

**Sacrificing Sovereignty: Bilateral Investment Treaties,  
International Arbitration, and the Quest for Capital**

**Jason W. Yackee**

**USC Center in Law, Economics and Organization  
Research Paper No. C06-15**



**CENTER IN LAW, ECONOMICS  
AND ORGANIZATION  
RESEARCH PAPER SERIES**

University of Southern California Law School  
Los Angeles, CA 90089-0071

*This paper can be downloaded without charge from the Social Science Research Network  
electronic library at <http://ssrn.com/abstract=950567>*

SACRIFICING SOVEREIGNTY: BILATERAL INVESTMENT TREATIES, INTERNATIONAL  
ARBITRATION, AND THE QUEST FOR CAPITAL

JASON WEBB YACKEE†

*Abstract:* International relations scholars have recently emphasized that international politics have become increasingly “legalized.” States are increasingly formalizing their international relationships, and sacrificing significant sovereignty to independent tribunals empowered to interpret, and sometimes enforce, the terms of those relationships. Legalization has advanced most thoroughly in the realm of international investment law through the diffusion of bilateral investment treaties, or BITs. The basic justification for BITs is that host states that sign them will attract greater amounts of foreign direct investment (FDI) because the treaties “credibly commit” host states to treat investors fairly. I argue that the effectiveness of BITs in performing this role should depend on the particulars of the treaties’ formal dispute settlement mechanisms. I revisit the most prominent extant analysis of the effects of BITs on FDI and show that its analysis is non-robust to justifiable and even necessary changes in model specification and estimation strategy. I then analyze an improved model of the effects of BITs on FDI flows. My analysis suggests that BITs perform poorly in the “competition for capital”, in which host states try to divert investments away from other states. On the other hand, BITs appear to perform reasonably well in promoting foreign investment “penetration” of the host economy, as long as the treaties contain binding state promises to allow investors to arbitrate at least some kinds of investment disputes. However, I show that once we control for existing levels of political risk and for the number of BITs in force world-wide, this modest but positive finding disappears. In short, I find little evidence that BITs have any current effect on FDI flows.

---

† © 2006 Jason Webb Yackee, Fellow, Gould School of Law, University of Southern California. Thanks are due to Kristian Gleditsch, Nancy Brune, and Elizabeth Asiedu for generously sharing their data, and especially to Luke Keele for his patient methodological guidance. The research underlying this paper was supported by a grant from the National Science Foundation. This is a very preliminary and somewhat overlong draft, and critiques, comments and suggestions for change are very welcome. I may be contacted at *jason dot yackee at alumni dot duke dot edu*.

## I. INTRODUCTION

Several years ago the journal *International Organization* (IO) devoted a special issue to the subject of the “legalization” of international relations.<sup>1</sup> By legalization the authors meant that states have increasingly undertaken relatively precise, formal legal obligations toward each other, and that they have increasingly delegated authority to independent and neutral adjudicators to interpret those obligations when disputes as to the obligations’ content or application might arise. The special issue was remarkable because for two decades international relations specialists had studiously avoided any significant discussion of the role that “law” as such might meaningfully play in independently and effectively constraining opportunistic state behavior. Now many were saying that “legalization” held substantial promise to promote state compliance with international obligations, furthering mutually beneficial cooperation.

In an important sense the “discovery” that international law might matter was hardly a discovery at all, but rather a quite logical and long overdue extension of two decades of work making a convincing case that “institutions”, variously labeled and distinguished as “regimes”, “principles”, “norms,” “rules”, and “decision-making procedures”<sup>2</sup>, might render the anarchical world stage a significantly less depressing place to find oneself than scholars of a more “realist” stripe tend to argue.<sup>3</sup> And while the institutionalist literature has traditionally focused on informal “rules of the game”, the IO special issue signaled that formal institutions—and law, understood as the black-letter sort, tends to be the among the most formal—might deserve equal billing.

In that original IO discussion the rather specialized realm of international *investment* law was only briefly and incompletely covered. To the extent that international relations theorists are interested in international law, that interest tends to run most inevitably toward topics of trade, regional integration, and human rights, and the IO special issue reflected that topical bias. Yet ironically it is precisely in the realm of international investment law that the process of legalization is perhaps most advanced. Bilateral investment treaties, or BITs, sit conspicuously at the forefront of the phenomenon. It is this aspect of the phenomenon—the treaty-based legalization of international investment law—that this Article aims most generally to address.

Why international legalization might matter is subject to debate, of course. Constructivists tend to argue that international law has the capacity to change actors’ ideas

about themselves and their interests. Rationalists, and those partial to law-and-economics approaches to the study of law, emphasize instead that international law might matter to the extent that it alters actors' incentives to break or to comply with their international obligations. I adopt the latter position here.

My precise focus is on the mechanisms by which international law might be expected to effectively alter state incentives. Scholars have traditionally distinguished the international legal regime from its domestic counterpart on the “fact”—the quotes indicating some doubt as to whether it is indeed any longer a (meaningful) fact—of the latter's enjoyment of a reliable system for the coercive enforcement of legal obligations. Should I refuse to pay my roofer for re-shingling my roof, he can sue me in state court for breach of contract. Should I refuse to pay the resulting judgment, he can summon the county marshal to seize my Toyota Camry, or seek a court order having my (meager) professorial wages garnisheed. Quite frequently, on the international legal plane relations are subject to no sort of obligatory, binding judicial review of the adequacy of performance. And even when they are (as, say, by the International Court of Justice), resulting judgments are not directly enforceable, because there is no international equivalent of the county marshal empowered to impose meaningful penalties for continued intransigence. This has led international law scholars to emphasize that international law typically matters only where an international legal obligation is “self-enforcing.”<sup>4</sup> And self-enforcement is said to be most likely where breaking an international law reliably leads to “reputation costs” in the eyes of those observing the breach, and typically in the eyes of the party directly privy to the agreement.<sup>5</sup>

Less fully recognized is how out of date the traditional distinction between domestic and international legal systems has become in the realm of international investment law. BITs today routinely contain arbitration agreements in which states agree to allow foreign investors from the other state party to the treaty to sue for breaches of international investment law before international arbitral tribunals. And most importantly, many international investment arbitral awards are readily and coercively enforceable through domestic legal systems thanks to a network of international treaties that oblige domestic courts to recognize and enforce awards, even those rendered against states, in much the same manner as they recognize and enforce the judgments of other domestic courts.

What this means for theory is that BITs provide us with a valuable means of testing the effects of different enforcement mechanisms on compliance with international law. While the casual observer of the law might understandably assume that stronger (e.g. more coercive) enforcement mechanisms are “better” at promoting compliance (and thus at

rendering international law “effective”), recent work in contract law has emphasized that there may be trade-offs of a negative sort when self-enforcing arrangements are transformed into coercively enforced ones.<sup>6</sup> For example, in self-enforcing agreements the parties to the agreement, if they wish to continue to enjoy the gains from cooperating, have an incentive to “work things out” by informally altering their agreements to suit unforeseen changing conditions. This suggests that self-enforcing agreements, in which reputation plays an important role in promoting (and even in redefining) compliance on the fly, have the potentially salutary benefit of promoting relational flexibility, even if they make compliance with the original terms of the agreement somewhat less likely.

On the other hand, coercively enforced agreements, especially where coercive enforcement may be initiated by a non-party to the original agreement, may promote strict compliance with the original terms of the agreement, but they may do so at the cost of increasing the rigidity of the relationship, and thus at encouraging breakdown (and litigation) rather than cooperative adjustment, even when cooperative adjustment may be much preferred by the original contractual parties. This is particularly a danger with BITs, which are *interstate* agreements which nonetheless often allow and encourage private parties (foreign investors) to police compliance with the original terms of the agreement through coercively enforceable international arbitration. In more practical terms, the danger in this case is that investors may successfully seek “too much” strict compliance, with “too much” compared against the yardstick of what the state parties to a particular BIT would have wanted, or to what reputational concerns alone would have adequately encouraged.

The difficult task, then, is determining when non-coercive enforcement of international law might be good enough (or perhaps even preferred), given its ability to promote a measure of compliance along with a measure of relational flexibility. This is a question closely related to the growing literature on the “optimal design of treaties,”<sup>7</sup> but it is also one that has so far largely defied empirical testing beyond a handful of clumsily constructed empirical examinations in the law review literature.<sup>8</sup> BITs provide a fertile testing ground because not all BITs contain coercive enforcement arrangements. Furthermore, there are a number of BIT-equivalent international legal instruments (such as association agreements between the European Union and applicant countries, as well as various “declarations” by the OECD) that make very BIT-like promises to investors but rely exclusively on self-enforcement to promote compliance. Roughly speaking (but in actuality using the powerful tools of modern econometrics) we can look at whether BITs of one type are better at promoting compliance with international investment law than the other.

This simplistic description of the task at hand hides terribly difficult conceptual questions, and perhaps most importantly the question of how to measure “compliance,” especially when the meaning of compliance might be said to change in conjunction with the changing terms of a given relationship. The answer is to look not at compliance directly (even if this were possible), but to look at the behavior of interested parties who can be trusted to evidence, by that behavior, their own views of whether something resembling compliance with international law is to be expected. Less cryptically put, we can examine whether international legal promises to foreign investors vary in their apparent ability to change investor attitudes about the desirability of investing in particular countries. We can examine those attitudes by looking at whether foreign investors tend to actually invest more in countries that have made coercively enforceable promises to treat investors favorably compared to those that have made no such promises, or to those that have made promises supported only by the host country’s good word.

We can also extend the analysis a bit further afield to examine whether explicit, legalized promises are necessarily more effective than promises of a much more implicit and informal sort. For example, Slaughter’s and Moravcsik’s influential “liberal” theories of international law and of state preference formation suggest that liberal democracies are more likely to uphold their international legal obligations than are other types of regimes.<sup>9</sup> And both Jensen and Li have shown that democracies seem to perform better at attracting foreign investment than autocracies, suggesting that investors indeed view democracies as more likely to treat them “fairly and equitably”, as customary international law is said to require.<sup>10</sup> We can begin to disentangle the effects of the implicit and largely non-enforceable promises inherent in a regime’s type from more explicit and more enforceable promises embodied in many BITs by examining whether the apparent empirical relationship between democracy and foreign investment continues to hold once we take account of the presence of more self-consciously legal promises made to investors.

This Article’s contribution can be briefly summarized *en gros*: it attempts to take seriously recent contentions that international law “matters” by changing the incentives that states face, and thus that it can effectively constrain state behavior. But unlike the work of international law optimists, like Slaughter, who argue that international law should be taken seriously primarily because of the internationalized process that generates the law,<sup>11</sup> I argue that it is just as important, and probably more so, to take seriously differences in the *content* of international legal promises. Where international legal promises are accompanied by coercive enforcement mechanisms, it is reasonable to assume that compliance *and its tangible benefits* will generally increase as well. But if compliance does not increase by much, or if the

expected benefits of compliance do not adequately materialize, then it also becomes reasonable to question whether the recent trend of including coercive dispute settlement provisions in investment treaties and other international legal instruments is necessarily worth the costs that such provisions generally entail.

That BITs entail costs is becoming increasingly clear. BITs can force states to abandon popular policy initiatives in the face of legal threats from foreign investors, or to reimburse investors for “damages” from policy actions, even when the policies are objectively necessary, and even when domestic businesses are not equally entitled to redress.<sup>12</sup> They can also lead to serious political backlash if citizens view the treaties as unfairly favoring foreigners and perceive treaty-based arbitral awards as illegitimate intrusions on sovereignty.<sup>13</sup> Argentina provides the most striking recent example of the potential costs of BITs. In the wake of that country’s decision to float the Argentine peso in 2002 (a decision that in many respects seems clearly to have been one of “necessity” in the legal sense, and, as a practical matter, economically unavoidable) foreign companies filed more than 30 arbitral claims against Argentina, collectively seeking hundreds of millions of dollars in damages.<sup>14</sup> These claims have so far met with some measure of legal success.<sup>15</sup> More generally, a recent informal survey of 23 investment treaty awards over the past 16 years suggests that international arbitral tribunals have awarded investors nearly two billion dollars, not including interest and attorneys fees.<sup>16</sup> These published awards undoubtedly represent only the tip of a presumably large iceberg’s worth of host state policy proposals and actions that have been withdrawn or reversed under investor threat of international litigation.

The implications of the present analysis are thus of potentially great practical importance. As international relations become more legalized, there is a correspondingly greater need to ensure that states do indeed adopt treaties of the “optimal” sort sooner rather than later. Muddling one’s way to optimality is markedly less desirable than landing in an optimal spot on the first step. Too many developing countries have blindly embraced the international legalization of their relationships with foreign investors without much evidence that legalization is all that beneficial or necessary, let alone optimal. This Article tries to fill that gap by suggesting whether, and in what forms, it might be.

The analysis proceeds as follows. Section II offers a brief description of BITs. Section III briefly discusses the most prominent attempt to date to measure the effectiveness of BITs, a 2005 article by Neumayer and Spess.<sup>17</sup> Neumayer and Spess report very robust findings that BITs are quite effective at inducing foreign direct investment (FDI) inflows. I

attempt to replicate (but, strictly speaking, not to duplicate) their findings using largely identical model specifications and methods. In short, Section III attempts to take seriously Bueno de Mesquita's recent point that "findings" do not begin to "take on the role of knowledge" unless they are "capable of being replicated using different data sets" and "different measures." Let me emphasize at the outset, though, that my overall aim here is *not* to criticize Neumayer and Spess's work as shoddy (it certainly is not) or as "mistaken." It is instead simply to

bolster confidence that [their] research findings are not merely tied to a particular moment in time or to a particular way of defining a concept....If a hypothesis, model, or theory is viewed as a plausible account of how some aspect of international relations works, then findings that falsify or challenge that account are an important part of the scientific process. Indeed, discovery of such falsifying or challenging evidence through replication is fundamental to the acquisition of reliable knowledge.<sup>18</sup>

Falsification is especially important in the social sciences, which for a number of reasons, largely institutional in nature, tend to promote and encourage the dissemination of "positive" findings that confirm theory rather than negative ones that do not. Section III tries in its own small way to correct for that inherent confirmatory bias, not to be contrary, but precisely because the research question is so important.

In Section IV I present a fresh look at the relationship between BITs and FDI by presenting results for a more completely specified statistical model of the legal determinants of FDI inflows. I argue that existing analyses typically ignore a number of important BIT alternatives that might serve the same essential purposes as the treaties: non-BIT, investment-related treaties that closely mirror BITs in terms of substantive content; the availability of investment insurance and contract-based international arbitration; and domestic legal reforms that ease restrictions on foreign investment. I also argue that there is good reason to think that even if BITs do live up to their promise, their salutary effect on FDI flows is likely to decline as more and more host states join the BIT bandwagon. And finally, I test my theory that BITs with the strongest dispute settlement mechanisms will be the most effective at attracting FDI.

My results are not particularly encouraging for BIT promoters. I find, first, that Neumayer and Spess's results are quite sensitive to well-justified, non-radical changes in specification and estimation strategy. With relatively minor adjustments in approach, their

positive results largely fade away into non-significance. Second, using a better-specified additive model, I find only inconsistent evidence that BITs might, on average, succeed in inducing additional FDI. In particular, BITs which contain strong dispute settlement regimes—which in practice means providing investors with guaranteed access to enforceable international arbitration—may increase FDI “penetration” by increasing the relative size of the role that FDI plays in the domestic economy. These findings, the first of their kind, suggest that a “reputation” for obeying treaty commitments is *insufficient* to convince investors to invest. If host states hope to use BITs to benefit from global capital markets, they must be prepared to sacrifice considerable sovereignty to international tribunals to put investors at ease.

However, the analysis suggests at least two extremely important caveats. First, the most coercive BITs but do not seem, on average, to help states in diverting available FDI away from other states. In other words, binding oneself to international law by entering even the strongest BITs does not seem to be of terribly much use in increasing one’s “share” of world FDI. And second, I show that once we control for the number of BITs in force worldwide, the positive effect of strong BITs on FDI penetration disappears as well. In other words, as more and more states sign on to BITs, BITs become less and less effective. This latter finding suggests that BITs have largely outlived their usefulness. Host states should not expect their sacrifice of sovereignty to amount to much in the way of additional foreign investment, however measured.

## SECTION II. A BRIEF DESCRIPTION OF BITs

The history of BITs has been told in great detail in a number of other informative publications, and I make no effort here to retread ground that has, for present purposes, already been sufficiently trodden.<sup>19</sup> But for the uninitiated, understand that a BIT is a treaty, generally between two countries (hence “bilateral”), in which each country promises to treat investors from the other country favorably (hence “investment”). It is often repeated that the first BIT was a 1959 treaty between Germany and Pakistan. I have shown elsewhere that as a conceptual and factual matter this claim is highly problematic.<sup>20</sup> But it is sufficiently truthful to allow that year to serve as a very rough guide to the start of the BIT era. What is clear is that since that time, and especially since the 1990s, BITs and their close equivalents (such as the investment chapters of multilateral free trade agreements like NAFTA) have

multiplied exponentially, or nearly so. For example, UNCTAD calculates that there were less than 100 BITs in 1980; in 1999, there were over 2000.<sup>21</sup>

The substantive (e.g. non-dispute-settlement, or non-“remedial”) provisions of most BITs mimic, at least in broad strokes, the OECD’s 1967 Draft Convention on the Protection of Foreign Property, and the language used and the subjects covered in the various treaties can appear remarkably similar, both over time and across countries. For example, capital exporting states have long been “preoccup[ied]” with convincing host states to provide certain generally applicable standards of treatment for established investments.<sup>22</sup> BITs accordingly, and largely to a tee, promise that investors shall be “treated” in any number of imperfectly distinguishable ways. The most common examples include promises of “non-discriminatory” treatment; treatment that is not “unreasonable” or “arbitrary”; “fair and equitable” treatment; treatment including “full protection and security”; treatment as favorable as provided to domestic investors (“national treatment”); and “most-favored-nation” (MFN) treatment. Investors have also long been concerned with maintaining their ability to repatriate investment proceeds out of the host country, and with receiving compensation in the event that their property is expropriated. Most BITs unsurprisingly contain somewhat more specific guarantees as to both subjects.

This set of promises form what might usefully be called the “substantive core” of modern BITs, and they are what begin to make it possible to analyze the treaties as a conceptually cohesive group. That task is made easier by the widespread promise of MFN treatment. Ignoring a certain amount of legal nuance, a promise of MFN treatment means that when a host state offers more favorable substantive promises to investors in a later BIT, those more favorable promises will automatically apply to investors covered by the first, less favorable BIT. The ubiquity of the MFN clause also makes it a largely useless and virtually impossible task for the analyst to construct any sort of index of the relative substantive favorableness of the various treaties, just as it can make it rather difficult for an investor to determine just what exactly he has been promised.<sup>23</sup> But for present purposes, which necessarily depend on the reliability of the assumption that differences in the strength of dispute settlement provisions are analytically relevant, it is essential to point out that the extension of MFN clauses to dispute settlement provisions is, as one scholar has put it, a quite “delicate” question in international law.<sup>24</sup> However, international lawyers and tribunals seem generally to agree that if MFN clauses do have a role in extending remedial guarantees in one BIT to beneficiaries of another BIT, then that role is necessarily a minor one, and that investors whose home country’s BIT does not contain strong dispute settlement provisions will generally not be able to invoke the more favorable dispute settlement provisions of

another BIT. This in turn suggests that despite the widespread use of MFN clauses, it is still analytically legitimate to postulate that investors should care about the particular dispute settlement details of a particular treaty.

We can view these substantive and remedial treaty-based promises as encompassing a “grand bargain” between developing countries and first-world investors.<sup>25</sup> The former voluntarily “tie themselves to the mast” of international law in exchange for the assurance, implicit, to be sure, that foreign investors who would not otherwise have invested in the particular host country now will do so, or will do so on more favorable terms.<sup>26</sup> In this common view, BITs serve as potentially effective “credible commitment” devices. Absent a treaty, host states that want more foreign investment are unable to convincingly commit themselves to honor their explicit or implicit promises to treat investors fairly. In the language of the business school literature of the 1970s, “bargains” between host states and investors are characterized by “obsolescence.” Once the investor has sunk his valuable fixed capital, it becomes hostage to the policy whims of the host state, who can now force the investor to renegotiate the terms of the original bargain. Investors, faced with this prospect, will demand a “risk premium” in order to invest, if they dare to invest at all.

Why might BIT promises be especially credible solutions to the problem of bargain obsolescence? On the one hand, and I have already suggested in the Introduction, it has been suggested that making promises under the banner of international law, and particularly under the banner of treaties, increases the “reputation costs” of later renegeing.<sup>27</sup> In this view, BIT promises are inherently more credible than promises made through domestic laws and constitutions or through investment contracts, both as a matter of rhetoric (charges of breaking “international law” supposedly invoking greater reputational costs than charges of breaking other kinds of promises), and as a practical matter, because a domestic laws might be easily changed by the host government, including in such a way as to “legally” abrogate “mere” contractual obligations. In contrast, most BITs are very careful to say that even if they are unilaterally renounced, they shall continue to govern existing foreign investments for a long number of years.

On the other hand, there are very good reasons to doubt that BITs possess any inherently effective ability to increase the reputation costs of treating investors poorly. This is largely because the promises extended by BITs are exceedingly nebulous, often just as much so as the customary international law that they are said to replace or supplement. Typical BIT promises are phrased as vague legal “standards”, like promises of “fair and equitable” treatment, that necessarily require adjudication to obtain useful meaning. And

even where BIT promises are relatively precise enough to approximate “rules” possessing decently clear *ex ante* meaning, determining the facts to apply to the rule will typically require something significantly more involved than one party claiming that the fact are such and such and that redress is owed. That “something more” is impartial adjudication, which is necessary to give real meaning to vague legal standards and to resolve critical factual disputes.<sup>28</sup>

In short, adjudication is what makes BITs have potentially real bite. The majority of BITs are potentially effective credible commitment devices because they effectively pre-commit host states to arbitrate wide varieties of investment disputes with foreign investors before impartial international arbitral tribunals, such as those formed under the auspices of the World Bank’s International Centre for the Settlement of Investment Disputes (ICSID). Traditionally investors had to rely on municipal courts to resolve host state-investor disputes, or to call upon their home governments to pursue the investor’s interests on the international stage under the banner of “diplomatic protection.” But foreign investors remain exceedingly suspicious of the neutrality of domestic courts, especially when the opposing party is the host state, and history shows conclusively that home governments are often for political reasons very unwilling or unable to pursue investor’s international legal rights with the necessary zeal. Thus investor-initiated access to neutral and authoritative adjudication becomes, from the investor’s perspective, exceedingly desirable.

Wälde’s recent and quite forceful statement of the general point is worth quoting at length:

It is the ability to access a tribunal outside the sway of the Host State which is the principal advantage of a modern investment treaty. This advantage is much more significant than the applicability to the dispute of substantive international law rules. *The remedy trumps in terms of practical effectiveness the definition of the right.*

...

The effectiveness of substantive rights is everywhere—but nowhere more so than in investment disputes—linked to the availability of an effective enforcement (i.e. independent) enforcement procedure. This link is so close that the best way to emasculate an investor’s right against a host State is to sever the link between an international-law-based right and an

international enforcement procedure and to compel the investor to seek justice before domestic courts. *Right and procedural remedy are, in practical and effective terms, one.*<sup>29</sup>

To international law skeptics, who tend to focus on the absence of an “international sheriff,” Wälde’s position might seem to border on delusional. But it is important to realize that unlike interstate proceedings before the International Court of Justice, investor-state arbitration rulings are often readily enforceable against losing host states even in the face of host state intransigence. This is because an interlocking series of international arbitration treaties (including, primarily, the New York Convention and the ICSID Convention) oblige the courts of third-party states to enforce arbitral awards against state defendants absent extraordinary circumstances. And while their willingness to do so has not yet been fully tested, there is some evidence that third-party courts will order the seizure of host state property to satisfy an outstanding arbitral award, even when seizure is politically sensitive. For example, a German investor who recently won an investment treaty award against the Russian government has been able to enforce the award by seizing “a \$40 million Russian-owned apartment complex in Cologne that once served as the local KGB outpost.”<sup>30</sup> It is difficult to imagine an anecdote better suggesting that international investment law can indeed “matter” in a very real and practical sense, or that guaranteed access to an arbitral tribunal empowered to issue independently enforceable awards is often necessary to international law’s meaningfulness.

The problem for BIT analysts is that not all BITs provide such access, or provide it comprehensively, or provide it with absolute certainty. In other words, all BITs are not created equal, and any serious study of the effect of BITs on FDI inflows, for instance, should necessarily take into account these important differences in remedial content.

We can usefully divide BITs into four groups based on the relative strength of their dispute settlement provisions. I do so for the purposes of the empirical analyses presented in the following Sections, but it is helpful to introduce here the basic distinctions. First, those that provide investors with the host state’s irrevocable pre-consent to investor-initiated, binding and enforceable international arbitration for a wide variety of potential legal disputes are placed in the first group, which I refer to as “strong” BITs. If BITs indeed have a positive effect on FDI inflows, and if investors care about differences in the content of BITs (as indeed they should), we should be most likely to see that strong BITs are statistically significant.

Second in inherent strength are probably those BITs that contain pre-consents to arbitration for only a limited class of potential investment disputes, such as those signed by many Communist states prior to the mid-1990s. These BITs, many of which remain in force, usually limit the investor's right to arbitrate disputes involving expropriation and the transfer of capital out of the country. Excluded from arbitration are disputes involving the meaning of promises of "fair and equitable treatment" and the like. I refer to these BITs as "partial pre-consent" BITs. The partial nature of the pre-consents is conceptually significant because BITs derive much of their credible commitment power from giving investors the ability to threaten the host state with litigation over the meaning and applicability of vague substantive promises, like "fair and equitable treatment," in order to persuade the host state to abandon or avoid a wide range of potential actions adverse to the investor's interests.<sup>31</sup> Excluding the possibility of litigation over such matters removes the most important arrow from the investor's quiver. Furthermore, today the risk of such expropriation, traditionally understood, is objectively slight.<sup>32</sup> This suggests that treaties that only provide guaranteed access to arbitration for expropriation disputes fail to cover the most common, modern sources of investor-state tension. And while it is difficult to say precisely how *much* less valuable these kinds of treaties are compared to those that offer investors comprehensive pre-consents, it is quite reasonable to presume that they are significantly less valuable.

Third are BITs that contain mere *promises* to consent to arbitrate investment disputes, rather than enforceable pre-consents that cannot be revoked once the investor has accepted them. In the typical example of a promissory consent, the host state promises that it "shall consent" to arbitration if the investor requests it.<sup>33</sup> The legal implication is that host state consent has not *yet* been given, and that the host state's refusal to honor its promise to consent in the future will most likely not itself be an arbitrable breach of the treaty.<sup>34</sup> Lest this point strike the reader as just so much lawyerly hair-splitting, note that experts in the field consider the "shall consent" language to be quite distinct in legal effect from true pre-consents, in which the host state grants its consent in the here-and-now of the treaty.<sup>35</sup>

And finally are the weakest BITs—those that contain no investor-state dispute-settlement provisions whatsoever. A handful of these early treaties contain mere hortatory expressions of a willingness to consider arbitration.<sup>36</sup> Throughout this Article I refer to these last kinds of BITs as "weak" BITs.

Figures 2A and 2B provide illustrations of the increasing popularity of strong BITs. Figure 2A presents an overlay of the total number of developing countries that have a strong BIT or its close equivalent (such as an investment chapter in a free trade agreement) *in force*

with at least one of the top 18 capital-exporting countries, and the total number of developing countries that do not have *any* strong BIT in force with the same 18 capital-exporting countries.<sup>37</sup> As Figure 2A shows, the vast majority of developing countries in the 1970s and 1980s had not entered into *any* strong BITs with the world's major capital-exporting countries. But by the end of the sample (2003) very nearly half of them had done so.

