Bilateral Investment Treaties, Credible Commitment, and the Rule of (International) Law: Do BITs Promote Foreign Direct Investment?

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A long line of research, beginning with Macaulay's (1963) well-known study of "Non-Contractual Relations in Business," suggests that the formal trappings of domestic law often have effects on private behavior that are, at best, "indirect, subtle, and ambiguous" (Macaulay 1984:155). Law and society scholars have spent somewhat less time exploring whether international law's effects on behavior are similarly attenuated. In this article I examine whether foreign investors take the presence of strong formal international legal protections into account when deciding where to invest. I focus on whether the presence of bilateral investment treaties, or BITs, meaningfully influences investment decisions. I present results from a statistical analysis that examines whether the formally strongest BITs—those that guarantee investors access to international arbitration to enforce investors' international legal rights—are associated with greater investment flows. I find no clear link between treaty protections and investment, a finding consistent with past law and society research but in tension with claims common in the BIT literature that the treaties should have dramatic effects on investor behavior.

Bilateral investment treaties, or BITs, have emerged as one of the most remarkable recent developments in international law. In the treaties, pairs of countries—often a developed country and a less-developed country (LDC)—extend legally binding promises to treat each other's foreign investors favorably. The United Nations Conference on Trade and Development (UNCTAD) calculates that there were fewer than 100 BITs in 1980; in 1999, there were more than 2,000 such treaties (UNCTAD 2000). Many of these BITs contain dispute settlement provisions that allow investors to unilaterally initiate binding international arbitration against the state hosting their investment. This development is particularly striking, as historically international law has not recognized a right of private parties to seize international tribunals to resolve treaty disputes. Observers,

working in the tradition of the "new law and development" (Trubek & Santos 2006), argue that the treaties have great potential to "credibly commit" developing countries to pro-investment policies by using formal international law to "tie the hands" of policy makers (Guzman 1998). In exchange for accepting legal limits on their policy autonomy, developing countries can expect to see a corresponding increase in foreign direct investment (FDI). This, Salacuse and Sullivan (2005) argue, is the "grand bargain" of the treaties.

My central concern in this article is exploring whether BITs, by creating a formally strong international "rule of law," meaningfully promote foreign investment.[1] Do investors care about the international legal protections the treaties offer? Do they take the treaties decisively into account when deciding where to invest? A number of statistical studies, conducted by social scientists generally sympathetic to the law and development orthodoxy, have examined these basic questions, but results are inconsistent and contradictory. Neumayer and Spess (2005) report that developing countries that sign large numbers of BITs can expect to see their shares of FDI nearly double. Salacuse and Sullivan (2005) also present evidence that investors care greatly about BIT protections. In their model, a developing country that enters a BIT with the United States can expect to see an additional $1 billion in FDI per year. A handful of unpublished but widely circulated studies report less-optimistic findings. Hallward-Dreimer (2003) and Tobin and Rose-Ackerman (2007) find that BITs do not have much, if any, positive effect on FDI; in an earlier study Tobin and Rose-Ackerman (2005) find that BITs may actually reduce FDI to high-risk countries, though these studies offer little in terms of explanation for these null or negative findings.

In this article I report results from a time-series cross-section (TSCS) analysis of the effects of BITs on FDI that builds and improves upon these existing but inconclusive efforts. Using an original dataset that records the strength of dispute settlement provisions of approximately 1,000 BITs between developing and major capital exporting countries, I explore whether the formally strongest BITs are statistically associated with greater investment. My study is the first to take into account differences in investment treaty design. This advance is important because existing empirical studies of BITs tend to adopt a common, legal formalist view of how the treaties "work" that places primary theoretical emphasis on access to international arbitration, but without attempting to

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[1] I do not address the related question of why developing countries enter into BITs. They may do so under the assumption that entering into the treaties will lead to greater investment flows (Elkins et al. 2006), an assumption that my analysis suggests is mistaken, or because entering into the treaties provides certain other rewards, such as greater access to International Monetary Fund (IMF) or World Bank aid, or because entering into the treaties plays a symbolic or expressive function (Hathaway 2002:1959).

distinguish treaties that provide access to arbitration from those that do not. The inconclusive results of current studies may thus be a product of measurement error; my main empirical contribution here is to provide a fairer and more appropriate test of legal formalist (or credible commitment) theories of BITs by distinguishing and focusing upon those treaties that have the greatest theoretical potential to increase investment flows.

My statistical analysis suggests that the formally strongest treaties—those that existing studies imply should be *most* likely to promote FDI—are not associated with increased investment. I argue that this result is understandable in light of a long line of law and society research, beginning with Macaulay's (1963) well-known study of "Non-Contractual Relations in Business," which is largely ignored in existing empirical studies of BITs. This research suggests that the formal trappings of domestic law often have effects on private behavior that are, at best, "indirect, subtle, and ambiguous" (Macaulay 1984:155). Law and society scholars have spent somewhat less time exploring whether formal international law's effects on behavior are similarly attenuated. My results suggest that they are: I find no evidence that formally strong investment treaties meaningfully influence investment decisions.

The article proceeds as follows. I first describe the standard theoretical story of BITs as "credible commitment" devices. I then present a critique of the standard story based upon law and society notions of legal ambiguity, pluralism, and ignorance. The next sections discuss my data, methods, and findings. I conclude with suggestions for future research.

The Standard Story: BITs as "Credible Commitment" Devices

Academic interest in BITs has usually been premised on the idea that the treaties hold special promise to resolve what is said to be the central *problématique* of host state-foreign investor relations: that the host state will opportunistically interfere with the investment's profitability once the investment has been sunk. The basic problem has been described as one of "obsolescing bargain," in the business-school literature of the 1970s (Vernon 1971); as one of "credible commitment," in the later transaction cost economics literature (North 1990; Williamson 1996); and more recently as a problem of "political risk" (Henisz 2002). In this view, domestic legal regimes in developing countries are insufficient to adequately protect the formal property rights of foreign investors; lack of adequately protected formal property rights is a major impediment to foreign investment, and BITs help fill the legal void by supplying an international rule of law that provides both investor-friendly

substantive rules and a supporting institutional structure to enforce those rules. Credible commitment theories of BITs thus share obvious affinities with the "new law and development" movement that has motivated a large number of domestic law reform projects in the developing world (Santos 2006).

Most BITs contain a common core of substantive promises to investors, including rights to some combination of "most-favored nation," national, "non-discriminatory," or "fair and equitable" "treatment"; rights to "full protection and security"; rights to "prompt, adequate, and effective" compensation in the event of expropriation or of government measures "tantamount to expropriation"; and the right to transfer investment assets or proceeds out of the host state in convertible currency (Dolzer & Stevens 1995). On their face, these core substantive concessions represent a remarkable turnaround from the collective efforts of developing countries, acting through the United Nations General Assembly in the 1960s and 1970s, to establish a "New International Economic Order" in which investors would enjoy few rights as a matter of customary international law.

