

Do Bilateral Investment Treaties Attract Foreign Direct Investment?

Only a Bit ... and They Could Bite

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Abstract

Touted as an important commitment device that attracts foreign investors, the number of bilateral investment treaties (BITs) ratified by developing countries has grown dramatically. Hallward-Driemeier tests empirically whether BITs have actually had an important role in increasing the foreign direct investment (FDI) flows to signatory countries. While half of OECD FDI into developing countries by 2000 was covered by a BIT, this increase is accounted for by additional country pairs entering into agreements rather than signatory hosts gaining significant additional FDI. The results also indicate that such treaties act more as complements than as substitutes for good institutional quality and local

property rights, the rationale often cited by developing countries for ratifying BITs. The relevance of these findings is heightened not only by the proliferation of such treaties, but by recent high profile legal cases. These cases show that the rights given to foreign investors may not only exceed those enjoyed by domestic investors, but expose policymakers to potentially large-scale liabilities and curtail the feasibility of different reform options. Formalizing relationships and protecting against dynamic inconsistency problems are still important, but the results should caution policymakers to look closely at the terms of agreements.

This paper—a product of Investment Climate, Development Research Group—is part of a larger effort in the group to understand the determinants of productive investment. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Anna Bonfield, room MC3-354, telephone 202-473-1248, fax 202-522-3518, email address abonfield@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The author may be contacted at mhallward@worldbank.org. August 2003. (36 pages)

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Do Bilateral Investment Treaties Attract FDI? Only a bit...and they could bite

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“Even some of NAFTA’s strongest supporters say that clever and creative lawyers in all three countries are rapidly expanding the anti-expropriation clause in unanticipated ways.”
Business Week: April 1, 2002. “The Highest Court You’ve Never Heard Of”

A Canadian trade lawyer gave the following assessment to Parliament regarding NAFTA’s Chapter 11: “They could be putting liquid plutonium in children’s food. If you ban it and the company making it is an American company, you have to pay compensation.”
Bill Moyers in “Trading Democracy”, PBS, Feb. 5, 2002.

“Essentially, we’ve now seen a shift of the use of investment agreements as a shield to using them as a sword against government activity.”
Howard Mann, a lawyer with the International Institute for Sustainable Development, interview with Bill Moyers on “Trading Democracy” for PBS, Feb. 5, 2002.)

“NAFTA was not intended to provide foreign investors with blanket protection from this kind of disappointment, and nothing in its terms so provides.”
Robert Azinian, Kenneth Davitian and Ellen Baca v. The United Mexican States, Award, November 1, 1999, para. 83.

“In these early days of NAFTA arbitration the scope and meaning of the various provisions of Chapter 11 is a matter both of uncertainty and of legitimate public interest.”
Mondev International Lt. v. United States of America, Award, October 11, 2002, para. 159.

As FDI has surged dramatically over the last two decades, more developing countries are competing to host these multinationals. In addition to negotiating firm-specific deals through tax incentives, subsidies etc., countries have increasingly turned to signing bilateral investment treaties (BITs) as a way to entice foreign investors to their shores. Recent years have witnessed an explosion of such treaties. BITs are heralded by their proponents as an important means of attracting new foreign direct investment (FDI). Yet there has been little examination of whether these instruments actual affect the allocation of foreign investment. There has also been remarkably little attention paid to the implications of the strength of the rights bestowed to the investor and obligations assumed by the host country. Recent claims brought under such treaties are only now bringing to

light the potential magnitude of the obligations assumed by the host countries.¹ The potential prospect of large stake litigation makes it all the more important to assess the benefits of entering such agreements. This paper provides an empirical investigation of whether the benefits are being realized, whether a BIT can substitute for weak domestic property rights and whether ratifying it results in a significant increase in FDI.

A BIT could help attract investment by serving as a commitment device. It is hypothesized that countries with weak domestic property rights can increase their attractiveness as a potential host by explicitly committing themselves to honoring the property rights of foreign investors. In particular, a BIT could be a commitment device to overcome dynamic inconsistency problems. Hosts would have an incentive to make those promises necessary to bring investors in, but once the sunk costs are made, the host then has the incentive to deliver only to the level that will keep the investor from leaving². The presence of the BIT, with its dispute resolution mechanisms and provisions for compensation in the case of expropriation, guard against host country actions that would adversely impact the profitability of the investment.

The importance of property rights, and the quality of domestic institutions more broadly, have been recognized in studies on growth and investment (see Kaufmann, Kraay, Loido-Zobiton (1999); Acemoglu, Johnson, and Robinson (2001); Stein and Daude (2001),

¹ In *CME Ltd. v. Czech Republic*, an award of \$350 million was handed down; an amount that will stand as Czech Republic's appeal of the award was rejected by the Swedish Court of Appeal in May 2003. A claim for \$450,000 in the case of *The Loewen Group v. The United States of America* was just dismissed on jurisdictional grounds after the Loewen Group was acquired by a US interest after bankruptcy proceedings – and after over four years in the arbitration process and a long, public debate on the merits of the case. Another high profile case arising under NAFTA is still pending, with claimants seeking \$950 million in the case of *Methanex v. The United States*. Of course, even if the tribunals find in favor of the claimants, the size of the award will not necessarily be at the level the claimants seek, but clearly the sums involved are substantial. Non-fiduciary costs can also be substantial; for example, if certain proposals for reform are abandoned for fear of legal action. For more information on recent high profile cases, please see the appendix.

² With the proliferation of BITs, another motivation for signing the treaty is the fear they the potential host will not be competitive as a location if they do not also offer similar protections.

Dollar and Kraay (2002); Rodrik, Subramanian, and Trebbi (2002); Hallward-Driemeier (2002)). Investors care about the likelihood that they will be able to earn - and control - a return on their investment. The existing studies have tested for the effect of property rights using differences across countries at a given period in time. The measurement of the quality of property rights (or institutions) are based on qualitative assessments and do not vary too much over time. Turning the focus to BITs has some advantages to these earlier approaches. First, the effect of ratifying of a BIT provides a more specific test of the importance of property rights per se. Second, it also relies on changes over time rather than variations in the cross-section. Using time-series variation regarding a distinct change in the property rights of a group of investors provides a more direct test of whether this significantly affects investment.

While it should be recognized that a BIT could be an important commitment device, the nature of the commitment can vary enormously depending on the terms of the BIT. Too much attention has been placed on whether or not a BIT exists than on the strength of the property rights actually being enshrined in these agreements. To date there is no discussion in the economic literature of whether the strength of the rights enshrined in a BIT would provide adverse incentives to potential investors or provide insurance well beyond what domestic investors enjoy or that foreign investors would require to enter – with consequences that could potentially have enormous impact on the feasible policy choices available to host governments. Such concerns have begun to be debated within legal circles³, largely stemming from recent arbitration decisions and new cases of how rights in

³ The issue is gaining some attention among legal scholars, but with the focus on the US and Canada; eg. NAFTA's regulatory takings is analyzed relative to the property rights protected in the Fifth Amendment of the U.S. Constitution, see Vicky Been (NYU Law Review, forthcoming).

BITs are being exercised against the US and Canada.⁴ This paper uses these cases to help motivate the issue more broadly and takes the perspective of developing countries that represent the vast majority of host signatories of BITs.

What is a BIT?

BITs vary across countries, but they generally share similar features of defining foreign investment and laying out various principles regarding treatment, transfer of funds, expropriation and mechanisms for dispute settlements. As the central piece of a BIT is the assurance it gives investors regarding their property rights, it is important to look more closely at what these rights are. Examining the language and growing legal caseload, it is clear not only do foreign investors secure additional property rights, but that the rights could be more substantial than many had anticipated.

