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Sticky BITs

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One of the defining features of international investment law is its enforceability; almost all bilateral investment treaties ("BITs") in a network of more than 3,200 agreements allow enforcement through investor-state arbitration. Thus, if a host country violates a treaty and harms a protected investment, the investor can bring a direct enforcement action against the host country through international arbitration. More than 800 enforcement actions have been initiated by investors, and more than seventy billion dollars have been awarded by arbitrators. The enforcement of international investment law has also given rise to a critique that arbitrators are expanding treaty protections through judicial interpretations that unfairly benefit wealthy corporations at the expense of developing economies. Some countries are responding with en masse treaty terminations and a wholesale rejection of investor-state arbitration. An alternative is for states to negotiate new, balanced treaties with more precise language to limit the discretion of arbitrators.

This paper is the first to document precisely which countries update investment treaty provisions in response to prominent arbitration decisions. Using a new comprehensive database, created by one of the authors in partnership with the United Nations Conference on Trade and Development ("UNCTAD"), we document a lagged and modest response to these decisions. We also develop a simple framework to infer preference formation in treaty negotiations. Our framework and empirical evidence suggest that incomplete information and status quo bias contribute to the persistence of original treaty provisions in the investment treaty network. Based on these findings, we recommend a more aggressive policy response: a multilateral investment instrument that would enable countries to respond more efficiently to developments in investor-state arbitration. Current trends in unilateral treaty terminations indicate that such a response may be necessary to restore the legitimacy of international investment law and to prevent a further erosion of the investment treaty network.

INTRODUCTION

The bilateral investment treaty ("BIT") was the development policy golden child of the 1990s. During this period, BITs were signed at a frantic pace, with the number increasing five-fold in a decade, from 385 at the start of 1990 to 1,927 by the start of 2000.[1] However, more and more countries have recently begun to criticize the expansive investment treaty regime. Growing exposure to arbitration claims and weak empirical evidence that

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1. *Investment Policy Hub – International Investment Agreements Navigator*, UNCTAD, https://perma.cc/GW64-2CVC. Note that this website contains limited information for all signed BITs as well as comprehensive information for signed BITs with a public text. The growth in the number of BITs in the 1990s reflects all signed BITs, not just BITs with a public text.

BITs lead to more investment[2] have coincided with some countries terminating their BITs en masse,[3] as well as calls for reforms from a broad range of state actors.[4]

This fall-out over BITs has been preceded by a steadily growing body of arbitration disputes seeking enforcement of these treaties.[5] Almost all BITs include investor-state dispute settlement ("ISDS") provisions that endow protected investors with the ability to enforce the treaty through interna-

2. Most empirical studies find a positive and statistically significant correlation between BITs and foreign direct investment ("FDI"). *See, e.g.*, Jennifer Tobin & Susan Rose-Ackerman, *When BITs Have Some Bite: The Political-Economic Environment for Bilateral Investment Treaties*, 6 REV. INT. ORGAN. 1 (2011); Andrew Kerner, *Why Should I Believe You? The Costs and Consequences of Bilateral Investment Treaties*, 53 INT. STUD. Q. 73 (2009); Peter Egger & Valeria Merlo, *The Impact of Bilateral Investment Treaties on FDI Dynamics*, 30 WORLD ECON. 1536 (2007); Robert Grosse & Len Trevino, *New Institutional Economics and FDI Location in Central and Eastern Europe*, 45 MGMT. INT. REV. 123 (2005); Eric Neumayer & Laura Spess, *Do Bilateral Investment Treaties Increase Foreign Direct Investment to Developing Countries?*, 33 WORLD DEV. 1567 (2005). Other studies find no positive relationship between BITs and FDI. *See, e.g.*, Clint Peinhardt & Todd Allee, *Failure to Deliver: The Investment Effects of US Preferential Economic Agreements*, 35 WORLD ECON. 757 (2012) (finding no correlation between U.S. BITs and U.S. FDI); *Jason Yackee, Do BITs Really Work? Revisiting the Empirical Link Between Investment Treaties and Foreign Direct Investment*, *in* THE EFFECT OF TREATIES ON FOREIGN DIRECT INVESTMENT: BILATERAL INVESTMENT TREATIES, DOUBLE TAXATION TREATIES, AND INVESTMENT FLOWS 379 (Karl Sauvant & Lisa Sachs eds., 2007); Kevin Gallagher & Melissa Birch, *Do Investment Agreements Attract Investment? Evidence from Latin America*, 7 J. WORLD INV. & TRADE 961 (2006) (finding no correlation between U.S. BITs with Latin American countries and U.S. FDI); Jennifer Tobin & Susan Rose-Ackerman, *Foreign Direct Investment and the Business Environment in Developing Countries: The Impact of Bilateral Investment Treaties* (Yale Law & Economics Research Paper No. 293, 2005) (finding, at most, a weak positive correlation between BITs and FDI, but not for low and middle income countries with a riskier business environment); Mary Hallward-Driemeier, *Do Bilateral Investment Treaties Attract Foreign Direct Investment? Only a Bit . . . and They Could Bite* (World Bank Policy Research Working Paper No. 3121, 2003). Due to data limitations and statistical challenges, it is difficult to draw a causal link between BITs and FDI. *See generally* J. BONNITCHA, LAUGE N. SKOVGAARD POULSEN, & MICHAEL WAIBEL, THE POLITICAL ECONOMY OF THE INVESTMENT TREATY REGIME, 158–67 (summarizing the findings of key empirical studies and discussing the challenges of properly measuring the causal effect of BITs on FDI).

3. For example, India, the fifteenth largest recipient of FDI in 2015, had been named respondent in seventeen arbitration disputes by the end of 2015. In 2017 India unilaterally terminated sixty-seven BITs. *See Foreign Direct Investment, Net Inflows,* The World Bank, https://perma.cc/4YG9-DWSP; *Investment Policy Hub – Investment Dispute Settlement Navigator*, UNCTAD, https://perma.cc/MX6Z-YKEK; UNCTAD, IIA Navigator, *supra* note 1; Kavaljit Singh & Burghard Ilge, *India Overhauls its Investment Treaty Regime*, FIN. TIMES, Jul. 15, 2016 (describing India's unilateral BIT terminations as a response to its growing exposure to investment arbitration and an attempt to limit its exposure to future arbitration); *see also* Ben Bland & Shawn Donnan, *Indonesia to Terminate more than 60 Bilateral Investment Treaties*, FIN. TIMES, Mar. 26, 2014 (describing Indonesia's unilateral termination of all BITs); Cecilia Olivet, *Why Did Ecuador Terminate All Its Bilateral Investment Treaties?*, TRANSNATIONAL INST. (May 25, 2017), https://perma.cc/Q7QT-YL52 (describing Ecuador's unilateral termination of all BITs).

4. For example, at the 2014 World Investment Forum organized by UNCTAD, more than fifty key stakeholders, including chief investment treaty negotiators for several countries, issued statements calling for reforms to investment treaty enforcement and investor-state arbitration. *See World Investment Forum 2014: Reforming the International Investment Agreements Regime*, UNCTAD (Oct. 16, 2014), https://perma.cc/8BWU-MSFR; *see also 220+ Law and Economics Professors Sign Letter Opposing ISDS in the TPP*, Columbia Center on Sustainable Development (Sep. 7, 2016), https://perma.cc/SY5X-AG59 (letter signed by more than 220 law and economics professors urging the U.S. Congress to oppose the inclusion of Investor-State Dispute Settlement Provisions in two regional trade agreements: the Trans-Pacific Partnership and the Transatlantic Trade and Investment Partnership).

5. *See* UNCTAD, IDS Navigator, *supra* note 3.

tional arbitration.[6] Early BITs that include ISDS provisions were signed in the absence of any information on how arbitral tribunals would interpret and enforce treaty provisions.[7] By the end of 1999, only forty-three arbitration disputes had been initiated and only eighteen arbitral decisions had been issued[8]; these numbers reached 904 and 384 respectively, by the end of 2018.[9] This growing body of arbitration case law provides updated information to state actors on how arbitral tribunals may interpret and enforce BIT provisions.[10] If state actors disagree with a particular interpretation, they may perhaps respond by adopting new treaty language to contract around that interpretation in future treaty negotiations. Indeed, prominent international organizations, such as the International Investment Agreements ("IIA") Section at the United Nations Conference on Trade and Development ("UNCTAD"), have been advocating that host countries should negotiate BITs with more balanced provisions.[11]

It is not obvious ex ante whether new treaties would actually contract around a particular arbitral decision. Countries may form different opinions regarding high profile arbitration decisions. This divergence in opinion, combined with unequal bargaining positions, may prevent some BITs from including updated provisions. Even in a context of unilateral contract drafting, recent empirical work on sovereign bond contracts,[12] consumer con-

6. According to the UNCTAD IIA Database, approximately 95 percent of BITs include ISDS. *See* UNCTAD, IIA Navigator, *supra* note 1.

7. There is a lag of thirty-one years between the signing of the first BIT and the publication of the first decision authored by an arbitration tribunal resolving a dispute under a BIT. The first BIT was signed by Germany and Pakistan in 1959. UNCTAD, IIA Navigator, *supra* note 1. The first decision was published in 1990 and dealt with a dispute between a British Investor and Sri Lanka under the Sri Lanka United Kingdom BIT. UNCTAD, IDS Navigator, *supra* note 3.

8. UNCTAD, IDS Navigator, *supra* note 3.

9. *Id.*

10. While there is no doctrine of stare decisis or binding precedent in international investment law, the precedential value of arbitration decisions has been widely acknowledged. Arbitral tribunals frequently cite earlier cases in support of their decisions. Thus, due to the precedential value of arbitration decisions, interpretations issued by arbitral tribunals that are unexpected by investment treaty parties act as an interpretive shock on the investment treaty network. *See* Gilbert Guillame, *The Use of Precedent by International Judges and Arbitrators*, 2 J. Int'l Disp. Settlement 5, 16 (2011); Jeffery Commission, *Precedent in Investment Treaty Arbitration – A Citation Analysis of a Developing Jurisprudence*, 24 J. Int'l Arb. 129, 129 (2007); *see also* Gabrielle Kaufmann-Kohler, *Arbitral Precedent: Dream, Necessity or Excuse?* 23 Arb. Int'l 357 (2007). *But see* Susan Franck, *The Legitimacy Crisis in Investment Treaty Arbitration: Privatizing Public International Law Through Inconsistent Decisions*, 73 Fordham L. Rev. 1521, 1611 (2004) (discussing how informal stare decisis has led to divisions in arbitral case law); Anders Nilsson & Oscar Englesson, *Inconsistent Awards in Investment Treaty Arbitration: Is an Appeals Court Needed?*, 30 J. Int'l Arb. 561 (2013) (considering whether formalizing stare decisis through the creation of an appeals court is necessary to resolve case law divisions and create consistency in investment treaty interpretation).

11. *See generally* UNCTAD, *Investment Policy Framework for Sustainable Development* (2015), https://perma.cc/86DN-BCVS.

12. Stephen Choi and Mitu Gulati find that innovations in standardized sovereign bond terms occur only several years after an interpretive shock. *See* Stephen Choi & Mitu Gulati, *Innovation in Boilerplate Contracts: An Empirical Examination of Sovereign Bonds*, 53 Emory L.J. 929 (2004). Choi, Gulati, and Eric Posner also find that new contractual terms in sovereign bonds were introduced in a lumpy fashion over time, and the degree of shift in these terms is generally greater for countries most directly affected by the shock. Stephen Choi, Mitu Gulati, and Eric Posner, *The Evolution of Contractual Terms in Sovereign Bonds*, 4

tracts,[13] and corporate bond contracts[14] suggests various mechanisms that may delay, or in some cases prevent, drafters from optimally updating provisions in response to judicial interpretations. These mechanisms may similarly impede countries from updating treaty provisions in response to arbitral decisions.[15]

This article considers three questions: First, do countries update treaty provisions in response to unanticipated or controversial interpretations by arbitral tribunals? Second, to the extent there is variation across countries, why do some choose to adopt updated provisions in their new treaties while others do not? And third, for countries that choose to adopt these provisions, why are some more consistent than others in including updated provisions in their new treaties?

To answer the first question we identify three prominent arbitration decisions ("Primary Decisions") that first articulated an unanticipated or controversial treaty interpretation.[16] Using each of these as a case study, we then use the UNCTAD IIA Database, created by Jones in partnership with UNCTAD, to identify which subsequent treaties include an updated provi-

J. Legal Analysis 131, 175 (2012). They also find that innovations usually occur when marginal players experiment with deviations from the standard form, but these innovations do not become the new dominant standard until top market participants start adopting them at later stages. *See* Stephen Choi, Mitu Gulati, and Eric Posner, *The Dynamics of Contract Evolution*, 88 N.Y.U. L. Rev. 1, 37 (2013).