But why would investors be likely to view these promises as credible, and not just cheap talk? Is it reasonable to expect investors to alter their investment decisions on the basis of such promises? BIT scholars typically emphasize that the treaties' credible commitment potential stems from their incorporation of enforceable promises to arbitrate treaty disputes (e.g., Wälde 2005), an emphasis consistent with North's (1993) more general argument that effective institutional solutions to the credible commitment problem entail "not only creating the formal rules but creating and implementing a judicial system that will impartially enforce such rules" (North 1993:21), and with recent law and development scholarship arguing that access to "an independent and effective judiciary is a necessary precondition for economic development" (Santos 2006:282). Many (but not all) investment treaties contain host state "pre-consents" to investor-initiated arbitration for a wide variety of treaty disputes. BIT pre-consents typically give investors access to specialized arbitral tribunals formed under the rules of the International Chamber of Commerce (ICC) or the World Bank's International Centre for the Settlement of Investment Disputes (ICSID), and allow these tribunals to issue default awards in the event the host state refuses to participate. Once an investor has a favorable award in hand, the investor can typically use international treaties to bring enforcement actions in the domestic courts of any third-party state in which the losing host state has property.[2]

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[2] For example, an investor was recently able to use a domestic German court to enforce an outstanding arbitration award against Russia by seizing a Russian-owned building in Cologne that had previously served as a KGB outpost (Crawford 2006).

Put somewhat differently, there is little suggestion in the credible commitment BIT literature that the treaties might be "self-enforcing" in the sense that states that breach the treaties will suffer unacceptable losses to their reputations as international law-abiding states (Yarbrough & Yarbrough 1986; Simmons 2000). BIT substantive promises are made in the form of exceedingly vague standards of uncertain meaning or application (Sornarajah 2004:235–36; Muchlinski 1995:625), and relevant facts are likely to be quite murky to outside observers. In this view, arbitration is necessary to give useful meaning to the treaty language and to apply that language to uncertain facts, providing valuable neutral evidence that a violation of international investment law has taken place.[3] Without authoritative adjudication by neutral arbitrators or other formal compliance-monitoring mechanisms, it is difficult for third parties (or perhaps even the disputing parties themselves) to reliably tell if "international law" has been breached. In this regard, BITs are not that much different than other international treaties, such as human rights treaties, in regards to which compliance is difficult for outsiders to evaluate (Hathaway 2002).

Accepting for the moment the reasonableness of this standard story, one important methodological problem with existing studies of the effects of BITs on FDI is that these studies fail to distinguish BITs that contain meaningful arbitration provisions from those that do not. This failing suggests a potentially important degree of measurement error in the datasets upon which these studies are based, as developing countries that have entered into only formally weak BITs —those with little formal credible commitment potential—will be modeled as having credibly committed to treat investors favorably to the same degree as countries that have entered into BITs with more theoretically plausible credible commitment potential. In the empirical analysis presented further below I attempt to correct for this problem by distinguishing formally strong from formally weak BITs, an empirical strategy that provides a stronger test of credible commitment theories of BITs. If the formal legal protections of the treaties meaningfully influence investor behavior, as the standard story suggests, then we should be most likely to see such an influence in regard to those BITs that provide guaranteed access to arbitration.

The Standard Story as "Naïve Legal Formalism"?

But perhaps the more important critique of existing studies of BITs, and of the standard credible commitment theory of the trea-

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[3] However, international arbitral decisions are often not published, or are published only with consent of the particular host state involved, limiting the usefulness of arbitration as a means of increasing the reputation costs of treaty breach.

ties, is that they seem to embrace an implicit model of international law that "verges on naïve Legal Formulism by depicting an environment of 'law-on-the-books' [in which] [r]ules are clear, enforcement is firm, and legal effects are substantive" (Suchman & Edelman 1997:905). This "naïve" image of international law is analogous to what Macaulay critically describes as the "classical model" of contract law, a model that "assumes that the rules of contract law are central, significant, and necessary for economic transactions in a modern capitalist economy" (1984:509). A good deal of research has shown that the classical model of contract law has little basis in the realities of actual commercial practice (Macaulay 1963, 1977).

Credible commitment theories of BITs ignore the "three distinct [empirical] characteristics of law" identified by scholars operating in the law and society tradition: legal ignorance, legal pluralism, and legal ambiguity (Suchman & Edelman 1997:930). These characteristics suggest, in contrast to extant studies, that BITs should not have much if any direct effect on investor behavior.

Legal Ignorance

Research suggests that decision makers in business often have little accurate knowledge of the content of governing legal rules. There is, unsurprisingly, also very little evidence that foreign investors have much knowledge of the existence or content of particular BITs, or much appreciation for the theoretical ways in which the international legal system might secure their investments. A small survey of business executives conducted in 1976 found that only 16 percent of respondents were "familiar" with the ICSID system generally, and that only 4 percent felt that ICSID provided "adequate safeguards" (Ryans & Baker 1976); a more recent study confirmed these results (Baker 1987). It appears that BITs and BIT-based arbitration remain an "often overlooked tool" in the legal arsenal of multinational corporations (Freyer et al. 1998). Even where certain individuals within those corporations might follow BIT developments (such as lawyers within the general counsel's office), this specialized legal knowledge may fail to flow to the nonlawyer managers and executives who actually make business decisions. Compartmentalization of knowledge of BITs is probably exacerbated by the tendency of corporations to have relatively underdeveloped internal systems for evaluating "political risk" and incorporating those general evaluations into the investment process (Kobrin 1982).

Legal Pluralism

Credible commitment theories of BITs tend to ignore alternative informal and formal institutions that might successfully resolve

problems of obsolescing bargain, rendering BITs, as credible commitment devices, largely redundant. For example, credible commitment theories of BITs often seem to uncritically adopt a view of investor–host state relations where "one-shot transactions are performed largely because of the threat of the [international legal] sanctions that follow a breach" (Macaulay 1984:523), a view that leads them to assume that obsolescing bargain–type risks are, in the absence of formal legal sanctions, quite severe. But transactions between host states and investors are never one-shot affairs, nor are they isolated from host state transactions involving other investors. Host states that desire future foreign investment are likely to have powerful reputational incentives to treat current foreign investors favorably, regardless of the existence of any international treaty commitments—e.g., regardless of any formal threat of international legal sanction.[4] Foreign investors rely to a great extent, and perhaps primarily, on the views and experiences of other investors when deciding to invest (Spar 1998). Unfavorable host state behavior is likely to have strong ripple effects beyond the investment immediately affected, as other investors withdraw from the host state, and as potential investors redraw their investment plans. This threat of "gossip and ostracism" (Suchman & Edelman 1996:931) may be sufficient to render obsolescing bargain risks relatively slight, meaning that BITs have little risk-reducing role to play. This is especially likely in the natural resources sector, where, as Kolo and Wälde note, reputations for living up to one's bargains "become[] known quite rapidly in the rather narrow community" of relevant players and where both host states and investors "often welcome being seen as reasonable partners with whom one can do business" (2000:6).