One common clause included in many BITs gives the investor the right to sue the host government if actions undertaken by the government are deemed to substantially expropriate the business of the firm. Two points should be highlighted. The first is that this right of an individual investor to sue the government is in itself an expansion of investor rights. In most cases, the government can claim sovereign immunity, leaving little recourse in the legal system. The remaining alternative is to seek the assistance of the

⁴ The most high profile examples involve disputes between the signatories of NAFTA. While NAFTA is not strictly a bilateral treaty, its Chapter 11 has language common to many BITs and highlights a number of relevant issues that apply more broadly to BITs' signatories. Some of the cases under consideration demonstrate some of the unintended consequences of language commonly found in BITs that raises the distinct possibility that BITs can constrain policy choices on a broad set of issues from health to the environment and open governments to substantial liabilities. For a brief description of some of the recent cases, please see the Appendix.

It should also be noted that some of the current cases that are grabbing media attention (e.g. Methanex's suit against the US for \$970 million due to California's ban of MTBE) have not been settled. It is possible that as more cases are decided the prospect of expansive regulatory takings claims will not be upheld. However, that such a case is in arbitration indicates that large suits that could limit feasible policy choices are at least a distinct possibility.

investors' own home government in gaining diplomatic protection. This may not be granted and makes the entire process a political one. Instead, with the investment treaty, the host government consents to a standing offer to arbitrate disputes covered by the treaty.

The second point is the definition of what is deemed expropriation. BITs outline those terms under which expropriation could be deemed lawful and compensation would be due. The exact wording of such clauses varies by signatory countries, but there is broad agreement on the thrust of the terms. Property can only be legally expropriated if it is for a public purpose; is done in a non-discriminatory way; compensation is paid; and the expropriation is done in accordance with due process of law. Of these conditions, the one with the largest consequences is the compensation clause. That there be some requirement for compensation is not controversial. What can be are the terms of the compensation. Standards include "prompt, adequate and effective" or "payment of full value" or "just compensation". This has been interpreted to mean the market value of the investment immediately prior to the expropriation being made public. Some statements are explicit (e.g. "the purpose of which shall be to place the investor in the same financial position as that in which the investor would have been if the expropriation or nationalization had not taken place." China-Sweden BIT) while others leave the terms rather vague, creating challenges for courts and policy makers as they try to assess the impact of the BIT.

The nationalizations that peaked in the 1970s provided many clear-cut cases of expropriation. Of greater concern more recently are "indirect expropriations," "creeping" expropriation or "regulatory takings" and whether they amount to a taking requiring compensation. These newer provisions on expropriation typically apply to actions by a country that "substantially impair the value of an investment." There is no requirement that

it be an isolated event or even that the country try to take ownership of the investment. Many BITs expressly state that expropriations include measures “tantamount” or “equivalent” to expropriation, or actions that would substantially impair the value of the investment.⁵

Rather than bringing the case in local courts (the quality and speed of which the foreign investors may not like) or seeking diplomatic protection, BITs usually specify dispute resolution mechanisms. One of the more popular options is to submit to binding arbitration through the ICSID (International Centre for Settlement of Investment Disputes), an affiliate agency of the World Bank. Two others for are the International Chamber of Commerce and UNICTRAL (United Nations Commission on International Trade Law). In these arbitration proceedings, three arbiters are selected – generally with each party selecting one and the forum selecting the third. These proceedings are not bound by precedents, are not necessarily obliged to be open to the public⁶, or to publish final decisions. The decisions have only limited avenues for appeal and cannot be amended by the domestic legal system or supreme court. The nature of the dispute resolution procedures can provide a great deal of leeway in how cases will be decided – with critics pointing out the danger that they could encourage investors to pursue their case even if the merits are not all that strong.

While expropriation cases have arisen from BITs over time, the caseload has been relatively small. In the last few years the numbers have jumped substantially. Having settled about 60 cases in four decades, ICSID now has over 40 cases currently pending.

⁵ E.g. BIT between Japan and Egypt, Article V: “expropriation, nationalization, restriction or any other measures, the effects of which would be tantamount to expropriation, nationalization or restriction.” France and Pakistan, Article 5: “measures of expropriation, nationalization or any other measures the effect of which would be direct or indirect dispossession” of an investment. See UNCTAD 1998, Chapter III for more detailed discussion of the provisions included in BITs.

⁶ Some countries do make documents available to the public. For example, the United States’ Freedom of Information Act mandates that documents be made available. However, this is not necessarily so for all countries.

The increase in cases is partly a function of the increased number of BITs, and may also be a function of the publicity generated by cases brought under NAFTA's Chapter 11.

Critics worry that MNCs will use the provisions on regulatory takings and compensation as insurance against many risks the firms would otherwise have assumed themselves as part of the normal process of establishing and running a business. The terms of the treaty can be seen as giving them essentially a property right in those regulations that affect their profitability remaining as they are – and that if that gamble turns out to be wrong, that they could be entitled to earn those profits anyway.⁷ How broadly the regulatory takings provision will be applied is still not determined, but the language of the treaty still offers greater property protection than is enjoyed by domestic investors. (Been 2003).

As the potential for legal recourse under BITs becomes more widely known, the importance of BITs in selecting a location may become more important, and could lead to problems of moral hazard and adverse selection. If investors believe there is a chance for successful litigation against the host government and that they are then protected from substantial amounts of risk, firms may work less hard to make their firm a success or may be attracted to locations where their legal case could be made most strongly rather than for economic reasons. Those firms most likely to enter could be those most keen to pursue all legal recourses should the opportunity arise. Such cases may be rare, but the size of the

⁷ In addition to the size of the awards and the constraints placed on policymakers, some American critics are concerned that Chapter Eleven is causing an "end run" around the constitution and are decidedly anti-democratic – the terms and consequences of Chapter Eleven were never publicized or debated prior to signing; that there is no room for public comment or even public scrutiny of the arbitration procedures; and limited mechanisms for appeal. Bill Moyers ran a special on PBS entitled "Trading Democracy" (Feb. 5, 2002), calling Chapter 11 the "Trojan horse of NAFTA" and "the system of secret tribunals "a private court for capital"". A similar theme was sounded by Business Week in "The Highest Court You've Never Heard Of" (Business Week: April 1, 2002); that decisions with widespread impact are and will be made by arbitration panels behind closed doors with no public accountability or recourse to the court system.

claims in existing cases is large enough that negotiators should be careful in defining the terms surrounding expropriation and compensation clauses in future BITs or such agreements as the proposed expanded Free Trade Area of the Americas.

The Azinian case provides an interesting example. On the one hand, the decision explicitly warns against the treaty being seen as a recourse against any poor outcome.

A foreign investor entitled in principle to protection under NAFTA may enter into contractual relations with a public authority and may suffer a breach by that authority, and *still not be in a position to state a claim under NAFTA*. It is a fact of life everywhere that individuals may be disappointed in their dealings with public authorities, and disappointed yet again when national courts reject their complaints...NAFTA was not intended to provide foreign investors with blanket protection from this kind of disappointment, and nothing it is terms so provides.(Azinian and others v. The United Mexican States, Award, November 1,1999, para. 83)

On the other hand, given the facts of the case (some claims are dismissed as “preposterous”, p. 7), that the claimants even brought the case illustrates that they felt the treaty did give them a real possibility for relief.

It should be noted that the rights secured in a BIT are reciprocal; investors from country A investing in B are the same as those given to investors from country B investing in country A. However, in practice there is usually tremendous asymmetry as almost all the FDI flows covered by BITs are in fact in one direction.⁸ It is precisely those cases where FDI flows in substantial amounts in both directions that countries have balked at ratifying BITs. It is striking that there is a dearth of such agreements between rich OECD countries. Rich OECD countries do participate in BITs, but almost exclusively with developing countries. It could be that in such a case there is not seen to be a need for a BIT to stimulate investment as it is already substantial. Or, while OECD governments are keen to

⁸ There are at least two cases, of the 120, filed before ICSID where the plaintiff is a developing country and the defendant a developed country.

secure such rights for their companies overseas, they balk at granting such rights to MNCs within their own borders.