13. Florencia Marotta-Wurgler and Robert Taylor document relatively frequent change and innovation in consumer standard-form contracts, which are shown to emanate from young, large, and growing firms. *See* Florencia Marotta-Wurgler & Robert Taylor, *Set in Stone: Change and Innovation in Consumer Standard-Form Contracts*, 88 N.Y.U. L. Rev. 240, 276 (2013). They also find that the probability of a term becoming enforced through litigation is positively correlated with its probability of being adopted in a subsequent contract. *See id.* Giuseppe Dari-Mattiacci and Marotta-Wurgler find evidence that contractual terms that carry an opportunity for firms to learn directly from experience with consumers and contracting parties are more likely to be revised, while those that do not allow such experiential learning contribute to stickiness and stagnation. *See* Giuseppe Dari-Mattiacci & Florencia Marotta-Wurgler, Learning in Standard Form Contracts: Theory and Evidence (Oct. 23, 2018) (unpublished manuscript) (on file with author).

14. Marcel Kahan and Michael Klausner find that learning and network externalities as well as switching costs are present in corporate bond contracts, which reduce contracting parties' incentives to revise familiar terms and can lead to suboptimal contracts. Marcel Kahan & Michael Klausner, *Standardization and Innovation in Corporate Contracting (or "The Economics of Boilerplate")*, 83 Va. L. Rev. 713 (1997).

15. One recent study by Wolfgang Alschner explores whether countries update investment treaty provisions in response to arbitration. Using a substantially smaller sample of investment treaties than what we use in this paper, that paper finds little evidence that countries react to exposure to arbitration claims, though some countries do seem to respond to developments in arbitration case law. *See* Wolfgang Alschner, *The Impact of Investment Arbitration on Investment Treaty Design: Myths Versus Reality*, 42 Yale J. Int'l L. 1 (2017). The empirical work in this paper corroborates Alschner's findings. This paper also builds substantially on these findings by comprehensively documenting patterns of adoption in the investment treaty network and considering how individual country preferences may be influenced by the drafting practices of other countries.

16. Pope & Talbot Inc. v. Government of Canada (Pope & Talbot), Award on the Merits of Phase 2, (Apr. 10, 2001) 41 I.L.M. 1347 (2002); Metalclad Corps. v. the United Mexican States (Metalclad), ICSID Case No. ARB(AF)/97/1, Award (Aug. 30, 2000) 5 ICSID Rep. 209 (2002); Emilio Agustin Maffezini v. The Kingdom of Spain (Maffezini), ICSID Case No. ARB/97/7, Award (Nov. 13, 2000) 16 ICSID Rev. 1 (2001).

sion to avoid a similar interpretation.[17] We document a lagged and modest response to each of the Primary Decisions. New treaty language is introduced one to five years after a decision is published, and each provision is included in approximately 7.6 to 9.4 percent of BITs signed after the relevant decision. Although the aggregate share of BITs that incorporate updated provisions is small, the trend in annual shares indicates a more substantial rate of incorporation, with roughly one-third to one-half of BITs signed within the last five years adopting the new provisions. This trend is promising for policy advocates, but the majority of new BITs still fail to adopt updated provisions.

These broad trends in provision adoption prompt our second question: Why do some countries adopt new treaty provisions while others do not? To answer this question, we develop a simple framework for inferring a country's preference formation regarding a new treaty provision. This framework also describes how incomplete information (i.e., being unaware of an arbitration decision or a new provision) and status quo bias (i.e., hesitating to adopt a preference if a country perceives other countries as not adopting the preference) may delay or prevent some countries from becoming adopters of new provisions.

We combine this framework with both descriptive statistics and regression analysis to explore patterns of provision adoption, the timing of the provision adoption for the relevant countries, and the possible factors that may be driving those adoption decisions. For exposition purposes, we use dispersion and diffusion to describe two distinct, but related concepts. Dispersion refers to the general process of dispersing a new provision across the investment treaty network. Diffusion refers to a specific mechanism driving dispersion: signing a BIT that includes a new provision with a prior adopter of that new provision. We find consistently across the three case studies that: (1) the innovation and dispersion of each new treaty provision is driven almost exclusively by a handful of adopters; and (2) diffusion plays a primary role in the dispersion process. These findings suggest that status quo bias and/or incomplete information may play a role in delaying provision adoption and that this bias may be mitigated for some countries by diffusion.

Finally, we consider the set of adopting countries for each provision and explore which factors may be driving an adopter's ability to consistently include their preferred variation of a treaty provision in newly signed treaties. We present evidence that, contrary to our expectations, the adoption consistency of a country is not correlated with its relative bargaining position (proxied by relative GDP per capita) in its treaty negotiations. We also show evidence to support our working hypothesis that adoption consistency

17. This database is introduced in Cree Jones, *Do Legal Remedies Promote Investment? New Evidence from a Natural Experiment in the Investment Treaty Network*, https://perma.cc/2UE7-CQ3P, and documents the content of all BITs with publicly available text (approximately 2,500 agreements) across 122 treaty provisions.

is instead driven largely by the strength of a country's preference (proxied by the inclusion of the updated provision in a model agreement).

In light of our empirical findings, we conclude the Article with a discussion of a more ambitious policy recommendation: a new multilateral investment instrument ("MII") that would co-exist with the investment treaty network.[18] The idea of such an instrument would be to include variations of more precise treaty provisions that are tailored to either embrace or reject an expansive arbitration interpretation. Signatories to the MII would have the opportunity to select their preferred variation and, when there is an accord among bilateral treaty co-signatories, the MII would in effect update existing agreements without requiring bilateral negotiations. Using our empirical findings, we predict that an MII has the potential to more than triple the number of BITs that adopt more balanced provisions in response to developments in investor-state arbitration.

This Article proceeds as follows. Part I develops our framework to infer country preferences regarding new treaty provisions. Part II describes our data. Part III introduces the Primary Decisions and discusses broad trends in treaty drafting responses. Part IV presents both descriptive statistics and regression analyses regarding the adoption decisions of countries. Part V explores which factors may be driving an adopter's ability to consistently include their preferred provision in newly signed treaties. Part VI introduces the MII and uses our empirical findings to form predictions about its possible impact on BIT revisions. The Conclusion follows Part VI.

I. Inferring Preferences in Treaty Negotiation

We begin by presenting a simple framework to infer country preferences in treaty negotiations. In this simplified framework we suppose countries may have one of three reactions to a Primary Decision: (1) they agree with the interpretation and prefer to not adopt the new provision, (2) they disagree with the interpretation and prefer to adopt the new provision, or (3) they are undecided.[19] Note that being undecided may arise for a number of

18. The MII is inspired by the OECD Multilateral Tax Instrument (which entered into force in 2018) and is proposed in a recent paper by Wolfgang Alschner. *See* Wolfgang Alschner, *The OECD Multilateral Tax Instrument: A Model for Re-forming the International Investment Regime*, 45 Brook. J. Int'l L. 1 (2019).

19. There is a fourth possible, more nuanced reaction: a country may form preferences that vary across treaties depending on whether the country is a net capital exporter or a net capital importer in a particular dyad. To simplify our framework, we assume away this fourth possibility. Almost all countries have a capital position that is constant or dominant across its dyads that sign BITs after the Primary Decisions. For these countries one would expect that a country's preference regarding a new provision would be constant across all (or almost all) dyads. There are, however, some countries whose capital position is only weakly dominant across all its dyads that sign new BITs. For these countries, their preference may vary across dyads. For example, in a dyad where a country is a net capital importer, the country may prefer to adopt a new provision that curtails investor protections. In a dyad where the same country is a net capital exporter, the country may prefer to adopt the standard provision (augmented now by an unexpected and expansive interpretation) that strengthens protections for investors. Using an internal UNCTAD dataset on bilateral FDI flows, we are able to determine that, of the 161 countries that sign at least one BIT after

reasons, including incomplete information (not being aware of a Primary Decision or a new treaty provision) and/or status quo bias (a country favoring old provisions over new provisions because of its past practice and its perception of what is standard in other treaties). If a party is undecided, we assume the party is indifferent, with a weak default preference to not adopt.

A treaty that includes a new provision indicates that at least one of the parties prefers to adopt, though it is unclear which one. We can infer more information from adoption patterns across the investment treaty network. For example, if a country signs multiple treaties that include the new provision, and at least one of its co-signatories signs other treaties that consistently do not, we can infer that this country has a preference to adopt. Similarly, in examining the set of treaties signed by a country after a Primary Decision, if we see that early treaties do not include the new provision but later treaties do, we can infer that the country has a preference to adopt, and that there was a delay in the formation of its adoption preference. After identifying which countries become adopters and when they form their preference, we can use this information to try to understand what drives preference formation and, by extension, provision adoption in the investment treaty network.

For example, adoption patterns may shed light on whether incomplete information and/or status quo bias are delaying provision adoption and resulting in sub-optimal treaties. Suppose, for example, several adopters demonstrate a lag between a Primary Decision and their adoption decision by signing several early BITs that do not include the new provision. Suppose also that several of these countries become adopters only after signing a BIT with an earlier adopter. Note that, since signing a BIT with an existing adopter may provide new information about updated treaty language or new information about the evolution of standard provisions in newer treaties, it is hard to disentangle whether the delay in the adoption decision is driven by incomplete information, status quo bias, or both. However, these patterns would suggest that at least one of these factors may be delaying adoption of the new provision. These patterns would also suggest that diffusion (signing a BIT with an earlier adopter) may help mitigate incomplete information and status quo bias for some countries.

Adoption patterns may also provide information regarding the role of asymmetric bargaining positions in treaty negotiations. For example, if there is variation across adopting countries in their adoption consistency, we can study this variation to determine if less developed adopters are at a dis-

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the Primary Decisions, 92 countries (57 percent) have a constant capital position across all new BITs, 50 countries (31 percent) have a dominant capital position across all new BITs (where a country's capital position is the same across at least 75 percent, but fewer than 100 percent of its new BITs), and the remaining 19 countries (12 percent) have a weakly dominant capital position across all new BITs (where a country's capital position is the same across at least 60 percent, but fewer than 75 percent of its new BITs).

advantage relative to more developed adopters to have their preferred provisions included in a new treaty.

In the remainder of this paper we use this framework to identify adopting countries and the timing of the formation of each of their preferences. We then use the adoption patterns of these adopters to explore the role of incomplete information, status quo bias, and asymmetric bargaining in provision adoption in the investment treaty network.

II. The Data

The analysis in this paper is based on three different data sets. The first (and primary) dataset is the UNCTAD IIA Database, created by Jones in partnership with UNCTAD.[20] It contains provision level information (i.e., treaty protections and their limitations) for 2,547 of the 3,214 BITs signed between 1959 and 2018. A time series of the signing of these BITs is presented in Figures 1 and 2.

The second dataset is the UNCTAD Investment Dispute Settlement Navigator, which contains detailed information on all ISDS arbitration cases that have arisen under the investment treaty network until 2018. We use this database to document the arbitration history of each signatory to an IIA at the time of signing. The dataset covers 983 disputes that arise, at least in part, under the protection of an IIA. The first such dispute was filed in 1987.[21] The number of filed cases initially grew slowly—the second arbitration claim was not filed until 1993—but accelerated over time. Figures 1 and 2 present a time series of the origination of arbitration claims.

We also introduce a new dataset on citations in ISDS arbitration decisions. We created this dataset by downloading all arbitration decisions available on the UNCTAD IDS website and then writing a computer program to identify, through text analysis, which decisions cite one of the three Primary Decisions considered in this paper.[22]

Together, these three datasets provide an opportunity to study how the content of BITs and other IIAs have evolved in response to unexpected or controversial arbitration decisions and how this response may have been influenced by the arbitration histories of the signatories.

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20. Jones worked as lead consultant on the project for the IIA Section at UNCTAD from 2012 to 2016. As coordinator and manager, Jones oversaw the work of more than 550 law students at 42 universities in 22 countries over a three-year period. Jones includes a detailed description of the creation of this database in a 2019 article. *See* Jones, *supra* note 17.

21. This dispute was initiated by Asian Agricultural Products Ltd. ("AAPL"), a British company, against the government of Sri Lanka under the Sri Lanka-United Kingdom BIT (1980). Asian Agricultural Products Ltd. v. Republic of Sri Lanka, ICSID Case No. ARB/87/3, Award ¶ 1 (June 27, 1990), 30 I.L.M. 577 (1991).

22. There has been some early work done in 2007 on citation analysis in investment arbitration. *See* Jeffrey Commission, *supra* note 10. The number of arbitration decisions has since more than doubled. *See* UNCTAD, *IDS Navigator*, *supra* note 3. To our knowledge, this is the first recent paper to provide an updated analysis of case citations in ISDS arbitration.

III. The Primary Decisions

We now introduce the three Primary Decisions. The first is *Pope & Talbot v. Canada* ("*Pope & Talbot*"), in which the tribunal issued a broad interpretation of the fair and equitable treatment ("FET") protection.[23] The second is *Metalclad Corps. v. The United Mexican States* ("*Metalclad*"), in which the tribunal found Mexico liable for indirect expropriation after adopting regulations that, although in the public interest, undermined the value of the protected investment.[24] The third is *Emilio Agustin Maffezini v. The Kingdom of Spain* ("*Maffezini*"), in which the tribunal allowed an investor to use its most favored nation ("MFN") protection to invoke a more favorable procedural remedy in a different investment treaty.[25] In each of these case studies, we describe the history of the treaty protection, the range of possibly broad or narrow interpretations of the provision, and the ultimate finding of the tribunal. We then discuss the provision that was developed to contract around each decision.