But even if a host state's general reputational interest in maintaining a favorable investment climate is insufficient to render problems of credible commitment negligible, foreign investors have long had the ability to create their own individualized "BITs" in the form of a legally binding investment contract.[5] Investment contracts are especially common in the highest-risk investment sectors (natural resource concessions and infrastructure development), and are often required as a condition for obtaining project financ-

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[4] This argument is not necessarily incompatible with the argument made earlier that reputational concerns are unlikely to make BITs self-enforcing. It is difficult to develop a reputation as a breacher of BIT obligations absent authoritative adjudication because BIT obligations are so vague that "breach" has little objective meaning. On the other hand, states may be able to develop (or lose) reputations as profitable places to invest, or reputations for living up to more specific contract-based promises.

[5] In addition to arbitration clauses in investment contracts, approximately 20 developing countries have embedded BIT-like enforceable promises to arbitrate investment disputes in their domestic foreign investment laws (Shihata & Parra 1999). These laws give investors a basis, totally independent of BITs, of using international tribunals to enforce host state commitments.

ing or investment insurance. Investment contracts typically include binding, enforceable agreements to arbitrate investment disputes. These contract-based arbitration agreements often reference the very same arbitral facilities named in BITs (e.g., the ICC or ICSID), and they, as well as any resulting arbitral awards, are just as enforceable against host states as are BIT-based arbitrations and awards. Bubb and Rose-Ackerman (2007) and Guzman (1998) claim that in the absence of BITs, investment contracts are not legally binding upon host states as a matter of international law. This is simply mistaken. Long-standing international arbitral practice demonstrates that international tribunals are very willing to enforce investment contracts against host states (Kolo & Wälde 2000).[6]

Legal Ambiguity

The substantive promises contained in BITs consist almost entirely of highly ambiguous standards of uncertain meaning and application. This ambiguity is arguably so great that the treaties "may best be conceptualized not as an objective external constraint but rather as a source of uncertainty" (Suchman & Edelman 1996:932). Substantive ambiguity means that arbitral tribunals have trouble interpreting or applying the treaties consistently, a problem that has lead some observers to claim that the BIT system is suffering from a "legitimacy crisis" (Franck 2005). Substantive ambiguity also means that the treaties are unlikely to be of much concrete use to investors in the investment-planning process, as it is difficult, if not impossible, for the investor to determine a priori how a tribunal will interpret or apply a given promise in a given fact situation.

If these three critiques are accurate, it suggests that we should be skeptical of claims that BITs are or should be causally associated with massive increases in foreign investment. If investor knowledge of BITs is weak; if reputational concerns are sufficient to render obsolescing bargain–type risks objectively low; if the widespread use of investment contracts means that BITs add very little to the formal law–based "credible commitment" table than was already available to investors on an individualized basis; and if the substantive content of BITs is too uncertain to aid in rational business planning, then there is little reason to expect the presence or absence of a particular treaty to have any significant effect on particular investment decisions.

Statistical Analysis: Data and Methods

The discussion above suggests competing theoretical expectations. The standard credible commitment theory of BITs suggests

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[6] See, for example, *Company Z v. State Organization ABC* 1982.

that BITs should meaningfully impact investment decisions, and that this impact should be greatest in regard to the formally strongest treaties. On the other hand, research in the law and society tradition suggests a more pessimistic assessment: for reasons of legal ignorance, pluralism, and ambiguity, even the formally strongest BITs are unlikely to be associated with significant increases in foreign investment, as investors are unlikely to give the presence or absence of the treaties decisive weight.

To test these competing expectations, I conducted a TSCS analysis of the effects of BITs on FDI. The key methodological innovation of my analysis is that, unlike existing studies, I explicitly controlled for the formal strength of BITs by constructing a count of investment treaties that distinguishes formally weak treaties—those that do not contain meaningful arbitration provisions—from formally strong treaties. Coding BITs in this way—e.g., on the basis of differences in treaty content—poses a number of important challenges.[7] Most important, locating treaty texts, or locating texts in an accessible language, can be quite difficult, especially where both parties to a BIT are developing countries. To mitigate these problems, I focused my efforts on coding the content of BITs in force between any of the 18 top capital-exporting countries, on the one hand, and all other countries, on the other, from 1945 to 2002, a sample that includes nearly 1,000 separate treaties.[8] Since 1970, these 18 states have supplied between approximately 99 and 84 percent of annual world FDI flows. To identify potentially relevant treaties, I relied on various UNCTAD publications (2000, 1998; United Nations Centre on Transnational Corporations [UNCTC] 1988), a similar list of BITs published on ICSID's Web site, Oceana's looseleaf series "Investment Treaties," electronic searches of the United Nations Treaty Series (UNTS), an online UNCTAD database of the treaties, and various other third-party sources. Once I identified potentially relevant treaties, I obtained hard copies from the above-listed sources or from government officials or government Web sites. In a very small number of cases where a full copy of the treaty was not otherwise available, I relied on excerpts or descriptions of relevant treaty text contained in third-party sources. I also identified

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[7] One potentially vexing challenge stems from the ubiquity of most-favored-nation (MFN) clauses in BITs, which make it a largely useless and virtually impossible task to construct any sort of index of the relative *substantive* favorableness of specific treaties. This is because MFN clauses operate to incorporate the "most favorable" terms of all of a host state's BITs into the treaty containing the MFN clause, meaning that the terms of a specific BIT treaty may depend on the terms of the host state's other BITs. However, conventional legal wisdom suggests that MFN clauses will not generally apply to BIT dispute settlement provisions (Kurtz 2005).

[8] The top 18 capital-exporting countries are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, the Netherlands, Norway, Singapore, Spain, Sweden, Switzerland, the United Kingdom, and the United States.

and included in my analysis all free trade agreements (such as NAFTA) and "friendship, commerce, and navigation" (FCN) agreements that contain BIT-equivalent investment chapters. These treaties are not included in UNCTAD's lists of BITs and are unjustifiably ignored in existing empirical BIT studies.[9] Finally, I corrected any obvious errors or omissions in published lists of the treaties.[10]

After reading each treaty I coded its dispute settlement provisions as either "strong" or "weak." Where the treaty text was available only in a language that I do not read (here, primarily German or Italian), a native speaker translated the dispute settlement provisions.[11] My conceptualization of "strong" and "weak" treaties was informed by Schreuer's (2001) discussion of BIT jurisdictional provisions. Strong treaties contain effective host state pre-consents to investor-initiated arbitration for a wide variety of treaty-related disputes, including disputes over the vaguest treaty promises, such as promises of "fair and equitable treatment," into which almost any claim of mistreatment by the host state can plausibly be inserted. These pre-consents must be effective in the sense that investors are able to *unilaterally* initiate binding arbitration over a large range of issues without any further consent or acquiescence by the host state.[12] Weak treaties either contain no effective pre-consents to investor-initiated arbitration, contain pre-consents only for very limited kinds of disputes (most pre-1989 BITs with Communist countries), or contain unenforceable promises to arbitrate investment disputes that require some further manifestation of consent to arbitrate by the host state. (I provide further details of the coding exercise in Yackee [2007, 2008].)