Trends in BITs

The first BIT was ratified in 1959. Since then, the number of BITs has increased steadily through the 1980s. In the 1990s, the number boomed. In 1990 there were 470 treaties, by 2000 there were close to 2000 BITs (see figure 1). Almost all the earlier treaties were ratified between rich OECD countries and developing countries (see figure 2). With the fall of the Berlin Wall and the new former-Soviet republics, many East European countries ratified treaties – with the OECD and with developing countries. The biggest rise more recently is the signing of BITs between developing countries.

By 2000, half of all FDI flows from the OECD to developing countries were covered by a BIT. What is being tested in this paper is whether this increase is simply due to the increased country coverage – or whether FDI flows are diverted to destinations covered by investment treaties. Clearly, a BIT is not a necessary condition to receive FDI. There are many source-host pairs with substantial FDI that do not have a BIT. Japan, the second largest source of FDI has only concluded 4 BITs. The US does not have a BIT with China, its largest developing country destination. Brazil, one of the top receivers of FDI has not ratified a single BIT. In addition, there are also numerous examples of countries that have concluded many BITs and yet have received only moderate inflows. Sub-Saharan Africa, for instance, has had difficulties in attracting FDI, though it has tried to improve the environment for FDI by entering into various agreements to protect the interests of investors. There are also examples such as Cuba, where it does not have a BIT with either

Canada or Mexico, its two biggest foreign investors. On the contrary, almost 60% of the countries it does have a BIT with actually have no foreign investment in Cuba. (Perez-Lopez et.al.)

Other studies

There is a growing literature on the importance of institutions and property rights. Most has been focused on the effects on long run growth rather than on FDI. (Knack and Keefer (1995), Acemoglu, Johnson, and Robinson (2001); Dollar and Kraay (2002); Rodrik, Subramanian, and Trebbi (2002)). Daude and Stein (1995) do look at the effect of institutions on FDI in a cross-section of both developed and developing countries, finding a large effect of institutions in attracting FDI. Hallward-Driemeier (2002) looks at the effect of institutions on the allocation of FDI among developing countries using panel data and finds a weaker effect. These studies use broad measures of property rights, using either ICRG rankings or the Kaufmann, Kraay, Zoido-Lobaton (KKZ) indicator. The advantage of this study is to look at clear cases where property rights are explicitly strengthened to determine their importance.

There are a couple of papers that have looked at other bilateral arrangements and their implications for FDI. Blonigen and Davies (2000) look at the role of tax treaties. Here there is a larger literature. They find that contrary to expectations, tax treaties can discourage FDI, arguing that they can be used as devices to reduce tax evasion and not just tools to simplify tax filings and avoid double taxation. Yeyati, Stein and Daude (2002) look at the role of regional integration and the location of FDI, testing whether greater

access to larger markets attracts FDI. While they are almost exclusively looking at intra-OECD FDI flows, they find an important effect of trade agreements and FDI.

The role of BITs has received some discussion in law journals. There the focus has again been on the issue of providing a commitment device to overcome the dynamic inconsistency problem (Vandevelde 1998) or the strategic concerns potential signatories face as other countries also consider signing such agreements (Guzman 1998). The question of whether the treaties actually do affect investment is not addressed.

Within the economic literature, BITs have generated very little attention. UNCTAD (1998) sponsored one of the few analyses. It studied the impact of 200 BITs on bilateral FDI data, examining years prior to and after their conclusion. It found a weak correlation between the signing of BITs and changes in FDI flows, but used minimal control variables in generating this result and did not control for the strong upward trend in FDI over time. Their cross-section analysis of 133 host countries in 1995 concluded that BITs do not play a primary role in increasing FDI, and that a larger number of BITs ratified by a host country would not necessarily bring higher inflows. While this cross sectional result is interesting, the more rigorous test is to examine the impact of an investment treaty over time. This study looks at a panel dataset of bilateral FDI flows, augments the control variables included and addresses a number of econometric issues not examined in UNCTAD's earlier work.

Data

This paper focuses on the importance of BITs for FDI outflows from OECD countries to developing country hosts. This is because almost all but the most recent BITs

are ratified between OECD countries and developing countries. Also, the vast majority of FDI inflows into developing countries originate from OECD countries. As the rationale for a host to ratify a BITs is most applicable for developing countries where property rights are generally weaker than in OECD countries, this focus facilitates the testing of the hypothesis that the strengthening of property rights significantly affects FDI flows.

The paper uses bilateral FDI outflows from 20 OECD countries to 31 developing countries⁹. It covers the years of 1980 to 2000, capturing the surge in the number of BITs ratified. The OECD is the source of over 85 percent of FDI flows to developing countries, so this paper covers the vast majority of FDI to developing countries and to FDI covered by BITs.

With the increase in the number of BITs, the share of FDI to developing countries that is now covered by a treaty has grown tremendously. In 1980, the share of FDI under a treaty was less than 5%, while by 2000, it had grown to about 50% (see figure 4). However, this increase in FDI by countries with a BIT is largely explained by compositional shifts; as more country pairs ratify treaties, the amount of FDI flows covered increases. What remains to be seen is if the flow between host-source pairs changes significantly with the ratifying of a treaty.

In addition to information on the date of ratification of BITs¹⁰, the regressions control for the size of the source country, the size of the host country, the GDP per capita of the host country, the host country's macroeconomic stability (proxied by its inflation rate),

⁹ Eight other OECD countries, particularly those that more recently joined the OECD, do not report their FDI outflows and so are not included.

¹⁰ UNCTAD publishes both the date of signing of BITs and the date it was ratified. The distinction is important as the treaty only goes into effect once it is ratified – and there are several cases where ‘signed’ treaties have never been ratified (e.g. Brazil has signed 13 BITs, but not ratified a single one). The paper uses the date of ratification of the BIT in all the empirical work.

its openness to trade (trade over GDP) and the gap in average years of education between the source and host pairs. These data come from the World Bank's World Development Indicators, and the education variables from Barro and Lee. Different specifications were tested and these were the most consistent explanatory variables and are similar to those used in the location choice literature for MNCs. Recognizing that there could be other important time-invariant characteristics that are unobserved, the regressions are all run using fixed effects.¹¹

Two dummy variables are also included. A dummy is included to capture the effects of the enormous political and economic changes in Eastern Europe and the former Soviet Union in the 1990s relative to the 1980s. A number of these countries ratified BITs in the early 1990s, so the lack of a dummy could bias upwards the importance of the BIT that rightly was due to the regime shifts. Another dummy is added for the ratifying of NAFTA. NAFTA is not strictly a bilateral investment treaty, but it shares similar language and so is included in the measure of investment treaties. However, unlike a BIT, the treaty was largely a trade agreement, one that made Mexico a more attractive destination for investment as an export platform to the US and Canada. Again, not controlling for the broader economic change would bias upwards the importance of a BIT that is really due to changes in trade policy.

¹¹ To check for robustness, the regressions were also run using host and source dummies and including host-source pair information on distance, colonial ties, shared language etc. These geographic and political variables were strongly significant. The rest of the results were not significantly different from the fixed effects estimator and so both sets are not reported here.

Hypotheses

The importance of ratifying a BIT is tested for in a number of ways. What is of interest is the change in property rights introduced with the BIT. Thus, the tests rely on the variation over time rather than across countries. Including source-host pair fixed effects not only controls for other unobserved characteristics that could affect bilateral investment flows, it means that the significance of the BIT is only identified on changes over time.¹² First, a dummy is included in a panel regression that takes the value of 1 once a BIT has been ratified between a pair of source-host countries. The significance of the coefficient on this variable is then be a test of the importance of the treaty.¹³

Related, is a test looking at the time horizon over which a BIT might attract additional FDI. One possibility is that there would be a window after the ratifying when FDI might increase. Some investors might delay their investment prior to the ratification, so that there would be short spike with the ratification. Or, the publicity of the treaty could spark additional investment in the immediate period after the ratification. Dummy variables capturing the three years post ratification is included to test for the importance of a window. A related test is looking at a reduced sample of those countries that did ratify treaties during the sample period and comparing the average FDI in the 3 year period after a ratification with the average FDI inflow in the 3 year period prior to the treaty. A third

¹² The regressions were also run using separate source and host country fixed effects and including various source-host controls such as distance, common language, common border, and colonial links. The results are qualitatively the same.