Before presenting the case studies, we first discuss the role of precedent in the context of international arbitration—i.e., to what degree future arbitration tribunals rely on previous arbitral decisions. Although there is no formal principle of stare decisis in international investment arbitration, arbitrators still reference, and partly rely on, prior investment arbitration decisions. A general consensus among arbitrators on this principle is articulated by the tribunal in *El Paso Energy International Co. v. Argentine Republic*:

> ICSID arbitral tribunals are established *ad hoc* . . . and the present Tribunal knows of no provision . . . establishing an obligation of stare decisis. It is nonetheless a reasonable assumption that international arbitral tribunals, notably those established within the ICSID system, will generally take account of the precedents established by other arbitration organs, especially those set by other international tribunals.[26]

Another commentator noted that "[g]radually one may expect the institution of a *jurisprudence constante*, and the emergence of key decisions that are judged to be the influential starting points from which further analysis should flow."[27]

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23. Pope & Talbot Inc. v. Government of Canada (Pope & Talbot), Award on the Merits of Phase 2, (Apr. 10, 2001) 41 I.L.M. 1347 (2002).

24. Metalclad Corps. v. the United Mexican States (Metalclad), ICSID Case No. ARB(AF)/97/1, Award (Aug. 30, 2000) 5 ICSID Rep. 209 (2002).

25. Emilio Agustín Maffezini v. The Kingdom of Spain (Maffezini), ICSID Case No. ARB/97/7, Award (Nov. 13, 2000) ¶ 16 ICSID Rev. 1 (2001).

26. El Paso Energy International Co. v. Argentine Republic, Decision on Jurisdiction, ICSID Case No. ARB/03/15, Award ¶ 39 (Apr. 27, 2006), 21 ICSID Rev. 488 (2006).

27. Andrea Bjorklund, *Investment Treaty Arbitral Decisions as Jurisprudence Constante*, 7 Transnat'l Disp. Mgmt. 1 265, 280 (2010).

In addition to prior commentary, we also find empirical evidence that the Primary Decisions are treated as precedent by subsequent tribunals. In Part IV we identify 13 citing decisions for *Pope & Talbot*, 20 citing decisions for *Metalclad*, and 98 citing decisions for *Maffezini*. This *de facto* precedential value of international investment arbitration decisions supports our claim that the decisions below act as an interpretive shock within the investment treaty network. As such, parties that disagree with the decision and want to avoid similar reasoning in future arbitral decisions may choose to contract around the decision in subsequent treaties, as we document below.

A. Pope & Talbot

The FET standard is by far the most frequently invoked standard in investment disputes.[28] While the concept of FET has gained prominence with the proliferation of BITs, its modern form finds its origin in early Friendship, Commerce, and Navigation ("FCN") treaties signed by the United States in the 1950s and the Havana Charter for the International Trade Organization of 1948.[29] These early treaties only contain a general reference to the "fair and equitable treatment" (or "just and equitable treatment") standard without including any limitations. The first BIT, signed by Germany and Pakistan in 1959, contains similar provisions to the more recent FCN treaties but does not include an FET clause.[30] The BIT between Switzerland and Tunisia in 1961 is the first BIT that does include an FET provision. This BIT does not contain any limitation to the FET standard.[31]

Due to the lack of precision in the treaty language in all early BITs—and even many modern BITs—the meaning of the FET standard was often—and remains—subject to interpretation by arbitral tribunals based on facts specific to individual cases. One of the most contested issues related to the FET standard is whether the standard merely reflects the international minimum standard in customary international law or constitutes an independent treaty standard itself.[32] A pioneering case on this issue is *Pope & Talbot v. Canada*, which arises under Chapter 11 of the North America Free Trade Agreement ("NAFTA").[33]

In *Pope & Talbot*, the investors alleged that Canada had breached its obligations under NAFTA by implementing the Softwood Lumber Agreement

28. Rudolf Dolzer & Christoph Schreuer, Principles of International Investment Law 119 (2008).

29. Stephen Vasciannie, *The Fair and Equitable Treatment Standard in International Investment Law and Practice*, 70 Brit. Y.B. Int'l L. 99 (2000).

30. Treaty between the Federal Republic of Germany and Pakistan for the Promotion and Protection of Investments, Ger.-Pak., Nov. 25, 1959, U.N.T.S. 457.

31. Treaty on Protection and Encouragement of Capital Investment, Switz.-Tunis., art. 1, Dec. 2, 1961, 3 I.L.M. 524, 524 (1964).

32. Dolzer & Schreuer, *supra* note 28, at 134.

33. Pope & Talbot Inc. v. Government of Canada, Award on Merits of Phase 2, (Apr. 10, 2001) 41 I.L.M. 1347 (2002).

with the United States.[34] The agreement resulted in Canada's introduction of an export control regime, under which softwood lumber producers from several provinces were required to obtain export permits and pay fees before exporting softwood lumber products to the United States.[35] Having dismissed the investors' claims based on other provisions, the tribunal found that Canada breached its obligations under Article 1105 of NAFTA, which includes a provision on the FET standard.[36] The tribunal held the view that Article 1105(1) demanded not only the international minimum standard, but also additional "fairness elements."[37] Based on this interpretation, the tribunal found a breach of Article 1105 with respect to the verification review process under the export control regime.[38]

This decision propelled the parties to NAFTA to jointly issue an interpretation note through the NAFTA Free Trade Commission. The interpretation note states that Article 1105(1) reflects the customary international minimum standard and does not require treatment in addition to or beyond that which is required by the customary international law minimum standard.[39] This interpretation note is reflected in subsequent international investment agreements signed by the three parties to NAFTA. Following the *Pope & Talbot* decision, Canada, the United States, and Mexico all began to include limitations in their BITs that restrict the FET standard to the customary international law minimum standard ("CIL minimum standard").[40]

The first graph in both Figures 3 and 4 document the number and share of BITs, respectively, signed after the *Pope & Talbot* decision that include the CIL minimum standard. The CIL minimum standard was introduced into the investment treaty network when the parties to NAFTA signed new BITs in 2002 (Mexico), 2005 (USA), and 2006 (Canada).

Even after the CIL minimum standard was introduced to the network, the annual share of BITs that included the standard was quite low right after its introduction, but steadily increased over time. As can be seen in the first graph in Figure 5, from 2005 to 2012, only approximately 15 percent of new BITs included the CIL minimum standard. For BITs signed between 2013 to 2018, this share approximately doubled to more than thirty per-

34. *Id.* at ¶¶ 105–07.
35. *Id.* at ¶ 19.
36. *Id.* at ¶ 113.
37. *Id.* at ¶¶ 110–11, 118.
38. *Id.* at ¶¶ 156–81.
39. NAFTA Free Trade Commission, Interpretation of the Free Trade Commission of Certain Chapter 11 Provisions (July 31, 2001), https://perma.cc/3SGB-3U38.
40. A typical CIL minimum standard clause reads "the concepts of 'fair and equitable treatment'. . . [does] not require treatment in addition to or beyond that which is required by the customary international law minimum standard of treatment of aliens." *See, e.g.*, Treaty for the Promotion and Protection of Investments, Can.-Peru, art. 5, ¶ 2, Nov. 14, 2006, IC-BT 014. Following the *Pope & Talbot* decision, the United States of America (2 BITs), Canada (20 BITs), and Mexico (13 BITs) have all signed BITs with an updated FET provision that includes a direct reference to the customary international law minimum standard. *See* Figure 9.

cent, with the annual share peaking in 2016 at just over 50 percent. The cumulative share of adopting BITs signed since the *Pope & Talbot* decision in 2000 and the cumulative share of adopting BITs signed since the limitation was introduced in 2002 are 7.6 percent and 9.6 percent respectively.[41]

B. Metalclad

One of the most common protections in the investment treaty network is protection from expropriation—i.e., the seizing of a protected investment by the host government, without prompt and fair compensation. The expropriation protection in BITs also typically covers indirect expropriation—i.e., protection from state action that, while not constituting actual seizure of a protected investment, still deprives an investor of the value of or the control over the investment, or both.

The concept of indirect expropriation was recognized in the early case law of arbitral tribunals and of the Permanent Court of International Justice in the 1920s and 1930s.[42] It was then incorporated into early multilateral initiatives for the protection of foreign investments, such as the 1959 Abs-Shawcross Draft Convention on Investments Abroad, the 1961 Harvard Draft Convention on the International Responsibility of States for Injuries to Aliens, and the 1962 OECD Draft Convention on the Protection of Foreign Property.[43] These draft multilateral treaties reflect the idea that regulatory and other government activities can amount to expropriation if they deprive investors of the possibility of utilizing the investment in a meaningful way, albeit leaving the title untouched. The first BIT on record that contains language indicative of indirect expropriation is the 1962 Niger-Switzerland BIT. Its expropriation provision provides that:

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41. Note that these shares are based on the total number of BITs signed that have a published text, so that we can verify whether a BIT does or does not contain the limitation.

42. *See* Norwegian Shipowners' Claims (Nor. v. U.S.), Award (Oct. 13, 1922), 1 R.I.A.A. 307 (Perm. Ct. Arb. 1922); Case Concerning Certain German Interests in Polish Upper Silesia (Ger. v. Pol.), Judgment, 1926 P.C.I.J., (ser. A) No. 7 (May 25).

43. Article III of the Abs-Shawcross Draft Convention provides that "[n]o Party shall take any measures against nationals of another Party to deprive them directly or indirectly of their property except under due process of law and provided that such measures are not discriminatory or contrary to undertakings given by that Party and are accompanied by the payment of just and effective compensation." Draft Convention on Investments Abroad (Abs-Shawcross Draft Convention), INTERNATIONAL INVESTMENT INSTRUMENTS: A COMPENDIUM, VOLUME V: NON-GOVERNMENT INSTRUMENTS, April (1959), https://perma.cc/G9F9-3PTQ. Article 10(3)(a) of the Harvard Draft Convention on the International Responsibility of States for Injuries to Aliens assumes a taking to occur in the case of any "unreasonable interference with the use, enjoyment, or disposal of property." *Draft Convention on the International Responsibility of States for Injuries to Aliens*, 55 AM. J. INT'L L., 548–84 (July 1961). The OECD Draft Convention on the Protection of Foreign Property defines an expropriatory act as a measure applied in such a way "as to deprive ultimately the alien of the enjoyment or value of his property, without any specific act being identifiable as outright deprivation . . . [a]s instances may be quoted excessive or arbitrary taxation; prohibition of dividend distribution coupled with compulsory loans; imposition of administrators; prohibition of dismissal of staff; refusal of access to raw materials or of essential export or import licenses." Draft Convention on the Protection of Foreign Property, Organisation for Economic Co-operation and Development, UNCTAD (1967), https://perma.cc/6RBA-N2ZD.

> In the event of a Party expropriating or nationalizing property, rights or interests belonging to nationals, foundations, associations or companies of the other Party or taking against such nationals, foundations, associations or companies or any other direct dispossession measures or *indirect*, it must provide for the payment of an effective and adequate compensation, in accordance with the law of nations.[44]

The majority of later BITs employ similar language that incorporates the concept of indirect expropriation, although most of them provide little guidance as to the scope or definition of indirect expropriation. As a result, it is usually the arbitral tribunal's task to draw the line between non-compensable regulation and compensable indirect expropriation in the context of a particular case.

To determine whether an indirect expropriation has occurred, it is generally accepted that a central factor is the effect of the measure on the owners' ability to use and enjoy their property.[45] What remains controversial is whether the effects of the measure will be the only and exclusive criterion, or whether the purpose and context of the measure should also be considered in the decision on the existence of an expropriation.[46] The former approach is usually referred to as the "sole effect doctrine."[47] Under the "sole effect doctrine," expropriation may take place, and the investor should receive full compensation regardless of whether the purpose of the regulatory measure is to expropriate or to protect a legitimate public good. This doctrine can be found in early decisions rendered by the Iran-U.S. Claims Tribunal.[48]

Metalclad is considered by many commentators as a truly undeniable pronouncement of the "sole effect doctrine."[49] It is the first NAFTA decision which made a finding of indirect expropriation. In this case, Metalclad, a U.S. company, purchased a Mexican company which had been granted a permit from the Mexican Federal Government to construct a hazardous waste landfill.[50] After completing construction, the municipal authorities,

44. Trade, Investment and Technical Cooperation Agreement, Switz.-Niger, art. 7, Nov. 17, 1962, https://perma.cc/P5JG-FL7R (translation by author).

45. DOLZER & SCHREUER, *supra* note 28, at 101.

46. *See* Rudolf Dolzer, *Indirect Expropriations: New Developments*, 11 N.Y.U. ENVTL. L.J. 64, 79 (2002).

47. *See, e.g.*, Azurix Corp. v. Argentine Republic, ICSID Case No. ARB/01/12, Award ¶ 309 (July 14, 2006), 47 I.L.M. 445 (2008); Siemens A.G. v. Argentine Republic, ICSID Case No. ARB/02/8, Award ¶ 270 (Feb. 6, 2007), https://perma.cc/TJ79-QSB5.