I coded BITs that have entered into force rather than BITs that have merely been signed but have not entered into force. This is

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[9] Examples include Chapter 11 of the North American Free Trade Agreement (NAFTA) and a 1959 FCN treaty between the United States and Pakistan that is substantively identical in content to a 1959 Germany-Pakistan BIT.

[10] For example, UNCTAD's widely used lists of BITs improperly includes as BITs a number of "investment guarantee treaties" that apply largely or wholly to the capital-exporting states' investment insurance programs and a number of "establishment treaties" between France and its ex-colonies that relate to the creation of the *Communauté Française d'Afrique*. UNCTAD also omits number of early German BITs, including treaties signed with Kenya, the Philippines, Ghana, Colombia, and Chile, and a legally binding BIT-like "exchange of letters" with India.

[11] In six cases the treaty text was not locatable; I recorded likely dispute settlement in light of the contemporaneous BIT practices of the home and host states party to the missing treaties.

[12] This point is important in a small handful of cases where host states have consented to ICSID arbitration in a BIT, but without also ratifying the ICSID Convention that gives host states the right to use ICSID facilities and rules. In these cases, the BIT-based consent to arbitrate is *not* effective, as the investor will be unable to exercise its right to arbitrate absent further host state consent—here, without the host state's ratification of the ICSID Convention.
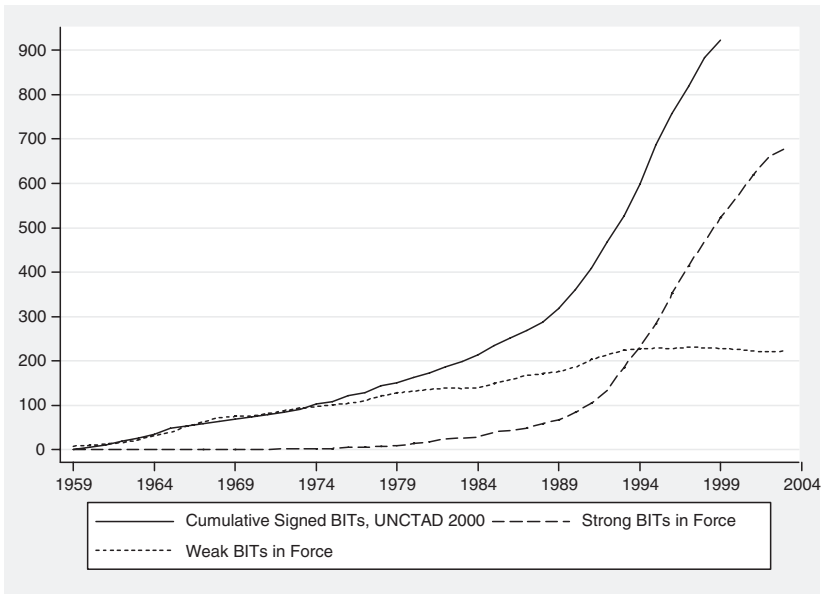
Figure 1: Cumulative BITs (18 capital-exporting countries)

because a substantial number of BITs enter into force only after long delays from the time of signature, or fail to enter into force at all, and because arbitration provisions in BITs (and all other BIT provisions) are inoperative until entry into force; mere signature legally commits host states to nothing. (Brazil, for example, has signed a number of BITs but has refused to ratify them as part of a conscious strategy to limit Brazil's exposure to treaty-based international arbitration.) It is also often impossible to locate the texts of treaties that have not entered into force, making systematic evaluation of their dispute settlement provisions impossible.

Figure 1 provides an overview of the results of the coding exercise. The figure shows the cumulative number of strong and weak BITs in force since 1959, the year when most analysts claim the first modern BIT entered into force. For comparative purposes, I have also included a count of signed, undifferentiated BITs as reflected in the UNCTAD (2000) list of treaties that underlies existing studies.

The main point to take away from Figure 1 is that differentiating BITs by effective dispute settlement provisions alters our understanding of the start of what I would call the "modern" BIT era, which is characterized by widespread acceptance of BIT-based arbitration. The first strong BIT (a treaty between Italy and Chad) did not enter into force until 1969 (also its year of signature), and the majority of BITs in force were not strong until well into the 1990s. Since that time almost all new BITs contain strong dispute

settlement provisions, but it is important to note that a fairly large number of weak BITs remain in force even today.

The results of the coding exercise are particularly striking when we look at particular BIT programs. For example, Germany's early BIT program has been widely lauded, and its 1959 treaty with Pakistan is generally acknowledged as the "first" BIT. As of 1984, Germany had signed BITs with more than 50 developing countries, more than any other capital-exporting country, and its success was said to be one of the principal reasons the United States decided to reinvigorate its own treaty program in the early 1980s. However, *none* of Germany's BITs in force at that time contained effective arbitration agreements that would allow an investor to unilaterally initiate arbitration for a wide variety of treaty disputes. The first German BIT with meaningful arbitration provisions did not enter into force until 1988 (a treaty with Nepal), and it is reasonable to view Germany's BITs up to that point as having very little theoretical credible commitment potential. Likewise, the Swiss, Dutch, and French BIT programs were relatively successful in signing up developing countries in the 1960s and 1970s, but few of these early treaties contained investor-state arbitration agreements.

Of course, I cannot say whether differentiating BITs in the manner described above would change the significance or magnitude of reported coefficients in existing studies of the effects of BITs on FDI. But at the least, separating out strong from weak BITs provides a potentially more meaningful test of the underlying thesis of existing studies: that the treaties' formal legal credible commitment potential substantially impacts foreign investment decisions. Taking credible commitment theories of BITs at face value, we are most likely to see such an effect in the case of strong BITs.

I use this coding to inform a baseline statistical model and two extended models. My baseline model takes the following form:

$$FDI_{i,t} = Strong\,BITs_{i,t-1} + Weak\,BITs_{i,t-1} + Political\,Risk_{i,t-1}$$
$$+ Economic\,Control\,Variables_{i,t-1}$$

FDI is a measure of FDI flows from the top 18 capital-exporting countries to all other countries *i* at time *t*, constructed in one of two ways. First, I create a measure of *FDI Share* that represents each host state's share of world investment flows. *FDI Share* captures the notion in the BIT literature that the primary effects of the treaties on investor behavior should be to divert FDI from one destination country to another as part of a "competition for capital," a notion that I further develop below when constructing the interactive version of the model (see Guzman 1998; Elkins et al. 2006; Neumayer & Spess 2005). I also run models using *FDI Flows*, which represents the absolute real dollar of FDI inflows into a particular

host state. Like Neumayer & Spess (2005), I express *FDI Flows* in natural log form.