¹³ This paper does treat all BITs equally, when in fact there are some differences between them. The general point that BITs strengthen property rights holds across all of them. It is possible that there would be more of an effect if one looked only at those treaties with the strongest investor protections. Given this would require reading and devising an index measure of several hundred BITs, it is beyond the scope of this paper. However, if BITs are acting as a substitute for property rights, one would expect that the stronger clauses would be included in treaties with countries that have lower domestic property rights. That there is no evidence that these countries receive additional FDI after signing a BIT would indicate that the effort to classify individual BIT terms is unlikely to be fruitful.

approach is to include a series of dummies, for the year of ratification, and each of the 5 years prior to ratification and post ratification to see if there are consistent patterns across country pairs. Including dummies on the years leading up to the ratification would also test for whether treaties came after increases in FDI. The results to all three tests are consistent, so only the third extension is reported.

The hypotheses are tested using both the level of FDI received, and the amount of FDI normalized by the host country's GDP. While the overall patterns would be expected to be similar, a few differences should be noted. It is well known that FDI to developing countries is concentrated in a few markets. However, these markets are large. If instead one looks at FDI/GDP, the ratios demonstrate much less variance than the levels. Also, the top recipients of levels of GDP are not among the top receivers once one looks at the ratio. In fact, a number of small countries have a higher ratio. Particularly as investment can be lumpy, a few large investment projects can represent a significant portion of a small economy.

One difficulty with these approaches is that FDI level rose substantially during this period. So dummies that are 1s for the later period will be significant in part due to the trend in FDI. Adding a trend term can capture this. But another test is also developed.

Regressing the level of FDI and the ratio of FDI to GDP address whether BITs increase the amount of FDI. A related question is whether BITs simply shift the destinations of the FDI among developing countries. To address this question, the amount of FDI a host receives is normalized by the total amount of FDI outflows from that source. Thus, the share of source X's FDI to host Y is the dependent variable. The question is then

whether the host receives a large share of X's FDI with the conclusion of an investment treaty.

BITs are often justified by the developing country as a signal that they will protect the property rights of the foreign investor, thereby strengthening their investment climate. However, the credibility of this signal will be affected by the degree of corruption and the quality of the legal system of the host country. The existence of a BIT is thus interacted with the quality of the legal system and the extent of corruption to see if BITs' signal is only valuable within a country with a certain level of overall property rights.

Econometric Concerns:

It is possible that there is reverse causation: that the existence of extensive FDI flows means the source country has a larger incentive to conclude a BIT with the host country. Thus it is possible that FDI flows increase in the period prior to or concurrent with the ratifying of a BIT. This would imply there is a positive feedback from FDI to the probability that a BIT is ratified. On the other hand, it is also possible that hosts that do not receive much FDI would be interested to sign as a way of increasing FDI – if this is correct, one would expect a negative feedback from FDI to the presence of a BIT. Which story dominates is an empirical question.

This potential endogeneity of a BIT is addressed with the use of instrumental variables. The instrument used is the number of other BITs a host has entered into with countries other than the source country being considered. The willingness of a host to ratify a BIT, as measured by the number of outside BITs, should be correlated with the probability it signs with this particular host country, but shouldn't affect the amount of FDI

that particular source country would send. Thus, when US investors are considering investing in India, their decision would not be affected by whether India has ratified treaties with the UK or France. However, that India has entered other treaties would be expected to influence their willingness to enter such a treaty with the US.¹⁴

One of the shortcomings of the data is that a great number of cells are left blank. The data comes from the source country, but they do not necessarily report all the FDI to each of the host countries. Thus, it is difficult to know if the blank represents a zero and simply a non-reported number. What is clear, however, is that the true value of the blank cells is less than the values that are reported. To deal with this issue, regressions are reported only using the data that is published. In addition, a number of rules were used to fill-in in blanks with 0s. Regressions were run using the different rules for missing values. The results remained consistent, so what is also reported is the more expansive inclusion of zeros. Blanks were filled in a) only for years after a source began reporting (i.e. some don't until 1985); and b) if at least five other values are reported for that source for that year (i.e. The UK did not report any amounts in 1984, so none of these values were filled in as 0s). Following these rules result in almost a doubling of the sample. It should be noted that a

¹⁴ It is possible that a US MNC with a French subsidiary could invest in India via its French subsidiary rather than directly from the parent company so as to have the Indian plant covered by a BIT. The widespread use of such a practice would undermine the validity of the instrument. However, this possibility is one that is safeguarded against in most BITs. Not wanting to extend rights to investors that have only weak or tenuous links to the treaty partners, standards of nationality are spelled out in the treaties. These include "substantial ownership", "ability to exercise decisive control", "principle place of business" in addition to the location of incorporation. (UNCTAD, pp.39-41) Furthermore, as a practical matter, if there were such flows they would be expected to bolster a finding that BITs attract FDI (which we don't find in the data) and the actual correlation between FDI flows and the number of treaties the host has signed with other countries is 0.03 -- whereas if the diversion of funds through third countries were common, the presence of additional alternative channels would then be expected to be negatively associated with FDI flows.

number of source-host pairs only have 0s (e.g. New Zealand – Czech Republic, Portugal-Thailand etc.) and some of these pairs have BITs, although others do not.¹⁵

Results:

Column (1) reports the findings using the level of FDI for all the reported bilateral pairs using a fixed effects estimator to control for time invariant host, source and host-source effects. Column (2) repeats the regression, using the augmented series that fills in missing amounts with zeros as discussed above. Including the additional zeros nearly doubles the sample size, has little impact on the qualitative results while increasing the significance of the findings.

The effect of the control variables are robust and of the expected sign. The larger the source country and the larger the host country, the larger the FDI flow. Flows are also higher to richer host countries. Macroeconomic instability discourages FDI. A host's trade openness could be ambiguous if source countries are looking to jump tariffs. The negative finding would be consistent with that, but a more plausible explanation is that trade to GDP ratios are often higher for small countries so that this measure is likely further evidence that larger FDI flows go to larger countries. The NAFTA dummy is large and significant, capturing the increase in FDI to Mexico with the implementation of this free trade deal. This is one of the few strong pieces of evidence that an investment treaty could stimulate investment – but, as it is tied to a trade agreement with the world's largest market, it is hard to disentangle which effect really dominates.

¹⁵ Another way to deal with the cutoff is to treat the sample as a truncated one; to replace the 0 and negative observations with the lowest positive value in the dataset and estimate the regressions with a Tobit specification. The drawback with this approach is that fixed effects cannot be incorporated, nor can instruments. And the information on known negative flows is lost. It turns out that there are a significant number of negative flows between pairs with a treaty and that losing this information influences the results.

The coefficient on the BIT treaty is negative and not significant. Breaking down the effect of a BIT over the years preceding and following the ratification of a treaty (column 3) illustrates that there is little positive association for a 10 year window. Only in year 5 after the ratification is there a positive (and extremely weak) association.

Controlling for the possible endogeneity of the decision to enter a BIT, columns 4 and 5 present the results from the IV estimation. The instrument is the number of BITs the host has entered into with other countries, a number positively correlated with the probability it enters a BIT with the source, but should not be affecting the amount of FDI received from that source country. The results lead to a significant negative finding on the impact of ratifying a BIT. Assuming the instrument is valid, this implies there would otherwise be a positive feedback from larger investment flows encouraging the ratification of a BIT. Including the 'missing 0s' still leads to a negative finding of a BIT, with the coefficient falling corroborating the inference of the positive feedback in the non-IV regressions.