48. Tippetts v. TAMS-AFFA Consulting Engineers of Iran, Award No. 141-7-2, Iran-U.S. Claims Tribunal, Award (June 22, 1984); Phelps Dodge Int'l Corp. v. Iran, Award No. 217-99-2, Iran-U.S. Claims Tribunal, Award (Mar. 19, 1986); Starrett Housing Corp. v. Iran, Award No. ITL 32-24-1, 4 Iran-U.S. Claims Tribunal, Interlocutory Award (Dec. 19, 1983); Phillips Petroleum Co. Iran v. Iran, Award No. 425-39-2, Iran-U.S. Claims Tribunal, Award (June 29, 1989).

49. *See* DOLZER & SCHREUER, *supra* note 28, at 134; L. Yves Fortier & Stephen L. Drymer, *Indirect Expropriation in the Law of International Investment: I Know It when I See It, or Caveat Investor*, 19 ICSID REV. 293, 313 (2004).

50. Metalclad Corp. v. The United Mexican States (Metalclad), ICSID Case No. ARB(AF)/97/1, Award ¶ 30 (Aug. 30, 2000), 5 ICSID Rep. 209, 218–23 (2002).

due to local opposition and environmental concerns, refused to grant Metalclad a necessary municipal permit.[51] As a result, Metalclad was prevented from operating the landfill.[52] Following its unsuccessful attempts to obtain redress through Mexican administrative courts, Metalclad initiated arbitration under NAFTA's Chapter 11.[53] Nine months later, the municipal governor issued an Ecological Decree declaring the area of the landfill a Natural Area for the protection of rare cacti, which, according to Metalclad, effectively and permanently precluded any operation of the landfill. The arbitral tribunal found a violation of Article 1110 of NAFTA, which provides that "no party shall directly or indirectly nationalize or expropriate an investment of an investor of another Party in its territory or take a measure tantamount to nationalization or expropriation of such an investment."[54] The tribunal explicitly embraced the "sole effect doctrine" in its decision, featuring an oft-repeated passage that reads:

> Thus, expropriation under NAFTA includes not only open, deliberate and acknowledged takings of property, such as outright seizure or formal or obligatory transfer of title in favor of the host state, but also covert or incidental interference with the use of property which has the effect of depriving the owner, in whole or in significant part, of the use or reasonably-to-be-expected economic benefit of property even if not necessarily to the obvious benefit of the host state.[55]

The tribunal also noted that it need not decide or consider the motivation or intent of the adoption of the Ecological Decree, and that the implementation of the Ecological Decree would, in and of itself, constitute an act tantamount to expropriation.[56]

While the "sole effect doctrine" is not the dominant approach in the case law, its appearance in *Metalclad* and subsequent decisions have led states to introduce limitations to the indirect expropriation provision.[57] The 2004 U.S. Model BIT explicitly states that an adverse effect on the economic value of an investment does not in itself establish indirect expropriation.[58] It also includes a carve-out for non-discriminatory regulatory actions that protect legitimate public welfare objectives in its description of indirect expropriation.[59]

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51. *Id.* ¶ 50.
52. *Id.* ¶ 56.
53. *Id.* ¶ 58.
54. North American Free Trade Agreement, art. 1110, Dec. 17 1992, 32 I.L.M. 289, 605 (1993).
55. *Id.* ¶ 103.
56. *Id.* ¶ 1.
57. *See, e.g.*, Treaty Concerning the Encouragement and Reciprocal Protection of Investment, Can.-Peru, *supra* note 40, at annex B.13(1); Treaty Concerning the Encouragement and Reciprocal Protection of Investment, U.S.-Uru., annex B., Nov. 4, 2005, S. TREATY DOC. No. 109-9.
58. U.S. Model BIT (2004), annex B, ¶ 4.
59. *Id.*

The second graph in both Figures 3 and 4 documents the number and share of BITs, respectively, signed after the *Metalclad* decision that include a regulatory exception to indirect expropriation. First, note that there is a five-year delay between the publication of the *Metalclad* decision and the introduction of the regulatory exception to the BIT network. More than 600 BITs were signed after the decision and before the regulatory exception was introduced by the United States-Uruguay BIT signed in 2005.[60]

Similar to the *Pope & Talbot* decision, even after the new exception was introduced to the BIT network, take-up of this exception in new treaties starts out quite slow and accelerates over time. As documented in Figure 5, the trend for the annual share of BITs that include the regulatory exception to indirect expropriation is similar to the pattern for the CIL minimum standard. Inclusion of the regulatory exception was quite low (around 4 percent) during the first three years after innovation, but then grew steadily over time, peaking at just over 40 percent in 2016. The cumulative share of adopting BITs signed since the *Metalclad* decision in 2000 and the cumulative share of adopting BITs signed since the limitation was introduced in 2005 were 8.8 percent and 17.1 percent, respectively.[61]

C. Maffezini

The most-favored-nation ("MFN") protection is another standard provision in the investment treaty network. This protection guarantees that the host country treats protected investors at least as well as it treats any other foreign investor.[62] The MFN protection originated in trade agreements and historically applied to commercial policies like tariffs and market access.[63] Throughout the 20th century, it was generally understood by policy-makers that MFN treatment in the context of investment treaties was limited in scope to similar commercial policies like taxes, subsidies, and regulatory takings and did not extend to access to procedural rules in other BITs.[64]

In 1997, an Argentine investor, Emilio Agustin Maffezini, challenged this convention when he filed an arbitration claim at the International Centre for Settlement of Investment Disputes against Spain under the Argen-

60. Treaty Concerning the Encouragement and Reciprocal Protection of Investment, U.S.-Uru., *supra* note 57; UNTCAD, IIA Navigator, *supra* note 1.

61. As was the case in the previous case study, these shares are based on the total number of BITs signed that have a published text, so that we can verify whether or not a BIT does or does not contain the limitation.

62. A typical MFN provision reads "each Party shall accord to investors of the other Party treatment no less favorable than that it accords, in like circumstances, to investors of any non-Party with respect to the establishment, acquisition, expansion, management, conduct, operation, and sale or other disposition of investments in its territory."

63. For example, Stanley K. Hornbeck discussed MFN provisions in 18th and 19th century trade agreements. *See* Stanley K. Hornbeck, *The Most-Favored-Nation Clause*, 3 Am. J. Int'l L. 619 (1909).

64. Scott Vesel, *Clearing a Path Through a Tangled Jurisprudence: Most-Favored-Nation Clauses and Dispute Settlement Provisions in Bilateral Investment Treaties*, 32 Yale J. Int'l L. 125, 126 (2007).

tina-Spain BIT signed in 1991.[65] The BIT required Maffezini to first fully litigate his claim in Spanish courts before bringing a claim before an arbitration tribunal (local remedy first).[66] Maffezini cited two facts: (1) Spain had signed a BIT with Chile that did not include the local remedy first condition, and (2) the Argentina-Spain BIT included the following MFN clause: "In all matters governed by this Agreement, such treatment shall be no less favorable than that accorded by each Party to investments made in its territory by investors of a third country."[67] Maffezini then argued that the MFN protection in the Argentina-Spain BIT allowed him to invoke the better legal remedy in the Chile-Spain BIT to avoid first litigating in Spanish courts.[68] Consistent with the prevailing convention, Argentina argued that access to different procedural remedies did not constitute "treatment" by a host economy under MFN, and that MFN could not be used to circumvent the domestic court requirement.[69] In its 2000 decision, the arbitral tribunal unanimously agreed with Maffezini and allowed the claim to move forward, concluding that "the most favored nation clause included in the Argentina-Spain BIT embraces the dispute settlement provisions of this treaty."[70]

In order to contract around the *Maffezini* decision, a BIT may include an ISDS exception to the MFN protection. The third graph in both Figures 3 and 4 documents the number and share of BITs, respectively, signed after the *Maffezini* decision that include an ISDS exception to MFN. The trends in these graphs are broadly similar to the previous two case studies, with a gap of four years between the decision and the introduction of the new provision and a slow but increasing adoption of the provision after the time of innovation. The implication, again, is that hundreds of BITs were signed after the *Maffezini* decision before the ISDS exception was introduced, and hundreds more were signed even after the first ISDS exception was introduced to the BIT network. The third graph in Figure 5 documents the annual share of BITs that include the ISDS exception. This graph shows a more prominent trend towards adoption relative to the prior two case studies. In this case, adoption picks up in 2010, peaks at 100 percent in 2017 and remains at 90 percent in 2018.

65. Emilio Agustín Maffezini v. The Kingdom of Spain (Maffezini), ICSID Case No. ARB/97/7, Award (Merits) ¶ 21 (Nov. 13, 2000), 16 ICSID Rep. 248, 255 (2001).

66. Acuerdo Para la Promoción y la Protección Recriproca de Inversiones [Treaty Concerning the Promotion and Reciprocal Protection of Investments], Arg.-Spain, art. 10(3), Oct. 3, 1991, 1699 U.N.T.S. 187.

67. *Id.* art. 4(2).

68. *Maffezini*, Award (Merits) ¶ 4.

69. *Id.* ¶ 21.

70. *Maffezini*, Decision of the Tribunal on Objections to Jurisdiction ¶ 64.

IV. The Adoption Decision

We next explore which countries become adopters of each of the new provisions, when they decide to become adopters, and what factors may be influencing their adoption decisions. We first present a complete timeline for each case study of all BITs that include the updated provision. Using these timelines, we are able to infer which countries become adopters and approximately when each makes its adoption decision. We then explore whether being named respondent in a citing decision influences a country's adoption decision. We conclude this Part with a regression analysis to compare the relative importance of different factors that may be influencing a country's adoption decision.

A. Origination and Dispersion Timelines

In Figures 9 through 11, we present detailed timelines for each Primary Decision of all BITs that incorporate the new provision. In order to facilitate the reading of each figure, we start with a careful discussion of the origination and dispersion of the CIL minimum standard after *Pope & Talbot*, building out the timeline in stages (Figures 6–9) to highlight key patterns. After a full discussion of the CIL minimum standard, we discuss the other two case studies, identifying common patterns as well as notable differences across the three timelines.

1. Pope & Talbot *and Adoption of the CIL Minimum Standard*

Recall that Canada is the respondent country in the *Pope & Talbot* decision. As a result, Canada is certainly aware of the tribunal's interpretation of the FET provision and how this interpretation may undermine its interests as a recipient of protected foreign investment. As a result, we would expect that Canada may be a prime candidate to become an early adopter of the CIL minimum standard provision. At the top of Figure 6, we build the first layer of our timeline by documenting all BITs signed by Canada that include the CIL minimum standard provision. The first BIT Canada signs after the *Pope & Talbot* decision is with Peru in 2006. This BIT incorporates the new provision. Canada goes on to sign another nineteen BITs, all of which also incorporate the new provision. Based on this consistent pattern of incorporation, we infer that Canada is an early and consistent adopter of the CIL minimum standard provision.

The *Pope & Talbot* decision is interpreting the FET provision in NAFTA. The United States and Mexico, as co-signatories to NAFTA, are also prime candidates to be early adopters of the CIL minimum standard provision. In the bottom of Figure 6, we add to the timeline all BITs signed by the United States and Mexico that include the new provision. The United States has only signed two BITs since the *Pope & Talbot* decision, both of which

include the new provision. Mexico has signed sixteen subsequent BITs, thirteen of which include the new provision. We infer from these patterns of consistent incorporation that both the United States and Mexico are also early adopters of the new provision.

Next, we consider Peru, the co-signatory to the first subsequent BIT signed by Canada. In addition to its 2006 BIT with Canada, Peru signed two more subsequent BITs, one with Colombia in 2007 and one with Japan in 2008. As indicated in the top of Figure 7, both of these BITS also incorporate the new provision, indicating that Peru is also an early adopter of the new provision. Note that the adoption pattern of Peru is our first piece of suggestive evidence that diffusion (i.e., signing a BIT with an existing adopter) may induce a country to also become an adopter.

If we take our analysis one step further, we find additional corroborating evidence of diffusion in the network. The bottom of Figure 7 documents the subsequent BITs signed by Colombia and Japan (the prior co-signatories with Peru) that incorporate the new provision. Both Colombia and Japan display a pattern of incorporation, from which we infer that both are adopters of the provision. However, both Japan and Colombia are not as consistent in their adoption pattern as other adopters we have discussed so far. In addition to the seven subsequent BITs Colombia signed that include the CIL minimum standard provision, Colombia also signed another five BITs that do not. Similarly, Japan signed six subsequent BITs that include the new provision, but also signed another eleven subsequent BITs that do not. We explore possible drivers of this variation in consistency in Part V. Note also that both Colombia and Japan signed BITs (two and six, respectively) after the *Pope & Talbot* decision and prior to signing their respective BITs with Peru, none of which incorporate the new provision. This initial pattern of non-adoption by later adopters is our first piece of evidence that incomplete information and/or status quo bias may lead some countries to sign BITs with expansive provisions, contrary to their later preferences. This pattern of early non-adoption by later adopters also provides suggestive evidence that diffusion may play a role in overcoming incomplete information and status quo bias, which may be pervasive in the treaty network.

