	3.26***
Egypt	6.11***	6.07***	6.03***	6.51***
Romania	3.09***	3.11***	3.23***	3.26***
Home Control Variables:				
United States	1.49*	1.49*	1.49*	1.50*
France	5.30***	5.31***	5.24***	5.17***
United Kingdom	6.64***	6.64***	6.55***	6.95***
Germany	1.39	1.39	1.50*	1.65**
Switzerland	5.48***	5.56***	5.57***	4.71***
Dyadic Control Variables:				
Dyadic Trade (% of hosts GDP)	1.05*	1.06*	1.03	1.04*
Common Colonial Heritage	0.47***	0.47***	0.47***	0.49***
Common Language	1.57***	1.57***	1.57***	1.59***
Difference in GDP/capita	1.02***	1.02***	1.02***	1.02***
Common "Shocks":				
Cold war	0.73**	0.73**	0.71**	0.79
Number of BITs globally, by year	1.02***	1.02***	1.02***	0.99***
Observations	169474	169502	172530	142727
Number of country-pairs analyzed	4725	4726	4805	4787
Number of BITs	867	868	888	865
Log Likelihood	2197.558	2201.463	2267.393	2343.685

* significant at 10%; ** significant at 5%; *** significant at 1%

Figure 7a: Survival Estimates According to the Average Number of BITs of Competitors (measured by Export Product Similarity); Estimates derived from Model 3, Table 5

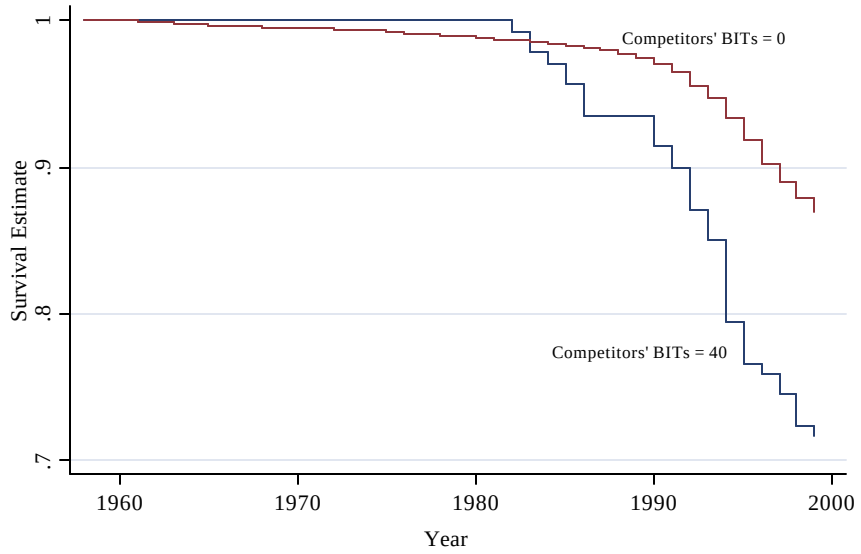
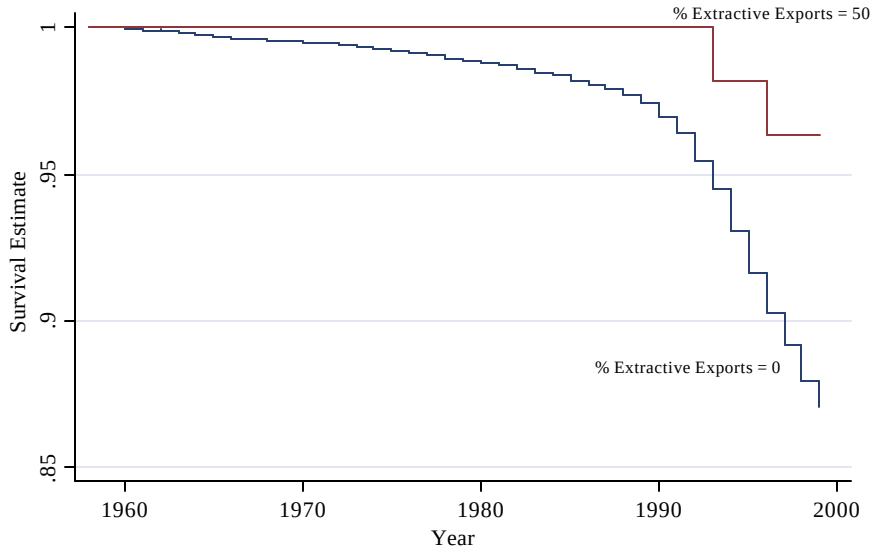


Figure 7b: Estimates According to Percent of Exports in Extractive Industries; Estimates derived from Model 2, Table 5



References:

Ball, Clifford A and Adrian E Tschoegl. 1982. The Decision to Establish a Foreign Bank Branch or Subsidiary: An Application of Binary Classification Procedures. *Journal of Financial and Quantitative Analysis* 17 (3):411-24.

Botero, Juan, Simeon Djankov, Rafael La Porta, Florencio Lopez-de-Silanes and Andrei Schleifer. 2002. The Regulation of Labor. Unpublished manuscript,

Comeaux, Paul E. and Stephen N. Kinsella, 1994. Reducing Political Risk in Developing Countries: Bilateral Investment Treaties, Stablilization Clauses, and MIGA & OPIC Investment Insurance. *New York Journal of International and Comparative Law* 15: 1-48.