The same set of regressions was repeated, this time looking at the ratio of FDI to host GDP (see Table 2). This normalization, however, leads to somewhat different interpretations. While larger countries get more FDI in absolute numbers, the ratio of FDI to GDP is highest for smaller countries. Now, the size of the source country is not significant and the size of the host is negative. Controlling for size, richer hosts do receive more however. In these regressions the impact of a BIT is totally insignificant, even when instrumented for. Looking at the window around the ratification, there is weak evidence that the ratio of FDI/GDP rises – or at least loses the negative values pre the date of ratification.

A final set of regressions looks at the FDI going to a particular host country as a share of the total FDI the source country sends. The results are reported in Table 3. Larger host countries do not necessarily get a larger share, although more developed ones do. Here one gets the one significant positive result that a BIT could increase FDI (column 2). However, the result seems to come from the period 5 or more years after ratifying the treaty. And, instrumenting for the ratification of the treaty reverses the sign on this coefficient.

While these findings suggest that BITs do not serve to attract additional FDI, it is possible that this is due to its being obscured by other changes that are occurring between the two signatories over time. Such changes could include: lowering trade barriers, increased knowledge of conducting business in the host country, following customers abroad etc. However, these changes would likely work to increase the likelihood of investing overseas, so if the BIT variable is capturing some these effects, one would expect it to bias up the coefficient. One possible change that could work in the other direction is the ratification of a tax treaty. Blonigen and Davis (2002) find that the signing of a tax treaty could reduce FDI and if a tax treaty is entered into at the same time as BIT, this could weaken the observed effect of the BIT. However their result stems from intra-OECD FDI flows; it is not clear whether their result would extend to OECD FDI into developing countries, particularly when so many now enjoy various degrees of tax holidays. Nor is there much evidence that tax treaties and BITs are entered to at the same time.

Table 4 – 6 report the results from testing the hypothesis that the quality of domestic institutions may be important in determining the effectiveness of a BIT in attracting FDI. One possibility is that it will be more effective in weak institutional settings, acting as a

substitute for a strong domestic protection of property rights. On the other hand, it may be that a certain level of institutional capacity is needed before the BIT is seen as credible. A positive interaction term on institutional quality and the ratification of a BIT would favor the latter interpretation. The results show either no effect, or a positive interaction. Table 4, columns 1, 2, and 3 report the results from the KKZ measure of the rule of law using the level of FDI, its share in GDP and the share of the source country's FDI the host receives. The effect is insignificant for the level of FDI and the share of the source country's FDI. However, it is significantly positive for the ratio of FDI to GDP. To test for the importance of institutions more broadly, other KKZ governance measures were used. Table 4 also reports the results for corruption and Table 5 for regulatory quality and government effectiveness. These measures also provide evidence of a positive interaction; that a BIT complements rather than substitutes for strong domestic institutions. In addition, for the interaction to offset the negative impact of the BIT, the quality of institutions would have to be strong – for example, at the level of Chile. Table 6 repeats the regressions using the ICRG measures of law and order and corruption. These measures include time variation in the quality of institutions. With country dummies included, it captures the effect of changes in institutional quality. For the ICRG measures, the interaction term is again strongly positive and significant. Thus, the evidence suggests that BITs are more, rather than less, effective in settings of higher institutional quality and where institutions are already being strengthened. This undermines a central rationale for some of the less developed countries that enter into these agreements hoping to bypass the need to strengthen property rights and institutions more generally. Put differently, if host countries are committed to trying to

attract more FDI, BITs have not provided a short-cut from the need to implement broader reforms of domestic institutions.

Conclusion

Recent and pending cases of international investment disputes covered by investment treaties have raised concerns of the potential costs to host governments – both in terms of the size of potential awards and in the possible reduction of viable choices open to policy makers due to their adverse effects on foreign investors. Critics speculate that these cases will serve to encourage firms to look for ways to exploit the terms of the treaty as a lucrative way of doing business, seeking compensation for risks that they had not previously expected to be protected from. Given the increasing concern about the potential and often unanticipated costs of BITs, it is all the more important to examine whether BITs are delivering their expected benefits. If so, policy makers have the task of weighing the benefits and potential costs against in other. However, if there is little apparent benefit, the case to ratify new agreements – at least under terms that are extremely favorable to the investor – is harder to make. It is not that formalization of relations and treaties that protect against dynamic inconsistency problems should not be encouraged, just that the terms of these agreements and the strength of the rights given to investors should be scrutinized.

Analyzing twenty years of bilateral FDI flows from the OECD to developing countries finds little evidence that BITs have stimulated additional investment. Those countries with weak domestic institutions, including protection of property, have not gotten significant additional benefits; a BIT has not acted as a substitute for broader domestic reform. Rather, those countries that are reforming and already have reasonably strong

domestic institutions are most likely to gain from ratifying a treaty. That BITs act as more of a complement than a substitute for domestic institutions means that those that are benefiting from them are arguably the least in need of a BIT to signal the quality of their property rights.

It is possible that in a few years a different result will emerge. The publicity surrounding the investor protection cases being brought under NAFTA's Chapter 11 and the cases being brought against Argentina as it dissolved its currency board, may make potential investors more aware of the potential gains they would have under a BIT and insist on such terms. On the other, policymakers may take greater care to refine the expropriation and compensation clauses to ensure the worst fears of the critics are not realized, bringing closer together the relative costs and benefits of BITs.

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APPENDIX

Recent cases on compensation of expropriation, highlighting regulatory takings

Most of the recent publicized cases have arisen under NAFTA's Chapter 11. While not strictly a bilateral agreement, the terms are the same as those used in many BITs. And the cases below illustrate the types of obligations other signatory host countries could face. While cases like these have been brought by OECD multinationals in developing countries before, these are some of the first cases where MNCs have sued rich OECD host governments. The outcomes add insight into why OECD governments have refused to enter into other agreements that would give such rights to foreign companies operating in their borders, at the same time as wanting such rights for their own MNCs overseas. It should be noted that these cases have not all been settled and the prospect of expansive regulatory takings claims may not be upheld. Even so, the size of the suits and the potential constraints on policy choices should give host country signatories pause over the precise nature of the terms they agree to.

Concerned about the possible health risks associated with a gasoline additive, MMT, Canada considered banning it (it was already effectively banned in the US). Ethyl Corporation, an American company and the sole supplier of MMT in Canada, filed the first Chapter Eleven case. After instating a ban, Canada's parliament then reversed course, lifting the ban and paying Ethyl \$13 million for damages incurred during the time the ban was in place. Avoiding the \$200 million suit was not the only consideration, but it was widely discussed in the deliberations of the issue.

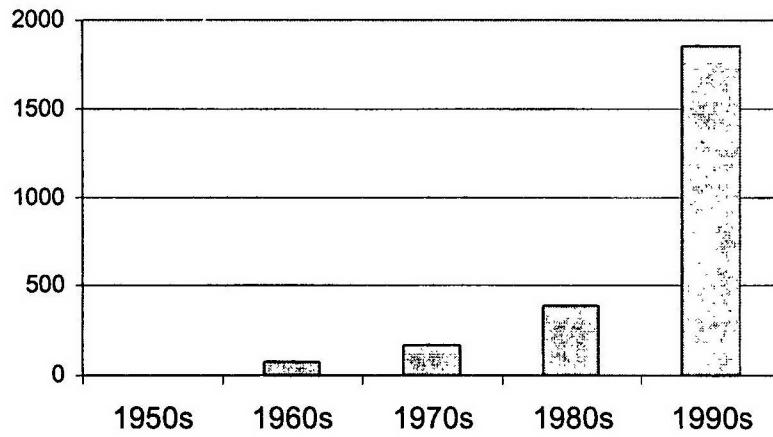
The threat of another lawsuit also served to thwart a proposed health reform bill in Canada. Canada was proposing to increase the warnings on cigarette packaging. RJReynolds and other tobacco firms threatened a lawsuit and the reform measure was dropped. Since the signing of NAFTA, only two new environmental regulations have been considered in Canada – and both have been challenged under Chapter Eleven.