Figure 8 adds one more layer by including other BITs with a diffusion nexus with prior adopters included in Figures 6 and 7. Figure 9 completes our timeline by adding in all remaining BITs that incorporate the CIL minimum standard. Six additional countries display a pattern of incorporation, from which we infer a decision to become an adopter. Two of these countries, Uruguay and Rwanda, are co-signatories to BITs with the United States and, thus, their adoption decisions may also have been influenced by diffusion. Uruguay includes the new provision in four of its six subsequent BITs, and Rwanda includes the new provision in three of its five subsequent BITs. South Korea, Turkey, and Nigeria are also adopters whose adoption decisions are correlated with diffusion. They include the CIL minimum

standard in six out of six, eleven out of thirteen, and four out of five subsequent BITs, respectively.

One key outlier in Figure 9 is Azerbaijan. Azerbaijan also displays a weak pattern of adoption. It first adopts the provision in 2007 in its BIT with Croatia[71] and includes the provision in two other subsequent BITs.[72] After the *Pope & Talbot* decision and prior to signing its BIT with Croatia, Azerbaijan signed sixteen other BITs that do not include the provision. It also signed eleven other BITs with public text after 2007 (i.e., after becoming an adopter) that also do not include the provision. Azerbaijan is unique in that it is the only adopter in the timeline that does not have either (1) proximity to the *Pope & Talbot* decision as a respondent or co-signatory to the enforced treaty, or (2) a node of intersection with an earlier adopter. As we will see in the other two timelines, Azerbaijan is not the only country that independently takes the initiative to become an adopter, though in this particular case study it is. More work remains to be done to understand why Azerbaijan and some of the other countries discussed below were motivated to become adopters despite the dominant trend of non-adoption by most other countries.[73]

2. Metalclad *and Adoption of the Regulatory Exception to Indirect Expropriation*

Figure 10 provides a treaty-level overview of the creation and dispersion of the regulatory exception to indirect expropriation across the BIT network. The first notable difference in this timeline relative to the CIL minimum standard timeline is that the country named respondent in this case, Mexico, does not become an adopter of the regulatory exception to indirect expropriation. Mexico's status as a non-adopter is puzzling. First, as the respondent in the dispute, Mexico certainly was aware of the broad interpretation of indirect expropriation in the *Metalclad* decision and understood how this interpretation may undermine its interests as a recipient of protected foreign investment. Second, Mexico has already demonstrated both a disposition of adoption as well as an ability to incorporate its preferences in new treaties in the FET CIL minimum standard context. Why then does Mexico not also embrace the regulatory exception to indirect expropriation?

71. Note that all countries in these figures are indicated by their International Organization for Standardization ("ISO") three-letter country code. Unintuitively, the ISO country code for Croatia is HRV. U.N. International Trade Statistics, *Country Code*, https://perma.cc/XRH3-QZ2M.

72. Agreement between the Government of the Republic of Croatia and the Government of the Republic of Azerbaijan on the Promotion and Reciprocal Protection of Investments, art. 2(2), Oct. 2, 2007, https://perma.cc/BYL9-ERW7; Agreement between the Government of the Republic of Azerbaijan and the Government of the Syrian Arab Republic on the Promotion and Reciprocal Protection of Investments, art. 2(2), July 8, 2009, https://perma.cc/L3GR-Q9NQ; Agreement between the Government of the Republic of Turkey and the Government of the Republic of Azerbaijan on the Reciprocal Protection and Promotion of Investments, art. 2(2), Feb. 9, 1994, https://perma.cc/P8TH-C62V.

73. *See* Figure 9.

We can use the theory we lay out in Part I as a framework to consider the case of Mexico's non-adoption. Recall that in our framework we assume a country may have one of three preferences regarding an arbitration decision: agreement, disagreement, or indecision. One possibility is that Mexico agrees with the broad interpretation, although it undermined its interests in this particular case. Such a preference is consistent with Mexico's pattern of non-adoption. The remaining possibility is that Mexico is undecided. As Mexico is the respondent in *Metalclad* we cannot attribute a state of indecision to a lack of information about the decision though it may be attributed to either a lack of information about the revised provision and/or status quo bias. After the *Metalclad* decision, Mexico may have disagreed with the tribunal's interpretation of indirect expropriation but (1) it may not have had a clear idea of how to contract around the decision in future treaties, and/or (2) it may have been waiting to see whether other countries updated treaty language to counter the interpretation.

Recall in the *Pope & Talbot* context that Canada was the respondent and the United States and Mexico were both involved in advancing the CIL minimum standard interpretation during the dispute and in amending the provision to NAFTA after the dispute was concluded. As a result, Mexico was aware (1) of the precise treaty language to incorporate in future agreements to counter the interpretation, and (2) that other countries (i.e., the United States and Canada) also disagreed with the interpretation. This may not have been the case in the *Metalclad* decision. Note also that Mexico has no nodes of intersection with any other adopters of the regulatory exception to indirect expropriation. As a result, Mexico's status as a non-adopter may reflect either agreement with the *Metalclad* decision or indecision driven by either incomplete information about the new provision or a status quo bias towards old treaty language that remains dominant in the network following the decision.

Although the absence of Mexico as an adopter in Figure 10 is notable, it is equally notable that many of the adopters in the CIL minimum standard case study again play a prominent role in driving adoption of the regulatory exception to indirect expropriation. Canada and the United States, both signatories to NAFTA, the treaty enforced in *Metalclad*, are early and consistent adopters of the regulatory exception. Canada includes the new provision in all twenty of its subsequent BITs, and the United States includes the provision in its two subsequent BITs. Six countries—Peru, Uruguay, Rwanda, Colombia, Nigeria, and South Korea—are also recurring adopters, all with adoption decisions that again correlate with diffusion. There is one other adopter of the regulatory exception, Turkey, that is also an adopter of the CIL minimum standard. However, in this case study, Turkey's adoption of the regulatory exception is not correlated with diffusion. Instead, Turkey in this case study, like Azerbaijan in the last case study, independently takes

the initiative to become an adopter in spite of a dominant trend of non-adoption in the network.

There are two other adopters of the regulatory exception that do not have proximity to the decision and whose adoption decision does not intersect with an existing adopter. The first is India, and the second is Austria. India adopted the provision in 2006 and included it in eighteen of its twenty-eight subsequent BITs. Austria begins to adopt the provision in 2010 and includes the provision in its three most recent BITs. Similar to Azerbaijan in the CIL minimum standard case study, more work remains to be done to understand why these particular countries took the initiative to become adopters when they did, in spite of a dominant trend of non-adoption among other countries.

The other thing to note in this second timeline is the absence of two other adopters—in addition to Mexico—from the first case study: Azerbaijan and Japan. Azerbaijan is completely absent in the second timeline, though, as we will see below, it does become an adopter in the final timeline. Japan, although signatory to three BITs that include the regulatory exception, does not display an independent pattern of adoption, from which we infer that the inclusion of the regulatory exception in these three treaties is being driven by the preferences of the co-signatories, Peru, Colombia, and South Korea. More work remains to be done to understand this variation across adoption decisions.

3. Maffezini *and Adoption of the ISDS Exception to MFN*

Figure 11 provides a treaty level overview of the introduction and dispersion of the ISDS exception to MFN. Recall that Spain is the respondent country in the *Maffezini* decision. Similar to Mexico in the second case study, Spain does not become an adopter of the ISDS exception to MFN, despite signing thirty-one BITs after the decision. Spain's co-signatory to the investment treaty enforced in *Maffezini* is Argentina. Although it is a late adopter in this case study, it does not play a role in driving the adoption of the new provision in the network. This is different from the pattern in the other two case studies, in which case the co-signatories all were early and consistent adopters of the new provision. The case of Argentina is unique, however, in that Argentina became a dormant player in the investment treaty network by not signing any new BITs from 2001 through 2015. Argentina has signed two recent BITs, with Qatar in 2016 and the United Arab Emirates in 2018, both of which include an ISDS exception to MFN.

Six countries that become adopters in this case study are repeat adopters from the prior two case studies, though the correlation of diffusion in their adoption decisions is somewhat different here. Japan's adoption decision here, similar to its adoption decision in case one, appears to be influenced by diffusion. Turkey's adoption decision, similar to its adoption decision in case two, appears to be on its own initiative. Colombia and Peru, adopters in the

first two case studies with a diffusion intersection, are both now adopters whose adoption decisions do not intersect with a prior adopter. Canada and Azerbaijan, whose adoption decisions in the other case studies did not intersect with diffusion, have adoption decisions in this case with such an intersection.

Canada is a particularly interesting outlier to consider. As respondent in *Pope & Talbot* and co-signatory to NAFTA, enforced in *Metalclad*, Canada is an early and consistent adopter of both the CIL minimum standard and the regulatory exception to indirect expropriation, including both new provisions in all twenty of its BITs signed after these decisions. By contrast, Canada has only included the ISDS exception to MFN in five of its subsequent BITs and does not have an independent pattern of adoption until 2014, after it signed two earlier BITs with two prior adopters (Peru and China). This difference in Canada's adoption behavior suggests that even wealthy, sophisticated countries that are actively updating their investment provisions, may still be susceptible to incomplete information and/or status quo bias with regard to some developments in ISDS jurisprudence.

The United Arab Emirates (with country code ARE),[74] absent in the timelines in the other two case studies, plays a prominent role in the adoption of the ISDS exception to MFN. The origination of the ISDS exception to MFN can likely be attributed to the UAE; the first investment treaty to include the ISDS exception to MFN is the UAE-Belgium BIT signed in 2004, and Belgium does not display a pattern of adoption. This is the only case study in which the origination of the new language is almost certainly attributable to a country that did not have proximity (either as respondent or as a treaty co-signatory) to the primary decision. In addition to its role as the drafter of the exception, the UAE is also the adopter with the most BITs that include the provision, incorporating the exception in twenty-six of its thirty-seven BITs (with public texts) signed after the *Maffezini* decision. Note also that the UAE signed nine BITs after the *Maffezini* decision and prior to becoming an adopter in 2004 that do not include the provision. More work remains to be done to understand the timing and impetus of the UAE's adoption decision.

One remaining thing to note in this final timeline is the inclusion of four new countries with a nascent pattern of adoption of this final provision: Singapore, China, Switzerland, and Chile. Of these, only China and Singapore's adoption decisions intersect with earlier adopters. The remaining two appear to be acting on their own initiative.

4. *Summarizing Patterns Across the Case Studies*

Collectively, these timelines present the following facts. (1) All three case studies provide some evidence that diffusion plays a role in the adoption of

74. U.N. International Trade Statistics, *supra* note 71.

new treaty provisions in response to the Primary Decisions. (2) In two of the three case studies, the origination and diffusion of the new provision are largely attributable to the countries that are proximate to the arbitration decision, either as respondent or co-signatory to the enforced treaty. (3) Many adopters of one new provision also adopt at least one of the other new provisions in the other case studies. (4) There is variation in how consistently an adopter includes a new provision in its subsequent treaties. (5) Some key players in these timelines—particularly India in the adoption of the regulatory exception to indirect expropriation and the UAE in the adoption of the ISDS exception to MFN—appear to act on their own initiative in spite of a dominant pattern of non-adoption by other countries in the network.

From these facts, we are able to infer that both incomplete information (about either the primary decision or the new treaty language) and status quo bias may contribute to the perpetuation of the original treaty provisions that are expanded by the Primary Decisions. We are also able to infer that, as countries receive more information through diffusion of the new provision and the drafting practices of other adopters, incomplete information and status quo biases may be overcome for some countries as they update their preferences and begin to adopt the new provisions.

B. Respondent History in Citing Decisions

We next explore whether being named respondent in an arbitration decision that discusses a Primary Decision ("Citing Decision") affects a country's decision to become an adopter. A Citing Decision may communicate some new information to the respondent country about the Primary Decision (i.e., that it exists, and it may undermine its interests as a recipient of protected foreign investment). However, a Citing Decision, on its own, does not provide the respondent with new information about new provision language and/or drafting practices of other countries. In this subsection we explore whether this limited information communicated by a Citing Decision is sufficient to induce a country to become an adopter of a new provision. In order to conduct this analysis, we utilize a new database, described in Part II, in which we identify all arbitration decisions that cite a Primary Decision. We then manually check each of these decisions to verify whether the Primary Decision is invoked in a discussion of the relevant legal issue (e.g., FET in *Pope & Talbot*).

We identify 13 Citing Decisions for *Pope & Talbot*, 20 Citing Decisions for *Metalclad*, and 38 Citing Decisions for *Maffezini*.[75] For each case, a total of 8 (*Pope & Talbot*), 13 (*Metalclad*), and 16 (*Maffezini*) countries were named respondent in these Citing Decisions. Looking at the adoption patterns of

75. A list of each set of Citing Decisions, including the Primary Decision, is included in Tables 1, 2, and 3.

these respondent countries, we find little evidence that a country's respondent history in a Citing Decision influences its decision to become an adopter of a new provision.