Figure 2A: Number of Developing Countries With and Without At Least One Strong BIT in Force with the Top 18 Capital-Exporting Countries

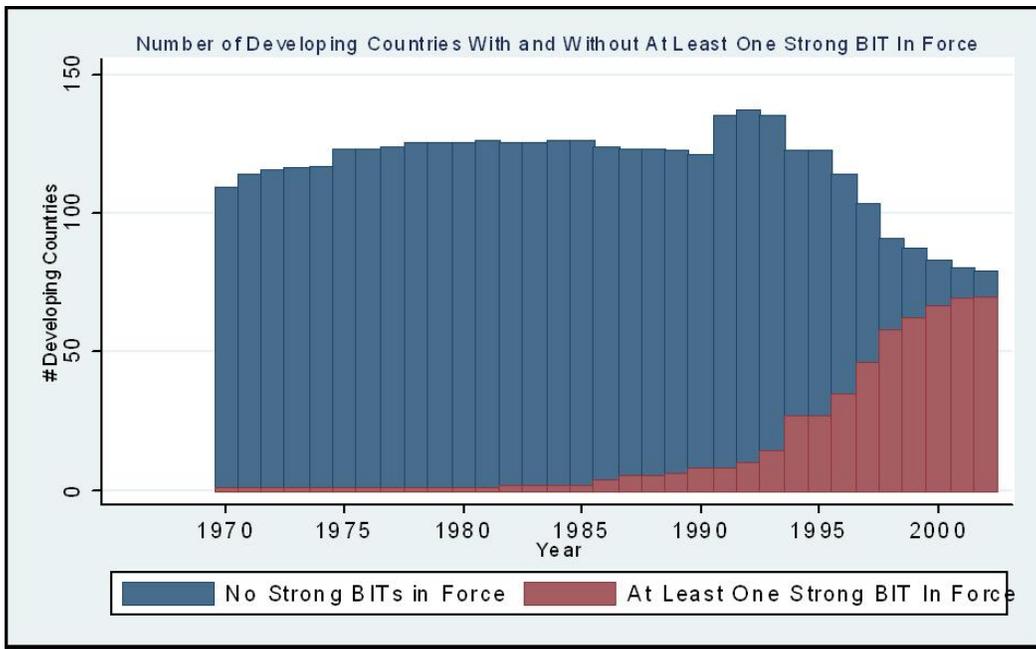
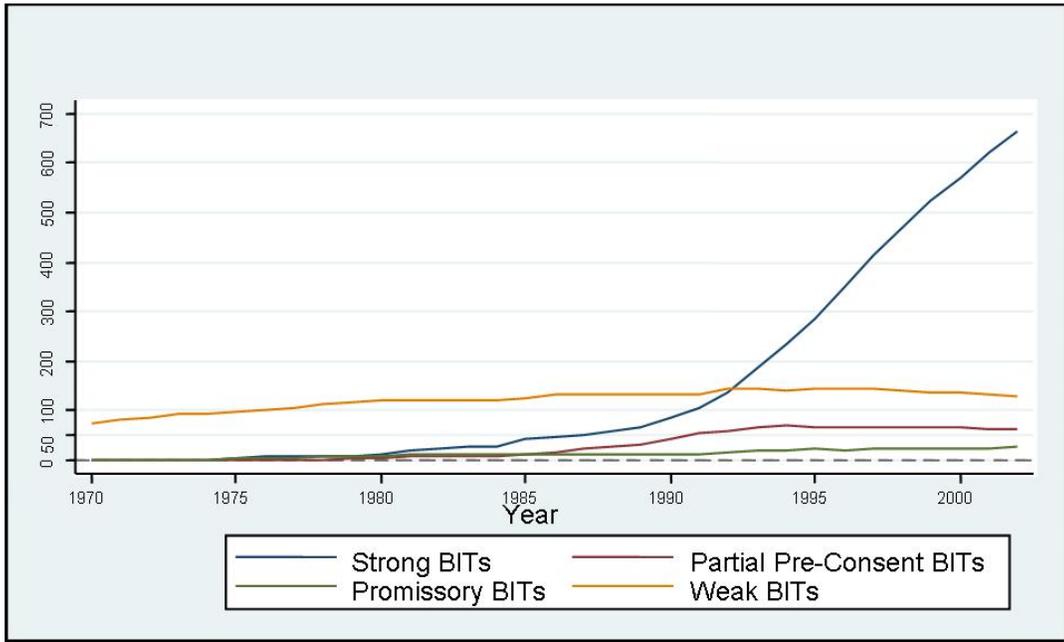


Figure 2B plots the total number of each of the four types of BITs in force between developing countries and the top 18 capital exporting countries over time. We can see that through the early 1990s non-strong BITs in force outnumbered strong BITs, but that since that time nearly all new BITs entering into force have been of the strong type.

Figure 2B: Cumulative Number of BITs in Force, by Type of Dispute Settlement Provision, between Developing Countries and the Top 18 Capital-Exporting Countries



With this brief introduction to BITs under the belt, we can begin the more involved statistical analysis of some of the points developed above. The first order of business is to revisit the most important existing study of the effectiveness of BITs as credible commitment devices.

### SECTION III: REPLICATING NEUMAYER AND SPES

Neumayer and Spess recently published in the journal *World Development* an article of great practical importance to the world's capital-hungry developing countries. Their article

presented the first published, peer-reviewed, methodologically sophisticated econometric analysis of the effects that BITs might have on FDI inflows. To skeptics of the utility of international law generally, and of the desirability of BITs specifically, the results are startling. The authors present what they describe as robust evidence that developing states that sign BITs enjoy relatively massive increases in FDI inflows. The article seems to put the lie to the assertion of Sornarajah, a prominent critic of BITs, that the effect of BITs on FDI is an “untested hypothesis” and merely an “assumption,” and that “[s]tability and other factors have a greater influence on investment flows than do investment treaties.”<sup>38</sup>

Or does it? In the current Section I revisit Neumayer and Spess’s model, showing that with slight and not-so-slight differences in specification and methodology their positive results are not particularly robust.

#### A. *The Basic Replication Model—Dependent Variables*

There are three obvious metrics for examining the effectiveness of BITs (or of any other policy change) at attracting FDI. First, and most crudely, we can examine whether BITs are associated with an increase in *absolute flows of investment*. Second, if we tend to view developing countries as primarily engaged in a “competition” with other countries for FDI that would be made in one country but not another, then we might wish to examine whether BITs are associated with an increase in a given country’s *share of world FDI inflows*. States that capture a greater slice of the total pie are, presumably, closer to victory in the competition than others who must content themselves with a smaller portion. Neumayer and Spess primarily adopt this “competition” view of BITs, and with some justification, as the competition story also motivates Elkins, Guzman, and Simmons’ recent study of the reasons why developing states have signed the treaties.<sup>39</sup> Finally, and in my view most reasonably of all, it seems fair to assume that developing countries themselves are primarily interested in increasing the *importance of FDI in their domestic economies*, especially where the investment is market-seeking and where, therefore, the “competition” for the investment is necessarily muted. If Wal-Mart is willing to invest in Venezuela, for example, than it hardly seems as if Venezuela should care that Wal-Mart is also investing (and perhaps investing more) in Mexico and China. Here what matters is whether BITs are associated with an increase in FDI inflows as a share of the domestic economy, which we can measure as FDI inflows as a percent of gross domestic product (GDP). We can usefully think of this metric as one of FDI “penetration”,<sup>40</sup> and I refer to it as such below. Neumayer and Spess’s models include only the first two metrics. I follow their example in this section, but include an analysis of

the effect of BITs on FDI inflows as percent of GDP in Section IV, where I present a more fully specified and original empirical model.

My dependent variables in the models analyzed in the current Section are, accordingly, the constant-dollar value of net FDI inflows that a given host country receives in a given year, and the value of those of those inflows as a proportion of total world FDI inflows in the same year.<sup>41</sup> FDI data is taken from UNCTAD and from the World Bank's World Development Indicators (WDI). Neumayer and Spess take the natural log of their dependent variables. I argue in Section IV.C that this transformation is probably not justified, but for the moment I follow their example, albeit with one important caveat. A number of observations (generally over 100, depending on the sample) contain negative entries, which represent the fact that foreign investors have, in a given year and on net, removed more FDI from the country than they have brought in. Net disinvestment is particularly pronounced in the 1970s, when certain countries, such as Chile, engaged in mass expropriations and other investor-unfriendly behavior, but there are also instances of net disinvestment across the years of the sample. The problem this poses for logarithmic transformations is that the log of a negative number, like the log of zero, is undefined. Neumayer and Spess cure this problem by arbitrarily re-coding negative observations as a small number between zero and one, and leaving positive observations unchanged, and then logging the altered series. But to add a constant to some but not all observations in a series is methodologically unsound, and the better approach is to add a "start", equal to some value just greater than the absolute value of the most extreme negative observation, to *all* of the observations in the series, and then to log the uniformly shifted series. That is the (better) approach taken here.

#### B. *The Basic Replication Model—Independent Variables*

Neumayer and Spess follow previous studies in focusing on the effect of *signed* BITs on FDI inflows, without regard for when, or whether, a given BIT has entered into force. This is conceptually difficult to justify if we view the importance of BITs as lying in their legally binding nature, because BITs, for the most part, do not legally bind state-parties until they have entered into force. Investors are unlikely to place much credible commitment weight on a BIT until it has been ratified by both parties and become legally binding. And as a practical matter, it is generally much more difficult for investors to determine whether a BIT has been signed, or what a BIT contains, until it has been ratified, entered into force, and more widely published or publicized. In Section IV I restrict the analysis to in-force BITs, but for the moment I follow Neumayer and Spess in constructing my principle

explanatory variable by counting the cumulative number of BITs that a given host state has signed in the current year or past years.

Neumayer and Spess make a cogent argument that the best practice is to weight this count by the importance of the treaty partner as a potential source of foreign capital. Thus signing a BIT with the United States should, intuitively, be worth “more” than signing a BIT with Denmark or Switzerland, because in a given year the United States supplies far more of the world’s foreign investment than do these smaller countries. I follow Neumayer and Spess in weighting my count of BITs by each partner country’s share of world FDI outflows, which I calculate as a five-year moving average. The BIT variable is in proportion form. This means, for example, that a BIT with the United States in 1985 would be worth approximately 0.25, corresponding to the United States’ 25% share of world FDI outflows in that and surrounding years, while a BIT with France would be worth approximately 0.05, corresponding to that country’s share of FDI outflows of 5%. For a developing country that has signed a BIT with both the United States and France, and with no other capital exporting country, the value of its BIT variable would be 0.30.

Neumayer and Spess include in their counts of signed BITs only those BITs between developing and OECD countries, with membership in the OECD standing in as a proxy for a country’s status as a major source of investment capital. As the OECD now contains a number of not-quite-developed countries, such as Mexico, the Slovak Republic, and Turkey, as well as recently-developed countries that provide little in the way of foreign capital, such as Ireland, Greece, Portugal, and Turkey, a more theoretically defensible strategy is to actually identify those countries that have historically tended to provide the lion’s share of FDI, and to “count” only BITs that involve one of those countries. I take that latter strategy here, using the same methodology described in Section II. This selection strategy has the effect of adding a number of wealthier countries, such as Ireland, Greece, and Portugal, which are excluded from Neumayer and Spess’s analysis and whose FDI inflows Neumayer and Spess do not attempt to explain. But in justification of these countries’ inclusion in the sample, let me note that until recently these additional countries were generally considered to be “developing” as well, that today the economies of many “developing” countries, like South Korea, are as “developed” as those of countries like Greece and Portugal, and that the best means of accounting for differences in levels of development is to directly control for those differences in the regression equation (as I do below), and not by excluding countries that take extreme values on a particular variable of analytical relevance.

The source of Neumayer and Spess's BIT "count" is unclear, but it appears as if they relied on two UNCTAD compilations.<sup>42</sup> UNCTAD's compilations suffer from a number of quality problems that I have sought to correct. In several instances, UNCTAD provides an erroneous date of signing. Where possible, I corrected these errors based on original sources or contemporaneous scholarship. UNCTAD also erroneously includes a number of treaties that are not properly considered to be "BITs" because they do not contain the core provisions discussed above. Most notably, UNCTAD includes a number of conceptually distinct "investment guarantee treaties," which 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* (CFA) and which are essentially distinct in character and content from modern BITs. I have deleted those non-BIT treaties from my own count.

Far more importantly, UNCTAD's lists fail to include a relatively large number of close BIT equivalents, such as a BIT-equivalent "exchange of letters" between Germany and India, or certain trade-related treaties that also contain important BIT-equivalent investment chapters or provisions. The North American Free Trade Agreement (NAFTA) is the most obvious example of this latter kind of "commercial" agreement, but there are others, including a free trade agreement (FTA) between Canada and Chile, the ASEAN agreements between Singapore and a number of other Asian countries, and various treaties of "Friendship, Commerce, and Navigation" (FCN). Japan and the United States in particular relied primarily on FCN treaties to protect their foreign investors up through the 1970s.<sup>43</sup> Many if not most of these treaties contain investment provisions that are substantively identical to the core of early investment-only BITs, and many remain in force today. Where the investment-related content of such a treaty is closely equivalent to the core provisions of most BITs, I have included the non-BIT treaty in my count. I have also extended the count of signed BITs through 2002; Neumayer and Spess count signed BITs only through 2001.

Neumayer and Spess include in their models a small number of largely uncontroversial economic control variables. It is often argued in economic and political-economic studies of FDI flows that foreign investors are particularly attracted to large, rich, and growing markets. Neumayer and Spess accordingly control for population (a measure of market size), per capital GDP (a measure of market wealth), and economic (GDP) growth rates. They also control for inflation, which serves as a proxy for "macroeconomic stability," and for openness to trade, which they proxy through variables indicating membership in the World Trade Organization (WTO) or free trade agreements (FTAs). Because I include membership in BIT-like FTAs in my BIT count variable, I follow a somewhat different (but

very common) approach in measuring trade openness: Using Gleditsch’s “Expanded Trade and GDP” database,<sup>44</sup> I construct a “trade openness” variable measuring the value of each country’s imports and exports divided by GDP. Higher values indicate greater openness to trade. Finally, Neumayer and Spess control for the “intensity” of a country’s current exploitation of natural resources, arguing that “intense” exploitation attracts FDI. I argue in Section IV that the more appropriate measure is one of exploitable natural resource *stocks*, and that these stocks are largely time-invariant and not thus not appropriate to include in analyses, like Neumayer and Spess’s, that separately control for country-specific, time-invariant “fixed effects.” But for the moment I follow their example and include their “intensity” measure, as estimated by the World Bank.<sup>45</sup>

The most original aspect of Neumayer and Spess’s model is their assertion that BITs can be expected to have conditional effects on FDI—conditional, that is, on the pre-existing propensity or ability of a given host state to keep its (presumably favorable) promises to investors. Where, for instance, a state’s political institutions are rife with “veto points” that make policy change difficult, investors may view the risk of such change to be relatively slight, and the extra security that a BIT provides might be viewed as so much icing on an already adequately iced cake—desirable, perhaps, but by no means of decisive import.

Neumayer and Spess model this conditional relationship in the standard way, by including in their models an interaction term that multiplies their count of signed BITs against any of a number of different measures of what might, in very loose shorthand, be called “political risk.” Their model takes the following basic form:

$$y = x + \alpha + x*\alpha + \text{control variables},$$

where  $y$  is FDI inflows,  $x$  is the weighted BIT count,  $\alpha$  is a measure of political risk, and  $x*\alpha$  is the multiplicative product of the first two variables. Neumayer and Spess run models using either of two alternative classes of measures of political risk: an objective measure of institutional “political constraints” or “veto points” developed by Henisz,<sup>46</sup> and a subjective measure produced by the International Country Risk Group (ICRG) that is based on expert surveys.<sup>47</sup>

In Neumayer and Spess’s analysis, Henisz’s measure of political constraints is systematically insignificant. I have replaced the Henisz measure with a very similar measure of institutional “veto points” produced by the World Bank, where higher numbers of veto points suggest greater policy stability due to the ability of veto players to block policy

change. Neumayer and Spess also report (generally successful) results using the ICRG “composite” measure of political risk that includes subcomponents measuring expert perceptions of “investment” risk, “government stability”, and “law and order.”<sup>48</sup> I accordingly rely principally on this measure of political risk in the analyses below.

To correctly interpret the various regression outputs it is important to keep in mind that higher ratings on the ICRG measure indicate *lower* degrees of risk, just as higher numbers of veto points are also said to indicate greater policy stability. It is also worth noting that the veto point and ICRG measures of political risk appear to be tapping rather different underlying phenomena. The two measures share a bivariate correlation coefficient of only 0.17. It will thus not be surprising to see that results vary significantly between the two measures.

*C. The Basic Replication Model—Results*

Table 3A summarizes Neumayer and Spess’s main empirical findings. Using the ICRG risk variable, Neumayer and Spess find that their measures of the weighted number of signed BITs and of political risk are consistently significant and positive, while the multiplicative interaction of these two variables is consistently significant and negative.

*Table 3A: Summary of Neumayer & Spess Main Results*

Variable	Result	Implication
Weighted Signed # BITs	Significant & +	More BITs → More FDI when Political Risk Rating = Zero (e.g. When Risk is High)
“Political Risk” Rating	Significant & +	Higher Risk Rating (Less Risk) → More FDI when BIT Count = Zero
“Political Risk” * # BITs	Significant & –	Less Risk → Less Effect of BITs on FDI

What are the implications? Interpreting regression results involving interaction effects poses certain complexities that are discussed in more detail below. But in brief, the authors claim to have uncovered strong evidence that BITs and political risk have a conditional relationship on FDI inflows. BITs positively impact FDI inflows, but that positive effect declines as political risk ratings increase (and thus as political risk decreases). Moreover, the

apparent size of the effects of BITs on FDI is quite impressive. Neumayer and Spess report that their results imply that a one-standard-deviation increase in their BIT variable “is predicted to increase its FDI inflow by 43.7% and 93.2%.”<sup>49</sup>

Table 3B reports results from my replication of their analysis. The model specifications are quite similar to Neumayer and Spess’s, although recall that I have corrected the count of signed BITs, that I have used a different strategy of identifying “capital-exporting countries” (relying on actual FDI outflows rather than membership in the OECD), and that I have replaced Neumayer and Spess’s FTA and WTO dummy variables with a standard measure of trade openness because my count of BITs already contains BIT-equivalent FTAs. The time period of my study also varies slightly from Neumayer and Spess’s study. Depending on the specification, my replication covers the years 1976-2001 or 1985-2002. Neumayer and Spess’s analysis covers the periods 1970-2001 and 1985-2001. Following Neumayer and Spess, I estimate the models presented in Table 3B using generalized least squares (GLS) with mean-averaged fixed (country) effects and robust standard errors.<sup>50</sup>

Table 3B: Replicating Neumayer and Spess (Net FDI Inflows in Constant Dollars & Net FDI Inflows as Percent of Total World Inflows)

	I (Constant \$)	II (Constant \$)	III (% World)	IV (% World)
<b>Weighted # Signed BITs</b>	<b>0.030</b> <b>(0.58)</b>	<b>-0.019</b> <b>(0.22)</b>	<b>0.021</b> <b>(0.81)</b>	<b>0.081</b> <b>(2.63)**</b>
<b>Institutional Veto Points</b>	<b>-0.011</b> <b>(2.71)**</b>	-	<b>0.004</b> <b>(2.01)*</b>	-
<b>BITs*Veto Points</b>	<b>0.032</b> <b>(3.09)**</b>	-	<b>-0.003</b> <b>(0.76)</b>	-
ICRG Political Risk	-	-0.007 (3.343)**	-	-0.000 (0.58)
BITs*ICRG Pol'l Risk	-	0.009 (2.08)*	-	-0.003 (2.10)*
Log per capita GDP	0.182 (5.05)**	0.392 (6.55)**	0.020 (0.95)	0.062 (2.88)**
Log Population	-0.210 (2.82)**	-0.231 (3.10)**	-0.029 (1.42)	-0.015 (1.10)
GDP Growth	-0.001 (1.50)	-0.000 (0.06)	-0.000 (0.43)	0.001 (3.07)**
Inflation	-0.000 (3.10)**	-0.000 (3.28)**	-0.000 (2.31)*	-0.000 (1.89)
Natural Resource Rents	-0.004 (1.18)	-0.001 (1.22)	-0.000 (0.22)	0.000 (0.64)
Trade Openness	0.000 (2.77)**	0.000 (0.88)	0.000 (0.77)	-0.000 (0.16)
Observations	2431	1581	2431	1581
Countries	130	108	130	108
Period	1976-2001	1985-2002	1976-2001	1985-2002
R-Squared (within)	0.16	0.27	0.01	0.04
<p><i>Notes:</i> Regressions estimated using GLS with fixed effects with robust (non-clustered) standard errors. Absolute t-values are reported in parentheses. Models I and II include year dummy variables (results omitted). Each independent variable is lagged one period. * and ** indicate significance at the <math>\leq 0.05</math> and <math>0.01</math> levels respectively.</p>				

The dependent variable in Models I and II is logged net FDI inflows measured in constant U.S. dollars. This dependent variable represents the absolute net amount of FDI that a country receives in a given year, with amounts comparable across years. The dependent variable in the second two models is logged net FDI inflows as a percent of total

world inflows. This dependent variable is reasonably viewed as representing a country's relative performance in the "competition" for FDI.

We are not terribly interested in interpreting the performance of the economic variables, except so far as to note that the results are roughly analogous to what Neumayer and Spess report. Wealthier markets (as measured by per capita GDP) appear, depending on the model specification, to attract more FDI, while larger markets (as measured by population) counter-intuitively appear to receive less, at least in Models I and II. This latter result, while surprising, is consistent with Neumayer and Spess's results. Inflation is negatively associated with FDI inflows in all four models, suggesting that stable and effective monetary policy environments are important to foreign investors. The trade openness and natural resource measures are largely insignificant predictors of FDI. This insignificance is not necessarily surprising, because the effects of trade openness and natural resource endowments on net FDI flows are theoretically ambiguous.

Take trade openness first. On the one hand, it is clear that high trade barriers can induce market-seeking FDI by encouraging investors to "jump" over high import tariffs by establishing production facilities in-country. The archetypal example is the Brazilian automobile industry. In the 1960s, the Brazilian government explicitly sought to persuade foreign auto manufacturers to locate production facilities in Brazil by raising tariffs on automobile imports to prohibitive levels.<sup>51</sup> On the other hand, a reduction in trade barriers, which would discourage tariff-jumping FDI, might be expected to encourage export-oriented FDI by making it cheaper for the foreign-based manufacturer to obtain production inputs from the least-cost supplier rather than from the host state.<sup>52</sup> It is impossible to model these differential and potentially off-setting effects of trade openness with the relatively crude empirical measures of FDI and of trade openness that are at hand.

As to natural resources, Neumayer and Spess, among others, suggest that countries with large stocks of natural resources will naturally attract more FDI than countries with poorer endowments.<sup>53</sup> This is in some respects a very reasonable assumption, because it is undeniable that certain kinds of investors (e.g. those that seek access to and control over natural resources) will understandably seek to operate in localities where such resources are most readily available in the desired quantities. On the other hand, at least since the mid-1970s natural-resource-oriented FDI has accounted for a small and declining proportion of total world FDI flows.<sup>54</sup> This suggests that even if abundant natural resources do *on net* increase FDI inflows, the effects are not likely to be very large or significant. The italics around the words *on net* serve to flag a more serious problem—the possibility that abundant

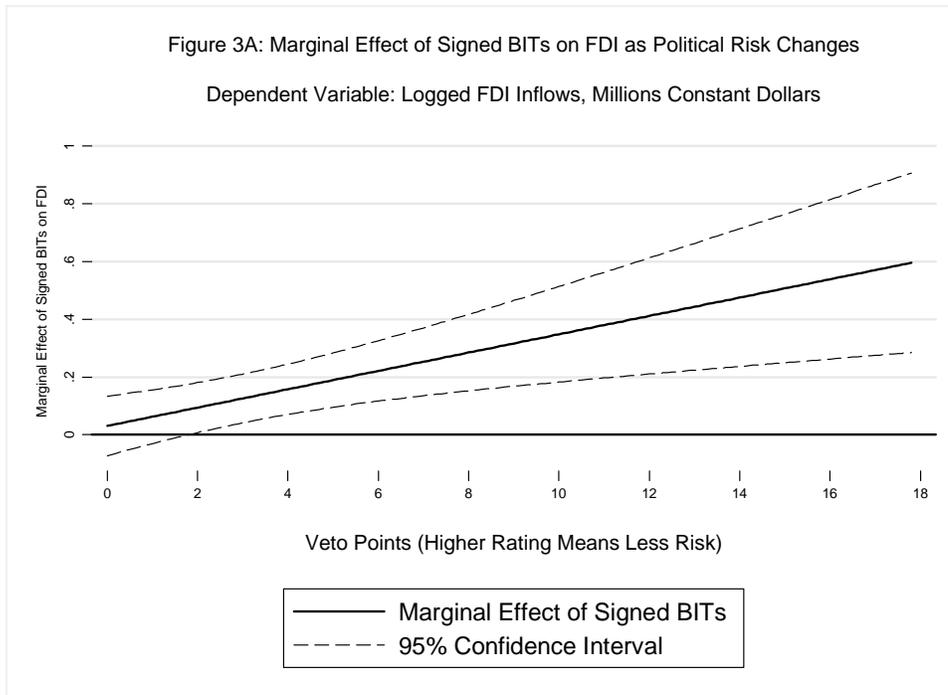
natural resources may increase natural resource-oriented FDI inflows while *decreasing* a country's attractiveness as a destination for other kinds of FDI. If the latter effect swamps the former, we might reasonably expect abundant natural resource endowments to decrease overall FDI inflows. This may be the case, for instance, if natural resource-abundant countries are systematically "cursed" with poor economic performance or weak institutions that drive away FDI in other sectors.<sup>55</sup> In any event, the natural resource intensity variable is insignificant in all models, suggesting that the contradictory theoretical effects of the variable on net FDI inflows tend to cancel each other out in practice.

The coefficients and significance of the BIT and political risk variables are also not of much inherent interest. This is because interpreting regression coefficients in the presence of a multiplicative interaction term poses certain subtleties.<sup>56</sup> In particular, the coefficient on a component of an interaction term (here, the BIT or political risk variables) indicates *only the effect of that component when the other component is equal to zero*.<sup>57</sup> Unlike coefficients on variables in models that do not include interaction terms, the coefficients on the components do not indicate some sort of general or average relationship between the component and the dependent variable. In cases where the value of one component never equals zero in the "real world", the significance of the components is especially meaningless. For example, our World Bank measure of institutional veto points *never* equals zero. Neither does the ICRG variable. A "finding" that the BIT component of a BIT-Political Risk interaction is significant thus tells us absolutely nothing of practical interest, because we will never observe a country that has zero political risk under either measure.

We are not even particularly interested in whether the interaction term is significant in the standard regression output. While the sign on the interaction term indicates the direction of the conditional relationship (so that a negative sign means that the effect of one component of the interaction term declines as the value of the other component increases, and vice versa), it is far more meaningful to calculate the significance and magnitude of *the marginal effects* of changes of the value of one component of the interaction term on the dependent variable across various values of the other component. I do this in Figures 3A-3D below, following the approach described and advocated by Brambor et al.<sup>58</sup> The Figures illustrate the marginal effects of signing additional (weighted) BITs on FDI inflows at varying levels of political risk, with FDI inflows measured in either logged absolute real dollars or as a logged share of world FDI inflows, and political risk modeled either as "veto points" or using the ICRG composite measure. The marginal effects of the BIT variable are displayed along the *y*-axis, while the observed levels of political risk are displayed across the *x*-axis. The diagonal solid line represents the point estimate of the marginal effects, while

the dotted lines around the marginal effects line illustrate the 95% confidence interval of the point estimation.<sup>59</sup> The solid horizontal line is the x-axis at zero (“the zero line”). 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 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.

Figures 3A and 3B, directly below, correspond to Models I and II in Table 3B. The dependent variable in both cases is logged FDI inflows in absolute real dollars. In Figure 3A we see that the weighted number of signed BITs has a consistently and reliably positive effect on FDI (as the confidence intervals are almost everywhere above the zero line), and that this positive effect increases in magnitude as the number of veto points increases and thus, presumably, as the level of policy stability increases as well. The effect of BITs on FDI can be impressive. At the highest levels of political risk, the BIT variable has a coefficient of nearly 0.6, suggesting a nearly 60 percent increase in FDI inflows. This indicates that BITs have a statistically significant positive effect on FDI across the range of observed values, even if the rather wide confidence intervals suggest that the particular point estimates may not be all that precise at the highest levels of veto points.



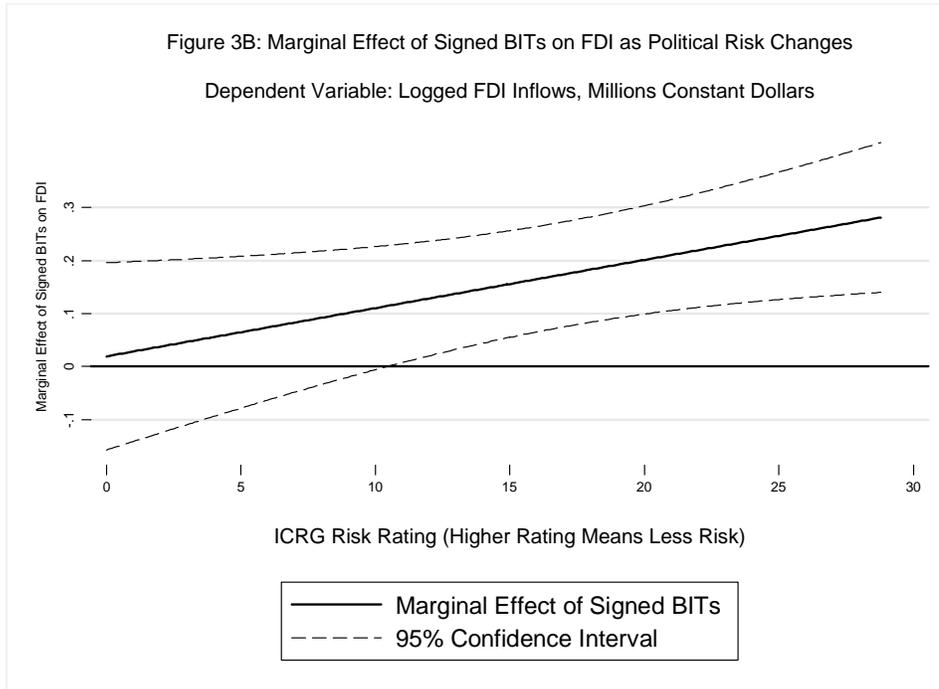


Figure 3B shows a similar general trend with the ICRG risk variable. BITs appear to be positively associated with FDI inflows measured in constant dollars, and the positive effect increases in magnitude as the ICRG political risk rating increases, and thus as political risk decreases. However, note that the confidence interval straddles the zero line at the lowest risk ratings; this suggests that the predicted positive effect of BITs on FDI is not statistically significant for those riskiest countries. But for the least risky countries, such as those enjoying risk ratings above 20 on the ICRG scale, the effects of BITs on FDI inflows are again impressive. The point estimates suggest that in these cases the marginal effect is equivalent to an increase in FDI inflows ranging between twenty and thirty percent.