I present results for both nondyadic and dyadic models: the nondyadic model uses FDI data from the World Bank's World Development Indicators (WDI), and the dyadic model uses FDI data from the Organisation for Economic Co-operation and Development (OECD). The dyadic version of *FDI Share* is the particular capital-importing country's share of the particular home country's total FDI outflows; the nondyadic version is the developing country's share of total world inflows. The dyadic version of *FDI Flows* is the natural log dollar value of FDI outflows from the particular capital exporting country; the nondyadic version of *FDI Flows* is the natural log dollar value of FDI to the particular host state. The WDI and OECD FDI data are far from perfect. States use different criteria in reporting FDI data (raising issues of comparability), and both time series are interrupted and unbalanced, the OECD bilateral data especially so. Data are particularly scarce for poorer host states and for earlier years in the sample. Nonetheless, for large-*n* statistical analysis there are no better sources of FDI data.

For the models using the WDI's aggregate FDI data, the *BITs* variables are weighted counts of the number of in-force BITs that a given country has in force with the top 18 capital-exporting countries, with the weight constructed on the basis of the particular capital-exporting country's share of world FDI outflows and with BITs differentiated as to whether they are formally "strong" or formally "weak." For the models using the OECD's bilateral FDI data, the *BITs* variables are always unweighted, taking a value of either "1" (meaning that the particular developing country has a strong or weak BIT in force with the particular capital-exporting country) or "0" (where no treaty is in force). Singapore, one of the top 18 capital-exporting countries in the WDI models, does not report bilateral FDI data to the OECD, and it is not included as a source country in the dyadic model.

The baseline model contains a small number of control variables. First, I include the 20-point *Polity IV* democracy rating for each host state, a standard proxy for political risk (Jensen 2003; 2006; Li & Resnick 2003; Li 2006). This literature suggests that the democratic political process may help states credibly commit to treat investors favorably by making it electorally costly for government leaders to opportunistically change policies in ways adverse to investor interests (Jensen 2003:594–5). I also include a number of controls for FDI-relevant economic conditions: GDP (as a measure market size); GDP per capita (a measure of market wealth); GDP growth (measuring market performance); the rate of inflation (a proxy for macroeconomic stability); and trade openness (the value

of imports plus export divided by GDP). All five economic variables are from the WDI and are comparable to the suite of economic control variables used in other studies of BITs and FDI (see, e.g., Neumayer & Spess 2005).

I estimate the nondyadic (WDI) models using panel-corrected standard errors (PCSE) and include a lagged dependent variable (LDV) (Beck & Katz 1995, 1996; Keele & Kelly 2006) and country fixed effects (Wilson & Butler 2007). The country fixed effects capture country-specific, time-invariant determinants of FDI inflows, such as geographic location and natural resource endowments. As to the LDV, it is well recognized that foreign investment decisions often entail a "follow-the-leader" dynamic, in which an investment by one company spurs investments by others (Spar 1998; Pennings 2005; Gastanga et al. 1998); the LDV captures this dynamic relationship. I estimate the dyadic (OECD) model using a traditional fixed-effects (within estimator) approach with dyad-clustered standard errors; this is the general estimation strategy followed by Neumayer and Spess (2005) and is recommended by Wilson and Butler (2007), where the number of cross-sections are much larger than the number of time periods, as is the case with the dyadic model presented here. But unlike Neumayer and Spess (2005), I also include the LDV in the fixed-effects (dyadic) regression; an LDV is theoretically appropriate, and its omission would bias model results (Wilson & Butler 2007).

Findings: Baseline Additive Model

Table 1 presents results from the baseline additive model. The principle advantage of the baseline model is that it requires comparatively little data and allows us to estimate the effects of BITs on FDI for a large number of country- and dyad-years.[13]

As an initial matter, note that the results for the economic control variables are mixed. *GDP Growth* is the only relatively consistent economic predictor of investment flows: it is positively and significantly correlated with *FDI Share* and *FDI Flows* in three of the four models. The LDV is also positive and significant in three of the four models, providing relatively strong evidence that foreign investment decisions contain a dynamic element. We also see only limited evidence that democracy, our proxy for political risk, matters to investors: *Polity IV* is positive and significant (indicating

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[13] The dyadic model explains very little variance, as indicated by the low *r*-squared, while the nondyadic model explains quite a lot. But recall that *r*-squared values are not properly compared across datasets and estimation strategies, and that low *r*-squared values are typical in a panel setting when using a within estimator.

Table 1. Effect of BITs on FDI Flows: Simple Additive Model

Variable		I. Nondyadic Model: FDI Share	II. Nondyadic Model: FDI Flow	III. Dyadic Model: FDI Share	IV. Dyadic Model: FDI Flow
Economic Environment	GDP_{t-1}	4e-07 (0.48)	**1e-06 (3.45)****	1e-08 (1.34)	**5e-08 (4.34)****
	GDP per capita$_{t-1}$	2e-05 (1.83)	**3e-05 (4.42)****	2e-07 (0.26)	2e-06 (1.86)
	GDP growth$_{t-1}$	**0.004 (3.80)****	**0.002 (2.59)****	**1e-04 (2.18)***	1e-04 (1.92)
	Inflation$_{t-1}$	3e-06 (0.25)	5e-06 (0.92)	−6e-07 (1.16)	7e-07 (0.77)
	Trade openness$_{t-1}$	−2e-04 (0.72)	2e-04 (1.19)	−5e-06 (0.29)	5e-06 (0.19)
Political Regime (Risk)	Polity IV$_{t-1}$	−0.002 (1.61)	−8e-04 (0.86)	5e-05 (0.46)	**3e-04 (2.70)****
Lagged DV	Lagged DV	**0.676 (10.21)****	**0.373 (2.52)***	0.022 (0.61)	**0.329 (4.68)****
BITs in Force	Strong bits$_{t-1}$	−0.072 (1.12)	**0.09 (2.60)****	0.002 (1.48)	0.003 (1.53)
	Weak bits$_{t-1}$	**0.506 (1.97)***	**0.234 (2.06)***	0.006 (1.29)	0.004 (1.68)
	Observations	2,588	2,588	8,807	8,824
	Capital-Importing Countries [Dyads]	121	121	[937]	[938]
	Period	1971–2003	1971–2003	1982–2003	1982–2003
	R^2 [Within]	0.81	0.62	[0.004]	[0.15]

Notes: Model I estimated using OLS with panel-corrected standard errors and country fixed effects; Model II estimated using a standard fixed-effects (within) estimator, with dyad-clustered standard errors. Z-scores (Model I) and t-scores (Model II) as absolute values are in parentheses. *and **indicate significance at the ≤ 0.05 and 0.01 levels, respectively.

that higher levels of democracy are associated with greater investment flows) in just one of the four models.