In the US, there is a case pending that will be extremely influential in determining the scope of such claims. The case regards another gasoline additive, MTBE. Originally hailed as a means of improving air quality by enabling gas to burn more cleanly, it has since been discovered to have tainted the water supply and has been linked to cancer in laboratory animals. California decided in 1999 to ban the additive. Its maker, Methanex, a Canadian corporation is suing for \$970 million in lost profits.

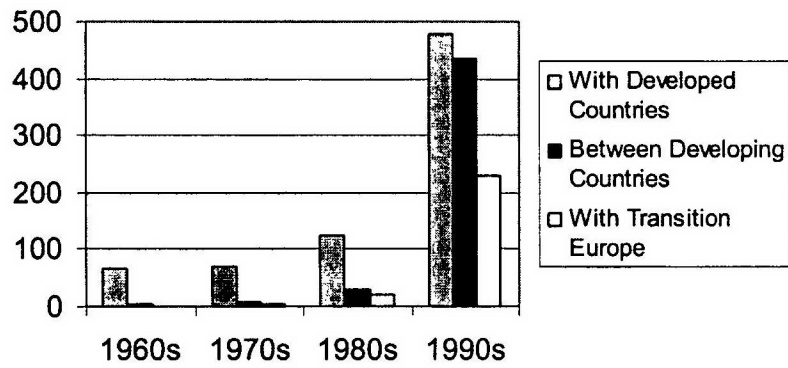
Another high profile case was just resolved. The case involved the Loewen Group, a Canadian funerary home company. A Mississippi competitor had successfully brought Loewen Group to court on antitrust violations. Loewen group settled the case, agreeing to pay \$150 million. Four years later, it sued the US government claiming that it had been denied due process in the Mississippi courts (part of their claim is based on instructions and comments made to the jury that were characterized as anti-foreign and racially biased.) – and is sought close to \$500 million in compensation. The case was registered four years ago and was just dismissed on jurisdictional grounds as the Loewen group had been bought by a US interest.

Another case that generated a lot of attention in the press is that of Metalclad, a US waste disposal company that attempted to set up facilities in Mexico. Despite federal government assurances, local officials denied a building permit due to failures to clean up waste that was entering the water table and due to intense protest from local residents. Metalclad sued and was awarded \$16 million – a sum that had been reduced from the original amount sought due to the determination that expected profits would not have been that high.