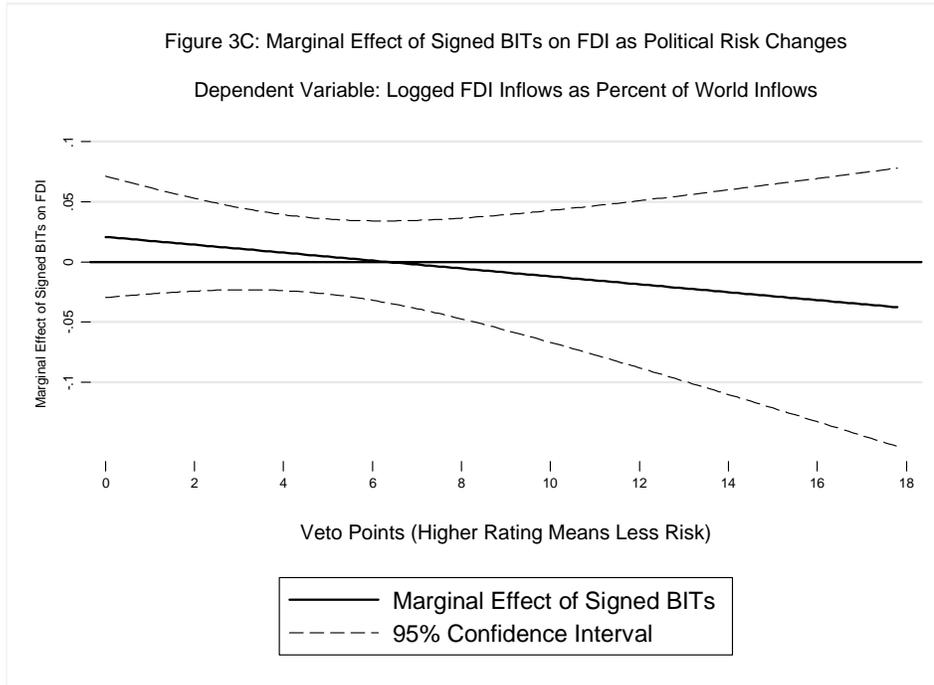
But from the perspective of Neumayer and Spess’s conditional theory of the effect of BITs on FDI, the problem should be immediately obvious. In Figures 3A and 3B the conditional relationship is precisely *opposite* to that which we would expect. As risk decreases, BITs become *more* effective. I will refrain from attempting to offer much in the way of substantive explanation for this counterintuitive conditional relationship, except to note that there is little direct empirical evidence that “veto points” are meaningfully related to the underlying concept that they are supposed to tap: investors’ subjective perceptions of the likelihood that government policy will remain stable. Measuring such perceptions is

difficult, but BERI, a well-known private risk-rating agency, has produced an expert-survey measure of perceived “policy continuity” for a moderate number of developed and developing countries since 1980. Higher ratings on the BERI policy continuity measure indicate a lower risk of policy change. For the 33 countries that are in my sample and covered by the BERI measure, the Polity IV and BERI measures have a correlation coefficient of only -0.17. The coefficient is statistically significant only at the 0.11 level, and in any event the negative sign suggests that investor perceptions of the risk of policy change *increase* as veto points increase. Given theoretical expectations of a positive association between policy continuity and veto points, this is a quite troublesome relationship. At the least, it suggests that the seemingly strange conditional relationship between BITs and veto points evidenced in Figure 3A is potentially due to a severe mismatch between what the veto points variable represents in theory and what it actually measures in practice.

Why the ICRG model also fails is a more difficult question to answer. Let me suggest more broadly that it is worth considering whether including a multiplicative interaction term is worth the theoretical candle. Standard hierarchical F-tests, which can be used to test whether an interaction effect meaningfully “exists” in the statistical sense, do indicate that the interaction effects illustrated in Figures 3A and 3B are statistically meaningful. This is unsurprising, given the large number of degrees of freedom in the models. More relevant for present purposes is that including interaction terms explains such a small amount of additional variance that, as a practical matter, it matters little overall whether an interaction term is or is not included. For example, the “within” r-squared for the model illustrated in Figure 3A increases from 0.1591 to 0.1619 with the inclusion of the interaction effect; for the model illustrated in Figure 3B, the “within” r-squared increases only from 0.2677 to 0.2701. These meager increases suggest quite strongly, in my view, the wisdom of abandoning the interpretive complexities that interaction effects tend to involve in favor of a simpler additive model approach, as I do in Section IV, below.

But putting that issue aside for the moment, let us return to the replication results, and in particular to Table 2’s Models III and IV, which report results from the replication model using each country’s logged percent share of world FDI inflows. This, recall, is our measure of a country’s position in the “competition for capital.” The key result to note is that the interaction terms are now negatively signed, as they were in Neumayer and Spess’s analysis. This suggests a confirmation of their hypothesized conditional relationship: as political risk ratings increase (and political risk declines), BITs should become *less* effective at inducing FDI inflows. Figures 3C and 3D illustrate just such a pattern: as political risk

decreases (e.g. as veto points increase, or as the ICRG risk rating increases), the marginal effect of BITs on FDI share decreases.



The problem in Figure 3C is not difficult to spot. The Figure shows that when the institutional veto points variable is our measure of political risk, the marginal effect of BITs on political risk is statistically insignificant at all levels of veto points. The failure of the veto points model is most likely a result of the poor match between the concept and what it is supposed to measure. As we have seen above, a country's number of veto points has little relation to investors' perceptions of policy stability.

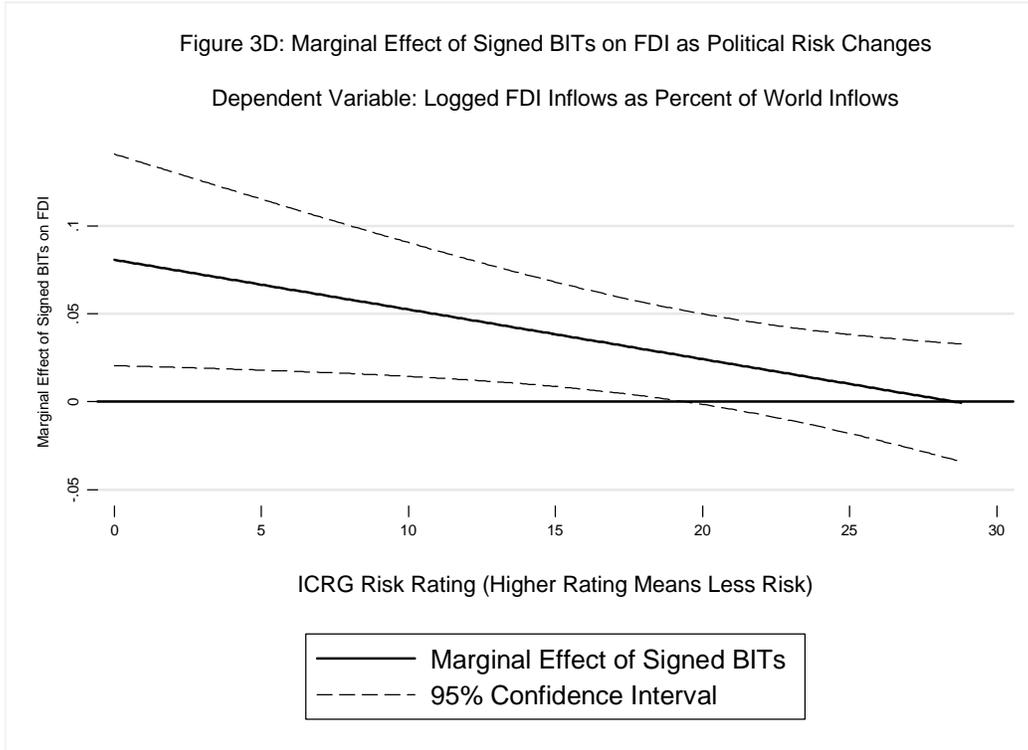


Figure 3D, below, presents more encouraging findings. Here we see that BITs have their greatest (positive) effect on FDI share at high levels of risk (and thus at low ICRG ratings), and that the effect declines, eventually reaching zero, as risk decreases. Here we have, then, relatively strong confirmation of Neumayer and Spess’s theory and findings, with one caveat: note that the direction of the marginal effects is statistically insignificant where the ICRG risk rating exceeds approximately 20, as the confidence interval begins to span the zero line. In more practical terms this means that for roughly thirty percent of the countries in our sample BITs do not have a statistically significant positive effect on FDI share.<sup>60</sup> Perhaps more discouragingly, even where the effect is reliably positive, it is not necessary of great substantive magnitude. For example, at our sample-observed minimum ICRG risk rating of 2.4, the marginal effect of BITs on FDI is approximately 0.075. Because the model is log-linear (with a logged dependent variable and non-logged independent variables) this suggests that a one-unit change in the weighted BIT variable can be expected to result in a 7.5 percent change in a country’s FDI share. For example, if a developing country has a current world FDI share of 0.20 percent (roughly the mean in our sample), the marginal effect of a one-unit change in the BIT variable suggests an increase in share from 0.20 percent to 0.215 percent. We can easily translate this hypothetical increase into absolute

dollar values. In 1985 world FDI inflows totaled approximately \$55,000 million, in current dollars. An increase in share from 0.20 to 0.2015 suggests an increase in FDI inflows from \$110 million to \$110.825 million—only 825,000 *thousand* dollars. To put that amount in further (diminished) perspective, recall that the BIT variable is a proportion, so that signing a BIT with a particular capital exporting country will necessarily lead to a change in the *BIT variable* of far less than a “unit.” Take France, for example, which regularly provides roughly five percent of world FDI outflows. Figure 3D suggests that for our hypothetical high-risk country, which at the present enjoys an FDI share of 0.20 percent, signing a BIT with France would be expected to lead to a marginal increase in FDI flows of only only  $(0.05 * \$825,000)$ —just \$41,000.

#### D. *Sensitivity of the Basic Model*

It is helpful to summarize the results of the replication exercise up to this point. First, we have found very inconsistent evidence in support of Neumayer and Spess’s conditional theory of the effects of BITs on FDI. In three of the four replication models, the conditional relationship was either wholly insignificant (in the sense of straddling the zero-line in our figures) or the opposite of what we would theoretically expect. On the other hand, we have produced some evidence that BITs might matter, statistically and positively speaking, in terms of attracting FDI. Figures 3A, 3B, and 3D all suggest some degree of a significant, positive relationship between BITs and FDI. Of the four models, Table II, Model IV performs the most successfully. BITs appear to have a positive, significant effect on FDI share across all observed levels of political risk, and that relationship is conditional in the expected direction. However, recall that the size of the marginal effects of BITs on FDI share is much smaller than Neumayer and Spess report. Indeed, it is so small to be of questionable substantive relevance. It is probably safe to assume that the costs of signing a BIT in terms of litigation risk, policy inflexibility and the like would surely outweigh so small a benefit in additional capital.

The replication is, in other words, neither a complete failure nor a smashing success. In this subsection I examine how well the best-performing model—Model IV—holds up to five important but very justifiable changes in specification and estimating strategy:

- correcting standard errors for country-level correlation by “clustering”;
- de-logging the dependent variable;
- estimating the model using panel-corrected standard errors and a lagged dependent variable;

- respecifying the interaction term to take into account the worldwide number of BITs in force;
- and disaggregating the BIT variable to take into account differences in dispute settlement provisions.

My results are not encouraging. In most cases the changes either substantively alter the direction of key relationships or render those relationships statistically insignificant.

Sensitivity to Clustering. The error terms in time-series cross-section (TSCS) analysis (i.e. analysis of the type performed here) are often correlated within classes or groups of observations. As Williams explains,

There are many situations where data are observed in clusters such that observations within a cluster are correlated while between clusters are uncorrelated, so-called cluster-correlated data. For example, the typical teratology screening experiment involves administration of a compound to pregnant dams of a rodent species, followed by evaluation of the fetuses in a litter for various types of malformations. In this situation, the fetuses within a particular litter are correlated while any two fetuses from different litters are independent....

...

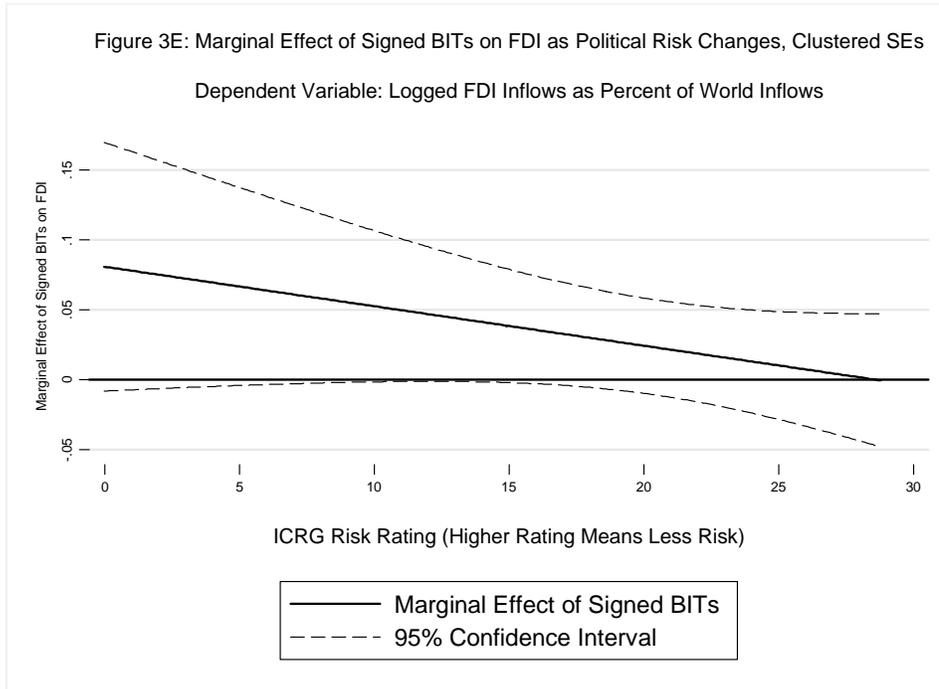
A major statistical problem with cluster-correlated data arises from intracluster correlation, or the potential for clustermates to respond similarly. This phenomenon is often referred to as overdispersion or extra variation in an estimated statistic beyond what would be expected under independence. *Analyses that assume independence will generally underestimate the true variance and lead to test statistics with inflated Type I errors.*<sup>61</sup>

In other words, where within-group correlations are high, we can expect tests of statistical significance to be biased toward unjustifiably rejecting the null hypothesis of no statistically significant relationship. The danger is such that applied econometricians increasingly recognize that controlling for intra-class correlations is an “essential need...in estimating standard errors of regression parameter estimates.”<sup>62</sup> Cluster-robust standard errors are widely used in sample-survey research to correct the problem. The technique is easily extended to other kinds of analyses, it is perfectly compatible with the simultaneous

conclusion of group fixed effects or group dummy variables, and there is nothing inappropriate about including in a given model country fixed effects while at the same time also controlling for within-country variance correlation through clustering. Fixed effects are usually employed solely to control for potential omitted-variable bias affecting the estimated coefficients. Clustering addresses the entirely different problem of within-group correlation of variance, and it “works”, in most cases, by adjusting standard errors upward. Clustering will not affect coefficient estimates, while including fixed effects nearly always will.<sup>63</sup>

Here, evidence suggests that clustering is indeed desirable. Within-group correlation coefficients, calculated using one-way random-effects ANOVA techniques, are remarkably high.<sup>64</sup> For our measure of (logged) FDI share the intra-class correlation coefficients are 0.31 and 0.68, depending on whether the sample is defined by the veto points or ICRG political risk variables. In either case, the coefficient is extremely high, and clustering is probably warranted.

Figure 3E illustrates the statistical effects of clustering on the most successful replication model. We see that clustering did not affect the model’s coefficients: note that the marginal effects line is identical to the line illustrated in Figure 3D (the equivalent unclustered analysis). But clustering *does* increase the standard errors, and hence the spread of the confidence interval. The effect is significant (in the statistical and non-statistical senses), as now the lower bound is consistently below the zero line, indicating that BITs do not have a statistically significant directional impact on FDI share at any value of political risk. In other words, the only more-or-less successful replication result that I am able to obtain in Table 3B, Model IV is non-robust to clustering. And while I cannot say for certain whether clustering would similarly impact a precise *duplication* of Neumayer and Spess’s model, it seems likely that the process would have a substantially deleterious effect on their reported results as well.

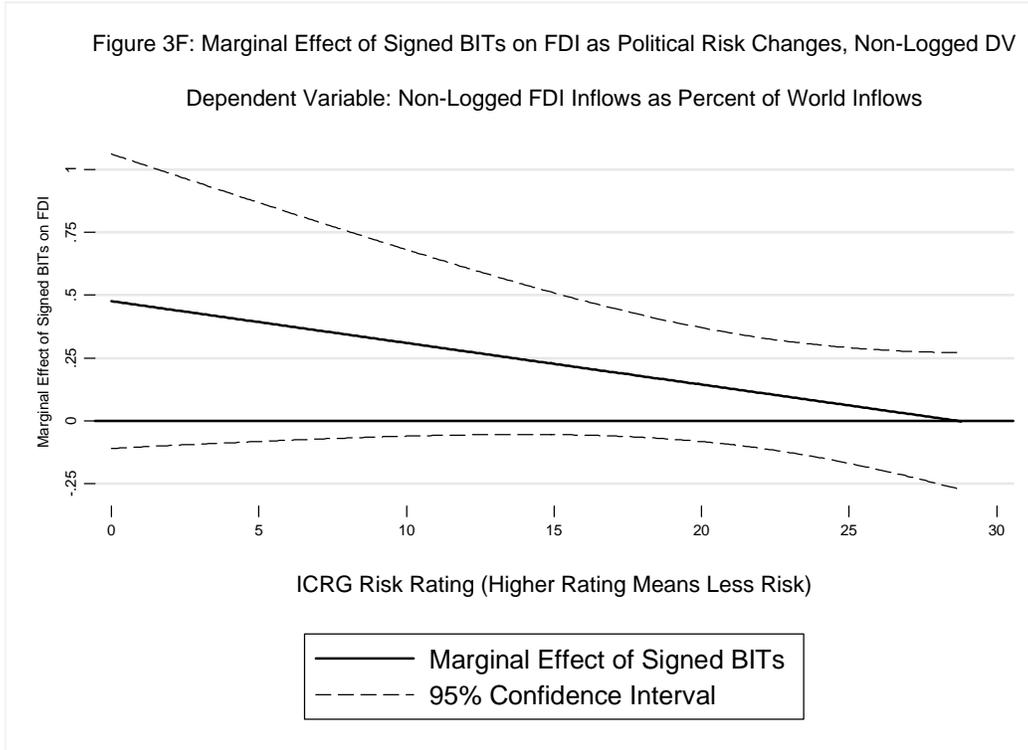


Sensitivity to Non-Transformation of the Dependent Variable. Neumayer and Spess log transform their dependent variable “to reduce the skewness of its distribution.” They allow that “[t]his increases model fit substantially”.<sup>65</sup> The proffered justification for the transformation is something of a non sequitur, as statistical theory makes no substantively relevant assumptions about the shape of the distribution of the dependent (or independent) variables. Statistical theory does demand that the residual *errors* be more or less normally distributed, and in many cases where the errors are skewed (e.g. bunched to the right or left) or exhibit kurtosis (e.g. are excessively or inadequately peaked) the values of the dependent variable will be non-normal as well. In these cases it might be acceptable to log transform the dependent variable as a way of forcing the errors to more closely approximate a normal distribution. However, non-normal distribution of the residuals becomes less of a problem as sample sizes grow larger, and in the present analysis sample sizes (of over 1500 observations) are fairly large. Furthermore, when models contain multiplicative interaction terms, as ours do, the relationship between the distribution of the dependent variable and the residuals often tends to weaken. This means that a non-normally distributed dependent variable will not necessarily indicate that the residuals are problematically non-normal, and

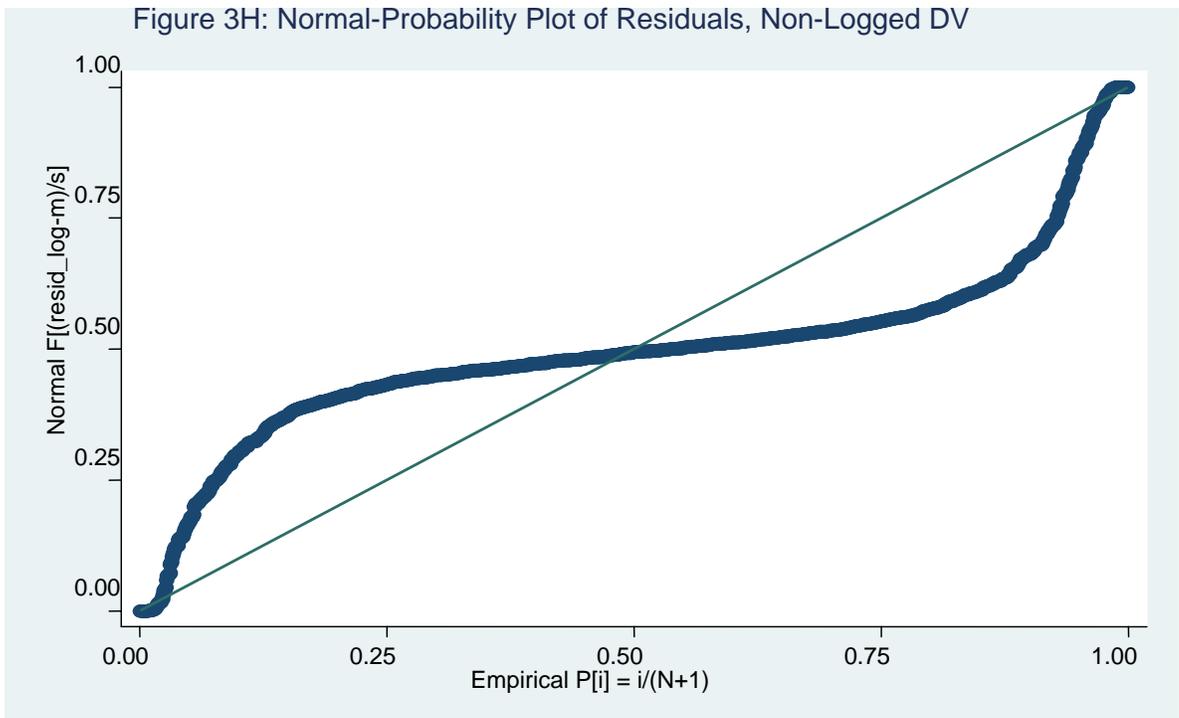
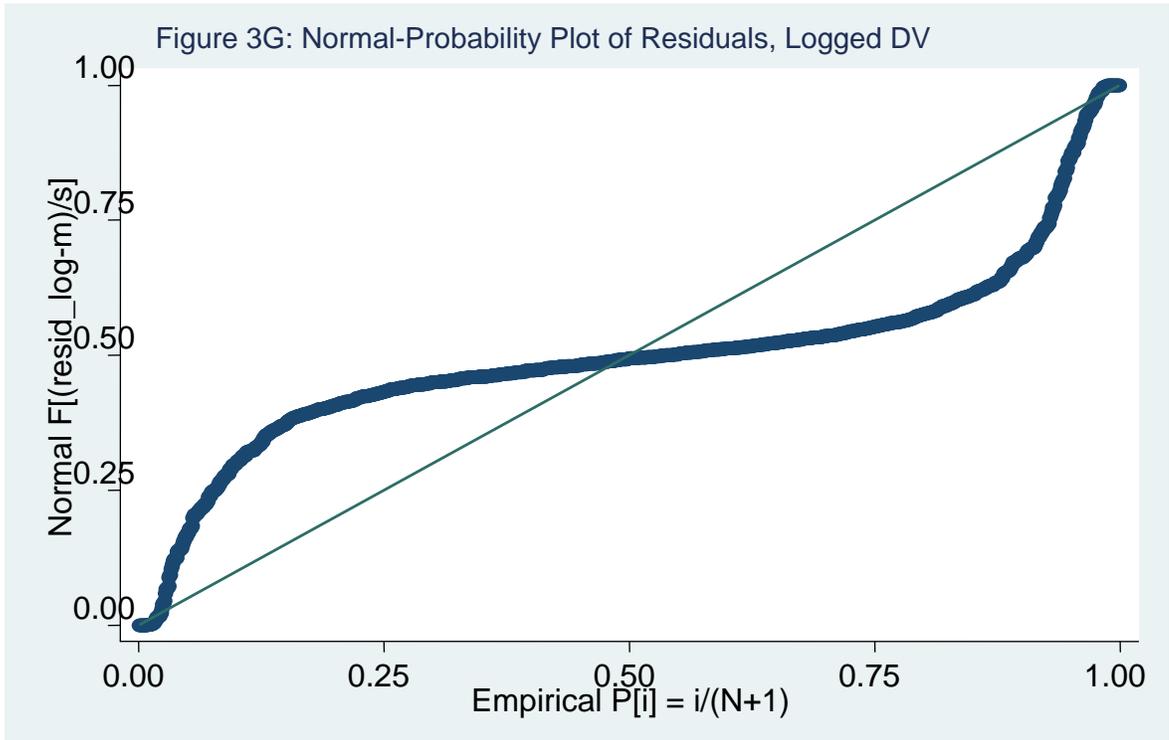
that a “correction” of the distribution of the dependent variable will not necessarily “correct” the distribution of the residuals.

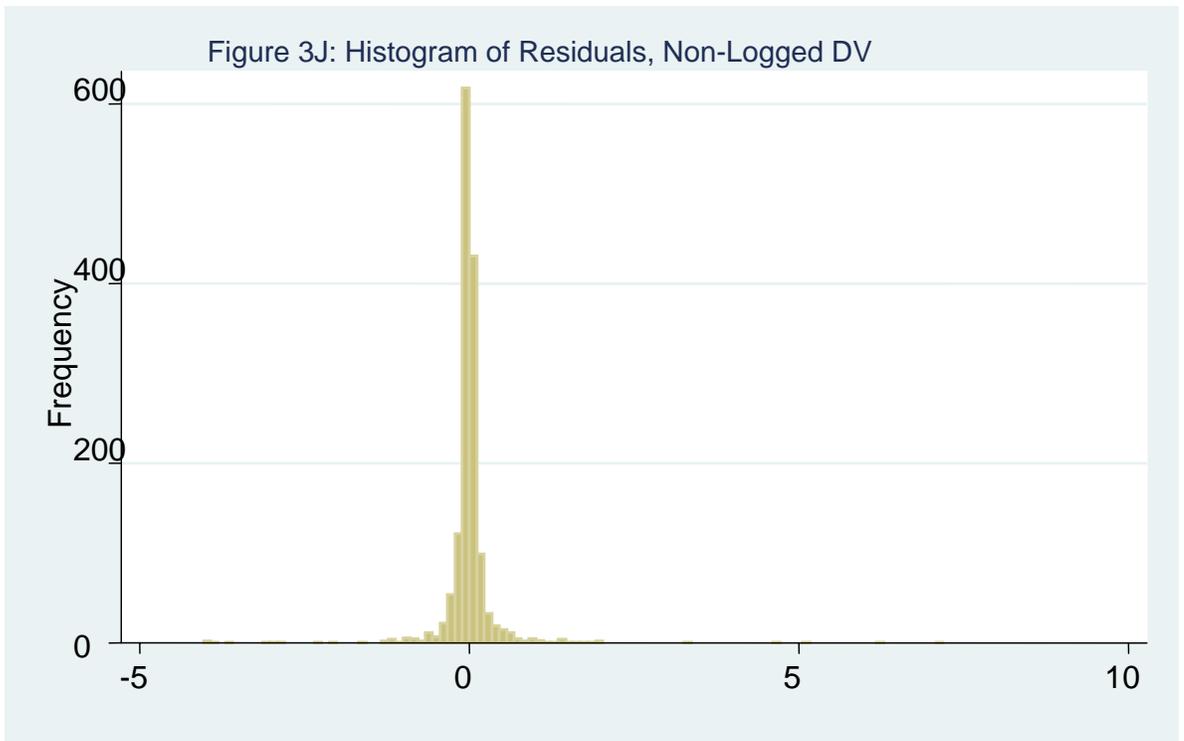
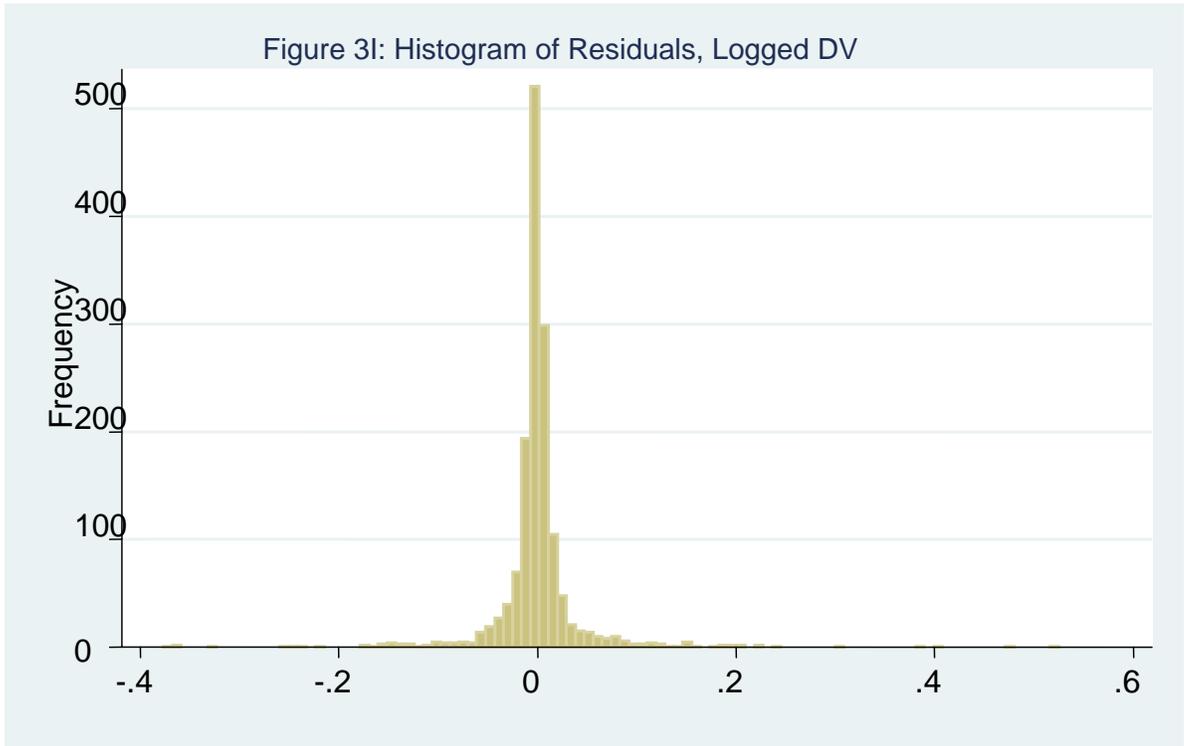
Neumayer and Spess’s analytical caveat that “model fit” is improved by log transformation is also very curious, because the most important question is not whether model fit—e.g. the amount of variance explained, as measured by the model’s r-squared—necessarily improves, but whether the log transformation affects the statistical significance and magnitude of the correlation between the key independent variables and the dependent variable. They provide no indication of whether or not log transformation indeed makes or breaks their principal results.