Most important, we see no consistent evidence that investors view BITs as valuable credible commitment devices. *Strong BITs* is positive and significant only in Model II, the nondyadic model of the logged dollar value of *FDI Flows*, and even there the predicted effect is quite modest. A one-unit increase in the weighted BIT variable (roughly equivalent to going from having no strong BITs in force to having strong BITs in force with every capital-exporting country in the sample) is predicted to increase FDI inflows by just 9 percent. The *Weak BITs* variable is also significant and positive in Model II, but note that its predicted effect on FDI is, counterintuitively, much larger.

Findings: Extended Additive Model

Viewed collectively, the baseline results provide little support for the notion that BITs promote investment, or that they promote investment by serving as credible commitment devices. One possible explanation for the largely null result is that the model is underspecified, which may result in omitted variable bias (Clarke 2005). For example, BITs are hardly the only host state legal device, or host state policy, that might influence the willingness of foreign investors to invest, and many host states began changing other foreign-investment laws and policies in favor of foreign investment at the same time that they also embraced BITs. Table 2 re-analyzes the baseline model while controlling for three potentially important, non-BIT legal and policy drivers of FDI: (1) the overall restrictiveness of each host state's domestic legal regime regulating foreign investment; (2) opportunities for foreign investment in privatized sectors of the host state economy; and (3) the use of investment insurance to reduce political risk.

Overall Restrictiveness of the FDI Regime

First, it is desirable to control for the host state's overall willingness to accept FDI on liberal terms. Most BITs do not require host states to allow investments to be made, leaving host states a significant amount of autonomy to control the overall liberality of their domestic legal regimes for controlling and regulating foreign investment. I follow Asiedu and Lien (2004) in constructing a four-point variable, *Capital Controls*, that counts the categories of restrictions on capital flows that a host state imposes (exchange restrictions, restrictions on export proceeds, or restrictions on current or capital account) as reported by the IMF. My variable extends their data to 2003.

Table 2. Effect of BITs on FDI Inflows: Extended Additive Model

Variable		I. Nondyadic Model: FDI Share	II. Nondyadic Model: FDI Flow	III. Dyadic Model: FDI Share	IV. Dyadic Model: FDI Flow
Investment Insurance	MIGA	**0.060 (2.40)***	**0.079 (3.48)****	**0.002 (2.14)***	**0.003 (2.56)***
	OPIC	− 0.024 (1.35)	0.003 (0.26)	9e-05 (0.06)	− 0.006 (0.90)
Domestic Investment –	Capital controls$_{t-1}$	0.007 (0.81)	− **0.019 (2.80)****	3e-04 (0.80)	− 0.001 (1.83)
Related Policy	Privatization	**0.058 (2.42)***	0.016 (0.96)	**0.001 (2.80)****	**0.003 (3.36)****
Economic Environment	GDP$_{t-1}$	3e-07 (0.26)	**1e-06 (2.93)****	1e-08 (1.34)	**4e-08 (3.95)****
	GDP per capita$_{t-1}$	4e-05 (1.62)	**5e-05 (3.98)****	8e-08 (0.11)	2e-06 (1.49)
	GDP growth$_{t-1}$	**0.003 (2.40)***	0.002 (1.76)	**1e-04 (2.66)****	1e-04 (1.68)
	Inflation$_{t-1}$	− 1e-06 (0.14)	− 2e-06 (0.42)	− 6e-07 (1.07)	− 5e-07 (0.53)
	Trade openness$_{t-1}$	− 2e-05 (0.06)	6e-05 (0.23)	− 2e-05 (1.25)	2e-06 (0.09)
Political Regime	Polity IV$_{t-1}$	− **0.003 (2.01)***	− **0.004 (2.10)***	9e-05 (0.88)	1e-04 (1.01)
Lagged DV	Lagged DV	**0.734 (7.77)****	0.308 (1.82)	− 0.002 (0.02)	**0.332 (6.33)****
BITs in Force	Strong bits$_{t-1}$	− 0.131 (1.71)	− 0.012 (0.32)	0.002 (1.40)	0.002 (1.00)
	Weak bits$_{t-1}$	− **0.003 (2.01)***	0.308 (1.31)	0.005 (1.11)	0.003 (1.37)
	Observations	1,841	1,841	7,883	7,892
	Capital-Importing Countries [Dyads]	121	121	[935]	[936]
	Period	1985–2003	1985–2003	1985–2003	1985–2003
	R^2 [Within]	0.87	0.63	[0.01]	[0.15]

Notes: Models I and II are estimated using OLS with panel-corrected standard errors and country fixed effects; Models III and IV are estimated using a standard fixed-effects (within) estimator, with dyad-clustered standard errors. Z-scores (Models I and II) and *t*-scores (Models III and IV) as absolute values are in parentheses.

*and **indicate significance at the ≤ 0.05 and 0.01 levels, respectively.

Opportunities for Foreign Investment

Developing country privatization reforms have great potential to encourage FDI inflows by opening up important sectors of the economy to foreign participation. In many cases, privatization reforms were linked to broader domestic reform efforts (Trevino, Daniels, & Abeláez 2002) or were contemporaneous with decisions to launch modern BIT programs. I use privatization data collected by the World Bank and, for the years 1985–1987, data collected by Brune (2004) to create a dummy variable, *Privatization*, indicating whether any privatization proceeds were received in a given year. I do not lag the privatization variable because FDI linked to privatization efforts will likely be invested in the same year that the host state receives the proceeds.

Use of Investment Insurance

Finally, investors may view investment insurance as an important and effective means of reducing obsolescing bargain–type risks (Lipson 1978). Almost all major capital-exporting states have set up state-sponsored or state-subsidized insurance programs for their foreign investors, supported by a network of investment-guarantee treaties (Muchlinski 1995). The United States' Overseas Private Investment Corporation (OPIC) regularly issues millions of dollars in insurance against expropriation, currency transfer, and other "political" risks. The World Bank has also recently entered the arena through its Multilateral Investment Guarantee Agency (MIGA), and as of February 2006 has issued more than 14 billion dollars' worth of coverage. Insurance programs may actually be preferable to BITs as a risk-reducing device, as investors are guaranteed compensation from the insurer independent of the host state's willingness or ability to pay damages. To control for use of investment insurance, I include dummy variables indicating whether OPIC or MIGA have provided new insurance coverage for a project in a particular host state in a given year.[14] Investment insurance is often necessary in order to secure financing for complex projects, and the availability of MIGA insurance in particular may be especially valuable to the foreign investor because it gives the World Bank, with its extensive leverage over developing countries, a stake in the success of the project.[15] Because investment

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[14] Data on the use of private-market investment insurance is not publicly available; I also contacted other major public providers of investment insurance (in the United Kingdom, Germany, France, and Switzerland) but was unable to obtain usable data.

[15] As MIGA advertises on its Web site, "MIGA brings security and credibility to an investment that is unmatched. Our presence in a potential investment can literally transform a 'no-go' into a 'go.' We act as a potent deterrent against government actions that may adversely affect investments. And even if disputes do arise, our leverage with host governments frequently enables us to resolve differences to the mutual satisfaction of all parties."

insurance decisions are usually made late in the investment process, I do not lag the insurance variables. In the dyadic models the insurance dummies are dyadic as well—they are scored "1" only where the insured project is to be made in the particular home country member of the dyad.