Tables 4, 5, and 6 categorize each of the respondent countries by their adoption status and provides additional information about their respondent history in Citing Decisions for each case study. There are six possible categories for adoption status: (1) Non-adopter, (2) Adopter, (3) Maybe Adopter, (4) Pre-Adopter, (5) Dormant, and (6) No Information. A country is classified as a "Non-adopter" if it has signed at least one BIT after its first Citing Decision, and none of the BITs it has signed after the Citing Decision include the new provision. A country is also classified as a "Non-adopter" if it has signed at least one BIT that does not include the new provision and all BITs that do include the new provision are signed with an existing adopter (thus the country does not display an independent pattern of adoption). A country is classified as an "Adopter" if, after the Citing Decision, the country has a pattern of signing BITs that include the new provision that may not be attributable to co-signatory adopters. "Maybe Adopter" countries are countries that sign at least one BIT after a Citing Decision that includes the new provision, but they have not yet developed a pattern of adoption. Countries classified as "Pre-Adopters" are countries with a respondent history in a Citing Decision and an established pattern of adoption that precedes their first Citing Decision. "Dormant" countries are countries that have not signed any new BITs in the last ten years (i.e., since January 2009) or after the date of its first Citing Decision, whichever time frame is longer. Finally, a country is classified as having "No Information" about its adoption status if it has signed a BIT in the last ten years (so it may still be active) but has not signed any BITs since its Citing Decision. A country also falls into the "No Information" category if it has signed at least one BIT since its Citing Decision, but none of these BITs have a public text that we are able to check to verify if the new provision has been included, or if all signed BITs with text include the new provision, but all are signed with an existing adopter.

Using this classification system, we are able to determine that 10.8 percent of respondent countries in Citing Decisions begin to adopt a new provision after being named respondent.[76] If we expand the Adoption category to also include "Maybe Adopters", the aggregate share of adopting respondent countries increases slightly to 13.5 percent. The most common response is Non-Adoption, accounting for 51.4 percent of country responses. A small fraction of respondent countries (8.1 percent) become adopters of a new provision before being named respondent in a Citing Decision. The remaining 27 percent of respondent countries are either Dormant (5.4 percent) or have Citing Decisions recent enough and BIT signing patterns infrequent enough that we are not able to infer their adoption status (21.6 percent).

76. Summary statistics for Tables 4, 5, and 6 are presented in Table 7.

This dominant pattern of non-adoption by respondent countries is surprising; it is also consistent with a strong presence of status quo bias. There are two other patterns within the non-adopters that further corroborate a theory of status quo bias. The first is that the loss history (and not just the respondent history) of non-adopters does not seem to influence the adoption decision of respondents. One may predict that respondents are more likely to update preferences over treaty provision language following a Citing Decision in which they lose. However, almost half (42.1 percent) of non-adopters have lost in at least one Citing Decision, but still fail to adopt. The second pattern is that the same share of non-adopters, even after signing at least one BIT with an existing adopter that incorporates the new provision, still continue to not adopt. This pattern is most pronounced in the *Maffezini* case study, where five of the eight non-adopters have signed a BIT with an adopter that includes the new provision. This means that, even with information about the Primary Decision (delivered by a Citing Decision) and information about the new treaty provision and drafting practices of other countries (delivered by negotiating a BIT with an adopter), most countries still fail to update their preferences and adopt the new treaty language.

C. Regression Analysis of the Adoption Decision

We conclude this Part with a more thorough regression analysis to explore the findings and patterns in our earlier, more descriptive analysis. Note that in this subsection we focus on exploring what may be driving a country's decision to become an adopter of a new treaty provision. In Part V, we explore, for adopting countries, what factors may be driving an adopter's ability to consistently include their preferred variation of the treaty provision in newly signed treaties.

Based on the descriptive analysis in subsection A, there is evidence that a country's decision to become an adopter may be influenced by three different factors: (1) whether a country is named respondent in the dispute giving rise to the Primary Decision, (2) whether a country is signatory to the treaty being interpreted in the Primary Decision, and (3) whether a country has previously signed a BIT with an earlier adopter (i.e., diffusion). Being named respondent to the dispute ensures that a country is aware of the decision so that it can form a preference. Being on the receiving end of the decision may also strengthen the country's preferences against the decision. Being signatory to the treaty in the dispute also ensures a country is aware of the decision. However, it does less to create a distaste for the decision and may even incline a country to embrace the decision if its investors are the direct beneficiaries of the new rule. Signing a BIT with an earlier adopter provides information to the co-signatory about the decision and the new provision. It also provides information to the co-signatory about the drafting practices of the adopter. This drafting information may help to counter sta-

tus quo bias and facilitate some transfer of preferences in the course of treaty negotiations.

In subsection B we explored whether a country's respondent history in Citing Decisions induced countries to become adopters. We find little evidence that it does. For completeness, we include (4) a count for the number of Citing Decisions in each country's respondent history. We also include (5) a count in each country's respondent history for the number of disputes alleging a violation of the relevant provision at issue in the Primary Decision, as well as (6) a count of the total number of IIA disputes in each country's respondent history. In theory, a country's arbitration history may influence its preferences; a country that is frequently a respondent in arbitration may have a preference to limit its exposure to future disputes.

In addition, a country's adoption decision may also be affected by (7) its BIT intensity (i.e., the number of BITs it has signed in the past, it is signing this year, and it intends to sign in the future), and (8) its role in a dyad as both an FDI importer and an FDI exporter, as well as its level of development in terms of GDP per capita. A country's BIT intensity may affect the intensity of its preferences. For example, if there is a cost to being informed about arbitration decisions and a country is only planning to sign a few new treaties, then the country may not choose to invest resources into developing its preferences. Similarly, the number of prior treaties may be a proxy for a country's investment in BITs as a policy tool and thus their willingness to expend resources to be informed. The number of BITs signed in a particular year may affect the timing of the creation of a country's preference. That is, a country may choose to become informed in a year in which several treaties are being signed. The direction of FDI flows may also affect a country's preference; if a country expects to primarily export FDI under a BIT, it may prefer a more protective rule and the opposite may be true if a country expects to primarily import FDI. Finally, GDP per capita may be an additional proxy for the direction of FDI and may also be a proxy for the level of sophistication of a country and/or the resources it has available to devote to treaty negotiations and monitoring developments in investment arbitration.

In order to estimate the relative importance of each of these factors we use a simple linear probability model (i.e., standard ordinary least squares). The observations are at the country-year level. We only include an observation for a country in a particular year if the country has signed at least one BIT that year. The data is limited to only include BITs signed after the Primary Decision. The outcome variable is an indicator variable equal to 1 if a country has become an adopter, either in the current year or in a prior year. For example, in the case of Canada and the CIL minimum standard for FET, Canada did not sign any BITs from 2001 to 2005 and it became an adopter in 2006. Canada signed BITs in 2006, and every year from 2009 to 2016. The outcome variable for Canada is coded as 1 in each of these years. Turkey, on the other hand, became an adopter in 2010. It signed BITs each year

from 2010 to 2014, in 2016 and in 2018, and so the outcome variable is coded as 1 in each of these years. Turkey also signed BITs each year from 2003 to 2009. The outcome variable is coded as zero in each of these years.

We use the following estimating equation:

$$A_{it} = \beta_0 A_{i,t-1} + \beta_1 R_i + \beta_2 S_i + \beta_3 D_{it} + \beta_4 R_{it}^{CD} + \beta_5 R_{it}^{Prov} + \beta_6 R_{it}^{All} + \beta_7 BIT_{it}^{prior} + \beta_8 BIT_{it}^{t} + \beta_9 BIT_{it}^{post} + \beta_{10} FDI_{it}^{in} + \beta_{11} FDI_{it}^{out} + \beta_{12} \log(GDPcap_{it}) + \varepsilon_{it}$$

A_{it} is the adoption decision of country i in year t. R_i is an indicator variable equal to 1 if country i is the named respondent in the Primary Decision (e.g. Canada in *Pope & Talbot*). S_i is an indicator variable equal to 1 if country i is a signatory to the treaty (but not the respondent) in the Primary Decision (e.g. the United States of America and Mexico in *Pope & Talbot*). D_{it} is an indicator variable equal to 1 if country i signs a BIT with an existing adopter in year t. R_{it}^{CD}, R_{it}^{Prov} and R_{it}^{All} are count variables of the number of times country i has been named respondent in a Citing Decision, a dispute alleging a relevant provision violation, and any dispute (respectively) prior to and including year t. BIT_{it}^{prior}, BIT_{it}^{t} and BIT_{it}^{post} are count variables of the number of BITs signed by country i prior to year t, during year t, and after year t, respectively. FDI_{it}^{in} and FDI_{it}^{out} are aggregated five-year FDI flows from/to country i to/from the co-signatory of the BIT signed in year t.[77] The final control variable, $log(GDPcap_{it})$ is the log of GDP per capita in country i in year t.

We start by running regressions for the first case study, the CIL minimum standard for FET. The results are reported in Table 8. Column 1 reports coefficient estimates in a model specification that only controls for a lag of the adoption decision, the respondent and signatory indicators for the *Pope & Talbot* decision, and the diffusion indicator. The lagged adopter coefficient is close to 1 by construction; we suppose a country makes its innovation decision once and so once a country becomes an adopter, that country remains an adopter in all subsequent periods. The coefficient estimates on the remaining three control variables are all large and statistically significant. Canada, as the named respondent, is 17 percent more likely to become an adopter, the United States and Mexico, as the other signatories to NAFTA, are 21 percent more likely to become adopters, and countries that sign BITs with earlier adopters are 16 percent more likely to also become

77. If a country has signed more than one BIT in a particular year, control variables for inward and outward FDI are averaged across the relevant dyads.

adopters. In column 2 we introduce control variables for the arbitration history of the countries. Consistent with the descriptive statistics in subsection B, we find respondent history in a Citing Decision does not play a prominent role in a country's adoption decision. One Citing Decision is correlated with a 2.7 percent increase in a country's probability of becoming an adopter, though this increase is not statistically significant. Control variables for BIT intensity, FDI flows and GDP per capita are added in columns 3 and 4. Including these additional controls increases the coefficient estimates for the respondent and signatory variables (to 34 and 39 percent respectively), leave the coefficient estimate for the diffusion variable largely unchanged at 17 percent, and decreases the coefficient estimate for the Citing Decision variable to 1.6 percent.

In Table 9 we report our coefficient estimates for all three case studies using the full model specification. The one consistent estimate across the case studies is the large and statistically significant diffusion coefficient: signing a BIT with a prior adopter increases the probability of a country becoming an adopter by 10 (for the regulatory exception to expropriation and the ISDS exception to MFN) to 17 percent (for the CIL minimum standard for FET). By contrast—and perhaps predictably so— the coefficient estimate for the respondent variable is essentially zero for both the regulatory exception to expropriation and the ISDS exception to MFN, since Mexico does not become an adopter of the former and Spain does not become an adopter of the latter. The coefficient estimates for the signatory variable are a mix (39 percent, 33 percent, and 0 percent) with both co-signatories to NAFTA becoming adopters in the case of the CIL minimum standard for FET and the regulatory exception to expropriation, while Mexico does not become an adopter of the ISDS exception to MFN.

It is interesting, and perhaps puzzling, to note that the remaining control variables have very little if any impact on the adoption decision of a country. Although a few of these coefficient estimates are statistically significant in some cases (i.e., the general respondent history for an alleged violation of a particular provision is negatively correlated with the probability of becoming an adopter in columns 1 and 2) the size of the change in probability for these handful of controls is an order of magnitude smaller relative to the size of the change in probability attributable to diffusion.

V. Consistency in Adopting New Provisions

A. Implementing Adoption

Even after choosing to become an adopter, we find evidence that some countries are more consistent in adopting the new treaty provision relative to other adopters. In this subsection, we explore two possible factors that may limit or enhance an adopter's ability to consistently adopt a preferred

treaty provision. First, we consider whether an adopter's level of economic development, relative to that of its cosignatory, affects the probability a particular BIT includes a preferred provision. Our hope is that this analysis will inform us about the degree to which variation in treaty outcomes may be attributed to the unequal bargaining positions of parties. We find, perhaps surprisingly, that less developed countries are not at a disadvantage in their ability to consistently adopt a preferred treaty provision and actually find some evidence that BITs signed by only one adopter, with a lower relative GDP per capita, may actually be more likely to include the limitation, relative to BITs signed by only one adopter, with a higher relative GDP per capita.

Second, we consider whether an adopter having a model agreement improves the probability of incorporating the preferred provision. We explore this dimension to understand whether stronger preferences (proxied by the existence of a model agreement) may be driving part of the variation in treaty outcomes. We find some evidence that if an adopter enters a treaty negotiation with a model agreement, they are more likely to incorporate their preferred provision.