In other words, what we are really interested in is whether models with a non-logged dependent variable show problematically non-normal distributions of residual error; whether log-transforming the dependent variable substantially improves that distribution; and, finally, whether the transformation renders key relationships statistically significant where before they were not. Let us take on the first inquiry first. Figure 3F illustrates the marginal effects of Neumayer and Spess’s weighted BIT variable on FDI share as the ICRG political risk variable varies in value. It should be immediately evident that de-logging the dependent variable renders the relationship between BITs and FDI share statistically insignificant, in the confidence-interval sense, across the entire observed range of political risk. Whether FDI share should be logged or not is thus a question upon which Neumayer and Spess’s key findings necessarily hang.



The remaining and essential question, then, is whether a log transformation methodologically justified. In fact, it is not particularly clear that logging the dependent variable has much of an impact at all on the distribution of the residuals. Figures 3G and 3H depict standardized normal-probability (P-P) plots of the residuals from the logged and non-logged models of FDI share, using the ICRG political risk variable. P-P plots and their close equivalents, normalized quantile distribution (Q-Q) plots, are the best way to detect non-normality and its severity. Normal-distributed residuals will cluster along the upward-sloping diagonal line in the P-P plots. Here we see that the residuals from the logged and non-logged models exhibit largely equivalent deviations from normality. A similar pattern is evident on Q-Q plots, which I do not reproduce here, but which, if anything, indicate that the residuals from the *logged* model are the relatively more problematic. Figures 3I and 3J present frequency histograms of the residuals of the logged and non-logged models. Again, the differences between the two distributions do not appear too jarring to the naked eye. Both distributions seem to exhibit relatively high degrees of kurtosis (e.g. both distributions are highly peaked), but both also appear to be relatively non-skewed.





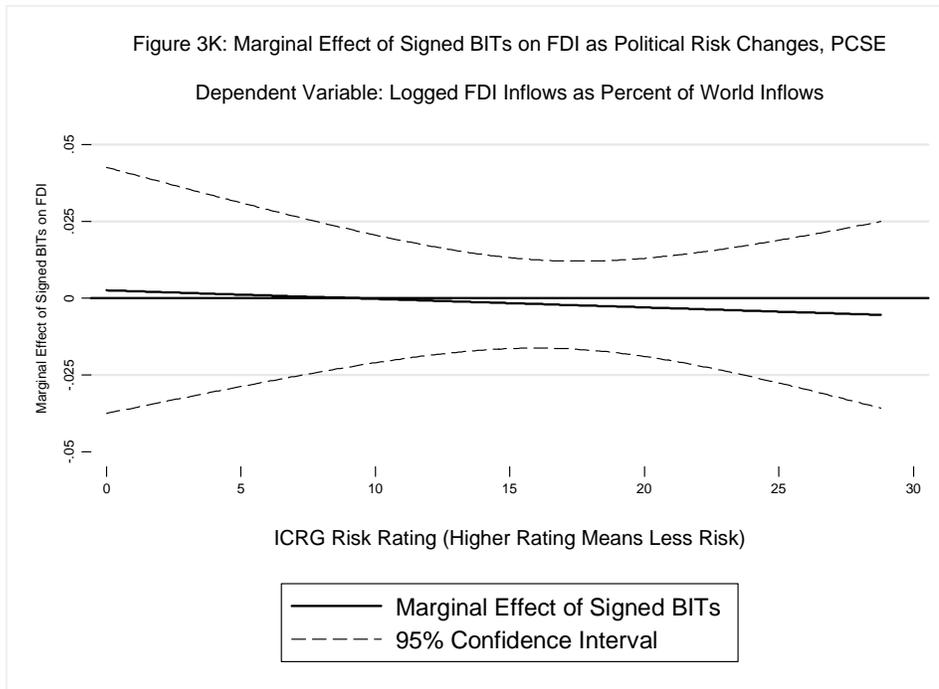
It is also instructive to quantify the degree of skewness and kurtosis in the two samples. Using the standard formulas in Stata, the residuals for the non-logged model have a skewness of 3.56, indicating a slight rightward skew, and a kurtosis of 85.98, indicating that the sample is highly peaked. (Normally distributed data have a skewness of 0 and a kurtosis of 3). For the logged model, the levels of skew and kurtosis are somewhat less (1.37 and 36.70 respectively).

The take-away point is that logging the dependent variable somewhat improves quantitative measures of skewness and kurtosis, but these improvements are far from obvious upon visual inspection of the data. And improved or not, it is by no means clear in the first place that the degree of non-normality in the non-logged residuals is statistically problematic given the large sample size. Especially given the arithmetic difficulties in logging a dependent variable that, like ours, takes on negative values, the results of the present exercise suggest that it may be inferentially better, and certainly analytically more cautious, to avoid the log transformation absent more compelling evidence that transformation is indeed statistically necessary and meaningfully beneficial.

Sensitivity to Panel-Corrected Standard Errors. In what has become one of the most-cited methodological articles in the empirical international relations literature, Beck and Katz argue that applying traditional GLS estimation methods to TSCS data can lead to “dramatic underestimates of parameter variability in common research situations.”<sup>66</sup> In plainer terms, Beck and Katz make the theoretical case, and show empirically via Monte Carlo analysis, that GLS may lead to overconfident estimates that a given relationship is statistically significant. GLS is especially problematic where, as here, the number of time periods analyzed is less than the number of cross-sections (countries). Beck and Katz recommend estimating TSCS models using OLS and “panel-corrected standard errors” (PCSE). Elsewhere Beck and Katz recommend including in the OLS-PCSE model a lagged dependent variable (LDV), which serves to capture dynamic tendencies in the causal relationship.<sup>67</sup> (A dynamic relationship exists when past values of the dependent variable are causally related to present values). Keele and Kelly have recently shown that this latter advice is usually well-taken.<sup>68</sup> OLS-PCSE-LDV estimation has become very common in political science,<sup>69</sup> and PCSEs are especially useful in dealing with panel-level heteroskedasticity, in which variances systematically differ in magnitude by cross-sectional groups. Wald tests for groupwise heteroskedasticity in the fixed-effects models reported in Table 3B reject the null hypothesis of groupwise homoskedasticity at the 0.0000 level,

indicating that heteroskedasticity is indeed a potential problem. This provides significant evidence that PCSEs are especially appropriate.<sup>70</sup>

It is, in other words, well worth considering whether a change in estimation strategy from GLS to the Beck and Katz method meaningfully changes model results. In fact, and as Figure 3K shows, the results change quite substantially.<sup>71</sup> The marginal effects line is very nearly horizontal, which strongly suggests that the conditional relationship hypothesized by Neumayer and Spess is so slight as to be substantively meaningless. Just as importantly, the effect of BITs on FDI is statistically insignificant across all values of the ICRG risk variable.



It is also worth noting that the LDV is massively significant, with a z-score of over 13 and a large, positive coefficient. This indicates that there is a strong dynamic relationship between present and past values of a country’s FDI share. The significance of the LDV should not be surprising. As Keele and Kelly suggest, “[t]he preponderance of the evidence in both economics and political science is that many if not most cross-temporal processes are dynamic,”<sup>72</sup> and there are strong theoretical reasons to believe that the processes that generate FDI are dynamic as well. For example, in her well-researched case study of Intel’s surprising selection of Costa Rica as the site for a \$300 million semiconductor assembly and testing plant, Spar describes Intel’s practice of consulting with existing foreign investors in

Costa Rica. These interviews, upon which Intel “relied heavily,” allowed Intel to “assess Costa Rica’s record in delivering on its promises.”<sup>73</sup> Spar concludes that

Costa Rica got on Intel’s list because other investors had already gone there and were beginning to spread word of the country’s attractions. This follow-the-leader process supports what the data on FDI already suggest: it is highly concentrated in a handful of top recipient. Because companies such as Intel rely so extensively on word-of-mouth reports from existing investors, each round of investment seems to generate its own offspring, and success in attracting FDI begets success. Part of this follow-the-leader behavior may be motivated by commercial considerations: firms may follow their customers to new markets or lead suppliers along with them. But the preponderance of investment clusters suggests a more basic driver as well: firms invest in countries that already have a proven track record of attracting foreign investors and treating them well.<sup>74</sup>

This general idea—that foreign investors tend to invest where others have already invested—is “well established” and supported by “broad empirical evidence” in the economic literature on the determinants of foreign investment.<sup>75</sup> This literature suggests that any analysis of the effects of BITs on FDI inflows will necessarily need to take into account a host state’s past success in attracting foreign investment, as long as the relevant data is stationary and the model is correctly specified so as to render the residuals white noise. Not surprisingly, previous empirical studies of the policy determinants of FDI inflows tend to control for the effects of past levels of inflows.<sup>76</sup> Given strong theory and evidence that, in the present context, the past indeed matters, models of the effects of BITs on FDI that fail to control for past values of the dependent variable are likely to suffer from serious omitted variable bias. It is thus not surprising that changing the estimation strategy from fixed effects GLS to OLS-PCSE-LDV weakens Neumayer and Spess’s results substantially.

Sensitivity to Re-Specification of the Interaction Term. Though it is not typically noted, one of the most important implications of the “competition for capital” thesis, in which BITs primarily serve as a tool for developing countries to divert FDI headed to other countries into their own, is that BITs should decline in effectiveness as more and more host states conclude the treaties. To see why this is the case, consider a simple model of the “competition.” Imagine four developing countries, A, B, C, and D, which are competing for

a given FDI project. Imagine that the foreign investor compares the four countries along five dimensions (quality of infrastructure, policy stability, and the like) and finds that the countries are evenly matched. On the investor’s checklist, each country rates a five out of five. In this situation, the investor’s decision will essentially be determined by chance, and each country stands a 25 percent probability of winning the project. This is the situation represented in Column I of Table 3C, below.

*Table 3C: The BIT Game (Investor-Friendly Index / Percent Chance of Winning Investment Project)*

	I	II	III	IV
State A	5 / 25%	6 / 100%	6 / 33%	6 / 25%
State B	5 / 25%	5 / 0%	6 / 33%	6 / 25%
State C	5 / 25%	5 / 0%	6 / 33%	6 / 25%
State D	5 / 25%	5 / 0%	5 / 0%	6 / 25%

Now imagine that it becomes feasible to sign and ratify a BIT, and that doing so would raise a country’s investment rating by one. State A concludes a BIT, and its score increases to 6. State A is now a noticeably more attractive place to invest than its competitors. State A will win the project with 100 percent certainty, as indicated in Column II. Now notice what happens in Column III. Here, States B and C have followed A’s lead and also entered into BITs, raising their own probability of winning the project from zero percent to 33 percent, but *lowering* A’s probability of success from 100 percent to 33 percent as well. When State D finally follows suit, the developing countries are back in the same (relative) positions they were in before the BITs were feasible. Each stands an equal, 25 percent chance of winning the project.

This simple model suggests that the effects of BITs on the distribution of FDI inflows will be the greatest when BITs are few and far between. When State A is the only state bound by a BIT, it will always win competitive FDI projects given equality on all other factors that matter to investors. On the other hand, when all states are bound by BITs, the treaties have no effect on who wins a particular project. Notice that this suggests a conditional relationship rather different from that posited by Neumayer and Spess: as the worldwide number of BITs in force increases, the effectiveness of one state’s own BITs at diverting FDI from other countries should decrease.

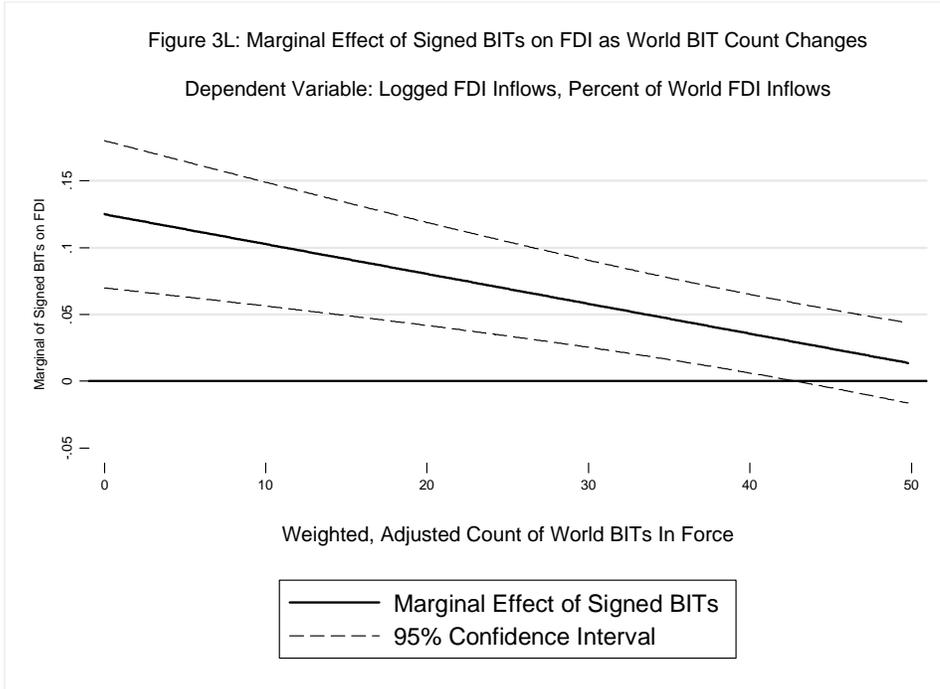
We can examine this conditional relationship in the regression context by including an appropriate multiplicative interaction term. In the Table and Figure below I interact a

weighted, running count of worldwide in-force BITs with the weighted number of the host state's own signed BITs. I adjust the running count by subtracting the particular host state's number of in-force BITs from it. The models otherwise include all of the variables in the replication of Neumayer and Spess's analysis presented in Table 2, Model III, including the ICRG risk variable as an additive term in the regression equation. For analytic simplicity, I do not interact the ICRG risk variable with the host-state-BIT/World-BIT interaction term, as three-way, continuous-variable interaction terms can be difficult to interpret. (However, I do present the results for a three-way interactive analysis in the penultimate section of the Article). I estimate the models using Neumayer and Spess's preferred strategy of GLS with robust, unclustered standard errors and fixed effects, and a log-transformed dependent variable (logged percentage share of world FDI).

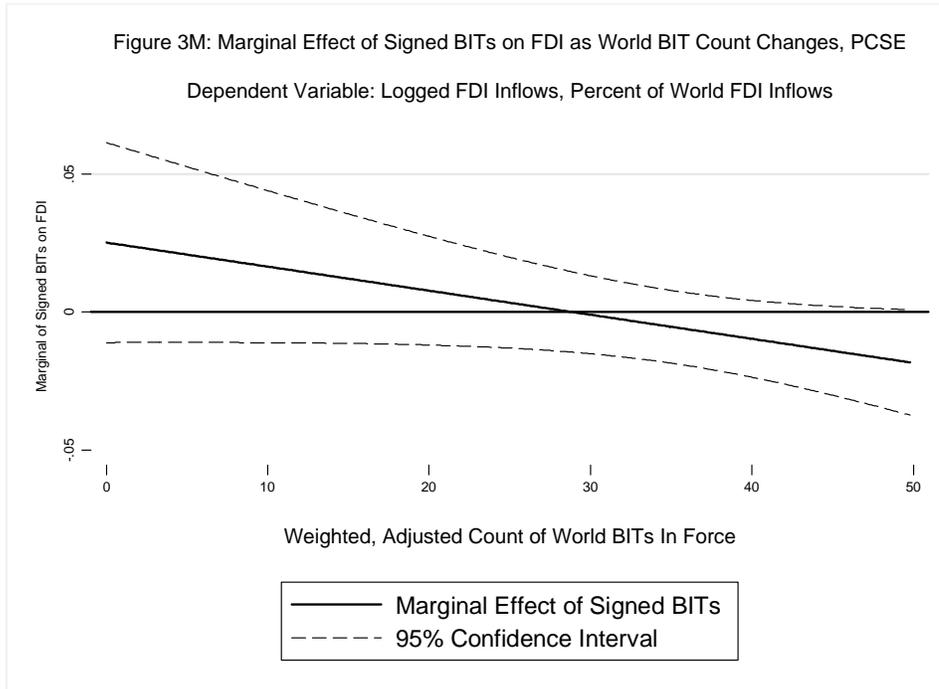
Table 3D presents the full regression output, while Figure 3L shows the more helpful marginal effects curve. Note that the marginal effectiveness of BITs declines as the number of worldwide BITs in force increases, just as theoretically expected. While signing BITs appears to be significantly and positively associated with greater shares of world FDI inflows when few other BITs are in force, this effect declines to near zero as BITs become more popular, just as our simple model predicts.

Table 3D: Replicating Neumayer &amp; Spess (Worldwide BITs)

	<b>Log FDI, % World FDI</b>
<b>Host's Weighted # Signed BITs</b>	<b>0.125 (4.44)**</b>
<b>Weighted, Adjusted World BITs in Force</b>	<b>-0.000 (0.81)</b>
<b>Host BITs*World BITs</b>	<b>-0.000 (4.05)**</b>
ICRG Political Risk	-0.000 (0.36)
Log per capita GDP	0.080 (3.78)**
Log Population	0.023 (1.48)
GDP Growth	0.001 (2.62)**
Inflation	-0.000 (1.81)
Natural Resource Rents	0.000 (0.84)
Trade Openness	0.000 (0.62)
Observations	1586
Countries	109
Period	1985-2002
R <sup>2</sup> (within)	0.06
<i>Notes:</i> Regressions estimated using GLS with fixed effects with robust (non-clustered) standard errors. Absolute t-values are reported in parentheses. Each independent variable is lagged one period. * and ** indicate significance at the $\leq 0.05$ and 0.01 levels respectively.	



I should emphasize (though I don't illustrate here) that the downward-sloping direction of the conditional relationship between BITs and world BITs in force is robust to clustering of the standard errors, to de-logging the dependent variable, and to estimation using OLS-PCSE and a lagged dependent variable. Figure 3M, below, shows the marginal effects for the OLS-PCSE-LDV model while controlling for the interactive effect of the world BIT count. We see that the number of world BITs in force substantially affects the effectiveness of signing a BIT, so much so that at current worldwide levels of BITs the point estimate of the marginal effects of BITs on FDI share is negative.



These results raise important doubts about the soundness of Neumayer and Spess’s analysis, and also about the soundness of Elkins, Guzman, and Simmons’ recent and important analysis of the diffusion of BITs. They argue that rationalistic, competitive dynamics between developing states mean that a given host state will face the greatest incentives to sign a BIT when more of its competitors have already signed BITs, and they report strong empirical support for their theory. But as the model illustrated in Table 3D suggests, and as Figures 2H and 2I show empirically, in a competition for capital incentives to sign a BIT are greatest precisely when *none* of one’s competitors have signed a BIT. Just as importantly, those incentives decline dramatically as more states sign up to the treaties. Given that BITs impose important costs on developing countries, it seems likely that at some point, where many competitors have already signed BITs, the remaining holdouts may find that the incentives to sign BITs are actually negative—the small increase in probability of winning investment projects are outweighed by the substantial sovereignty costs of “tying oneself to the mast” of international law. Indeed, Figures 3L and 3M suggest strongly that this point has already been reached.

Sensitivity to Disaggregation of the BIT Variable. In the previous section I suggested that we can usefully categorize BITs according to the character (or strength) of

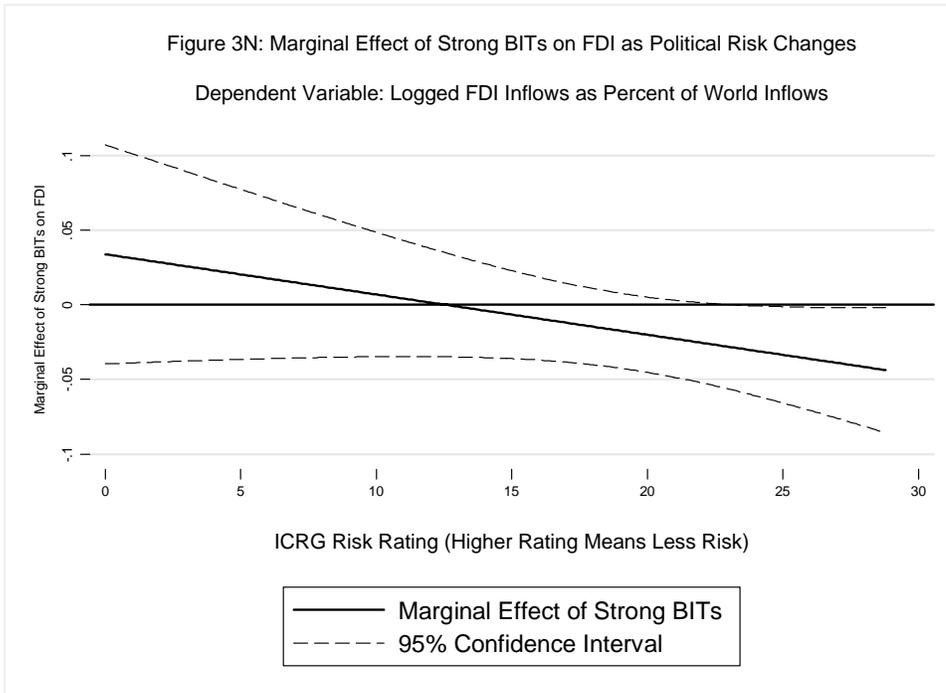
their dispute settlement provisions. Figures 3N through 3Q illustrate the impact of disaggregating the BIT variable in this way on Neumayer and Spess's basic model.

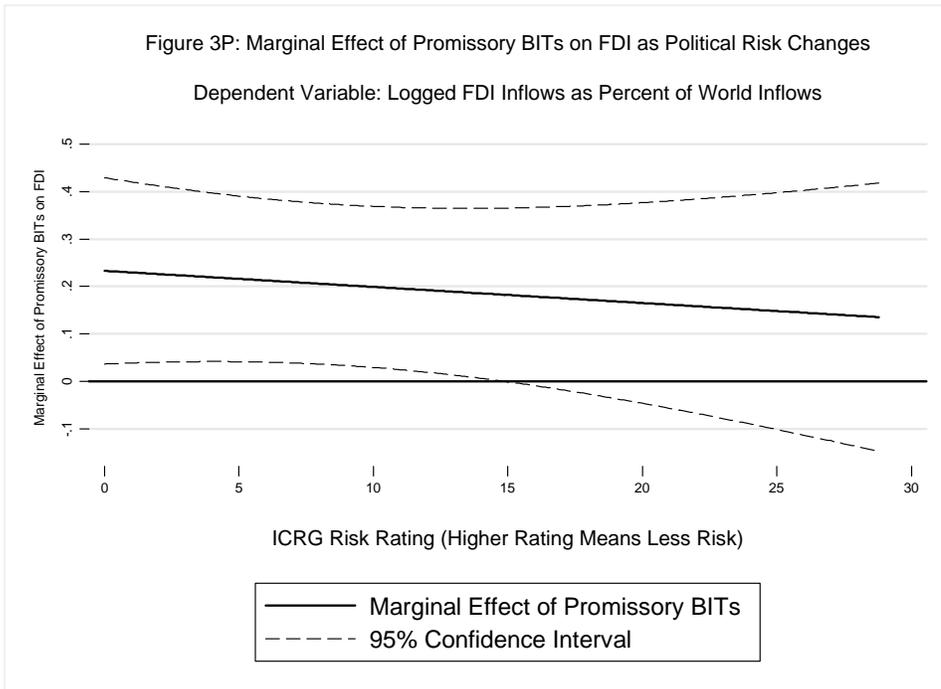
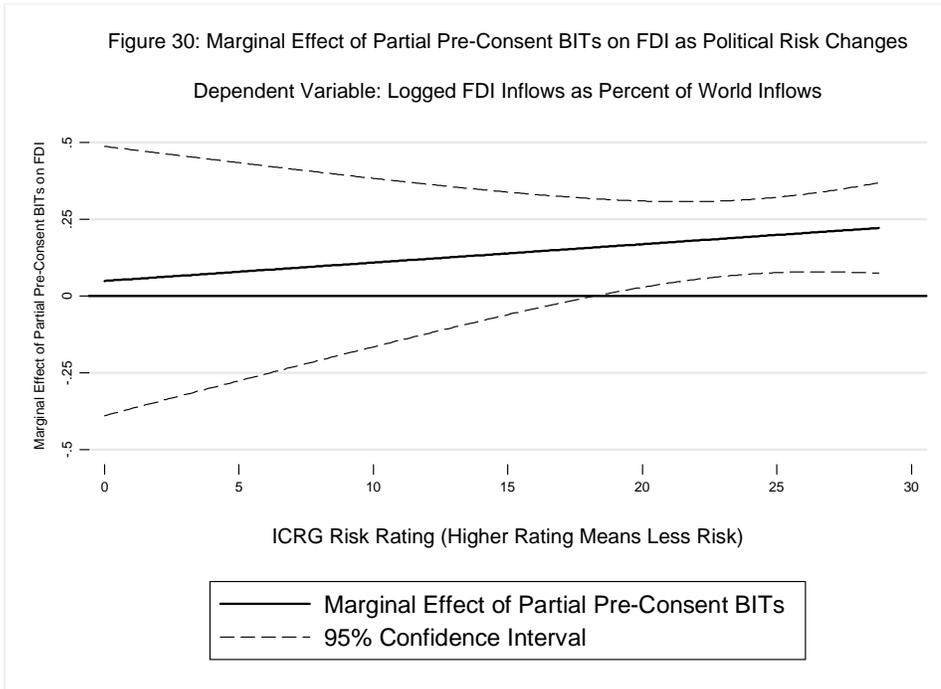
The coding exercise makes it is necessary to include in the analysis only those BITs that have entered into force. This is because the texts of BITs that have been signed but have not entered into force are often difficult if not impossible for the researcher (and the foreign investor!) to obtain, making it correspondingly difficult if not impossible to code the content of the particular treaty's dispute settlement provisions.

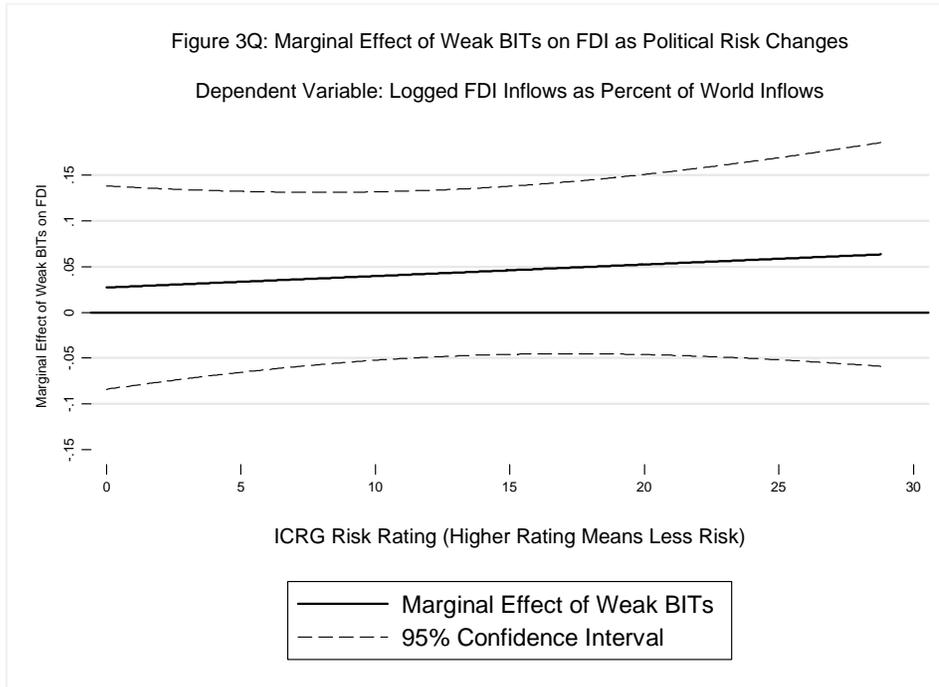
Perhaps just as importantly, there is good reason to think that entry into force is more substantively meaningful than mere signature from a credible commitment perspective that emphasizes *law* as the force binding the host state to its commitments. This is because as a formal legal matter, a signed treaty that has not entered into force commits the host state to nothing of value to the investor. Almost all investment treaties are subject to ratification procedures by one or both parties, and the treaties almost always explicitly provide that they will not enter into force until some short period after those domestic procedures are fulfilled and the ratified documents have been formally exchanged or deposited. The act of signing the treaty neither creates an obligation to ratify the instrument nor establishes the signing parties' consent to be bound by the treaty.<sup>77</sup> Where a treaty has failed to enter into force, neither the substantive nor procedural provisions contained therein will likely have any legal force. Most critically for the foreign investor, arbitral tribunals are highly unlikely to accept jurisdiction on the basis of a treaty-based state pre-consent where the treaty has only been signed.<sup>78</sup> Even where a BIT eventually does enter into force, the treaties almost always specify that disputes arising prior to entry into force do not benefit from treaty protections. Even though most investment treaties are ultimately ratified and do enter into force, some do so only after long delays, and some not at all. Brazil, anecdotally perhaps Latin America's greatest success story in terms of attracting FDI, has signed 14 BITs as counted by UNCTAD, but ratified none. None of Colombia's four UNCTAD-identified BITs has entered into force. A number of United States BITs have also failed to enter into force, including a potentially hugely important 1994 treaty with Russia. More generally, a recent UNCTAD study found that of 2,392 BITs signed by 2004, 674 had not entered into force; of those 674 treaties, more than 300 had been signed five or more years earlier.<sup>79</sup>

The estimated model includes an interaction term between a weighted count variable measuring the number of each type of BIT a given host state has in force, and includes four separate product terms that multiply each BIT variable with the ICRG measure of political

risk. The other control variables in the model are the same as those presented in Table 2, Model IV, and I again estimate the model using GLS with robust unclustered standard errors and fixed effects, and with the dependent variable in log form. The four figures thus separately illustrate the marginal effects of each type of BIT at different levels of political risks when counts of all kinds of BITs, and their interactions with political risk, are included in a single model.