Table 2 reports results from my re-analysis of the baseline model, using the additional controls for domestic investment–related policy and the use of investment insurance. The economic control variables again perform rather inconsistently, with *Economic Growth* the only economic control significant and correctly signed in more than one of the models. *Polity IV,* our proxy for political risk, is significant in the two nondyadic models, but it is wrongly signed— more democracy is associated with less foreign investment. This is an admittedly puzzling result, and suggests that more work needs to be done to explore the causal links, if any between democracy and foreign investment in the developing world.

As to the new variables, we see fairly consistent evidence that access to investment insurance and privatization programs both promote foreign investment. Access to MIGA insurance is significant and positive in all four models, and the *Privatization* dummy variable is positive and significant in three of the four models. The predicted effects of MIGA insurance and privatization programs are relatively substantive. For example, the results for the MIGA variable in Model I suggest that the availability of MIGA insurance will increase a host state's share of world FDI by 0.06 percent (e.g., from 0.50 to 0.56 percent). Likewise, Model I suggests that the presence of a privatization program might increase *FDI Share* by 0.058 percent. These increases are more substantial than they might appear on their face, as the mean value of *FDI Share* in Model I is just 0.25 percent.

The IMF measure of *Capital Controls*, on the other hand, is insignificant in three of the four models. This may result from the fact that the measure is highly aggregated, and it focuses largely on controls on portfolio rather than FDI. For example, for investors the most significant controls on FDI might be found in FDI-specific laws that forbid or highly restrict foreign participation in particular sectors, such as natural resource development, that are not general enough in scope to make it into the IMF's analysis.

Most important, the models presented in Table 2 provide no support for a credible commitment theory of BITs: *Strong BITs* are insignificantly correlated with *FDI Share* and *FDI Flows* in all four models. This null result is relatively robust to a number of specification changes. For example, *Strong BITs* remain insignificant if dates of treaty signature, rather than dates of entry into force, are used; they also remain insignificant if the weighted BIT variables in the nondyadic models (Models I and II) are replaced with unweighted counts of the treaties. I also combined the two BIT

variables into a single, undifferentiated count of BITs in force; the undifferentiated BIT variable is insignificant in all four models. Models III and IV, the dyadic models, are robust when modeled as random rather than fixed effects, and the two models of *FDI Flows* are robust to de-logging the dependent variable. Removing the LDV does not improve results for the *Strong BITs* variable; nor does replacing the LDV with a control for first-order auto-regression (Wilson & Butler 2007). An examination of the residuals suggests that China is a potential outlier, but removing China from the analysis, again, does not improve the *Strong BITs* results.[16]

Findings: Interactive Model

Here I consider one final model specification that explicitly models the competitive dynamics of BITs. Credible commitment theories of BITs tend to portray developing countries as participants in a multiplayer prisoner's dilemma situation (Guzman 1998; Elkins et al. 2006; Tobin & Rose-Ackerman 2007). Developing countries collectively desire to maintain a restrictive foreign investment regime, in which investors are offered few legal concessions or guarantees, but they also face individual incentives to defect by offering investors favorable incentives that undermine these collective efforts. The main implication of this view is that while the first states to defect by embracing BITs might gain a significant advantage over competing states in attracting foreign investment, once all states have adopted BITs the treaties give no single state a competitive advantage over any other. In short, in a world where all developing countries have adopted BITs, BITs should have no meaningful ability to divert FDI from one developing country host state to another.

The competitive theory of BITs suggests that the failure of the results of the additive models may be due to the failure to control for the number of BITs in force, because BITs might have diversionary impacts on foreign investment only when BITs are relatively rare. I model this basic argument by adding a multiplicative interaction term to the models presented in Table 2 (Brambor et al. 2006; Braumoeller 2004). The interactive model takes the following form:

$$FDI_{i,t} = Strong\,BITs_{i,t-1} + Regional\,Strong\,BITs_{i,t-1}$$
$$+ (Strong\,BITs_{i,t-1} * Regional\,Strong\,BITs_{i,t-1})$$
$$+ Control\,Variables_{i,t-1}$$

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[16] In some cases, these changes rendered *Strong BITs* statistically significant and negatively correlated with *FDI Share* in Model I, a result obviously counter to credible commitment theories of the treaties.

where *FDI* represents the dependent variables already described above and *Control Variables* represents the full suite of variables included in the extended additive model.[17] I construct the interaction term by multiplying *Strong BITs* with a new variable indicating the number of strong BITs in force in the host state's geographic region, *Regional Strong BITs*. (I standardize this regional count of BITs by dividing the count by the number of capital-importing states in each region.) The regional count is weighted in the same manner as the main BIT variables in the nondyadic models and is unweighted in the dyadic models. I assume that competition for FDI is largely regional in focus, a reasonable assumption given that regionalism is deeply institutionalized in international affairs.[18] (The models also include an equivalent interaction term between *Weak BITs* and the regional count of BITs.)

In the interest of space I do not present a full regression table for the interactive model results. Interpreting the coefficients of an interaction term and of its components poses certain subtleties where, as here, the modifying variable—here, the regional count of BITs in force—is continuous. Brambor and colleagues (2006) suggest an intuitive graphical method of illustrating the marginal effects of one component of an interaction term at various levels of the second, modifying component. Figure 2 follows their approach, illustrating results from the interactive version of each of the four models originally presented in Table 2. The four figures show the marginal effects of strong BITs on *FDI Share* and *FDI Flow* (the *y*-axis) at different values of the new variable measuring the number of strong BITs in force in the geographic region (the *x*-axis). The diagonal solid lines represent the point estimate of the marginal effects, while the dotted lines around the marginal effects line illustrate the 95 percent confidence interval of the point estimation. The solid horizontal line is the *x*-axis at zero. Where both the upper and lower bounds of the confidence interval are positive (above the zero line) or negative (below the zero line), the effect of strong BITs on FDI inflows is statistically significant in the direction indicated by the point estimate. Where the confidence interval straddles the zero line, we cannot reliably say whether or not BITs have positive or negative effects on FDI.[19]

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[17] Results for the BIT variables in the interactive models are substantially the same when the control variables are limited to those included in the baseline additive model.

[18] A concept of regional competition also reflects recent work in economic geography emphasizing the regional bases of economic performance (Martin & Sunley 1996), and it is more intuitive than the complex spatial weighting scheme of Elkins and colleagues 2006.