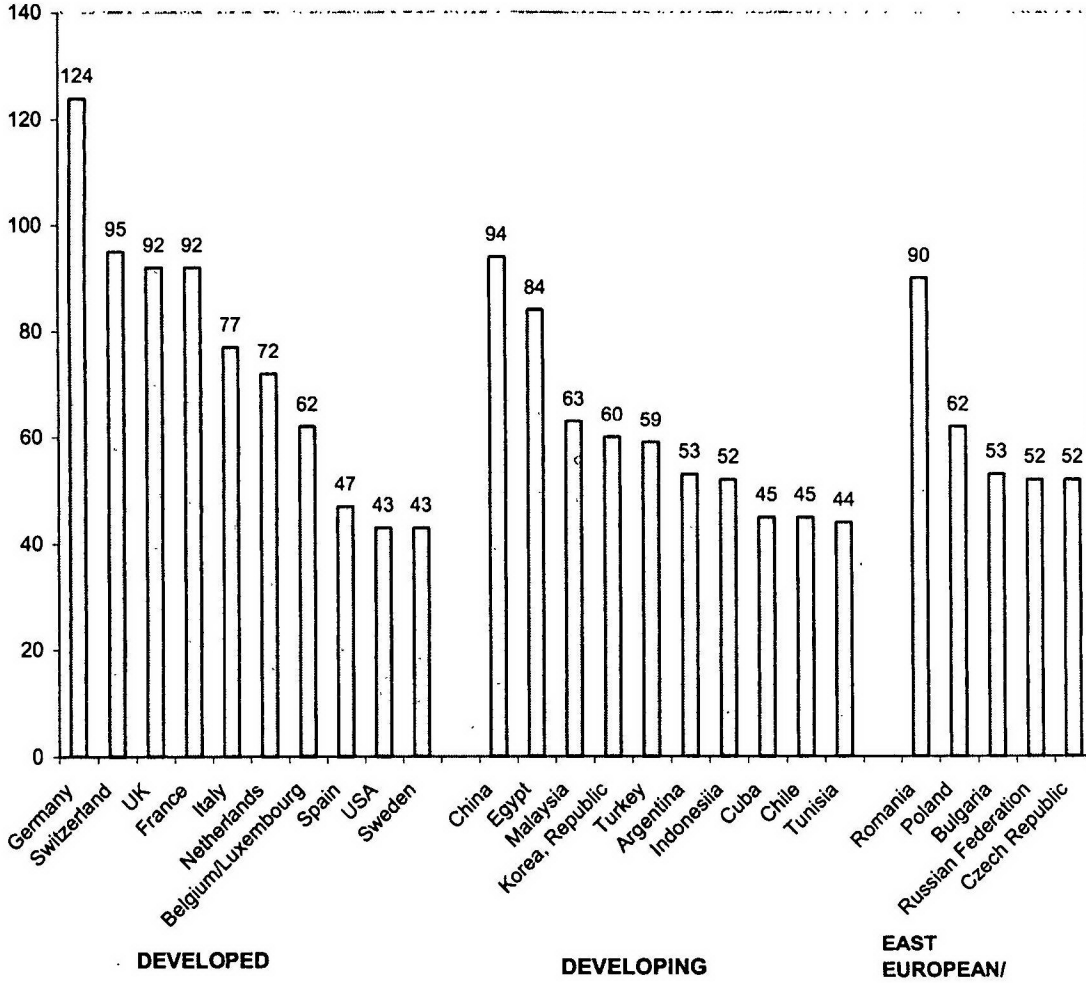
Surge in the number of BITs



BITs concluded by developing countries



**Top 25 countries in terms of the number of BITs concluded,
1 January 2000**



**Share of OECD-Developing Country pairs with a BIT and
the share of OECD FDI they cover**

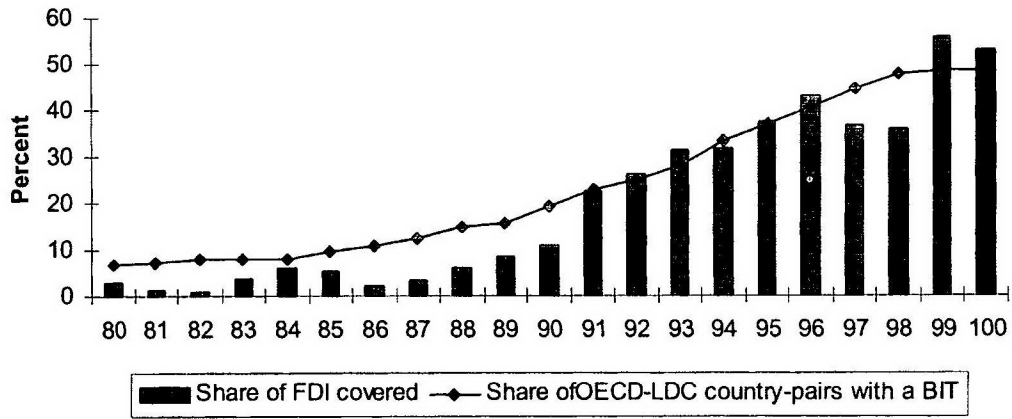


Table 1: Levels of FDI Flows

	(1)	(2)	(3)	(4) IV	(5) IV
	FDI Flow	FDI Flow w/0s	FDI Flow w/0s	FDI flows	FDI Flow w/0s
Source GDP	0.176 (13.79)**	0.163 (23.34)**	0.163 (23.27)**	0.170 (12.74)**	0.151 (18.10)**
Host GDP	0.092 (4.37)**	0.078 (7.50)**	0.072 (6.94)**	0.090 (4.19)**	0.158 (8.71)**
Host GDPPC	12.274 (1.80)+	11.499 (3.83)**	11.772 (3.93)**	12.864 (1.86)+	29.747 (6.39)**
Host infltn	-6.193 (3.90)**	-3.188 (3.74)**	-3.271 (3.81)**	-6.979 (4.16)**	-6.813 (5.85)**
Host tr/GDP	-136.290 (2.55)*	-46.329 (1.81)+	-51.882 (2.01)*	-166.602 (2.91)**	-35.077 (1.18)
Skill gap	11.703 (0.91)	7.634 (1.25)	7.928 (1.30)	16.159 (1.21)	25.171 (3.28)**
E.Europe90s	-10.440 (0.27)	6.742 (0.35)	-7.186 (0.37)	22.878 (0.51)	182.407 (4.88)**
NAFTA	256.311 (5.24)**	196.005 (6.84)**	198.304 (6.94)**	227.505 (4.33)**	97.975 (2.64)**
BIT treaty	-11.360 (0.51)	-11.615 (0.98)		-207.520 (1.67)+	-101.320 (1.90)**
Yr Ratify -5			-14.641 (0.67)		
Yr Ratify -4			-13.718 (0.65)		
Yr Ratify -3			-16.360 (0.80)		
Yr Ratify -2			-25.177 (1.26)		
Yr Ratify -1			-37.388 (1.91)+		
Year Ratify			-40.503 (2.11)*		
Yr Ratify +1			-54.577 (2.86)**		
Yr Ratify +2			-31.512 (1.65)		
Yr Ratify +3			-17.467 (0.86)		
Yr Ratify +4			-4.025 (0.19)		
Yr Ratify +5			2.760 (0.12)		
Constant	-162.401 (1.83)+	-110.477 (3.41)**	-106.870 (3.30)**	-193.177 (2.72)**	-229.021 (6.04)**
No. Obs.	4261	8153	8153	4261	8153
No. pairs	434	537	537	434	537
R-squared	0.16	0.13	0.13		
Wald Chi2				1390.30	1803.93
Prob > Chi2				0.00	0.00

Absolute value of t-statistics in parentheses
+ significant at 10%; * significant at 5%; ** significant at 1%
Source-host country pairs included; year dummies not reported.

Table 2: Ratio of FDI/GDP

	(1)	(2)	(3)	(4) IV	(5) IV
	Ratio	Ratio w/0s	Ratio w/0s	Ratio	Ratio w/0s
Source GDP	0.030 (0.71)	0.029 (1.52)	0.032 (1.66)+	0.024 (0.32)	0.033 (1.64)
Host GDP	-0.229 (2.74)**	-0.121 (3.17)**	-0.127 (3.35)**	-0.220 (1.84)+	-0.147 (2.61)**
Host GDPPC	0.184 (2.25)*	0.101 (2.78)**	0.106 (2.94)**	0.176 (1.57)	0.131 (2.19)*
Host infltn	-0.000 (0.63)	-0.000 (0.90)	-0.000 (1.00)	-0.000 (0.52)	-0.000 (1.08)
Host tr/GDP	-0.011 (0.51)	0.002 (0.17)	-0.001 (0.09)	-0.010 (0.41)	0.003 (0.25)
Skill gap	-0.007 (1.43)	-0.003 (1.40)	-0.003 (1.36)	-0.007 (1.42)	-0.003 (1.30)
E.Europe90s	0.020 (1.05)	0.015 (1.50)	0.010 (0.93)	0.019 (0.99)	0.018 (1.62)
NAFTA	0.007 (0.40)	0.009 (0.81)	0.009 (0.77)	0.009 (0.38)	0.006 (0.45)
BIT treaty	0.004 (0.42)	0.003 (0.67)		0.013 (0.14)	-0.020 (0.53)
Yr Ratify -5			-0.013 (1.54)		
Yr Ratify -4			-0.014 (1.76)+		
Yr Ratify -3			-0.015 (1.95)+		
Yr Ratify -2			-0.014 (1.77)+		
Yr Ratify -1			-0.018 (2.37)*		
Year Ratify			-0.019 (2.56)*		
Yr Ratify +1			-0.023 (3.09)**		
Yr Ratify +2			-0.011 (1.55)		
Yr Ratify +3			-0.010 (1.30)		
Yr Ratify +4			-0.004 (0.47)		
Yr Ratify +5			-0.004 (0.44)		
Constant	0.879 (1.45)	0.241 (0.88)	0.240 (0.87)	0.915 (1.29)	0.253 (0.92)
No. Obs.	4261	8153	8153	4261	8153
No. pairs	434	537	537	434	537
R-squared	0.05	0.03	0.03		
Wald Chi2				705.78	707.2
Prob > Chi2				0.00	0.00

Absolute value of t-statistics in parentheses
+ significant at 10%; * significant at 5%; ** significant at 1%
Source-host country pairs included; year dummies not reported.

Table 3: Share of Source Countries' FDI Sent to Host

	(1)	(2)	(3)	(4) IV	(5) IV
	Share sent	Share w/0s	Share w/0s	Share sent	Share w/0s
Source GDP	-0.007 (0.80)	0.007 (1.89)+	0.007 (1.86)+	0.032 (1.88)+	0.012 (2.81)**
Host GDP	-0.025 (1.53)	-0.016 (2.03)*	-0.017 (2.21)*	-0.079 (2.90)**	-0.047 (3.90)**
Host GDPPC	0.025 (1.52)	0.016 (2.15)*	0.017 (2.35)*	0.074 (2.85)**	0.051 (4.04)**
Host infltn	-0.001 (5.39)**	-0.000 (4.52)**	-0.000 (4.45)**	-0.001 (5.42)**	-0.000 (5.47)**
Host tr/GDP	-0.007 (1.74)+	-0.006 (2.97)**	-0.006 (2.93)**	-0.014 (2.61)**	-0.005 (2.33)*
Skill gap	-0.002 (1.57)	-0.000 (0.38)	-0.000 (0.32)	-0.002 (1.52)	0.000 (0.14)
E.Europe90s	-0.001 (0.33)	-0.001 (0.60)	-0.002 (0.78)	0.002 (0.42)	0.001 (0.61)
NAFTA	0.001 (0.22)	0.001 (0.54)	0.001 (0.47)	-0.008 (1.53)	-0.003 (1.14)
BIT treaty	0.002 (1.43)	0.002 (2.05)*		-0.057 (2.63)**	-0.026 (3.28)**
Yr Ratify -5			-0.002 (0.93)		
Yr Ratify -4			-0.002 (1.07)		
Yr Ratify -3			-0.002 (1.16)		
Yr Ratify -2			-0.003 (1.88)+		
Yr Ratify -1			-0.002 (1.27)		
Year Ratify			0.000 (0.03)		
Yr Ratify +1			0.001 (0.61)		
Yr Ratify +2			0.000 (0.22)		
Yr Ratify +3			0.001 (0.34)		
Yr Ratify +4			0.001 (0.35)		
Yr Ratify +5			0.003 (1.73)+		
Constant	0.219 (1.81)+	-0.026 (0.47)	-0.021 (0.38)	-0.011 (0.07)	-0.012 (0.20)
No. Obs.	4261	8153	8153	4261	8153
No. pairs	434	537	537	434	537
R-squared	0.03	0.02	0.02		
Wald Chi2				461.21	522.77
Prob > Chi2				0.00	0.00

Absolute value of t-statistics in parentheses

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

Source-host country pairs included; year dummies not reported.