The most basic point to note is that the four figures support my general assertion that differences in dispute settlement provisions “matter”. The direction of the conditional relationship between BIT counts and FDI inflows strongly depends on the particular type of treaty. Strong BITs, which contain comprehensive, effective pre-consents to investor-initiated arbitration, show the basic pattern suggested by Neumayer and Spess: BIT effectiveness declines as political risk decreases. There is a similar negative, conditional relationship between promissory BITs, political risk, and FDI. But in the case of BITs with partial pre-consents to arbitration, and in the case of the weakest BITs, which contain no provisions for investor-initiated dispute settlement, the conditional relationship is the opposite of what we would expect. These latter kinds of BITs appear to become *more* effective at attracting FDI as political risk decreases, though the wide confidence intervals suggest that we are especially unable determine whether the effect is positive or negative at any particular level of risk.

The more important point is evident in Figure 3N, which illustrates the effects of strong BITs on FDI share. We would expect strong BITs to be the *most* effective at attracting FDI, and for the causal effect to be statistically significant and positive across most

if not all of the range of values of political risk. In other words, if BITs matter, it should be *these* BITs that matter most, and that matter most indisputably.

But Figure 3N instead shows indisputably that strong BITs *do not matter*. First, note that the point estimate is negative for a majority of countries in our sample. The median level of political risk on the ICRG scale is 17, and the marginal effects line crosses the zero line at approximately 14. Second, note that the direction of the estimated effect statistically unidirectional only at the very lowest levels of political risk. The only arguably clear success of the model is its indication that the weakest BITs, illustrated in Figure 3Q, have no statistically significant, positive effect on FDI inflows. This is, indeed, precisely what we would expect if the key to the (potential) effectiveness of BITs as credible commitment devices lies in their formal dispute settlement mechanisms, and not in diffuse host state concerns about developing a “reputation” for obeying their substantive treaty obligations.

In sum, then, where does the replication analysis leave us? Neumayer and Spess’s evidence that BITs are effective at increasing FDI flows appears to rest on quite unstable ground. Only one of the four models illustrated in Table 2 reasonably succeeds in replicating their basic results, and this modest success is quite sensitive to a number of justified changes in estimation strategy and methodology. Disaggregating BITs on the basis of material differences in dispute settlement provisions only further muddies the analytic waters. The direction, magnitude, and significance of the effect of BITs on FDI share seems to depend on the formal remedial content of the treaties, but the differences are not always intuitive. The clearest finding is, perhaps, also the most dispiriting, at least from the perspective of developing countries eager to use BITs to attract greater shares of world FDI: the usefulness of BITs in the “competition for capital” appears to decline substantially as more BITs enter into force, suggesting that the golden age of BITs is long over.

#### SECTION IV: BITs & FDI: A FRESH START

##### I. A More Comprehensive Additive Model

The previous Section made the case that the most convincing evidence to date that BITs succeed in promoting FDI is far less robust than the casual reader of that original study would assume. The point is an important one, as policymakers in developed countries are no doubt using Neumayer and Spess’s study to promote their own BIT programs, just as

leaders in developing countries are undoubtedly taking the study into account when deciding whether to sign up.

In the present Section I move beyond replication to present results from a less parsimonious but more theoretically complete model of the determinants of FDI. The inconsistency of the results presented above suggests in part that the underlying model is poorly specified. First, and in particular, Neumayer and Spess, like most other empirical BIT analysts, wrongly assume that BITs are the only potentially meaningful law-based means by which host states can attempt to credibly commit to treat investors favorably. In fact, host states can invoke international law, broadly construed and to the benefit of foreign investors, through investment contracts, through non-BIT treaties, and by participating in investment insurance regimes. Second, reforms in municipal (domestic) laws related to foreign investment are likely to play a large role in promoting FDI. Ignoring these other legal changes and policy devices for encouraging FDI risks injecting serious omitted variable bias into the analysis.

The analysis in this Section provides the most comprehensive attempt to date to control for these other ways in which host states might seek to attract FDI. The subsections below briefly describe my independent variables. I then present the results for a simple but more fully specified additive model. And finally, I examine how adding interaction effects between BITs and political risk and BITs and between host state BITs and world BITs changes the implications of the analysis. In short, the additive model suggests that BITs are of no help in the “competition for capital”, but that they may be of some use in promoting increases in FDI penetration *as long as the host state is willing to commit to international arbitration*. However, these modestly positive results largely disappear once we control interactively for the number of BITs in force worldwide and for the level of democracy in the host state. The interactive analyses suggest, in short, that developing countries today should expect to receive no significant increase in FDI as a result of entering into a BIT.

#### A. *Legal Alternatives to BITs—The Investment Contract*

In an influential law review article, Guzman has argued that BITs are of primary theoretical importance because the dispute settlement provisions in BITs “allow potential investors to negotiate for whatever protections and safeguards they feel are needed,” with the BIT ensuring that the negotiated “protections and safeguards” are not breached.<sup>80</sup> The claim is rather nonsensical. Investors were “allowed” to negotiate with states well before

BITs rose to prominence and were able to secure the very same “protections and safeguards” that BITs provide, not through treaty but through investment contracts. Investment contracts can include guaranteed access to the very same sorts of international arbitration provided for in the strongest BITs. International arbitration clauses began to appear regularly in petroleum concessions in the middle of the last century and quickly came to be viewed as a necessary complement to contracts made in that particularly volatile sector.<sup>81</sup> Today arbitration clauses in foreign investment contracts are standard across economic sectors. Some municipal investment framework laws even expressly provide that foreign investors *must* enter into a foreign investment contract with the host state, and that the contract shall contain an international arbitration clause.<sup>82</sup> These arbitration clauses, and any resulting awards, are enforceable in the same way, and with the same ease, as treaty-based arbitration agreements and treaty-based arbitral awards.

The theoretical problem is that there is little reason to expect BITs to significantly increase FDI inflows if foreign investors are already able to obtain BIT-like “protections and safeguards” by private agreement. Indeed, in some cases investors may *prefer* to define and secure their relationship with the host state through contract, even when a BIT already applies, because contracts are relationship-specific (and thus likely to be clearer in the rights they grant and the obligations they impose than relatively vague one-size-fits-all investment treaties) and because contracts are likely to have greater moral force (and thus to impose greater reputational costs on the breaching party) precisely because the promises are relatively explicit and personal. If BITs bring anything to the “credible commitment” table that wasn’t already there, it is simply and only that they potentially serve to lower transaction costs in this narrow sense: rather than obliging investors to negotiate on a case-by-case basis for the right to arbitrate, or the right to generous compensation in the event of expropriation and other substantive rights, BITs allow host states and investors to forgo negotiation over such matters. But if Intel’s practice, discussed above, of insisting on negotiating investment contracts for most major investment projects is itself common practice in the foreign investment community, then it seems quite unlikely that BITs reduce transaction costs to a very meaningful degree. Indeed, the primary effect of extending favorable substantive and remedial promises to all investors from particular capital-exporting countries is probably best viewed as *redistributing* the benefits of particular host state-foreign investor “bargains” from the host state to the investor, rather than as enabling more bargains to take place. It is in this sense that Wälde argues that

Before the advent of [modern BITs], the treaty drafters expected investors to be able to negotiate their own dispute settlement method by way of agreement with the host State.

... the treaties, in effect, added a direct investor right without regard to underlying dispute settlement arrangements in order to create an investor right that was independent of the *ad hoc*, individual negotiation, licensing or other parts of the investment process. *This was done under the assumption that investors should not have to rely on their own negotiating strength and ability* but be able to rely on a general treaty-provided remedy...granted by law, not waivable and not dependent on an individual jurisdiction agreement with the state.

...

... [the treaties] thus partly replace[] the need to negotiate in the contract with the host state an internationalization regime consisting of stabilization, arbitration and an international law clause.

Modern investment treaties have further developed this approach. They include methods of property and contract protection *which individual investors, in an often more difficult negotiating context, might not have been able to negotiate on their own.*<sup>83</sup>

This is obviously a rather different story than Guzman's. It is also a story that suggests that our key empirical task at hand is to determine the extent to which a given host state is willing to use an investment contract to induce and investment to take place when the investor would not otherwise invest. Unfortunately, obtaining an accurate and comprehensive indicator of the use or content of investment contracts is impossible because the contracts are not systematically collected and published. But best-guess estimates suggest that investment contracts have been and remain an essential component of the modern regime of foreign investment protection,<sup>84</sup> and that many of those contracts do indeed contain host state pre-consents to investor-initiated international arbitration.<sup>85</sup>

In the analysis below I proxy a host state's willingness to enter into contractual arbitration agreements with foreign investors by recording whether a host state has ratified the ICSID and the New York Conventions. These are admittedly imperfect proxies, but they are not necessarily unreasonable ones. While ratifying the ICSID Convention does not by itself require states to arbitrate disputes with foreign investors, states that have no intention of doing so are unlikely to see much value in joining the treaty. We can thus view failure to ratify the ICSID convention as a strong sign that a host state rejects investor-state arbitration on principle as an undesirable intrusion on host state sovereignty. And ratifying the New York Convention, a highly successful treaty governing the recognition and enforcement of international commercial arbitration agreements more generally is also

arguably a strong signal that a host state is generally willing to view international tribunals as an acceptable substitute for domestic courts.

B. *Legal Alternatives to BITs: Other Investment-Related Treaties*

Although it is not often noted in the empirical BIT literature, a number of important international treaties contain investor-protection provisions that closely mirror some of the core provisions of BITs. The Energy Charter Treaty (ECT) is the prime example. The treaty is, quite literally, a multi-lateral “BIT” between over 50 (mostly European) states that promotes and protects investments in the energy sector. The ECT contains the same substantive and remedial provisions of the most modern BITs, including comprehensive state pre-consents to binding, enforceable investor-initiated international arbitration. Other notable and relevant treaties include formal applications to join the European Union (EU), which generally guarantee EU foreign investors favorable treatment in BIT-like language; the European Convention on Human Rights, which contains a “takings” clause, similar to Article V of the United States Constitution, that protects the property rights of foreign investors and which now provides for independent enforcement of those rights by an international tribunal;<sup>86</sup> and the OECD’s various Declarations and Codes on foreign investment.<sup>87</sup> Given their potential to act as effective BIT substitutes, we should control for host state adherence to these international legal instruments. I accordingly include dummy variables indicating whether a host state has joined either of these four BIT alternatives.

C. *International Law Alternatives to BITs: International Investment Insurance.*

The BIT literature commonly overlooks the extent to which international investment insurance can function as a substitute for BITs. Almost all major capital-exporting states have set up state-sponsored or state-subsidized insurance programs for their foreign investors.<sup>88</sup> For example, 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 insurance arena through its Multilateral Investment Guarantee Agency (MIGA). The development of such programs has generally been widely supported by multinational corporations as an important means of reducing investment risk.<sup>89</sup>

The widespread availability of state-sponsored investment insurance programs poses potentially significant problems for the hypothesis that BITs should be expected to have a major, positive impact on FDI inflows, because it is not at all clear that the “extra” benefits

that BITs provide to investors, compared to the benefits already provided by insurance, are all that great. To receive investment insurance the investor has to go through an application process, and he has to pay (often not very large) insurance premiums. BITs, of course, provide their protections to all comers, no application required and free of charge. But this does not mean that investors would necessarily prefer the protections of a BIT to the protections of investment insurance, because insurance virtually guarantees recovery in the event of a host state breach, regardless of the host state's willingness or ability to pay. BITs promise recovery, but only after potentially long and uncertain international arbitration proceedings and, possibly, costly award enforcement proceedings before national courts. Where a home state is already relatively generous in issuing investment insurance, then the fact that it subsequently enters into a BIT with a developing state might cause investors to forgo investment insurance (which is now largely but not completely redundant), but it will not necessarily promote much new FDI.

I include as independent variables the total exposure value of investment insurance issued by MIGA or OPIC to cover investment projects in a given host state in a given year, measured in real millions of dollars. MIGA and OPIC are the most important investment insurance programs, but they certainly are not the only ones. Unfortunately the French, German, Italian, and Swiss governments have refused to release the relevant information concerning their own versions of OPIC, claiming that operational information is confidential, though the Swiss government indicates that its own insurance program is rarely used that discussions are currently underway to eliminate it.

#### D. *Domestic Law Reform: Capital Controls*

Non-specialists tend to assume that a host state's decision to enter a BIT is necessarily a decision to significantly liberalize FDI policy in the sense of removing barriers to entry or of preventing the host state from imposing burdensome performance requirements as a condition for entry. With the potential exception of United States BITs, which require national treatment at the pre-investment stage, this is simply not the case. Most BITs do not require host states to accept more investment, nor do most BITs prevent host states conditioning the right to establish an investment on the investor's acceptance of potentially onerous conditions of operation. Instead, what might be called the overall "liberality" of a host state's FDI regime is primarily determined by "promises"—in both actual and figurative sense—that are extended to investors through municipal law. For example, municipal law defines which sectors of the economy are open to foreign investment and on what particular terms; it determines tax rates, the availability of

investment incentives, and conditions of operation. The vast bulk of what matters legally to foreign investors is supplied by municipal law, and indeed, this is unavoidable because BITs, as quite brief and general statements of the law applicable to investments of all types, are necessarily unable to provide investors or host states with a sufficiently detailed and self-contained legal regime. It is unsurprising that for much of recent history municipal investment “framework” laws have been the primary means both of promoting and controlling foreign investment in the developing world., because they provide a much greater opportunity to fine-tune the FDI regime according to the special needs of particular sectors.<sup>90</sup>

Accurately measuring changes in domestic FDI legal regimes for a sufficiently large number of countries and time periods is quite difficult. Relevant laws are often scattered across a motley mixture of statutes, decrees, and administrative regulations, and are especially difficult to locate for more distant years, or to locate in a language readable by the researcher. This does not mean that reasonable proxies are unavailable. For example, Asiedu and Lien have compiled IMF data on three major categories of capital controls (including whether a country imposes exchange restrictions, restrictions on export proceeds, or restrictions on capital account).<sup>91</sup> These are relatively macro-level restrictions, and it is fair to suggest that foreign direct investors care more about finer-grained legal restrictions on their activities that are more intimately related to foreign *direct* investment than to measures aimed mostly at controlling “capital” flows of the portfolio sort. Nonetheless there is some evidence that IMF-measured capital controls do matter to foreign direct investors: Asiedu and Lien find that the absence of these capital controls was significantly and positively related to FDI inflows during the 1990s. In the models analyzed below, I accordingly control for changes in the capital control regime using the Asiedu and Lien data (which I extended to 2003) by constructing a composite measure that sums the total number of capital controls that a host state has in place, as measured by the IMF.

#### E. *Domestic Law Reform: Privatization of State Assets*

It is also clear that 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 legally and/or temporally closely linked to broader domestic reform efforts.<sup>92</sup> I accordingly include a variable measuring the total proceeds that a host government receives in a given year from privatization, measured in real millions of dollars. I use privatization data collected by the World Bank, and for the years 1985-1987, from data collected by Nancy Brune.<sup>93</sup> Unlike other variables in the

analysis, 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.

F. *Other Control Variables: Market & Economic Conditions*

I include a number of standard controls for relevant economic conditions. GDP (as a measure market size); GDP per capita (as a measure of market wealth); GDP growth (measuring market performance); the rate of inflation (as a proxy for macroeconomic stability); and trade openness (constructed as the value of imports plus export divided by GDP). The three GDP variables are taken mostly from the World Bank WDI, with missing values filled in with data from Gleditsch's "Expanded Trade and GDP" database. Inflation data is also from the WDI, and trade openness data is constructed from WDI data and from Gleditsch's data set. All values are untransformed (i.e. not logged) and, where relevant, they are measured in constant millions of dollars. Because GDP growth tends to be relatively volatile year-to-year, and because foreign direct investors presumably have relatively long-term timelines, I have converted the growth variable into a five-year moving average. However, substituting year-over-year GDP growth, lagged one period, does not affect the reported results for the other variables.

G. *Other Control Variables: Political Regime*

The international relations literature suggests quite strongly that a host state's regime type matters to foreign investors. Regime type is usually understood as the degree to which a host state is democratic or autocratic. Jensen, for instance, has found that democracies attract more FDI inflows than autocracies, and Li has found that democracies are less likely to need to use tax incentives to attract FDI.<sup>94</sup> The causal story is typically one of "veto points." As Li puts it, citing Jensen and Henisz,

One reason that democracy and autocracy adopt different levels of tax incentives is because they differ systematically in terms of property rights protection and policy credibility. The possibility of property rights violations, such as expropriation, seizure of assets, contract repudiation, and government corruption weigh heavily in the calculus of FDI decisions. Democratic institutions, such as the dispersion of power, the constrained executive, the large number of veto players over public policy, legislative and judicial power, the diversity of views in the legislature, and the independent judiciary, collectively serve to strengthen

the rule of law and secure private property rights. These institutions constrain the power of the leaders, allow political representation of various interests, and raise the costs of supplying private benefits, all of which make state commitment to the rule of law credible.<sup>95</sup>

In the analysis below I accordingly include the widely used 21-point Polity IV scale of democracy and autocracy as a measure of host state regime type. I have rescaled the measure so that it runs from 0 (the highest level of autocracy) to 20 (the highest level of democracy).

I have not included a separate measure of “veto points” because the measure performed poorly in Neumayer and Spess’s original study and in my replication above, and because the Polity IV data is available for more recent years. However, it is worth noting that the WDI measure of veto points is highly correlated with the Polity IV measure of democracy, with a correlation coefficient of 0.67 (significant at the 0.0000 level). In that respect, including a measure of democracy would seem to proxy, to a reasonable degree, a “veto points” concept of political risk.

#### H. *Results from the Additive Model*

Table 4A presents results for the simple additive model, using three dependent variables: FDI inflows measured in constant dollars, FDI inflows as a percent of total world inflows (our measure of whether a developing state is winning the “competition for capital”), and FDI inflows as a percent of host state GDP, our measure of foreign capital “penetration.” (Substituting FDI inflows as a percent of total FDI inflows to developing countries for the FDI share variable in Model II produced results substantively similar to those presented below). Each of the three models is estimated using OLS-PCSE. Models I and II contain an LDV, but the third model does not. This is because diagnostic tests of Model III indicate that including an LDV induces significant first-order serial autocorrelation where, absent the LDV, there is none.<sup>96</sup> In any event, including an LDV in Model III does not substantively change the key results, and the LDV itself is statistically insignificant. I briefly discuss the results for the various control variables, leaving the more in-depth discussion of the key variables of interest—the disaggregated BIT variables—for the end of the subsection.

Table 4.A: Reanalysis of the Determinants of FDI

		<b>I. FDI Inflows, Millions Real \$</b>	<b>II. FDI, % World</b>	<b>III. FDI, % GDP</b>
<i>BIT-Like Treaties</i>	ECHR	238.659 (1.21)	0.023 (0.43)	-0.251 (0.30)
	ECT	-271.520 (1.54)	-0.068 (1.89)	-1.149 (2.20)*
	EU	-254.001 (0.90)	-0.019 (0.34)	0.352 (0.69)
	OECD Decl'n	518.938 (0.73)	-0.198 (1.40)	0.077 (0.15)
<i>Openness to Arbitration</i>	ICSID	188.878 (1.08)	-0.007 (0.16)	0.692 (2.10)*
	NY Conv'n	-38.408 (0.31)	0.028 (0.68)	0.691 (2.24)*
<i>Investment Insurance</i>	MIGA, \$ Insured	3.773 (1.60)	0.000 (0.49)	0.009 (3.26)**
	OPIC, \$ Insured	-0.298 (0.37)	-0.000 (0.09)	0.002 (1.88)
<i>Domestic Investment- Related Policy</i>	Capital Controls	-63.729 (1.53)	-0.004 (0.48)	-0.319 (-2.41)*
	Privatization \$	1.223 (6.00)**	0.000 (4.49)**	0.001 (6.04)**
<i>Economic Environment</i>	GDP	0.019 (4.52)**	-0.000 (0.85)	-0.000 (1.10)
	GDP Per Capita	0.306 (1.59)	0.000 (1.83)	0.001 (5.35)**
	GDP Growth	20.671 (3.04)**	0.006 (4.16)**	0.444 (3.76)**
	Inflation	-0.528 (0.97)	-0.000 (0.77)	0.005 (3.19)**
	Trade Openness	0.034 (0.34)	-0.000 (1.04)	-0.008 (1.37)
<i>Political Regime</i>	Polity IV	-11.009 (1.84)	-0.003 (2.14)*	0.075 (3.32)**
<i>Lagged DV</i>	Lagged DV	0.495 (6.36)**	0.449 (5.52)**	-
<b><i>Weighted BITs in Force<sup>97</sup></i></b>	<b>Strong Dispute Settlem't</b>	<b>-717.607 (1.61)</b>	<b>-0.119 (1.34)</b>	<b>1.362 (2.37)*</b>
	<b>Partial Pre-Consent</b>	<b>1265.467 (0.65)</b>	<b>0.706 (0.81)</b>	<b>3.120 (2.25)*</b>
	<b>Promissory Pre- Consent</b>	<b>3522.198 (1.79)</b>	<b>1.100 (1.70)</b>	<b>7.242 (2.99)**</b>
	<b>No Dispute Settlement</b>	<b>-253.961 (0.21)</b>	<b>-0.011 (0.04)</b>	<b>-0.257 (0.12)</b>
	Observations	2004	2004	2006
	Countries	128	128	128
	Period	1985-2003	1985-2003	1985-2003
	R <sup>2</sup>	0.86	0.79	0.38
<i>Notes:</i> Estimated using OLS with Panel-Corrected Standard Errors. Z-scores are in parentheses, and Models I & II are corrected for first-order autocorrelation. * and ** indicate significance at the ≤ 0.05 and 0.01 levels respectively. All models contain country dummy variables.				

The economic variables do not deserve much comment, except to note that they perform reasonably well and generally as expected. It is particularly noteworthy that the lagged dependent variables are among the most statistically and substantively significant of the bunch. Model 1, for example, suggests that a one dollar in past investment flows is associated with nearly 50 cents of investment in the present period. Likewise, Model II suggests that a one percent increase in past FDI share is associated with an increase in FDI share of over 40 percent in the present period. Both results provide extremely strong support for the “follow the leader” theory of investment decision-making. Foreign investors appear to pay very strong attention to whether or not the behavior of other investors demonstrates confidence in the particular host economy.

As to the policy- and law-related variables, first take a look at the four treaty-based alternatives to BITs. The results here are disappointing in the sense that the variables are mostly insignificant. None are significant in the first or second model, and only the ECT variable is significant (but wrongly signed) in Model III, our model of FDI penetration. With the exception of this latter, counterintuitive result, the general insignificance of the non-BIT treaties may be due, in large part, to the fact that these non-BIT treaties generally lack guaranteed access to international dispute settlement, lending their investor-friendly promises less inherently credible. The ECT result is more difficult to explain, though it is worth pointing out that the ECT is sector-specific, while my dependent variables are not. It may be the case that the ECT succeeds in promoting *energy*-sector FDI to host states that otherwise tend to under-perform in attracting FDI more generally and on net.

A host state’s general openness to international arbitration, as proxied by ratification of the ICSID and New York Conventions, is not a significant predictor of FDI inflows in the first two models. But in the model of FDI penetration, both are significant and signed as expected. This suggests, at least tentatively, that a greater willingness to arbitrate investment disputes gives investors greater confidence to invest. The measures of the use of investment insurance perform similarly. Both the MIGA and OPIC measures are insignificant in the first two models, but the MIGA variable is significant and correctly signed in the FDI penetration model, while the OPIC variable approaches statistical significance. This latter result for the MIGA variable provides what is, to my knowledge, the first statistical evidence that investment insurance serves to promote investment that would not otherwise have taken place, rather than simply to subsidize insurance that would have been made even absent the insurance.

The Polity IV democracy variable, which I have argued might reasonably be viewed as a proxy for political risk or of the overall quality of government institutions, performs inconsistently. In the FDI penetration model, it is significant and signed, just as international relations theory would lead us to expect. More democratic countries, which presumably enjoy greater degrees of policy stability, appear to receive greater FDI inflows as a percent of GDP. The Polity IV variable is also significant in Model II, but here it is negatively signed, implying that more democratic countries tend to receive smaller shares of world FDI. I offer no explanation for the contradictory findings, except to suggest that more work on the effects of democracy on foreign investment certainly deserve further and deeper study. It is worth noting that in Jensen's own study of the effects of democracy on FDI, he reports results only for a model using FDI penetration as the dependent variable. The result reported in Model II is thus not necessarily inconsistent with his own findings.

The two variables measuring domestic investment-related law reforms generally perform as expected. The privatization dummy variable is very highly significant and correctly signed in all three models. This in turn suggests that past success at attracting FDI may, to some degree, be unsustainable in the future, as developing states simply run out of state assets to privatize. The capital controls variable is insignificant in the first two models, but is significant and correctly signed in Model III: restrictive capital controls are associated lower levels of FDI penetration.

The BIT variables are the major variables of interest, and the results here are likewise mixed. On the one hand, all of the BIT variables are statistically insignificant in the first two models. What is especially surprising given Neumayer and Spess's findings is that Model II provides no support for the notion that BITs are useful in the "competition for capital." Entering into large numbers of BITs, whether strong or otherwise, has no statistically significant effect on a developing country's share of world FDI. It is important to note too that multicollinearity does not appear to explain the models' failures. The average variance inflation factors (VIFs) for Models I and II are just over 3.2, and a small number of individual variables have VIFs of over 30. Particularly problematic are the GDP per capita variable and the ICSID variable, the latter of which appears to be highly collinear with certain of the country dummy variables. But systematically deleting these latter, high VIF variables from the models does not substantively affect the BIT variables. In fact, in most cases the BIT variables become *less* significant as high VIF variables are removed.

Our theoretical expectations are met, however, in the third model, which also generally performed as expected as to the other, non-BIT variables. In Model III we see that weak BITs (e.g. BITs that do not grant investors guaranteed access to international arbitration of investment disputes), are insignificant predictors of FDI penetration, while strong BITs, BITs with partial pre-consents, and promissory BITs are all significant, positive predictors of penetration. The magnitude of the effect of the non-weak BITs is relatively substantial. The analysis suggests that a one-standard-deviation increase in the strong BIT variable—roughly akin to entering into a BIT with a capital exporting country of the magnitude of the United States—can be expected to lead, on average, to an increase in FDI penetration of 0.27% (i.e. from 2.0% to 2.27%). This in turn implies an increase in FDI inflows of approximately 122 *million* dollars for an economy with a GDP roughly equal to the median country in the sample. Note that the coefficients on the partial pre-consent and promissory BIT variables are several times greater than the coefficient on the strong BIT variable. This result is admittedly counterintuitive, as there is no good reason to expect BITs with weaker dispute settlement mechanisms to be more effective at attracting FDI than stronger treaties. In fact, the result for the partial pre-consent BIT variable is driven entirely by the special case of China, one of the most successful developing countries at attracting FDI in the past decade, and also one of the most prolific signers of BITs with partial pre-consents to arbitration. When China is excluded from the analysis, partial pre-consent BITs become statistically insignificant predictors of FDI. The exceptionally large coefficient on the promissory BIT variable is more difficult to explain, though one possibility is that the legal nuance behind the distinction may in fact be too nuanced to be noticed by non-lawyers typically involved in the investment decision-making process. Instead, promissory BITs are perhaps better viewed as functionally equivalent to strong BITs, with the difference in magnitude of estimated effect on FDI penetration being largely an artifact of the relatively small number of promissory BITs in the sample. In any event, combining the promissory and strong BIT variables into a single measure returns very similar results to those reported in the Table.

The key results of the additive models are largely robust to changes in model specification and to estimation strategy. Adding the ICRG political risk variable used by Neumayer and Spess does not substantively affect the results for the BIT variables, nor does replacing the democracy variable with the World Bank measure of veto points used in the previous analyses. Logging the dependent variable does not change the BIT results substantively either. The results are also largely robust to using an unweighted count of BITs in force, in which each BIT counts as “1.” The unweighted BIT variables in Models I and II remain stubbornly non-significant, but the BIT variables in Models III are now non-

significant as well. In other words, un-weighting the BIT variables produces results that consistently suggest that BITs do *not* have a meaningful effect on FDI inflows, however measured. Estimating the models using GLS, robust and country-clustered standard errors and fixed effects also did not improve the performance of the BIT variables; indeed, when GLS was used *without* a lagged dependent variable, performance worsened in the sense that the BIT variables in Model III became insignificant, while the *strong* BIT variables in Models I and II became significant and *negatively* signed—results implying that entering into the strongest of investment treaties makes developing countries *less* desirable places to invest. Assuming an adequately specified model, this result is quite difficult to explain, except that it suggests that the GLS results are unreliable, and that an OLS-PCSE-LDV estimation strategy is more appropriate. Again, multicollinearity is not behind the failure to find that BITs play a role in promoting FDI inflows. In the fixed effects GLS models average VIFs are well below 3.0, with no single variables having VIFs above 5.0.