In this section our data is at the treaty level, and we only include BITs signed by at least one adopting country either in the year or after they become an adopter. To estimate whether the probability of a BIT including a preferred provision is correlated with either relative GDP per capita, or the existence of a model BIT for the adopter, we divide our set of BITs signed by adopters into three groups: (1) BITs signed by two adopters ($Adopt2_{ijt} = 1$), (2) BITs signed by one adopter with characteristic A ($Adopt1^{A}_{ijt} = 1$) (i.e., higher GDP per capita or having a model BIT), and (3) BITs signed by one adopter with characteristic not A ($Adopt1^{A}_{ijt} = 0$).[78] We then use a linear probability model to estimate probability coefficients relative to a control group (group 3). We create two sets of groupings, first using GDP per capita and then using the existence of a model BIT for the adopter. We then run separate regressions for each set.

$$A_{ijt} = \beta_1 Adopt2_{ijt} + \beta_2 Adopt1^{A}_{ijt} + \varepsilon_{ijt}$$

Our estimates for relative GDP per capita are reported in Table 10. As can be seen in Table 10, when the relatively more developed economy is the adopter, the BIT is actually less likely to adopt the new provision relative to BITs signed by a less developed adopter in two of the case studies. Only the coefficient estimate in the third case study (ISDS exception to MFN) is sta-

78. Note that in the first regression, we are comparing BITs where both signatories are adopters and BITs where the signatory with a relatively higher GDP per capita is the adopter against BITs where the signatory with a relatively lower GDP per capita is the adopter; in the second regression, we are comparing BITs where both signatories are adopters and BITs where the signatory with a model BIT is the adopter against BITs where the signatory without a model BIT is the adopter.

tistically significant, with BITs signed by one less-developed adopter being 35 percent more likely to include the provision relative to BITs signed by one more-developed adopter. Although there is variation across the case studies, at a minimum these results at least suggest that among adopters, less-developed economies are not at a disadvantage relative to more-developed economies in their ability to incorporate their preferences in new BITs.

Our estimates for the correlation between model BITs and adoption are reported in Table 11. In the case of the CIL minimum standard for FET, we find that BITs signed by one adopter that has a model BIT are 40 percent more likely to include the new provision relative to BITs signed by one adopter without a model BIT. This same probability is 31 percent in the case of the regulatory exception to indirect expropriation. Both are statistically significant. This result does not hold in the third case study. Across all case studies we find consistent evidence that BITs signed by two adopters are much more likely (between 29 to 42 percent more likely) to include a new provision relative to BITs signed by only one adopter without a model BIT. As a result, we find suggestive evidence that model agreements may affect a country's ability to incorporate their preferences in a particular BIT. To the extent that a model BIT does make a difference, the underlying mechanism may either be that the existence of a model BIT is a proxy for the strength of a country's preference, or that it directly affects a country's bargaining position by coming to the negotiating table with a baseline text for the agreement.

B. Other Limitations

For adopters who have not consistently adopted a new provision, it is possible that these adopters sometimes use an alternative drafting strategy to contract around a Primary Decision. In our analysis so far, we have focused on the most prominent and direct way to contract around each Primary Decision. In this subsection we describe alternative drafting strategies for each Primary Decision. We then present summary statistics for the drafting history of each adopter.

In the case of *Pope & Talbot*, rather than qualifying FET with the CIL minimum standard, an adopter could also contract around the Primary Decision by simply excluding the FET provision from the BIT. Another, less drastic, alternative is to stipulate the elements of government acts that constitute breaches of the FET standard, which usually include denial of justice, violations of due process, and manifest arbitrariness.[79] Although it does not directly speak to the decision in *Pope & Talbot*, this limitation still provides guidance to arbitral tribunals and constrains the scope of their discretion

79. *See, e.g.*, Treaty between the United States of America and the Oriental Republic of Uruguay Concerning the Encouragement and Reciprocal Protection of Investment, art. 5(2), Nov. 4, 2005, https://perma.cc/2V5T-5Q4T.

when interpreting the FET provision. Countries can also restrict their liability under the FET standard by referring to customary international law or international law in general. Nevertheless, these two limitations are less restrictive than the CIL minimum standard, as they entail a broader range of legal sources for the tribunal to consider when interpreting the FET provision.

In the case of *Metalclad*, in addition to the regulatory carve-out, countries sometimes also seek to define indirect expropriation by enumerating factors that tribunals may take into account when determining whether a government act constitutes indirect expropriation. This limitation is usually included together with the regulatory carve-out, although there are a few BITs that contain only one of the two. In addition, similar to the case of FET, some BITs simply drop the language providing for indirect expropriation in the expropriation clauses.

Unlike the first two cases, *Maffezini* produced no other limitation than the ISDS exception. This is likely due to the relatively narrow issue being interpreted, namely whether the MFN protection can be applied to dispute settlement provisions. The ISDS exception is the most obvious and direct way to contract around the *Maffezini* interpretation. A more extreme alternative is to simply omit the MFN provision from the treaty.

In Tables 12, 13, and 14, we present summary statistics regarding these alternative drafting strategies for each adopter. We also record the share of BITs for each adopter with broad provisions. We indicate which adopters have model BITs and find, consistent with our analysis in subsection A in this Part, suggestive evidence that Adopters with model agreements are more likely to consistently contract around a Primary Decision.

VI. Considering a Multilateral Investment Instrument

In this Part we consider how the empirical evidence in this Article may help inform the creation of a new Multilateral Investment Instrument ("MII") designed to enable countries to update existing investment treaties without engaging in bilateral negotiations. The concept of overlaying a complex network of bilateral treaties with a multilateral instrument has recently been developed and deployed in the context of bilateral tax treaties ("BTT"s).[80] Similar to the investment treaty context, signatories to BTTs grappled with how to update old treaties in light of developments in BTT practice and jurisprudence and in the face of prohibitively high contracting costs to bilateral renegotiation.[81] The solution, developed by the Organization for Economic Cooperation and Development ("OECD"), is the Multi-

80. Nathalie Bravo, *The Multilateral Tax Instrument and Its Relationship with Tax Treaties*, 26 World Tax J. 279 (2016).

81. Alschner, *supra* note 20, at 28.

lateral Convention to Implement Tax Treaty Related Measures to Prevent Tax Base Erosion and Profit Shifting (called the Multilateral Instrument, or MLI, for short).[82] The MLI entered into force on July 1, 2018.[83] Wolfgang Alschner, a leading scholar on international investment law, recently proposed a MII as a promising policy solution in the context of BITs.[84] We begin by briefly describing how the MII would work in practice and refer readers to Alschner's paper for a more comprehensive description of the proposed MII.[85]

The mechanics of the proposed MII would be very similar to the mechanics of the MLI. The existing network of BITs would remain in place and the MII would be a new multilateral treaty that would co-exist with the investment treaty network.[86] According to Article 30(3) of the Vienna Convention, when two treaties governing the same subject matter co-exist between a set of countries, and there is a conflict between the treaties, the most recent treaty governs.[87] The MII would include a menu of options of updates to various old treaty provisions as well as new treaty provisions. These options could include the three new provisions we have been considering in this paper. To accommodate variation in country preferences, a signatory to the MII would have autonomy to select the provisions that align with its preferences.[88] An existing BIT would be updated to include a new provision only in cases when the signatories to the original BIT both have selected the new provision in the MII.

The empirical evidence presented in this paper is relevant to the MII for several reasons. First, since we have identified the set of adopters for each of the three provisions considered in this paper, we can precisely identify which BITs are the most likely to be updated to include these provisions through adoption of the MII based on current revealed preferences. Second, we can update these predictions by considering dormant countries (i.e., countries that are no longer signing new BITs), whose dormant status may imply dissatisfaction with international investment law and an appetite to also update provisions through the MII. Finally, in addition to providing predictions regarding which BITs are most likely to update, our evidence of persistent status quo bias and incomplete information, as well as evidence of the primary role of diffusion in inducing countries to update preferences, suggest that a central repository of country preferences embedded in an MII may induce some countries to update their preferences and others to do so

82. Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting, https://perma.cc/2CB8-TK2N.

83. *Id.*

84. Alschner, *supra* note 18.

85. *See id.* at 48–53.

86. *Id.* at 47.

87. *See* Vienna Convention on the Law of Treaties, art. 32, opened for signature May 23, 1969, 1155 U.N.T.S. 331; *see generally* Bravo, *supra* note 80.

88. Alschner, *supra* note 18, at 47–8.

more quickly. This would result in new treaties accurately reflecting the true preferences of the signatories informed by complete information about the drafting preferences and practices of other signatories. We consider each of these contributions below.

A. *Predicting Adoption Under the MII*

Table 15 presents a complete list of existing adopters and their year of adoption for each of the three provisions in our case studies. We identify thirteen current adopters of both the CIL minimum standard and the regulatory exception to indirect expropriation. We identify fourteen adopters of the ISDS exception to MFN. Using the UNCTAD IIA Database, for each provision we are able to identify existing BITs between two adopters that do not incorporate the new provision. The count of these BITs is recorded in Table 16. We identify between twenty-three and thirty-three such BITs for each provision. If each adopter were to select the new provision in our hypothetical MII, we predict that these BITs would be updated to incorporate the new provision. Updating these investment treaties would result in an approximately 35 percent increase in the number of adopting BITs for each provision.

We also identify forty-five dormant countries—i.e., countries that have not signed a new BIT within the last decade. Table 16 records the number of existing BITs between adopting and dormant countries (as well as between two dormant countries) that do not incorporate a new provision. The total number of such BITs for each provision range between 143 and 192. If we assume that the dormant status of a country indicates dissatisfaction with the investment treaty network and a preference to update old agreements, we would then predict that these treaties would also be updated under the MII. Including these BITs would increase our growth projections for adopting BITs from approximately 35 percent to more than 220 percent for each of the provisions.

B. *The MII as an Accelerator of Diffusion*

In addition to enabling current adopters to update old treaties more efficiently, the MII may also facilitate the diffusion of preferences across the investment treaty network. We have documented in this paper that diffusion plays a primary role in causing some countries to update their preferences regarding new provisions. This diffusion process has been implemented through bilateral treaty negotiations, which primarily convey information to the parties negotiating the treaty. As a result, the diffusion process has been fragmented and quite slow.

The creation of an MII would act as an accelerator to the diffusion process in two ways. First, the MII would act as a central repository of possible drafting practices that exist to contract around particular arbitration deci-

sions and respond to other developments in international investment law. This central repository would largely eliminate the existence of incomplete information regarding new provisions that many countries navigate when negotiating new treaties. Second, the MII would also act as a central repository of trends in country preferences across different variations of treaty provisions. Rather than learning about preferences of other countries piece-meal through costly bilateral negotiations, the MII would enable any country to quickly identify the preferences of all signatories to the MII and recognize trends in preferences regarding new provisions. This information would help to mitigate status quo bias as other countries respond to these trends by also updating their preferences.

CONCLUSION

This paper explores three empirical questions. First, do countries update their investment treaty provisions in response to unexpected and controversial interpretations by arbitration tribunals? Second, why do some countries become adopters of new provisions and others do not? Third, why are some adopting countries more consistent than others in including new provisions in their new investment treaties?

We consider three case studies: (1) the *Pope & Talbot* tribunal's expansive interpretation of fair and equitable treatment, (2) the *Metalclad* tribunal's rejection of a regulatory exception to indirect expropriation, and (3) the *Maffezini* tribunal's expansion of most-favored-nation treatment to encompass investment treaty enforcement provisions. Using these three case studies and a new comprehensive database on the content of all BITs with publicly available text, we have shown that some countries do incorporate new provisions in their investment treaties to contract around each of these controversial decisions. Although the number of new BITs that include a new provision is modest (7.6 percent post *Pope & Talbot*, 8.8 percent post *Metalclad*, and 9.4 percent post *Maffezini*), BITs signed in the last five years provide evidence of an emerging consensus among active signatories, with between one-third (*Pope & Talbot*) to one-half (*Maffezini*) of these more recent BITs incorporating the new provision.

This Article also develops a simple framework to infer preference formation in treaty negotiations. We use this framework and our data to identify precisely which countries become adopters of each provision and to determine the timing of each country's adoption decision. We present evidence that incomplete information and status quo bias likely play a role in perpetuating original treaty provisions and that diffusion (i.e., signing a new BIT with an existing adopter) may counter incomplete information and status quo bias by inducing some countries to update their preferences and become adopters. We also find that a country's respondent history in a Citing Decision does not lead to a higher probability of adoption.

When looking at adoption consistency for adopting countries, we initially hypothesize that variation across adopters may perhaps be driven by asymmetric bargaining, with less developed countries being at a bargaining disadvantage relative to their wealthier counterparts. We find, counter to our expectations, that the relative bargaining position of two countries (proxied by GDP per capita) does not seem to limit the ability of less-developed countries to incorporate their preferred provision in new treaties. Instead we present evidence that the strength of a country's preference (proxied by the existence of a model BIT) may perhaps be driving variation in adoption consistency for adopting countries.