Table 4. Interaction of BIT and the Rule of Law and Corruption (KKZ)

	(1) Level of FDI	(2) FDI/GDP	(3) Share of source FDI	(4) Level of FDI	(5) FDI/GDP	(6) Share of source FDI
Source GDP	0.160 (22.49)**	0.033 (1.71)+	0.009 (2.22)*	0.163 (22.85)**	0.036 (1.85)+	0.009 (2.28)*
Host GDP	0.091 (7.05)**	-0.097 (2.20)*	-0.022 (2.48)*	0.094 (7.39)**	-0.110 (2.48)*	-0.022 (2.45)*
Host GDPPC	19.309 (4.48)**	0.069 (1.57)	0.023 (2.56)*	10.956 (2.89)**	0.081 (1.81)+	0.022 (2.48)*
Host Inflation	-3.760 (4.06)**	-0.000 (1.18)	-0.000 (4.88)**	-3.969 (4.31)**	-0.001 (1.46)	-0.000 (4.99)**
Host Trade/GDP	-44.104 (1.70)+	0.001 (0.08)	-0.006 (2.86)**	-46.566 (1.81)+	-0.000 (0.05)	-0.006 (2.93)**
Skill gap	13.487 (2.08)*	-0.004 (1.65)+	-0.000 (0.32)	8.328 (1.31)	-0.004 (1.84)+	-0.000 (0.44)
NAFTA	174.251 (5.81)**	0.012 (0.99)	0.000 (0.12)	182.449 (6.09)**	0.011 (0.92)	0.000 (0.16)
E.Europe 90s	52.865 (2.11)*	0.008 (0.77)	-0.001 (0.47)	17.397 (0.67)	-0.003 (0.32)	-0.002 (1.01)
BIT	-124.365 (2.34)*	-0.000 (0.00)	-0.005 (1.27)	-85.700 (1.60)	0.028 (1.34)	-0.003 (0.60)
BIT*Rule of Law	-78.310 (0.57)	0.070 (4.44)**	0.004 (1.27)			
BIT*Corruption				85.330 (1.90)+	0.097 (6.45)**	0.008 (2.68)**
Constant	-190.700 (5.38)**	0.171 (0.62)	-0.027 (0.48)	-141.770 (4.27)**	0.197 (0.71)	-0.027 (0.48)
Observations	8153	8153	8153	8153	8153	8153
Number of source partner pairs	537	537	537	537	537	537
Wald Chi2	1792.97	727.19	574.3	1809.56	745.98	579.96
Prob > Chi2	0.00	0.00	0.00	0.00	0.00	0.00

Absolute value of z-statistics in parentheses
+ significant at 10%; * significant at 5%; ** significant at 1%
Country pair fixed effects included; year dummies not reported.

Table 5. Interaction of BIT and Regulatory Quality and Government Effectiveness (KKZ)

	(1) Level of FDI	(2) FDI/GDP	(3) Share of source FDI	(4) Level of FDI	(5) FDI/GDP	(6) Share of source FDI
Source GDP	0.162 (22.76)**	0.030 (1.56)	0.008 (2.09)*	0.162 (22.79)**	0.035 (1.80)+	0.009 (2.17)*
Host GDP	0.102 (6.68)**	-0.087 (1.96)*	-0.022 (2.42)*	0.092 (7.34)**	-0.112 (2.50)*	-0.022 (2.40)*
Host GDPPC	11.034 (2.99)**	0.068 (1.53)	0.023 (2.52)*	11.694 (3.03)**	0.078 (1.73)+	0.022 (2.44)*
Host Inflation	-4.070 (4.28)**	-0.000 (1.24)	-0.000 (4.59)**	-3.876 (4.23)**	-0.000 (0.98)	-0.000 (4.74)**
Host Trade/GDP	-40.660 (1.57)	0.001 (0.10)	-0.006 (2.86)**	-46.230 (1.79)+	0.000 (0.00)	-0.006 (2.90)**
Skill gap	6.794 (1.04)	-0.004 (1.81)+	-0.000 (0.28)	8.491 (1.32)	-0.005 (2.19)*	-0.000 (0.46)
NAFTA	178.727 (5.93)**	0.011 (0.91)	0.000 (0.16)	179.302 (5.98)**	0.009 (0.76)	0.000 (0.14)
E.Europe 90s	16.032 (0.63)	0.008 (0.80)	-0.001 (0.36)	30.390 (1.23)	0.005 (0.45)	-0.001 (0.58)
BIT	-136.134 (2.19)*	-0.004 (0.20)	-0.004 (0.81)	-110.332 (2.08)*	0.016 (0.77)	-0.003 (0.77)
BIT*Regulatory Quality	114.636 (1.69)+	0.064 (3.18)**	0.000 (0.08)			
BIT*Government Effectiveness				59.957 (1.40)	0.089 (6.12)**	0.004 (1.48)
Constant	-140.031 (4.18)**	0.105 (0.38)	-0.024 (0.43)	-144.729 (4.26)**	0.255 (0.92)	-0.023 (0.41)
Observations	8153	8153	8153	8153	8153	8153
Number of source_partner	537	537	537	537	537	537
Wald Chi2	1808.41	719.73	573.26	1806.33	745.19	575.87
Prob > Chi2	0.00	0.00	0.00	0.00	0.00	0.00

Absolute value of z-statistics in parentheses

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

Country pair fixed effects included; year dummies not reported.

Table 6: Interaction with Law and Order and Corruption (ICRG)

	(1)	(2)	(3)	(4)	(5)	(6)
	Level FDI	FDI/GDP	Share of Source FDI	Level FDI	FDI/GDP	Share of Source FDI
Source GDP	0.180 (19.46)**	0.006 (0.28)	0.014 (3.23)**	0.183 (19.55)**	0.007 (0.33)	0.013 (2.97)**
Host GDP	0.082 (5.92)**	-0.065 (1.30)	-0.027 (2.46)*	0.089 (6.09)**	-0.069 (1.38)	-0.023 (2.07)*
Host GDPPC	7.656 (1.70)+	0.051 (1.07)	0.028 (2.57)*	6.537 (1.45)	0.055 (1.14)	0.027 (2.43)*
Host Inflation	-6.116 (5.09)**	-0.001 (1.82)+	-0.001 (6.68)**	-5.962 (4.88)**	-0.001 (1.71)+	-0.001 (6.16)**
Host Trade/GDP	-70.514 (2.23)*	-0.011 (0.87)	-0.006 (2.47)*	-41.056 (1.28)	-0.013 (1.04)	-0.005 (2.13)*
Skill gap	5.609 (0.79)	-0.001 (0.28)	0.000 (0.06)	10.019 (1.39)	-0.002 (0.60)	0.001 (1.54)
NAFTA	122.192 (3.77)**	0.017 (1.42)	-0.003 (1.27)	175.104 (5.41)**	0.010 (0.82)	0.000 (0.19)
E.Europe 90s	-38.596 (1.31)	0.018 (1.59)	-0.005 (1.96)+	-41.788 (1.43)	0.017 (1.47)	-0.004 (1.69)+
BIT	-17.413 (0.13)	-0.032 (2.52)*	-0.023 (2.27)*	-251.702 (2.63)**	-0.020 (1.67)+	-0.032 (4.42)**
Rule of Law	-43.280 (4.94)**	-0.011 (3.39)**	-0.003 (5.22)**			
BIT*Rule of Law	9.980 (0.41)	0.005 (0.59)	0.004 (2.04)*			
Corruption				-41.640 (4.35)**	-0.012 (3.35)**	-0.004 (5.62)**
BIT*Corruption				89.531 (3.76)**	0.032 (3.67)**	0.008 (5.01)**
Constant	7.859 (0.15)	0.348 (1.06)	-0.070 (1.10)	-10.741 (0.25)	0.206 (0.63)	-0.087 (1.37)
Observations	6952	6952	6952	6952	6952	6952
Number of source_partner	537	537	537	537	537	537
Wald Chi2	1609.87	671.76	615.24	1543.19	662.68	598.91
Prob > Chi2	0.00	0.00	0.00	0.00	0.00	0.00

Absolute value of z-statistics in parentheses
+ significant at 10%; * significant at 5%; ** significant at 1%
Country pair fixed effects included; year dummies not reported.

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