As an additional sensitivity test I ran the models using three “undifferentiated” BIT variables that do not take account of differences in dispute settlement provisions. The first variable simply summed the four aggregated BIT variables. The second alternative BIT variable was the weighted sum total of *signed* BITs, but including only those BITs that eventually entered into force. The third BIT variable is a weighted count of signed BITs, regardless of whether the particular BIT ever entered into force. (This third variable is identical to that used in Section III, above, in my replication of Neumayer and Spess’s original analysis). Partial results are presented below in Table 4B.

<i>Table 4B: Aggregating the BIT Variable (Partial Model Results)</i>			
	<b>I. FDI Inflows, Millions Real \$</b>	<b>II. FDI, % World</b>	<b>III. FDI, % GDP</b>
BITs – In force, weighted, undifferentiated	-600.105 (1.38)	0.072 (0.70)	1.442 (2.59)**
BITs – Signed, weighted, undifferentiated, including only BITs that will enter into force	-600.106 (1.38)	-.041 (0.35)	1.151 (2.02)*
BITs – Signed, weighted, undifferentiated, including BITs that never entered into force (following Neumeyer and Spess)	-157.337 (0.31)	0.117 (0.14)	1.987 (3.11)**
<i>Notes:</i> All models include the same control variables as the models presented in Table 4A and were estimated using the same PCSE estimation strategy.			

Table 4B suggests that there is some, but perhaps not overwhelming, analytic utility to differentiating among BITs on the basis of dispute settlement provisions. On the one hand, aggregating the BIT variables into single counts has no *overall* affect on the significance or direction of the estimated affect of BITs on FDI inflows. Models I and II continue to suggest that BITs have no statistically significant impact on absolute dollar amounts of FDI inflows, or on FDI share. Model III, on the other hand, continues to suggest that BITs generally *do* significantly and positively impact FDI penetration. But by disaggregating the BIT variable we are able to say something more nuanced about Model III, and something ultimately potentially more helpful to developing countries—if LDCs wish to have much hope of attracting additional FDI through BITs, they should be prepared to sacrifice their historical immunity to suit by foreign investors through pre-consents to investor-initiated arbitration. And unless they are China, a special case if there ever were one, those pre-consents should be broad-based, covering most or all investment disputes that might arise under the treaties.

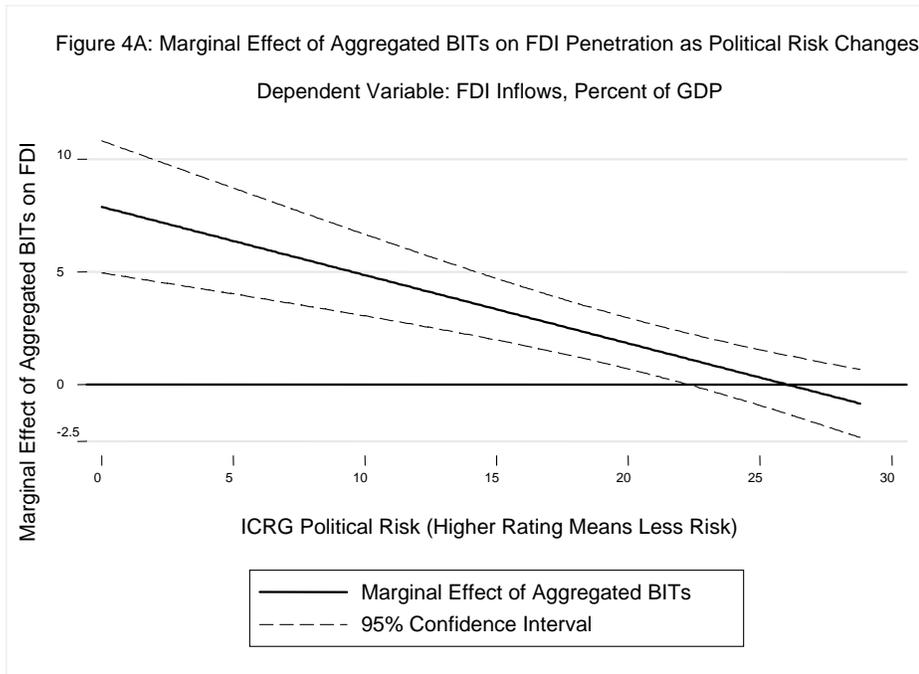
## II. Sensitivity to Multiplicative Interaction Effects

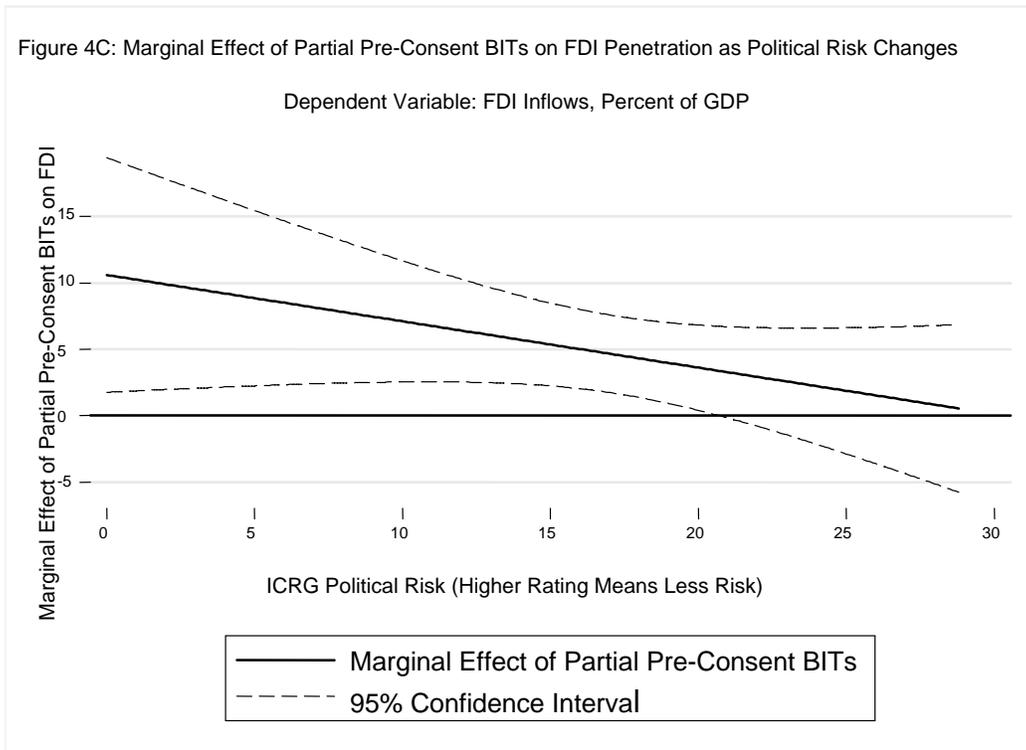
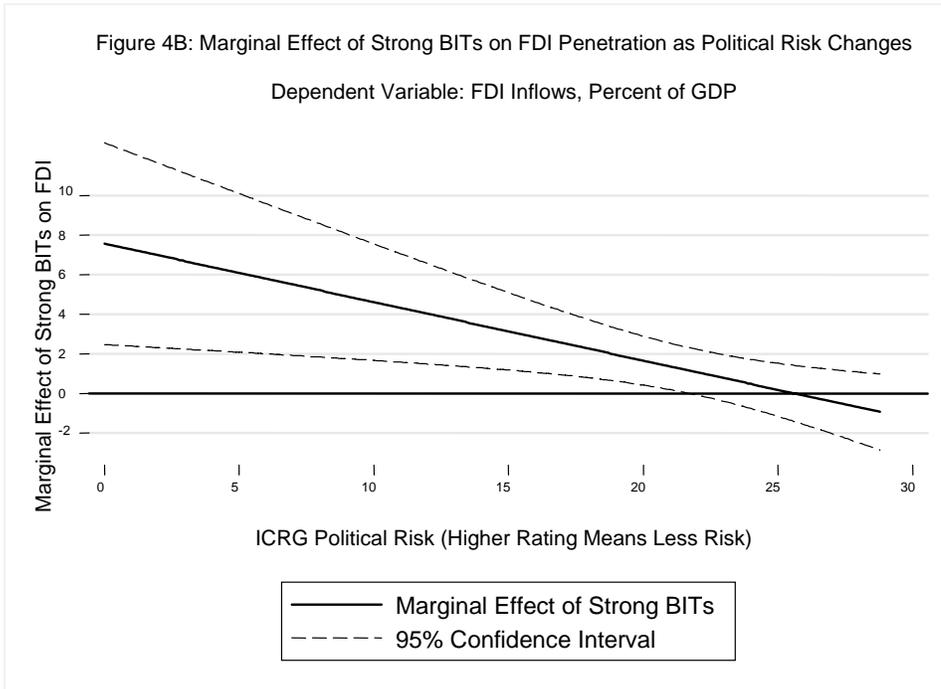
The analysis presented in the previous subsection is open to the criticism that an additive model ignores one of the central insights of Neumayer and Spess’s article: that the relationship between BITs and political risk should be a multiplicative one, and that as risk decreases, so should the marginal effects of BITs on FDI. It also ignores the underlying logic of the “competition for capital” by failing to include an interaction term controlling for the number of other BITs in force. The current subsection explores the effects of adding

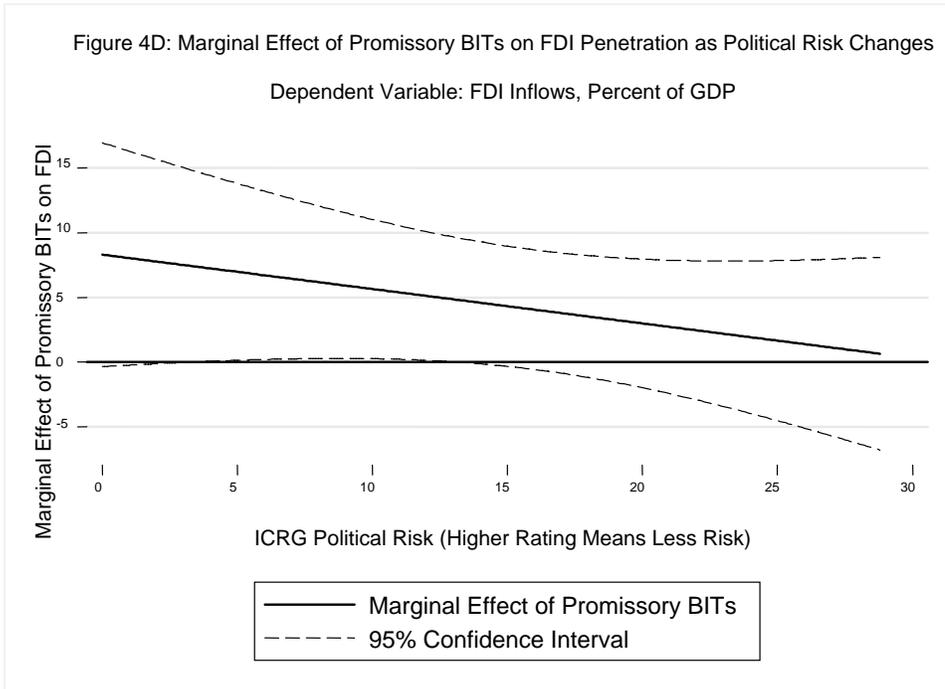
either interaction term to the additive model. I also present results for a model that includes both interactions, modeled as a three-way interaction term.

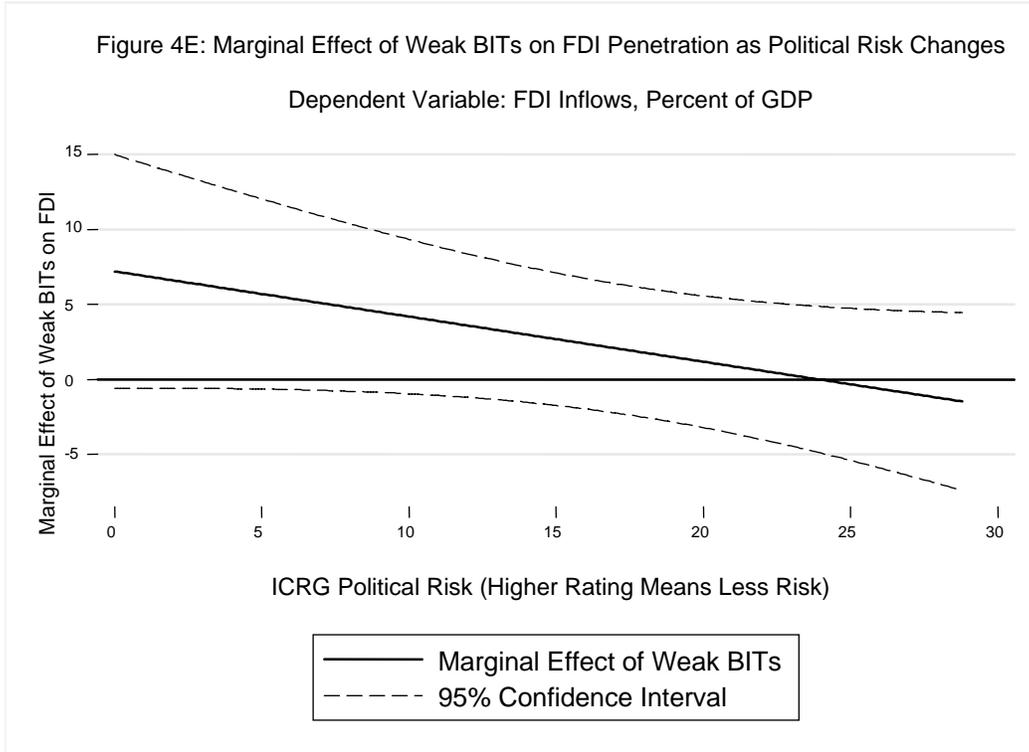
*A. Interacting BITs and Political Risk: The ICRG Measure*

Recall that the most successful of the additive models is Table 4A, Model III, which uses FDI penetration as the dependent variable. Model III is also arguably the model of most inherent interest to developing countries, which are likely to care more about FDI penetration of their domestic economies than about their share of world FDI.<sup>98</sup> Figures 4A-4E show the results of adding an interaction effect between the ICRG composite measure of political risk and each of the four disaggregated BIT variables to the FDI penetration model and for a model that aggregates all of the BIT variables into a single measure. I present results for the aggregated model first. I estimate the models using OLS-PCSE, and, except for the interaction effect and the ICRG risk component variable, all of the independent variables are the same as those presented in Table 4A, Model III.









Figures 4A-4E provide substantial support for Neumayer and Spess’s interactive theory, and for my own theory that the BITs that matter are those that contain some reference to investor-initiated arbitration. Figure 4A, for instance, shows that for all BITs considered together, undifferentiated by strength of dispute settlement, the estimated positive effect of BITs on FDI penetration declines as the ICRG measure increases in value, and thus as political risk decreases. And except for the lowest levels of risk, the confidence interval remains on the positive side of the zero line, suggesting that for most of the range of observed values of risk BITs have a statistically meaningful positive effect on FDI, as expected. This same general pattern is repeated in Figures 4B-4D, which examines the marginal effects of strong BITs, partial pre-consent BITs, and promissory BITs on FDI penetration. Again, the marginal effects line decreases as political risk decreases, and the effect of BITs on FDI penetration is significantly positive at most levels of risk, though again I caution that the results for partial pre-consent BITs are driven largely by the special case of China, and that the results for promissory BITs are less reliable (as indicated by the wider confidence intervals) because of the relatively small number of observations. The more important caveat, however, deals with Figure 4B, which illustrates the marginal effects of strong BITs. Recall that the median value of the ICRG risk variable in the sample is

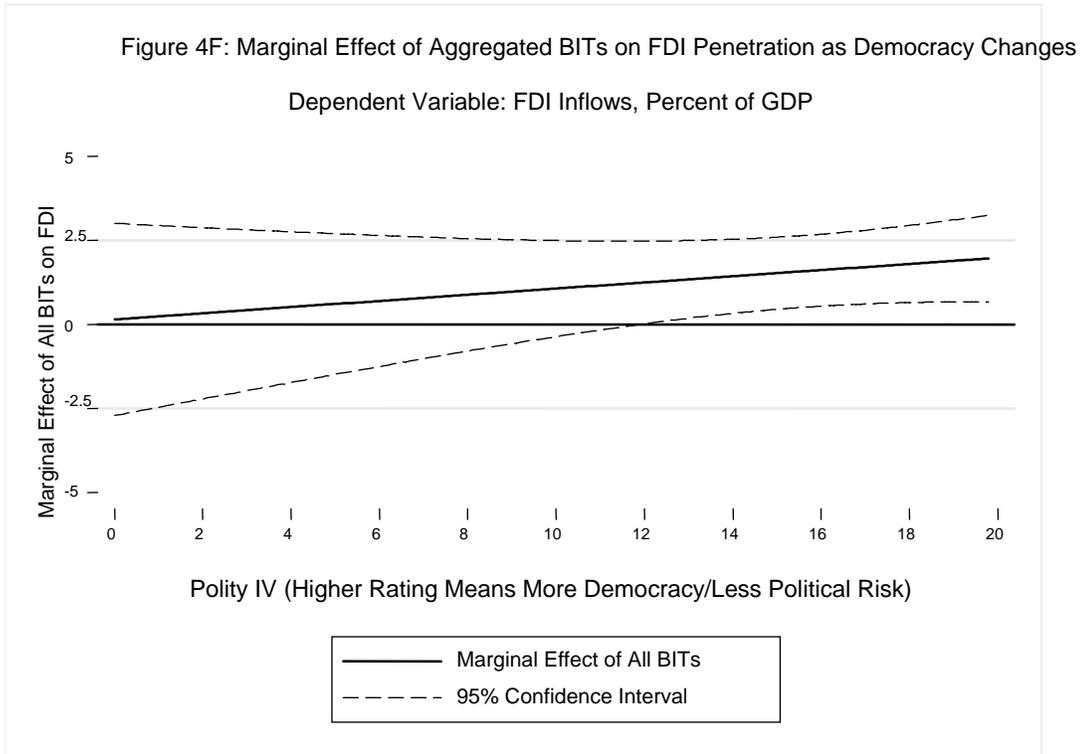
approximately 17. Figure 4B suggests that at political risk ratings of 22 or greater (representing approximately 17 percent of the sample observations) we cannot have confidence that BITs have positive rather than negative effects on FDI.

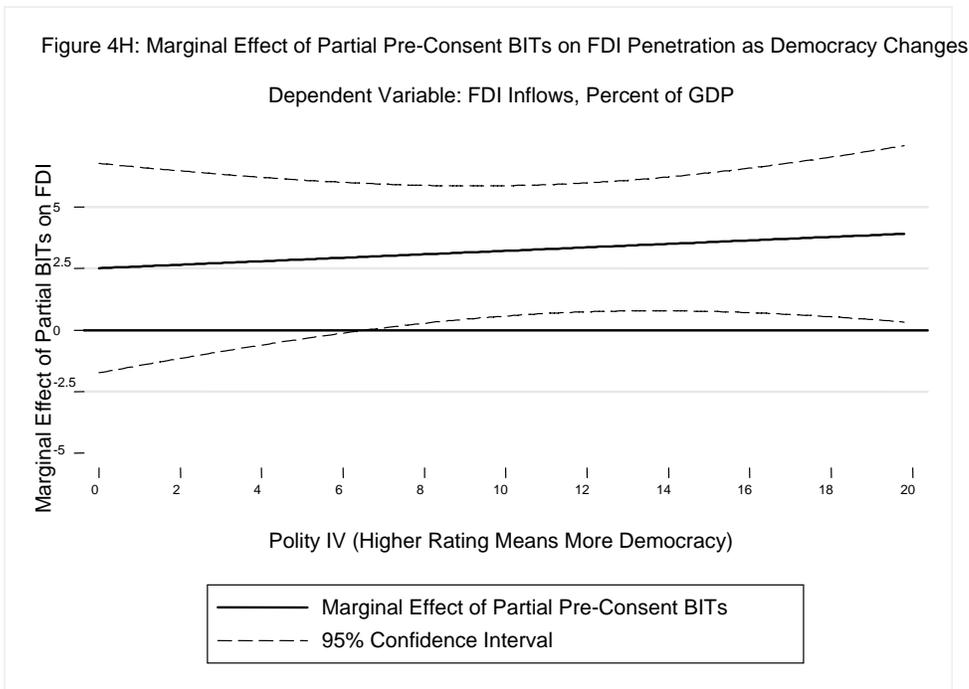
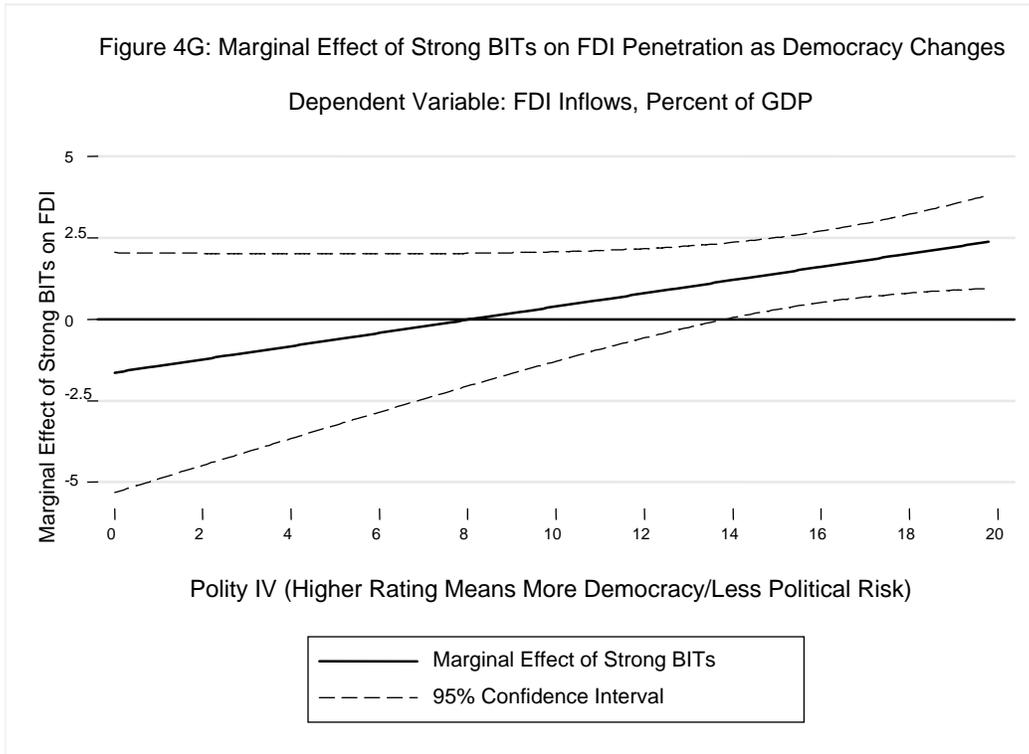
Compare these first four figures with Figure 4E, which illustrates the marginal effects of *weak* BITs as the ICRG risk rating increases. Here we see that across the entire range of values of the risk index the confidence interval spans the zero line, indicating statistical insignificance. In other words, Figures 4A-4E allow us to say with some confidence that BITs *can* help at least some developing countries to increase FDI penetration at lower levels of risk. Figure 4E adds a quite important nuance: the positive effect is unlikely to obtain if the treaties do not contain at least some provision for investor-initiated arbitration.

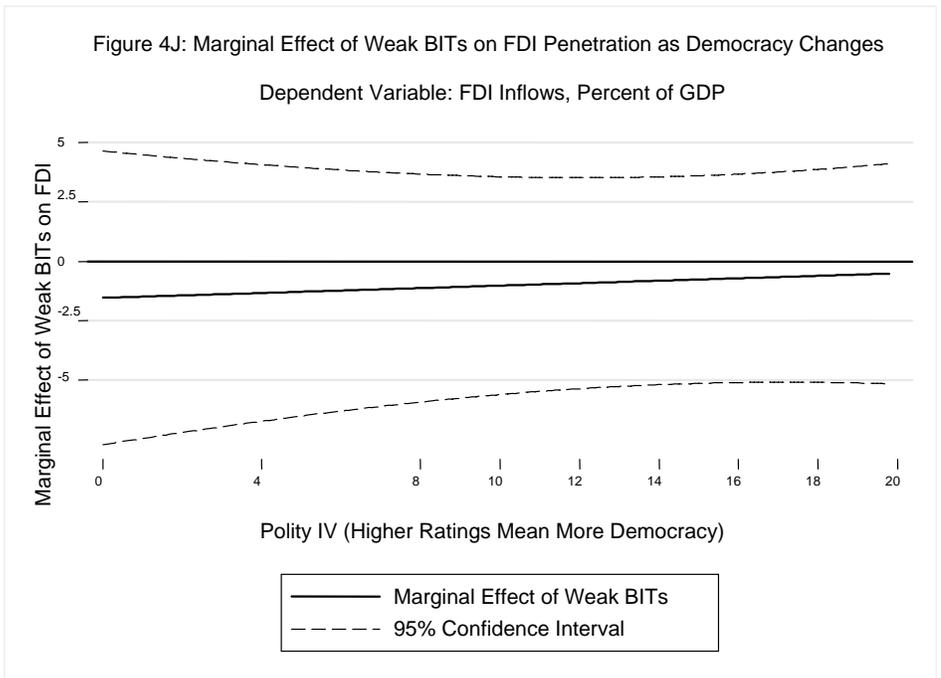
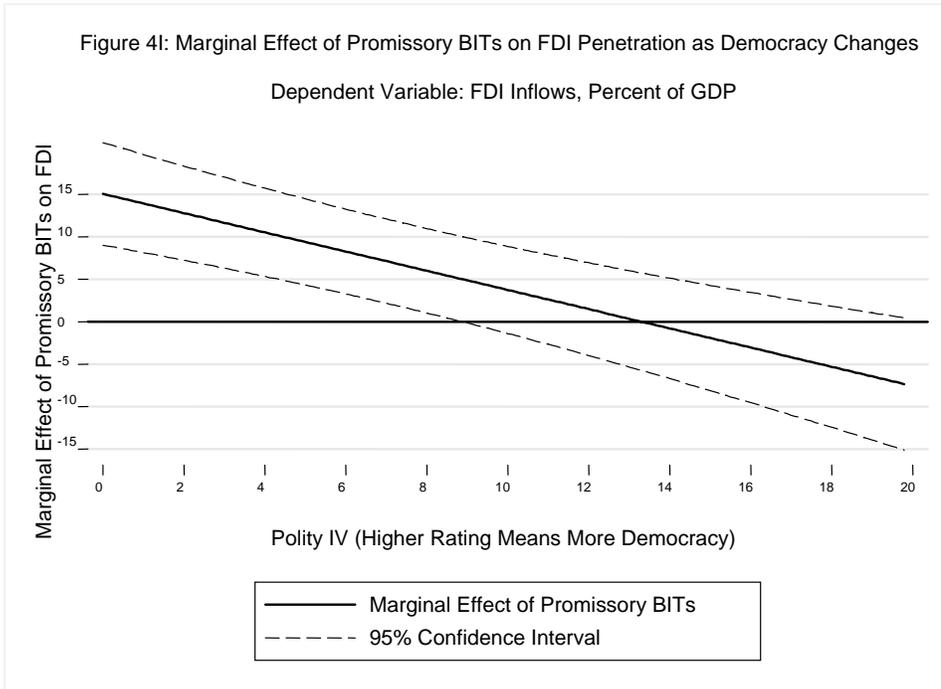
#### B. *Interacting BITs and Political Risk: Polity IV*

Figures 4F-4J, below, repeat the interactive exercise using the Polity IV measure of democracy as a proxy for political risk. The take-away lesson is that the direction of the conditional relationship, and the ranges of values over which the relationship is statistically significant, depends to a great degree on *how* we measure political risk, as the results here are markedly different than those obtained using the ICRG risk variable. Note for example that in Figures 4F and 4G (illustrating results for all BITs and for strong BITs respectively) that the marginal effects line slopes upward, indicating that as democracy increases, and as political risk *decreases*, that BITs become *more* effective at increasing FDI penetration. On the other hand, we can have confidence that the effect on FDI is positive only at the highest levels of democracy. Figures 4F and 4G suggest that the conditional effects of BITs on FDI penetration are significantly positive only when the level of democracy is above approximately 12-14. The median Polity IV rating in the sample is just under 12, suggesting that for half of the observations in the sample, disaggregated and strong BITs can *not* be said to positively impact FDI penetration.

In other words, the evidence presented here is decidedly mixed that strong BITs, or all BITs considered in the aggregate, “matter” in the expected direction. Results are more consistently in line with theory as to weak BITs. Figure 4J shows a very weak conditional relationship between weak BITs and levels of democracy; furthermore, that relationship is never statistically significant.







How to explain the results of the BIT-Democracy interactions? The results suggest that democracy, like “veto points,” is not a conceptually useful proxy for “political risk” of the type that BITs are said to reduce. Figures 4G-4J make clear that BITs are *not* a substitute for (lack of) democracy, and that, from the perspective of the investor, more democracy is not necessarily a substitute for a BIT. Indeed, it is possible, if not likely, that democracies are correlated with some other latent, investor-friendly characteristic, either structural or policy-related, that is not adequately controlled for in our model.