DiMaggio, Paul and Walter W. Powell. 1991. *The New Institutionalism in Organizational Analysis.* Chicago: University of Chicago Press.

Dolzer, Rudolph. 1981. New Foundations of the Law of Expropriation of Alien Property. *American Journal of International Law* 75 553-.

Graham, Edward M. 1995. Foreign Direct Investment in the World Economy. Unpublished manuscript, IMF Working Paper WP/95/59, Washington DC.

Guzman, Andrew T. 1998. Explaining the Popularity of Bilateral Investment Treaties: Why Ldcs Sign Treaties That Hurt Them. *Virginia Journal of International Law* 38 639.

Guzman, Andrew and Beth A. Simmons. To Settle or Empanel? An Empirical Analysis of Litigations and Settlement at the World Trade Organization. *Journal of Legal Studies* 31(1) S205-S235.

Hallward-Driemeier, Mary. 2003. Do Bilateral Treaties Attract Fdi? Only a Bit...And They Could Bite. Unpublished manuscript, World Bank, Washington DC.

Henisz, Witold J. 2000. The Institutional Environment for Multinational Investment. *Journal of Law, Economics, and Organization* 16 (2):334-64.

Jensen, Nathan M. 2003. Democratic Governance and Multinational Corporations: Political Regimes and Inflows of Foreign Direct Investment. *International Organization* 57 (3):587-616.

Kimura, Yui. 1989. Firm-Specific Strategic Advantages and Foreign Direct Investment Behavior of Firms: The Case of Japanese Semiconductor Firms. *Journal of International Business Studies* 20 (2):296-314.

Knack, Stephen and Philip Keefer. 1995. Institutions and Economic Performance: Cross-Country Tests Using Alternative Institutional Measures. *Economics and Politics* 7 (3):207-27.

Kobrin, Stephen J. 1976. The Environmental Determinants of Foreign Manufacturing Investment: An Ex Post Empirical Analysis. *Journal of International Business Studies* 7 29-42.

Kobrin, Stephen J. 1980. Foreign Enterprise and Forced Divestment in the Ldcs. *International Organization* 34 (1):65-88.

La Porta, Rafael, Florencio Lopez-de-Silanes, Cristian Pop-Eleches and Andrei Schleifer. 2002. The Guarantees of Freedom. Unpublished manuscript, Harvard Institute of Economic Research Discussion Paper Series, Cambridge MA.

La Porta, Rafael, Florencio Lopez-De-Silanes, Andrei Shleifer and Robert W. Vishny. 1997. Legal Determinants of External Finance. *Journal of Finance* 52 (3):1131-50.

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer and Robert W. Vishny. 1998. Law and Finance. *Journal of Political Economy* 106 (6):1113-55.

Lipson, Charles. 1985. Standing Guard: Protecting Foreign Capital in the Nineteenth and Twentieth Centuries. Berkeley: University of California Press.

Meyer, John W and Brian Rowan Rowan. 1977. Institutionalized Organizations: Formal Structure as Myth and Ceremony. *American Journal of Sociology* 83 340-63.

Meyer, John W., John Boli, George M. Thomas and Francisco O. Ramirez. 1997. World Society and the Nation-State. *American Journal of Sociology* 103 (1):144-81.

Minor, Michael S. 1994. The Demise of Expropriation as an Instrument of Ldc Policy. *Journal of International Business Studies* 25 177-.

Reading, Michael R. 1992. The Bilateral Investment Treaty in Asean: A Comparative Analysis. *Duke Law Journal* 42 679-705.

Scott, W. Richard and John W Meyer, ed. 1994. Institutional Environment and Organizations: Structural Complexity and Individualism. Thousand Oaks CA: Sage Publications.

Simmons, Beth A. 2000. International Law and State Behavior: Commitment and Compliance in International Monetary Affairs. *American Political Science Review* 94 (4):819-35.

Simmons, Beth A. 2000. The Legalization of International Monetary Affairs. *International Organization* 54 (3):573-602.

Simmons, Beth A. and Zachary Elkins. 2004. The Globalization of Liberalization: Policy Diffusion in the International Political Economy. *American Political Science Review* 98 (1):171-89.

Sornarajah, M. 1994. *The International Law of Foreign Investment.* New York: Cambridge University Press.

Tobin, Jennifer and Susan Rose-Ackerman. 2003. Foreign Direct Investment and the Business Environment in Developing Countries: The Impact of Bilateral Investment Treaties. Unpublished manuscript, New Haven CT.

UNCTAD, (United Nations Conference on Trade and Development). 1998. *Bilateral Investment Treaties in the Mid-1990s.* New York and Geneva: United Nations.

Vagts, Detlev F. 1987. Foreign Investment Risk Reconsidered: The View from the 1980s. *Foreign Investment Law Journal* 2 1-.

Vandevelde, Kenneth J. 1988. The Bilateral Investment Treaty Program of the United States. *Cornell International Law Journal* 21 201-76.

Wheeler, David and Ashoka Mody. 1992. International Investment Location Decisions. *Journal of International Economics* 33 57-76.