[19] For the samples estimated in Figure 2, the *Regional Strong BITs* variable never takes an observed value greater than 0.43 (Models I and II) or 0.75 (Models III and IV). The difference is because BITs are not weighted in Models III and IV. Point estimates that are beyond those two thresholds are, as a practical matter, not meaningful.
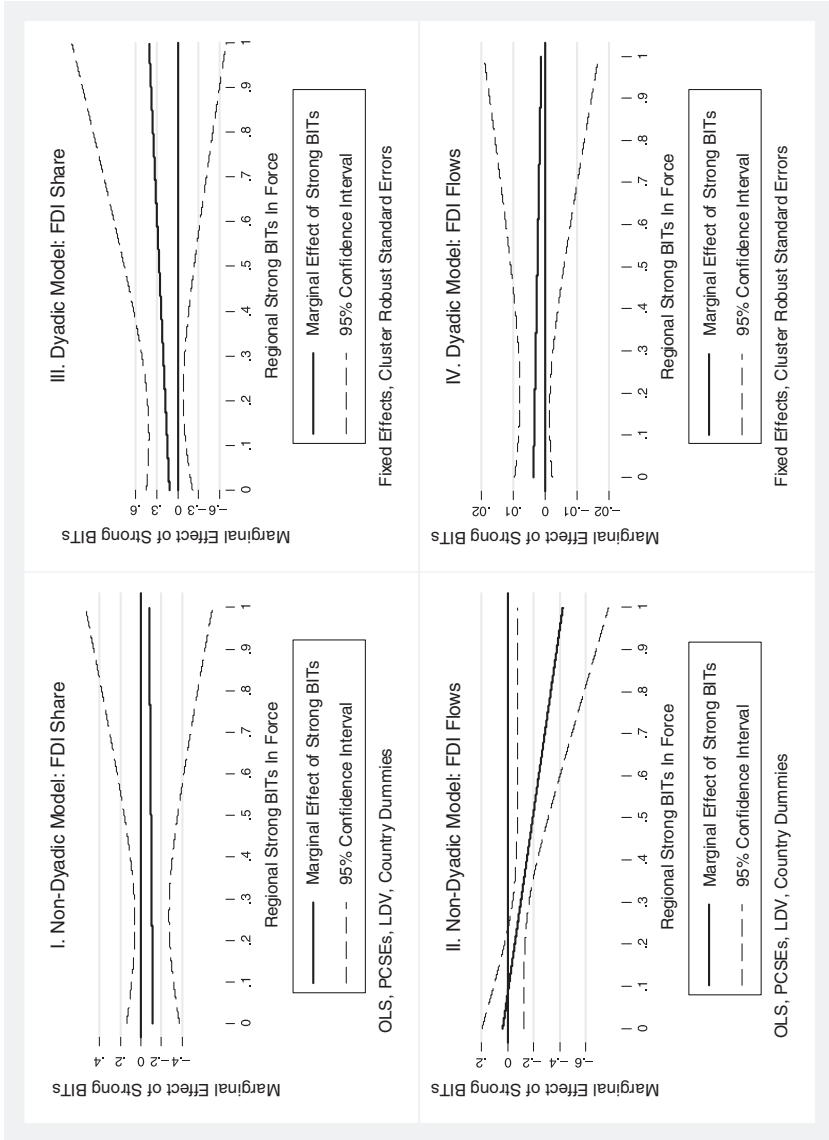
Figure 2. Marginal Effects of Strong BITs as Regional Strong BITs in Force Change

Again, the competitive theory of BITs suggests that *Strong BITs* should be most effective at attracting foreign investment when there are few such treaties in force among competitor countries. In this view, *Strong BITs* is most likely to have positive and statistically significant effects when *Regional Strong BITs* is low in number. We would thus expect to see, at low values of *Regional Strong BITs*, a positive marginal effects estimate along with confidence intervals that are consistently above the zero line. Figure 2 provides no such evidence. In the interactive versions of Models I, III, and IV, confidence intervals span the zero line at all values of *Regional Strong BITs,* meaning that *Strong BITs* has no statistically significant effect on FDI at any value of the modifying variable. The interactive version of Model II does indicate that *Strong BITs* might significantly impact *FDI Flows*, but note that the predicted effect is negative and only present when the number of regional strong BITs in force is high.

In short, and as with the additive models presented in Tables 1 and 2, I find no evidence in support of the credible commitment theory of the effects of BITs on investor behavior. On the other hand, *Privatization* and *MIGA* remain positive and significant in three of the four interactive models, suggesting again that opportunities to invest in privatized assets and access to investment insurance do meaningfully influence investment decisions.

There are other possible models, of course. For example, Neumayer and Spess (2005) suggest that the effects of BITs on FDI might be greatest where a developing country's inherent level of political risk is high, and will be less important where political risk is already low. This too is an interactive hypothesis, and to test it I repeated the exercise illustrated in Figure 2 by creating a multiplicative interaction term between *Polity IV* and *Strong BITs*. I omit the relevant figure in the interest of space, but in short we again see little consistent evidence that *Strong BITs* meaningfully impacts FDI. In the nondyadic interactive models, *Strong BITs* is insignificantly correlated with *FDI Share* and *FDI Flows* at all levels of democracy. In the dyadic interactive models, by contrast, *Strong BITs* has statistically significant and positive effects on *FDI Share* and *FDI Flows* at the very lowest levels of democracy, corresponding to approximately 25 percent of the observations in the dyadic samples. (For all other levels of democracy, the effect of *Strong BITs* on FDI is statistically insignificant.) But even here the predicted marginal effects, while statistically significant, are very modest. For example, at the lowest levels of democracy, entering into a BIT is predicted to increase *FDI Flows* by a factor of just 1.004.

Conclusion

The standard credible commitment story of BITs suggests that the treaties have great promise to increase foreign investment to

developing countries by using the formal trappings of international law to prevent host states from treating investors badly. My contribution has been to take this story seriously by examining whether the formally strongest treaties are statistically associated with increased FDI. While I find some tentative evidence that privatization programs and the World Bank's investment insurance program may promote FDI, my results suggest that BITs have little or no impact on investment decisions, a result consistent with research suggesting that the formal trappings of law often have only modest effects on private behavior.

Much work remains to be done to fully understand the role that BITs, or international law more generally, might play in influencing either investor or host state behavior. For example, how much do key multinational corporation (MNC) decision makers actually know about BITs or the ICSID system? To what degree (or how) do MNCs formally incorporate international legal considerations into their broader institutional mechanisms for comparing the attractiveness of different investment locations? Do BITs supplant or complement the use of investment contracts? Is knowledge or appreciation of BITs improving as BIT-based arbitrations become more common? Do investors view BIT-based arbitration as a last resort, useful only when their relationship with a host state has reached its end state? Do they use the threat of BIT-based arbitration as a bargaining chip with host states when long-term relationships come under renegotiation pressure? My own contribution has been one of large-n, quantitative analysis, but there is a great need to engage in qualitative "process tracing" of the sort advocated by George and McKeown (1985) and reflected in the early sociological studies of the role of contract law in business planning (e.g., Macaulay 1963, 1977). My study, by its nature, can address only some of these questions, and the answers that it provides are at best tentative and suggestive. But I hope to have shown why the questions that I have addressed, and why these other related questions, are interesting and important and deserving of further research.

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