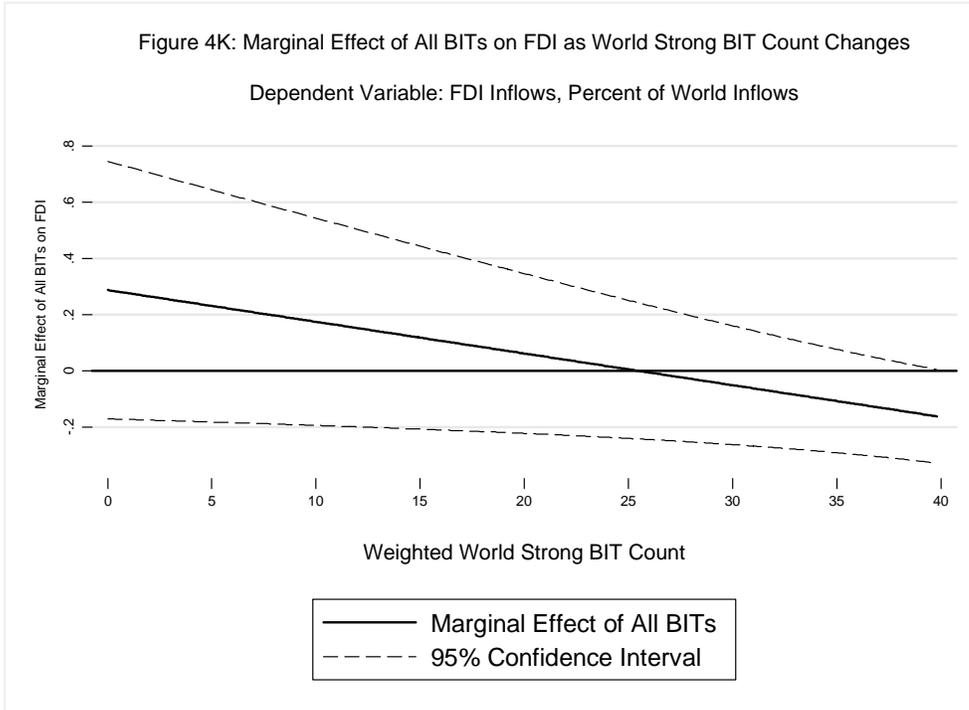
### C. *Interacting Host State BITs and World BITs*

I argued above that the “competition for capital” thesis adopted by Neumayer and Spess and advocated by Elkins, Guzman, and Simmons suggests that BITs will decline in their competitive effectiveness as world BITs increase. The two figures below illustrate what happens when we add a multiplicative host BIT-world BIT interaction term to the additive model. The dependent variable here is FDI share rather than FDI penetration. A country’s share of world FDI is a better proxy for success in the competition for capital than FDI penetration, because the former proxy more closely taps the notion that “success” is equivalent to getting a larger slice than one’s competitors of the total FDI pie. (However, while I do not reproduce the relevant figures here, the same negatively-sloping pattern illustrated in Figure 4K obtains when substituting FDI penetration for FDI share as the dependent variable, suggesting that BITs are becoming less effective at promoting FDI penetration as more and more states sign and ratify the treaties).

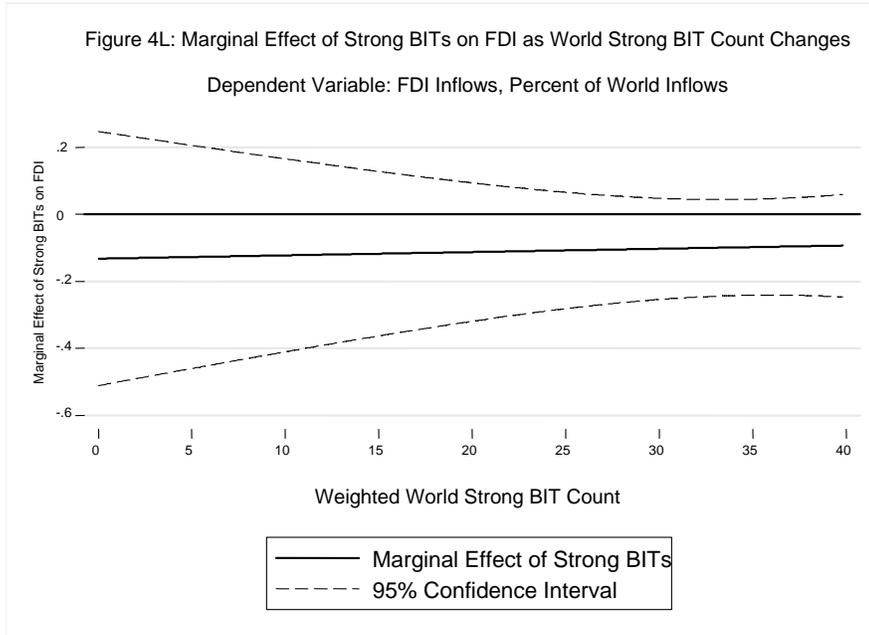
The models are again estimated using OLS-PCSE. The control variables are the same as those listed in Table 4A, Model II, except that I include a weighted count of the number of *strong* BITs in force worldwide, which I adjust by subtracting each particular host state’s number of in-force, strong BITs. I multiply this weighted, adjusted count variable with each of the four disaggregated BIT variables and, in a separate model, with an aggregated (undifferentiated) BIT variable. In the interest of space I reproduce below only the figures for the all-BIT interaction effect and the strong-BIT interaction effect.

The results of the exercise provide some, but not perfect, support for theoretical expectations. Figure 4K shows that a host state’s aggregated count of BITs declines markedly in effectiveness as the world count of strong BITs in force increases. In other words, in today’s investment “market”, entering into an additional BIT of *any type* can be expected to have less positive impact on FDI share than entering into an additional BIT in an earlier era, in which BITs were less common. The analytic caveat, however, should be

obvious: the wide confidence intervals continuously span the zero line, suggesting that at no point in the history of BITs have they had a statistically significant impact on FDI share.



On the other hand, and looking at the interaction between *strong* BITs and the world BIT count (Figure 4L, below), we see little evidence that the effectiveness of strong BITs declines as the world BIT count increases. In fact, the point estimate trends slightly upward as world BITs in force become more numerous. At the same time, however, the point estimate is counter-intuitively *negative*, and the wide confidence intervals suggest that we are unable to statistically determine whether the estimated effects of strong BITs on FDI share are in fact positive or negative at any level of world strong BITs.



The interactive results reported in Figure 4K are also robust to estimating the models using GLS with fixed effects, robust standard errors, clustered or unclustered by country. The same downward-sloping relationship is also evident when we use FDI penetration rather than FDI share as the dependent variable. In short, controlling interactively for the number of world BITs in force provides little to no evidence that BITs have ever, *or currently*, effectively serve to promote foreign investment.

#### D. *Interacting Host State BITs, Political Risk, and World BITs*

In this subsection I offer a final complication to the interactive analyses presented above. If it is theoretically sound to argue that the effect of BITs on FDI share is likely to depend on *both* the number of BITs already in force worldwide *and* on a host state's background level of political risk, then a properly specified model will need to incorporate a three-way interaction term that multiplies a host state's own number of BITs in force by its level of political risk and by the world BIT count.

Figures 4M-4P replicate Table 4A, Model II, our additive model of FDI share, while including three-way interactions between each host state's BIT count, level of political risk, and the world BIT count. Figures 4Q-4T replicate Table 4A, Model III, our additive model

of FDI penetration, while again including the three-way interaction term and the term's individual components. The general model takes the form of

$$y = x + w + z + xw + xz + wz + xwz + (\text{control variables}),$$

where  $y$  is FDI share or FDI penetration,  $x$  is the weighted BIT count variable,  $w$  is alternately either the Polity IV proxy for political risk or the ICRG political risk variable,  $z$  the weighted, adjusted count of world in-force strong BITs, and  $xw$ ,  $xz$ ,  $wz$ , and  $xwz$  are multiplicative combinations of those first three variables. To save space I again only present figures for models using the aggregate BIT variable (where BITs are undifferentiated by dispute settlement provisions) and the strong BIT variable.

I follow Brambor et al. in constructing the relevant figures, which are different, and indeed, more complex, than those presented previously.<sup>99</sup> The x-axis indicates different levels of political risk (or democracy), across the range of possible values. The y-axis indicates the marginal effects of BITs on FDI share. The plotted lines indicate the marginal effects of BITs on FDI share at different levels of political risk (or democracy), with a separate line plotted for each of *four different levels of world BITs*. The weighted world BIT variable ranges in observed value from 0 to nearly 40; I have selected four substantively meaningful and equally spaced values across that range. The solid plotted line represents marginal effects at a very low level of worldwide BITs (3); the dashed line represents marginal effects at a moderate-low level of worldwide BITs (15); the dotted line, at moderate-high levels of worldwide BITs (27); and the dashed-dotted line at high (e.g. current) levels of worldwide BITs (39). Instead of adding confidence intervals, which would unnecessarily clutter the Figures, I have followed Brambor et al. by plotting asterisks (\*) indicating the range of point estimates that are statistically significant at the 0.05 level.

Figure 4M illustrates the marginal effect of all (aggregated) BITs on FDI share as the level of democracy changes at different levels of democracy. There are three main aspects to note. First, as the weighted number of strong BITs in force across the world increase (e.g. as we move from the solid point estimate line to the dashed-dotted line at the bottom), the estimated marginal effect of BITs decreases, just as theory would predict. In other words, BITs appear to become less effective at attracting FDI share as more and more BITs come into force. Second, and more problematically for theory, the point estimates are statistically insignificant at almost all levels of democracy and of world BITs in force. BITs have a statistically significant effect on FDI share only at the highest level of world BITs (39), and even then, only when the particular host state is somewhere between a full democracy and a

full autocracy. Third, and even more problematically, this statistically significant point estimate is *negative*—it suggests that BITs are actually *harmful* in the competition for capital.

Figure 4M: Marginal Effect of All BITs on FDI Share As Democracy and Weighted World Strong BIT Count Change

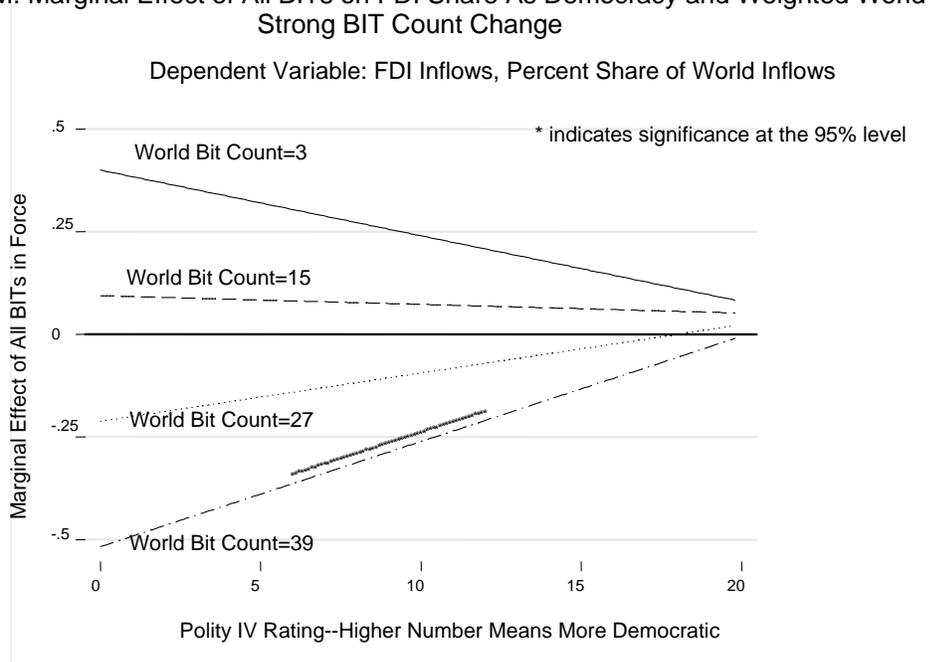
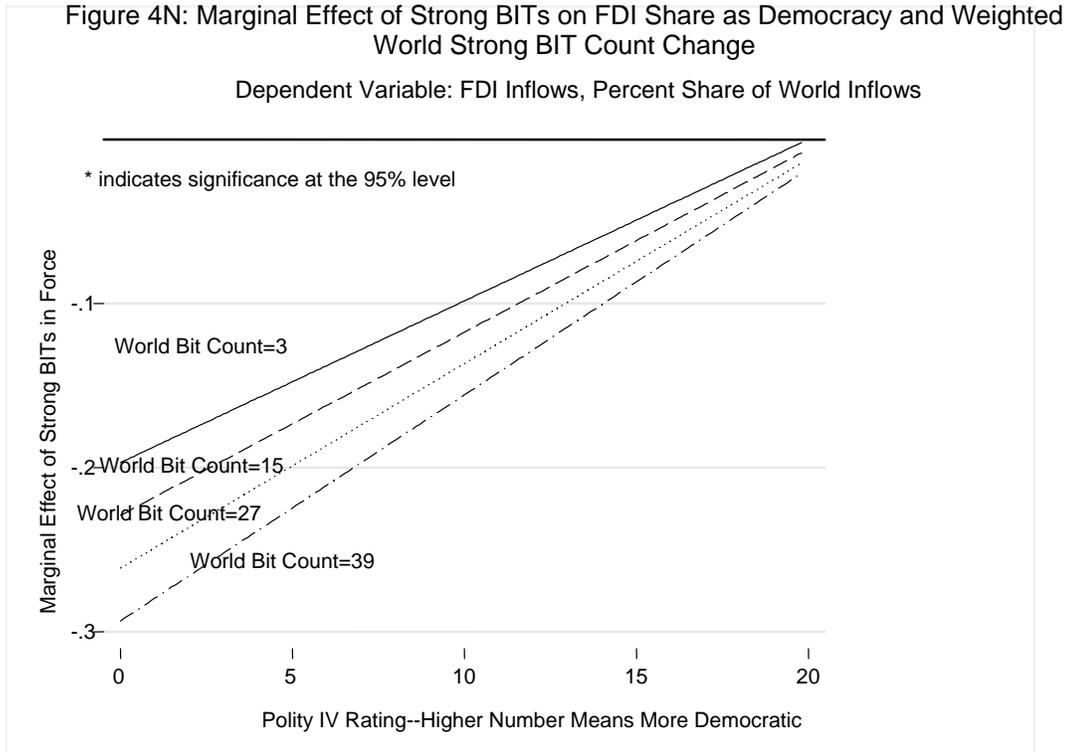


Figure 4N, below, repeats the exercise for strong BITs. Here we are concerned with measuring the marginal effects of strong BITs entering into force, at different levels of democracy and of word strong BITs. The results are a complete statistical wash—at no levels of democracy or worldwide BITs do strong BITs have a statistically significant effect on FDI share. The result is especially surprising, because, recall, we would expect strong BITs to be most likely to induce FDI flows.



Figures 4O and 4P repeat the three-way interaction analysis using the ICRG measure of political risk. Again, the results generally fail to support the thesis that BITs are of any use in the competition for capital. In Figure 4O we see that the estimated effect of all BITs on FDI share declines as the number of worldwide BITs in force increases—again, as theory would predict. Furthermore, and as the asterisks note, the marginal effects are statistically significant (and correctly signed) only at very low levels of worldwide BITs (3), and only where political risk is *already relatively low*, with the effect *increasing* as political risk decreases. This latter finding runs quite contrary to Neumayer and Spess’s prediction and finding that the effect of BITs decreases as political risk decreases. Figure 4P repeats the analysis for strong BITs. Here the results are, again, a statistical wash. Strong BITs, which should theoretically be the most effective of all BITs at inducing FDI flows, have no statistically significant marginal effects on FDI share at any level of ICRG political risk or at any level of worldwide strong BITs.

Figure 4O: Marginal Effect of All BITs on FDI Share As Political Risk and Weighted World Strong BIT Count Change

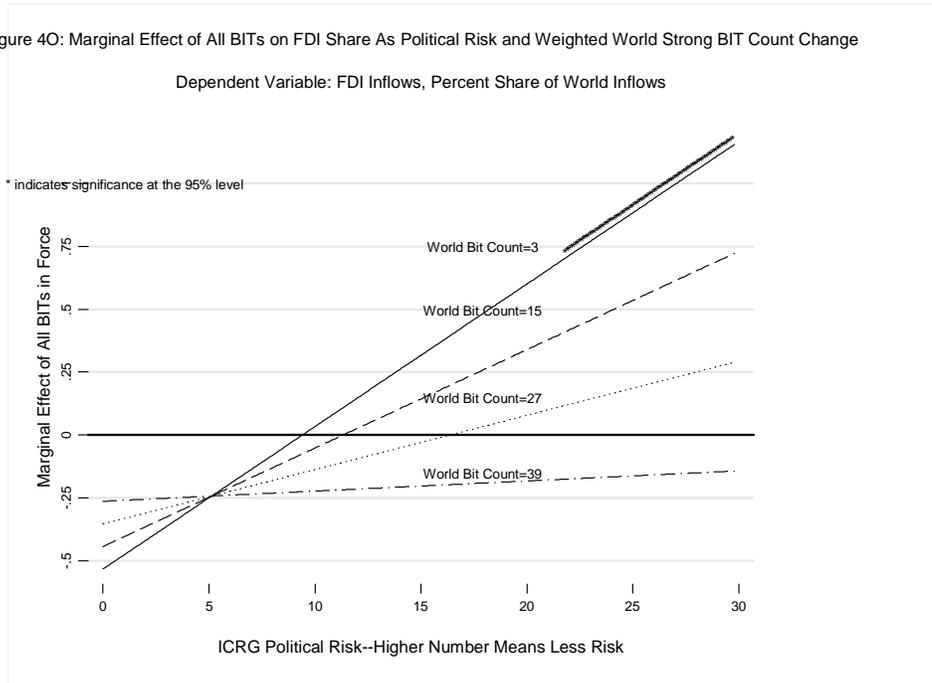
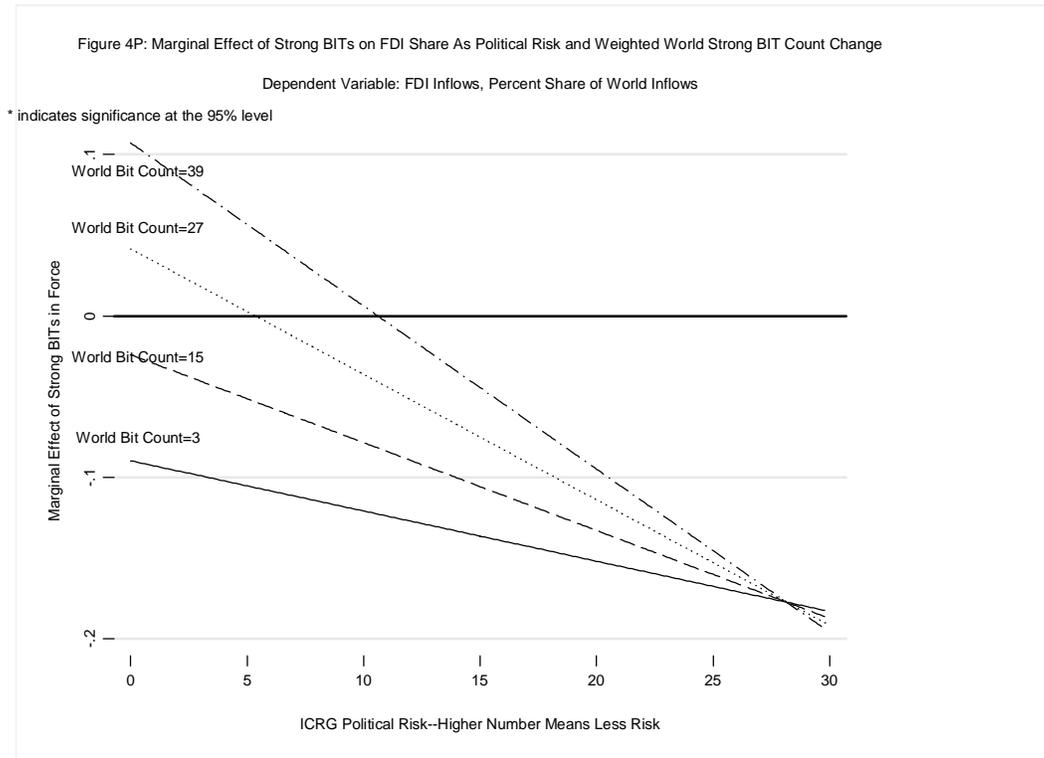


Figure 4P: Marginal Effect of Strong BITs on FDI Share As Political Risk and Weighted World Strong BIT Count Change



For the sake of completeness I have reproduced below the results of the three-way interaction analysis using FDI penetration, rather than FDI share, as the dependent variable. Recall that the additive model of FDI penetration in Table IVB was the most successful of the three additive models, and it is worth considering whether changing our metric of FDI success in the interactive context will again substantively affect the conclusions we can draw about the effectiveness of BITs. Figures 4Q and 4R illustrate the results from the interaction of the host state's aggregated BIT count, the Polity IV democracy variable, and the world strong BIT count. Figures 4S and 4T repeated the exercise using the ICRG political risk variable. Figures 4Q and 4S use the host state's aggregated count of BITs, while Figures 4R and 4T use the strong BIT variable.

Figure 4Q: Marginal Effect of All BITs on FDI Penetration As Democracy and Weighted World Strong BIT Count Change

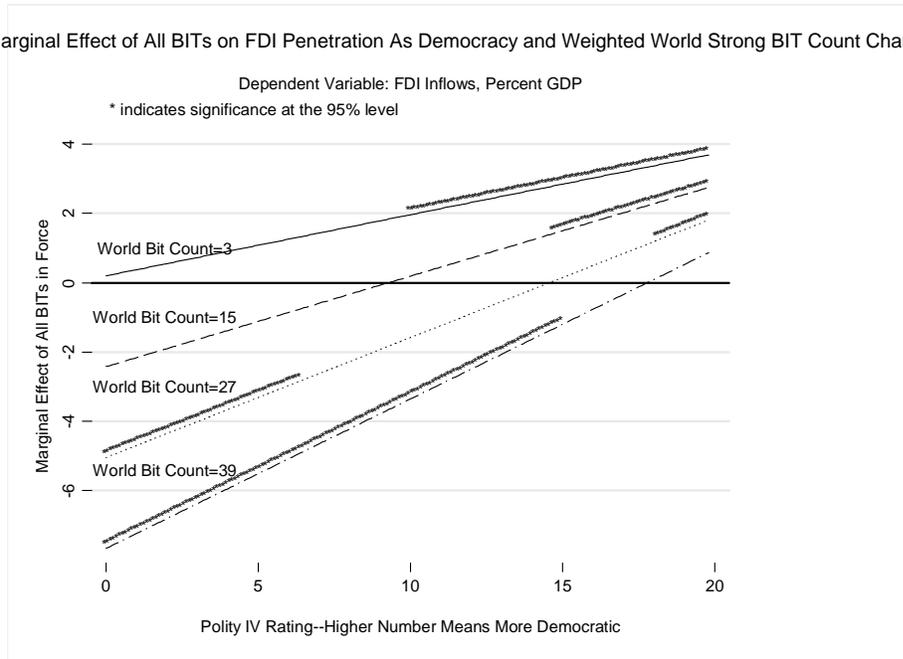
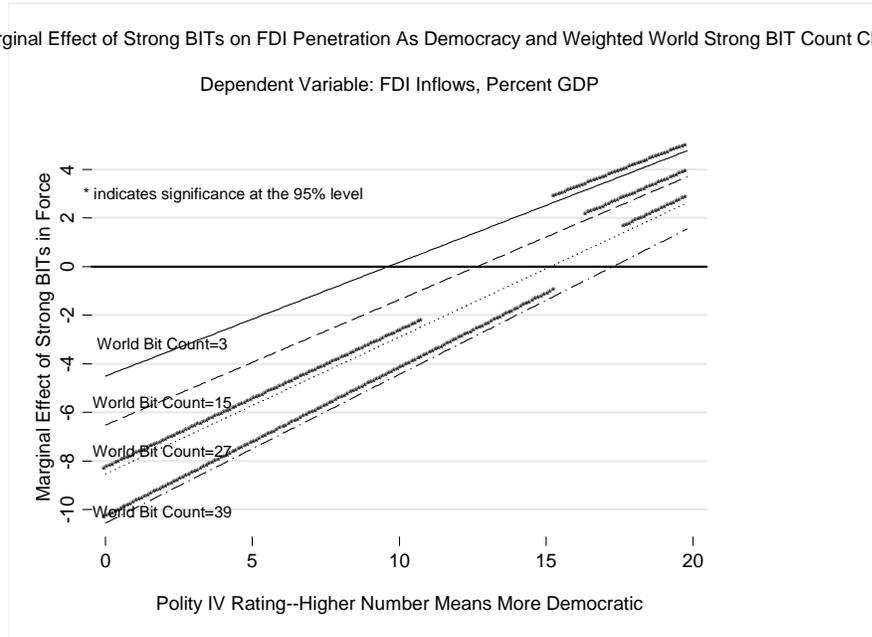


Figure 4R: Marginal Effect of Strong BITs on FDI Penetration As Democracy and Weighted World Strong BIT Count Change



As the results from the additive model would perhaps lead us to predict, using FDI penetration as the dependent variable significantly improves results in terms of finding statistically significant effects. Figures 4Q and 4R show that BITs have statistically significant effects on FDI penetration at a wide range of values of democracy and of world strong BITs in force. Importantly for my theory, however, note that as the world count of BITs increases (e.g. as we move from the upper, solid line representing only three weighted, strong world BITs in force, to the bottom, dotted-dashed line indicated 39 weighted, strong world BITs in force), the estimated positive marginal effects of BITs on FDI penetration decline. In short, as more BITs enter into force worldwide, we can expect a host state's decision to enter into additional BITs to be of declining use in attracting more FDI. It is especially curious to note that at low levels of democracy, the predicted marginal effect of BITs on FDI penetration is actually *negative*. Only at the highest levels of democracy does the model suggest that BITs might have statistically significant, positive effects on FDI penetration. Even more discouragingly, the dotted-dashed lines suggest that at current world BIT levels, the marginal effect of BITs on FDI penetration is *never* statistically significant and positive.

Figure 4S: Marginal Effect of All BITs on FDI Penetration As Political Risk and Weighted World Strong BIT Count Change

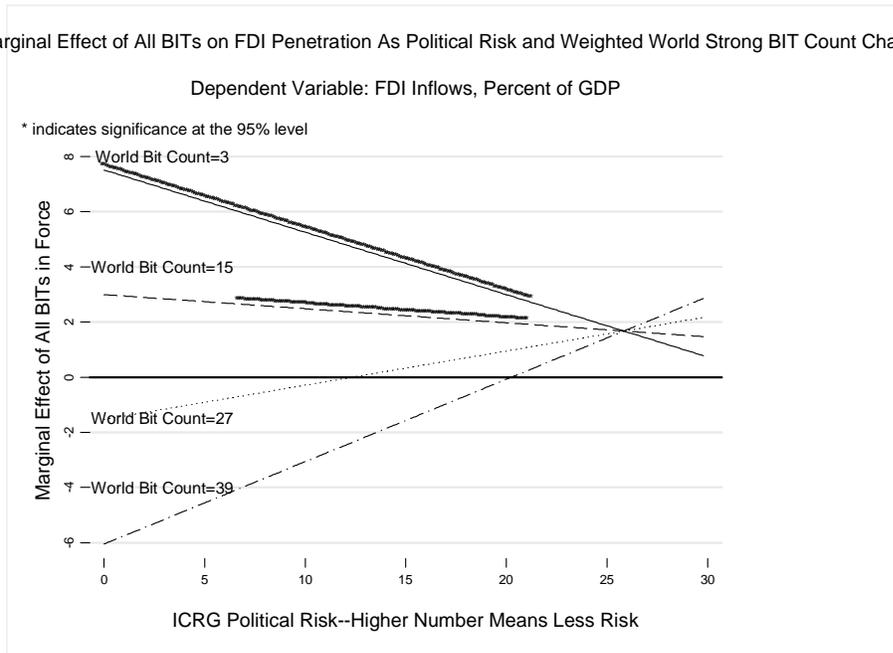
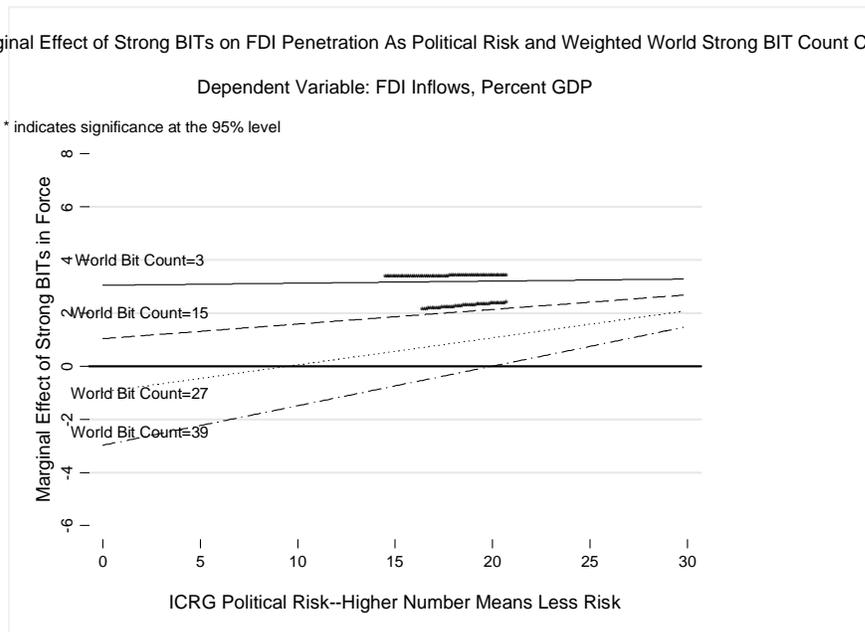


Figure 4T: Marginal Effect of Strong BITs on FDI Penetration As Political Risk and Weighted World Strong BIT Count Change



Using the ICRG political risk variable in the three-way interaction term produces roughly similar results. Again, we see very strong evidence that as the world count of strong

BITs in force increases, the estimated marginal effectiveness BITs decreases, at least across most ranges of political risk. Furthermore, there is no evidence that the marginal effectiveness of BITs is statistically significant and positive at current world levels of BITs. Figures 4S and 4T indicate that BITs have a significant marginal effect on FDI penetration only at very low and moderately low levels of world BITs, and only at limited levels of political risk.

## V. SUMMARY AND CONCLUDING OBSERVATIONS

The analysis above provides very mixed, and largely disconfirmatory, evidence for the thesis that BITs meaningfully and positively influence investor decisions. It proved surprisingly difficult to replicate Neumayer and Spess's supposedly robust main finding—that signed, undifferentiated BITs are positively and significantly associated with increased FDI shares across all levels of political risk. Where the replication *was* reasonably successful, as in Figure 3D, the results proved very sensitive to justifiable changes in estimation strategy and model specification. In the face of those changes, their results fall largely into statistical insignificance. In particular, BITs appear to be rather ineffective tools in the “competition for capital” that motivates Neumayer and Spess's theory and other recent empirical work on BITs. This is especially the case when we control for the number of BITs in force worldwide. There are compelling theoretical reasons, and now compelling empirical reasons, to suspect that as more and more states sign strong BITs, newcomers to the competition will find their new treaties to be far less effective at diverting competitive capital to their shores than did those who joined the BIT party early on.

Of course, we did report *some* modestly positive results: non-weak BITs do appear to be effective at increasing *FDI penetration*, at least in an additive model. This finding suggests that while BITs might not be all that effective in the “competition for capital,” they may be effective at promoting non-competitive, market-seeking foreign investment, as long as host states are willing to sacrifice significant sovereignty to international arbitrators. Benefits, in other words, seem to go hand in hand with costs. To the extent that the result is trustworthy, it suggests that reputational concerns alone are insufficient to ensure investor perceptions of compliance with international legal obligations. If reputation were an important inducement to comply with international law, then we would expect weak BITs to have similar effects on investor confidence or interest (indicated by FDI inflows) as strong BITs. Instead, we find that where BITs do seem to “matter,” it is only where they contain important references to international arbitration to enforce treaty obligations.

The inconsistency in the additive results between different metrics of FDI “success” is admittedly difficult to explain, though it does suggest that BIT analysts should be very careful to examine the sensitivity of their results to the use of different metrics. One possible explanation for the inconsistency is that success at attracting market-oriented investments is perhaps better reflected in the FDI penetration variable, and that those kinds of investments tend to be more asset-specific, thus more vulnerable to the problem of the “obsolescing bargain” than investments in ultra-competitive export-oriented sectors like light manufacturing. Investors in these competitive sectors may be expected to care much less about the presence or absence of a BIT because BITs provide them with largely unnecessary protections. If this is indeed the case, then it might not be particularly surprising that BITs don’t help increase FDI share very much, because competitive-sector investors don’t place much inherent value on BITs. If policies prove to be unstable, or if the host state attempts to renegotiate the terms of operation, the competitive-sector investor can credibly threaten to exit for more favorable countries.

More work remains to be done, of course. In particular, statistical models of the type presented here are notoriously bad at shedding light on the micro-processes that underlie the theories at hand. For example, an unstated assumption of Neumayer and Spess’s theory of BITs is that foreign investors notice the presence or absence of the treaties at the early stages of the investment decision-making process, and that the presence or absence of a treaty will in many cases definitively decide the question of whether or not to sink the investment. My own addition to the theory has assumed that investors not only notice the treaties, but take into account differences in the *content* of the treaties, and in a fairly sophisticated way at that. The problem for these assumptions—and they are big ones—is that there is little to no systematic and reasonably direct evidence that investors have had any significant knowledge of the treaties, or of their theoretical effects on policy stability. To my knowledge there have been no major surveys of the extent to which the presence or absence of a BIT actually enters into foreign investment decisions. But there is suggestive if largely anecdotal evidence that it historically investors have not paid much attention to the treaties. For example, a small survey of business executives conducted in 1976 found that only 16 percent of respondents were “familiar” with ICSID, that only one quarter of that 16 percent felt that ICSID provided “adequate safeguards.” These results led the authors to conclude that ICSID needed to mount a major promotional campaign.<sup>100</sup> It is highly unlikely that investor awareness or appreciation of specific BITs was any higher. Perhaps even more revealing is the title of a recent practitioner-oriented publication, “Arbitration under Bilateral Investment Treaties: An often overlooked tool,” which suggests that additional promotional efforts may still be needed.<sup>101</sup> And while anecdotes should

always be approached with extreme caution, my own informal conversations with practicing international lawyers involved on the “deal-making” side of international investment suggest that BITs rarely enter into the investment-making process in any concrete and significant way, and that far more important are rather mundane considerations relating to what might be called the “ease of doing business” and of “getting the deal done.” Along the same lines, an analyst at a major state-sponsored investment insurance agency told me that the impression of his agency colleagues was that, with the possible exception of investors in the oil and gas sectors, foreign investors are often “unaware of or unfamiliar with BITs and their existence or lack thereof in their countries of interest.” There is tremendous room to make a meaningful contribution to the BIT debate by conducting social scientifically valid surveys or case studies of the investment decision-making process and the extent to which, and ways in which, considerations of international law might or might not enter into it.

In the interim, what should developing countries anxious to attract additional FDI do? My results suggest that the best course of action is one of caution. Developing countries would be well-advised to refrain from extending their commitment to investor-initiated, treaty-based arbitration by insisting that new BITs or their equivalents shall not contain broad-based arbitral pre-consents and by refusing to sign or enter into treaties that do. This is not so preposterous a proposition. Australia recently and successfully convinced the United States to significantly weaken the international arbitration provisions of the investment chapter of the Australia-United States Free Trade Agreement.<sup>102</sup> If a particular investor truly cares about guaranteed access to international arbitration, then let the investor ask for it. As I have argued above, BITs are not necessary for host states to credibly commit to particular terms of bargain. For many years, investors relied primarily on investment contracts to secure their interests. Returning, at least in part, to a true bargaining regime, in which particular deal are struck on a case-by-case basis would better allow developing countries to adjust and manage their exposure to international arbitration and to the policy inflexibility that it can induce, and to ensure that potentially very costly remedial promises are extended only to those investors for whom the promises are an essential precondition of the decision to invest.

---

<sup>1</sup> Published in book form as JUDITH L. GOLDSTEIN ET AL., EDS. *LEGALIZATION AND WORLD POLITICS* (2001).

<sup>2</sup> STEPHEN D. KRASNER, *STRUCTURAL CAUSES AND REGIME CONSEQUENCES*.

<sup>3</sup> Arend makes this point well. ANTHONY CLARK AREND, *LEGAL RULES AND INTERNATIONAL SOCIETY* ch. 4 (1999).

---

<sup>4</sup>Beth V. Yarbrough & Robert M. Yarbrough, *Reciprocity, Bilateralism, and Economic Hostages: Self-Enforcing Agreements in International Trade*, 30 INT'L STUD. Q. 7 (1986); Robert E. Scott & Paul B. Stephan, *Self-Enforcing International Agreements and the Limits of Coercion*. 2004 WIS. L. REV. 551 (2004).

<sup>5</sup> Andrew Guzman, *A Compliance-Based Theory of International Law*. 90 CAL. L. REV. 1823 (2002).

<sup>6</sup> Scott & Stephan, *supra* note 4.

<sup>7</sup> See generally ROBERT E. SCOTT & PAUL B. STEPHAN. *THE LIMITS OF LEVIATHAN: CONTRACT THEORY AND THE ENFORCEMENT OF INTERNATIONAL LAW* (2006).

<sup>8</sup> See, e.g., Eric A. Posner & John C. Yoo, *Judicial Independence in International Tribunals*, 93 CAL. L. REV. 1 (2005).

<sup>9</sup> See Anne-Marie Slaughter, *International Law in a World of Liberal States*, 6 EURO. J. INT'L L. 503 (1995); Andrew Moravcsik, *Taking Preferences Seriously: A Liberal Theory of International Politics*, 51 INT'L ORG. 513 (1997).

<sup>10</sup> Nathan Jensen, *Democratic Governance and Multinational Corporations: Political Regimes and Inflows of Foreign Direct Investment*, 57 INT'L ORG. 587 (2003); Quan Li, *Democracy, Autocracy, and Tax Incentives to Foreign Direct Investors: A Cross-National Analysis*, 68 J. POL. 62 (2006).

<sup>11</sup> ANNE-MARIE SLAUGHTER. *A NEW WORLD ORDER* (2005). See also Guzman, *supra* note 5, who suggests that states face greater reputational incentives to comply with international legal obligations precisely because of their international nature.

<sup>12</sup> See, e.g., Vicki Been and Joel C. Beauvais, *The Global Fifth Amendment? NAFTA's Investment Protection and the Misguided Quest for an International "Regulatory Takings" Doctrine*, 78 N.Y.U. L. REV. 30, 55 (2003).

<sup>13</sup> The danger of political backlash is well-illustrated in the Bill Moyers PBS television special "Trading Democracy" (Feb. 1, 2002), which harshly criticizes NAFTA's foreign investment framework.

<sup>14</sup> \_\_\_\_\_ "Investment Claims—First Lessons from Argentina" in INTERNATIONAL INVESTMENT LAW AND ARBITRATION: LEADING CASES FROM THE ICSID, NAFTA, BILATERAL TREATIES AND CUSTOMARY INTERNATIONAL LAW (Weiler, ed. 2005).

<sup>15</sup> See, e.g. LG&E Energy Corp., LG&E Capital Corp. and LG&E International Inc. v. Argentine Republic (ICSID Case No. ARB/02/1).

<sup>16</sup> Federico Ortino, email posted to the Oil-Gas-Energy-Mining-Infrastructure Dispute Management (OGEMID) listserv, Sept. 4, 2006.

<sup>17</sup> Eric Neumayer & Laura Spess, *Do Bilateral Investment Treaties Increase Foreign Direct Investment to Developing Countries?* 33 WORLD DEVELOPMENT 1567 (2005). Neumayer and Spess discuss the small handful of competing studies, none of which have been published in peer-reviewed journals and all of which present methodologically and theoretically inferior analyses compared to Neumayer and Spess's more convincing effort.

<sup>18</sup> Bruce Bueno de Mesquita, "Getting Firm on Replication," in "The International Studies Profession: Symposium on Replications in International Studies Research", 4 INT'L STUDIES PERSPECTIVES 72 (2003).

<sup>19</sup> The various United Nations studies cited in footnote 21 offer thorough introductions and bibliographies to the BIT phenomenon.

<sup>20</sup> Jason Webb Yackee, "Conceptual Difficulties in the Empirical Study of Bilateral Investment Treaties" (May 2006). Available at SSRN: <http://ssrn.com/abstract=903680>.

<sup>21</sup> See UNITED NATIONS CENTRE ON TRANSNATIONAL CORPORATIONS [UNCTC], *BILATERAL INVESTMENT TREATIES* (1988); UNCTAD, *BILATERAL INVESTMENT TREATIES IN THE MID-1990S* (1998); UNCTAD, *BILATERAL INVESTMENT TREATIES 1959-1999*, UNCTAD/ITE/IIA/2 (2000).

<sup>22</sup> UNCTC, *supra* note 21, at \_\_\_\_ .

<sup>23</sup> The difficulty is compounded by the fact that "MFN clauses do not have a universal meaning. Indeed, the formulation and application of MFN clauses varies widely among investment treaties....The proper application and interpretation of a particular MFN clause in a particular case requires careful examination of the text of that provision". OECD, "Most-Favoured-Nation

---

Treatment in International Investment Law,” Working Paper on International Investment Number 2004/2.

<sup>24</sup> Jürgen Kurtz, “The Delicate Extension of Most-Favored-Nation Treatment to Foreign Investors: *Maffezini v. Kingdom of Spain*”, in *INTERNATIONAL INVESTMENT LAW AND ARBITRATION: LEADING CASES FROM THE ICSID, NAFTA, BILATERAL TREATIES, AND CUSTOMARY INTERNATIONAL LAW* 523 (Todd Weiler, ed.) (2005).

<sup>25</sup> J. W. Salacuse & N. P. Sullivan, *Do BITs Really Work? An Evaluation of Bilateral Investment Treaties and Their Grand Bargain*, 46 *HARVARD INT’L L. J.* 67 (2005).

<sup>26</sup> In fact, it has been United States policy to emphasize to prospective BIT partners that there is no evidence that BITs induce FDI inflows.

<sup>27</sup> See, e.g., Andrew T. Guzman, *A Compliance-Based Theory of International Law*, 90 *CALIF. L. REV.* 1823 (2002).

<sup>28</sup> See Louis Kaplow, *Rules Versus Standards*, 42 *DUKE L.J.* 557 (1992).

<sup>29</sup> Thomas W. Wälde, *The “Umbrella” Clause in Investment Arbitration: A Comment on Original Intentions and Recent Cases*, 6 *J. WORLD INVEST. & TRADE* 183, 194 (2005).

<sup>30</sup> David Crawford, “Businessman vs. Kremlin: War of Attrition”, *WALL STREET J.*, Mar. 6, 2006, at p. A6.

<sup>31</sup> See Preiswerk, *supra* note \_\_\_\_, at 195.

<sup>32</sup> Michael Minor, *The Demise of Expropriation as an Instrument of LDC Policy*, *J. INT’L BUS. STUDIES* 177 (1994).

<sup>33</sup> Article 11 of the 1982 Japan-Sri Lanka BIT provides an excellent example of a promissory pre-consent: “Each Contracting Party shall, at the request of the [investor], consent to submit any legal dispute ... to...arbitration.”

<sup>34</sup> But once consent has been given and accepted by the other party, it can be difficult or impossible for one party to withdraw its consent unilaterally. ICSID Convention, Art. 25(1). This rule is what makes a BIT pre-consent effective – once offered by the host state and accepted by the investor, the host state cannot meaningfully avoid its obligation to arbitrate at the investor’s choosing.

<sup>35</sup> SCHREUER, *supra* note \_\_\_\_, at 216.

<sup>36</sup> For example, the Netherlands-Yugoslavia BIT of 1976 provides that the host state “shall give sympathetic consideration to any request” by the investor to arbitrate a dispute. SCHREUER, *supra* note \_\_\_\_, at 217.

<sup>37</sup> The top 18 capital exporting countries are identified by each comparing each country’s period-averaged “share” of total world FDI outflows, over the period 1970-2003. Over that period, Australia, Austria, Belgium-Luxembourg, Canada, Denmark, Finland, France, Germany, Italy, Japan, Netherlands, Norway, Singapore, Spain, Sweden, Switzerland, United Kingdom, and the United States individually enjoyed period-averaged annual shares of world FDI ranging from 0.4 percent (Austria) to 27.7 percent (USA). Collectively, these countries accounted for anywhere from 99.6 percent of annual worldwide FDI (1970) to 83.6 percent (1993). And when share of FDI outflows is considered on an annual basis, the identity of the top countries remains remarkably stable; only those countries at the very bottom of the ranking, such as Austria, tend to fall in or out of the top 18 in any given year.

<sup>38</sup> M. SORNARAJAH, *THE INTERNATIONAL LAW OF FOREIGN INVESTMENT* 215 n. 32 & 268 (2004).

<sup>39</sup> Beth Simmons, Zachary Elkins, and Andrew Guzman, *Competing for Capital: the Diffusion of Bilateral Investment Treaties, 1960-2000*, INT’L ORGANIZATION (2006) (forthcoming).

<sup>40</sup> See, e.g., Edward Crenshaw, *Foreign Investment as a Dependent Variable: Determinants of Foreign Investment and Capital Penetration in Developing Nations, 1967-1978*. 69 *SOCIAL FORCES* 1169, 1173 (1991).

<sup>41</sup> Neumayer and Spess report results for a model explaining FDI inflows as a share of developing country (rather than world) FDI inflows. However, they report in a footnote that they obtained substantively identical results using world inflows rather than developing country inflows.

---

<sup>42</sup> UNCTAD. BILATERAL INVESTMENT TREATIES IN THE MID-1990S (1998); UNCTAD. BILATERAL INVESTMENT TREATIES 1959-1999. (2001).

<sup>43</sup> It is particularly instructive in this regard to compare the United States' 1959 FCN with Pakistan with the Germany-Pakistan BIT of the same year. The investment-related provisions are virtually identical.

<sup>44</sup> Kristian Skede Gleditsch, *Expanded Trade and GDP Data*. 46 J. CONFLICT RESOLUTION 712 (2002).

<sup>45</sup> Data on natural resource intensity is provided by the World Bank's "green accounting" project, which attempts to measure (or, less generously but probably more accurately, "guesstimate") the sustainability of current development policies. As the World Bank explains on its website,

Adjusted net saving, (also known as genuine saving), is a sustainability indicator building on the concepts of green national accounts. Adjusted net savings measure the true rate of savings in an economy after taking into account investments in human capital, depletion of natural resources and damage caused by pollution.

...

... [E]stimates of the depletion of a variety of natural resources are deducted to reflect the decline in asset values associated with their extraction and harvest. Estimates of resource depletion are based on the calculation of resource rents. An economic rent represents the excess return to a given factor of production. Rents are derived by taking the difference between world prices and the average unit extraction or harvest costs (including a 'normal' return on capital).

<sup>46</sup> WITOLD JERZY HENISZ, POLITICS AND INTERNATIONAL INVESTMENT: MEASURING RISKS AND PROTECTING PROFITS (2002).

<sup>47</sup> <http://www.icrgonline.com/>.

<sup>48</sup> Neumayer and Spess also report separate results for each of these three ICRG components. In the interest of space I report results only for the ICRG composite measure that combines all three. The composite components are, in any event, very highly correlated.

<sup>49</sup> N&S, *supra* note \_\_, at 1582.

<sup>50</sup> Implemented using the -xtgls- command in Stata with the -ro- and -fe- options.

<sup>51</sup> See Helen Shapiro, *Determinants of Firm Entry into the Brazilian Automobile Manufacturing Industry, 1956-1968*. 65 BUS. HIST. REV. 876 (1991).

<sup>52</sup> For a relevant and brief review of the debate in the theoretical economic literature over whether FDI and trade (exports) are complements or substitutes, and some limited empirical evidence that they tend toward the latter, see Michael Pfaffermayr, *Foreign Outward Direct Investment and Exports in Austrian Manufacturing: Substitutes or Complements?* 132 WELTWIRT-SCHAFTLICHES ARCHIV 501 (1996).

<sup>53</sup> Jensen, *supra* note \_\_, at 598; Neumayer & Spess, *supra* note \_\_, at 1574.

<sup>54</sup> Dunning notes that 1975, the "primary product sector" accounted for only 24.5 percent of FDI outflows from the seven largest capital exporting countries; by 1988, figure was just 17.0 percent. JOHN H. DUNNING, MULTINATIONAL ENTERPRISES AND THE GLOBAL ECONOMY 25-6 (1993).

<sup>55</sup> See Jeffrey D. Sachs & Andrew M. Warner, *Natural Resources and Economic Development: The curse of natural resources*, 45 EURO. ECON. REV. 827 (2001).

<sup>56</sup> See Thomas Brambor et al., *Understanding Interaction Models: Improving Empirical Analysis*. 14 POL. ANALYSIS 63 (2005).

<sup>57</sup> See Bear F. Braumoeller, *Hypothesis Testing and Multiplicative Interaction Terms*, 58 INT'L ORG. 807 (2004).

<sup>58</sup> See Thomas Brambor et al., *supra* note 56.

<sup>59</sup> Ninety five percent confidence intervals are relatively demanding, but they are also relatively standard in the literature. We would reach different conclusions about the significance some of the

---

results reported herein if we adopted a more lenient 90 percent confidence interval as the bar that need be cleared.

<sup>60</sup> The median ICRG risk rating for the sample is 17.

<sup>61</sup> Rick L. Williams, *A note on robust variance estimation for cluster-correlated data*. 56 BIOMETRICS 645 (2000) (emphasis added).

<sup>62</sup> A. Colin Cameron et al., “Bootstrap-Based Improvements for Inference with Clustered Errors,” UC-Davis Department of Economics Working Paper # 06-21 at 2, available at [http://www.econ.ucdavis.edu/working\\_paper\\_info.cfm?pid=368](http://www.econ.ucdavis.edu/working_paper_info.cfm?pid=368). The most influential recent reference is Marianne Bertrand et al., *How Much Should We Trust Differences-in-Differences Estimates?* 199 Q. J. ECON. 249-275 (2004).

<sup>63</sup> Gabor Kézdi, “Robust Standard Error Estimation in Fixed-Effects Models.” Working paper available at <http://ideas.repec.org/e/pke76.html>.

<sup>64</sup> Implemented in Stata 9.2 as the command `-iclsr-`, here using the `-ems-` correction for unbalanced panels.

<sup>65</sup> Neumayer & Spess, *supra* note 17, at 1573.

<sup>66</sup> Nathaniel Beck & Jonathan N. Katz, *What To Do (and Not To Do) with Time-Series Cross-Section Data*, 89 AMER. POL. SCIENCE REV. 634 (1995).

<sup>67</sup> Nathaniel Beck & Jonathan N. Katz, *Nuisance vs. Substance: Specifying and Estimating Time-Series-Cross-Section Models*, 6 POL. ANALYSIS 1 (1996).

<sup>68</sup> Luke Keele & Nathan J. Kelly, *Dynamic Models for Dynamic Theories: The Ins and Outs of Lagged Dependent Variables*, 14 POL. ANALYSIS 186 (2006). Keele and Kelly recommend LDV models except where the dependent variable is non-stationary and where the residuals show strong evidence of autocorrelation. A Fisher test (implemented as `-xtfisher-` in Stata) indicates that the FDI share dependent variable is indeed stationary. There is, however, some evidence of first-order autocorrelation of the residuals, but correcting for the autocorrelation produces substantively similar results to those presented here.

<sup>69</sup> Nathaniel Beck, *Time-Series Cross-Section Data: What Have We Learned in the Past Few Years?* 4 ANN. REV. POL. SCIENCE 271, 290 (2001).

<sup>70</sup> The test is implemented as `-xttest3-` in Stata.

<sup>71</sup> The dependent variable in the PCSE model remains in its logged form.

<sup>72</sup> Keele & Kelly, *supra* note 68, at 203.

<sup>73</sup> Debora Spar, “Attracting High Technology Investment: Intel’s Costa Rican Plant”, Foreign Investment Advisory Service Occasional Paper 11 (April 1998), at 9, 14-15.

<sup>74</sup> *Id.* at 22.

<sup>75</sup> Enrico Pennings, “Learning from Foreign Investment by Rival Firms: Theory and Evidence,” Paper presented at the WZB Economics and Politics Seminar Series, Berlin (Sep’t 26, 2005), at 3.

<sup>76</sup> See, e.g., Victor M. Gastanaga et al., *Host Country Reforms and FDI Inflows: How Much Difference do they Make*, 26 WORLD DEVELOPMENT 1299, 1306-1309 (1998).

<sup>77</sup> See, e.g., IAN BROWNLIE, PRINCIPLES OF PUBLIC INTERNATIONAL LAW 582-83 (6<sup>th</sup> ed. 2003). I not aware of any serious evidence that a state’s failure to ratify a signed treaty imposes upon it any significant reputation costs, either in the eyes of investors or other states.

<sup>78</sup> UNCTAD, “Occasional Note: Many BITs Have Yet to Enter into Force”, UNCTAD/WEB/ITE/IIA/2005/10 (2005) at p. 6.

<sup>79</sup> UNCTAD, “Occasional Note: Many BITs Have Yet to Enter into Force”, *supra* note 78, at 4.

<sup>80</sup> Andrew T. Guzman, *Why LDCs Sign Treaties that Hurt Them: Explaining the Popularity of Bilateral Investment Treaties*, 38 VA. J. INT’L L. 639, 644 (1998).

<sup>81</sup> See generally HENRY CATTAN, THE LAW OF OIL CONCESSIONS IN THE MIDDLE EAST AND NORTH AFRICA Ch. VI (1967).

---

<sup>82</sup> For example, Article 9 of Côte d'Ivoire's 1959 investment law requires that all foreign investments benefit from an "establishment agreement" that "will set and guarantee the conditions of operations from which of the approved [foreign] enterprise will benefit." Article 10 of that law provides that "the resolution of disputes resulting from the application of provisions of an establishment agreement and the eventual determination of any indemnity owed because of a breach of engagements undertaken will be governed by an arbitral procedure which will be set out in each agreement."

<sup>83</sup> Wälde, *supra* note 29, at 204-06 (emphasis added).

<sup>84</sup> For example, UNCTAD reports that Peru "has concluded over 400" state-investor contracts, and that the practice of extending substantive and procedural promises to investors through investment-specific agreements "may be increase[ing]". UNCTAD, *Issues related to international agreements: Investor-State disputes and policy implications* 16 n.9, TD/B/COM.2/62.

<sup>85</sup> Fatorous suggests that by the early 1960s, investor-state arbitration clauses were "frequently included in agreements between states and foreign nationals or companies...usually describe[ing] in detail the procedures to be followed in case of dispute." A.A. FATOUROS, *GOVERNMENT GUARANTEES TO FOREIGN INVESTORS* 187 (1962).

<sup>86</sup> European Convention for the Protection of Human Rights and Fundamental Freedoms, Protocol No. 1, Mar. 20, 1952, art. 1, 213 U.N.T.S. 262 ("Every natural or legal person is entitled to the peaceful enjoyment of his possessions. No one shall be deprived of his possessions except in the public interest and subject to the conditions provided for by law and by the general principles of international law"). For a discussion of international cases brought under Protocol 1, Article 1, see Jon A. Staley, *Keeping Big Brother out of Our Backyard: Regulatory Takings as Defined in International Law and Compared to American Fifth Amendment Jurisprudence*, 15 EMORY J. INT'L L. REV. 349, 381-380 (2001).

<sup>87</sup> The OECD Declaration and Decisions on International Investment and Multinational Enterprises commit adhering states to provide national treatment to each other's foreign investors. Mexico, Korea, the Czech and Slovak Republics, Poland, Hungary, and Turkey, all members of the OECD, have signed on, as have a number of non-OECD developing countries, including Argentina, Brazil and Chile. OECD members have also adhered to "codes" of "Liberalisation of Capital Movements" and of "Liberalisation of Current Invisible Operations." The codes "constitute legally binding rules, stipulating progressive, non-discriminatory liberalisation of capital movements, the right of establishment and current invisible transactions (mostly services)." Compliance is encouraged through what the OECD calls "peer pressure exercised through policy reviews and country examinations to encourage unilateral rather than negotiated liberalization." The quote is from the OECD website, [www.oecd.org/document/63/0,2340,en\\_2649\\_34887\\_1826559\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/63/0,2340,en_2649_34887_1826559_1_1_1_1,00.html).

<sup>88</sup> P.T. MUCHLINSKI, *MULTINATIONAL ENTERPRISES AND THE LAW* 514-18 (1995).

<sup>89</sup> See Charles Lipson, *The Development of Expropriation Insurance: The Role of Corporate Preferences and State Initiatives*, 32 INT'L ORG. 351 (1978).

<sup>90</sup> See, e.g., A.A. Fatouros, *The Quest for Legal Security of Foreign Investments, Latest Developments*, 17 RUTGERS L. REV. 257, 268-69 (1963) (discussing the "great number of statutes relating to the regulation and encouragement of foreign investments" that came into effect in the developing world in the early 1960s).

<sup>91</sup> Elizabeth Asiedu & Donald Lien, *Capital Controls and Foreign Direct Investment*, 32 WORLD DEVELOPMENT 479 (2004).

<sup>92</sup> See, e.g., Len J. Trevino et al., *Market Reform and FDI in Latin America: an empirical evaluation*, 11 TRANSNATIONAL CORP. 29 (2002).

<sup>93</sup> The World Bank's privatization database is available at <http://rru.worldbank.org/privatization>.

<sup>94</sup> Nathan M. Jensen, *Democratic Governance and Multinational Corporations: Political Regimes and Inflows of Foreign Direct Investment*, 57 INT'L ORGANIZATION 587 (2003); Quan Li, *Democracy, Autocracy, and Tax Incentives to Foreign Direct Investors: A Cross-National Analysis*, 68 J. POL. 62 (2006).

<sup>95</sup> Li, *supra* note 94, at 64.

---

<sup>96</sup> Implemented as the `-xtserial-` command in Stata.

<sup>97</sup> Rerunning the models using the date of BIT signature rather than the date of entry in force produced results substantively similar to those presented in Models I and II: all BIT variables remained statistically insignificant. Using the date of signature in Model III caused the strong BIT variable to fall out of significance (at just over the 0.10 level); the other BIT variables remained substantively unaffected.

<sup>98</sup> Substituting FDI inflows as a percent of world FDI inflows (FDI share) for the dependent variable in the interactive models caused the reported results to consistently fail to obtain conventional levels of statistical significance across all levels of political risk. In other words, attempting to explain FDI share rather than FDI penetration in an interactive model provides very little, if any, evidence that BITs of any type have statistically significant marginal effects on foreign investment decisions.

<sup>99</sup> See Brambor et al., *supra* note 56.

<sup>100</sup> John K. Ryans, Jr. & James C. Baker, *The International Center for Settlement of Investment Disputes (ICSID)*, 10 J. WORLD TRADE L. 65, 70 (1976).

<sup>101</sup> Freyer D.H., Garfinkel B.H., Gharavi H.G., *Arbitration under Bilateral Investment Teaties: An often overlooked tool*, MEALY'S International Report. May 1998.

<sup>102</sup> See Ann Capling & Kim Richard Nossal, *Blowback: Investor-State Dispute Mechanisms in International Trade Agreements*. 19 GOVERNANCE 151 (2006).