This new empirical evidence suggests that bilateral treaty negotiations—i.e., the standard policy response to developments in ISDS case law, has had only limited success. These facts, combined with recent unilateral terminations of BITs by some countries and a wholesale rejection of ISDS by others, indicate that a more innovative policy response may be necessary to restore stability to the investment treaty network. The creation of a multilateral investment instrument that co-exists with the existing investment treaty network may be a viable solution. Using our framework and empirical evidence, we predict that such an instrument will increase the number of adopting BITs for each provision by at least 35 percent (considering only non-adopting BITs between adopting countries) and perhaps by as much as 220 percent (after accounting for BITs between adopting and dormant countries). Although the cost of creating a multilateral investment instrument is high, the long-term benefits of improved efficiency in updating BITs and of increased stability to the investment treaty network likely outweigh the cost.

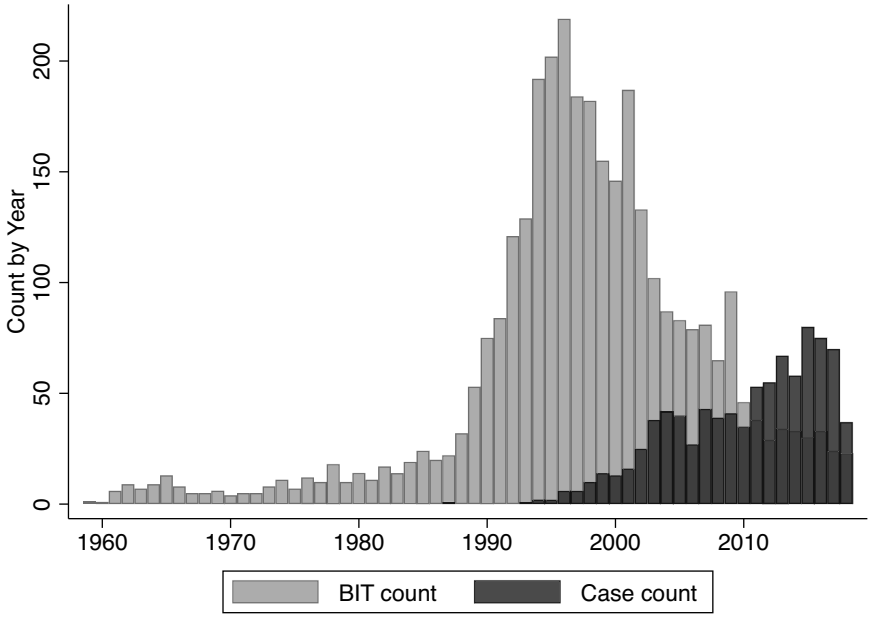

Figure 1: Time Series of BIT Signings and Arbitration Filings (Count)

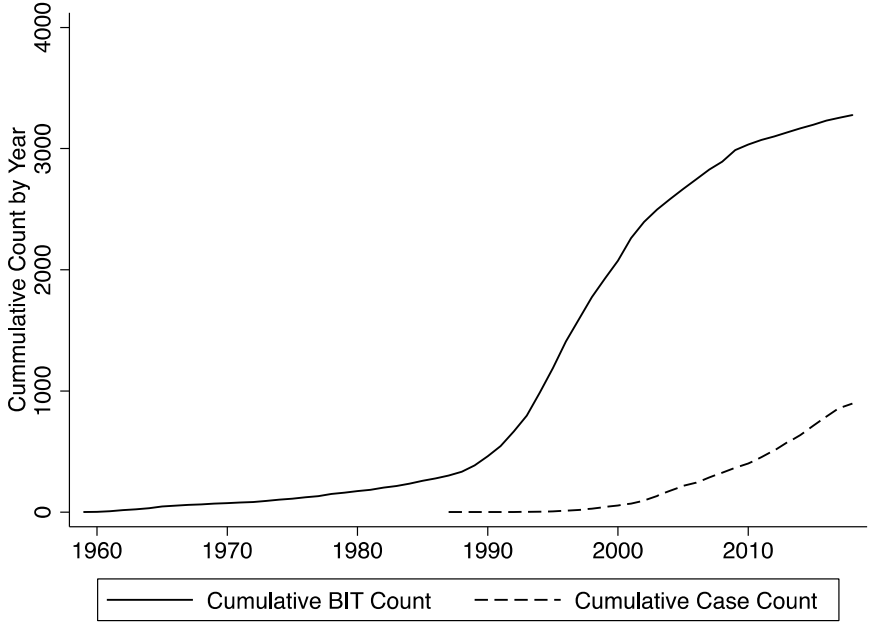

Figure 2: Time Series of BIT Signings and Arbitration Filings (Cumulative)

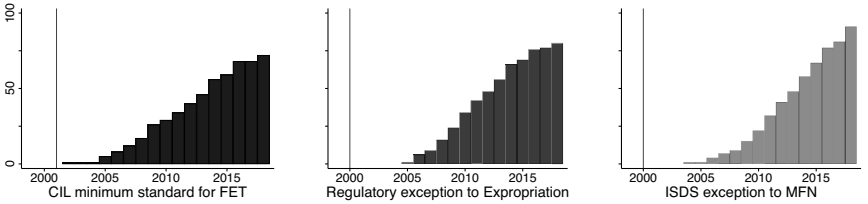

Figure 3: Count of BITs Post Decision with Limitation

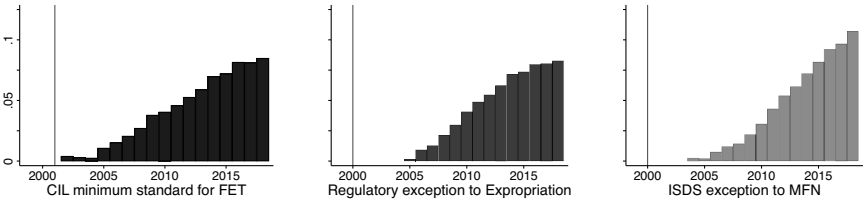

Figure 4: Cumulative Share of BITs Post Decision with Limitation

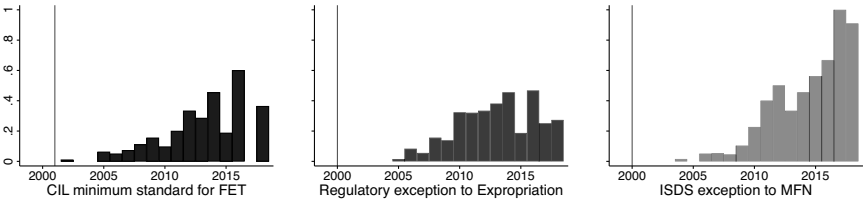

Figure 5: Annual Share of BITs Post Decision with Limitation

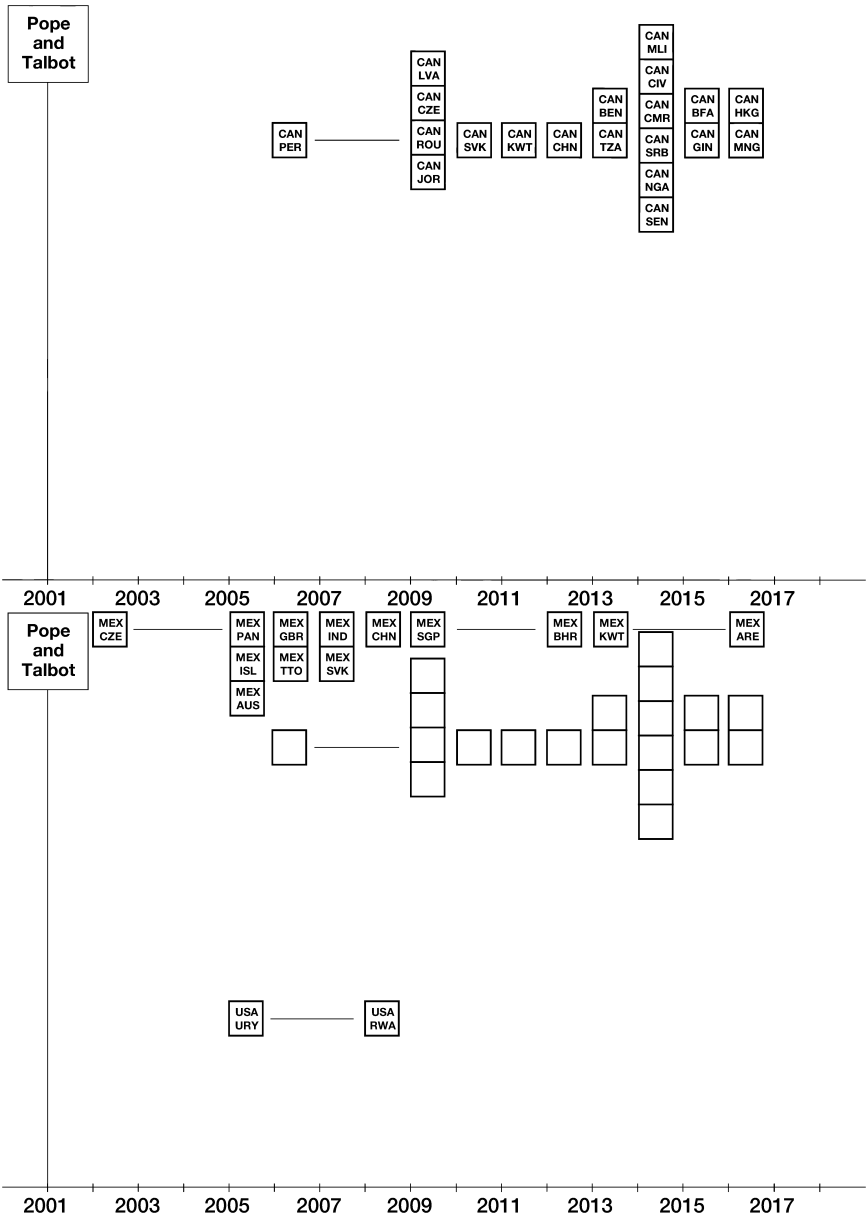

Figure 6: CIL Minimum Standard for FET: Proximate Adopter

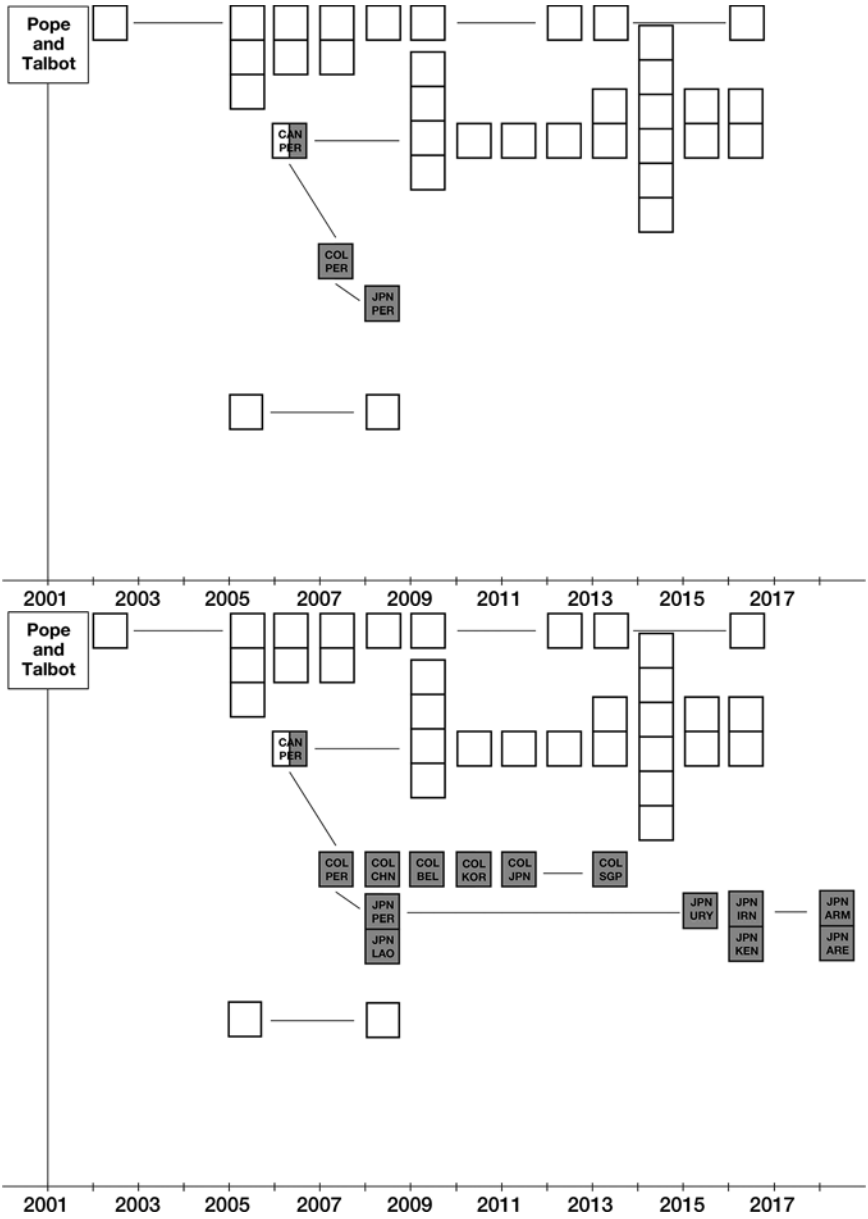

Figure 7: CIL Minimum Standard for FET: Diffusion 1

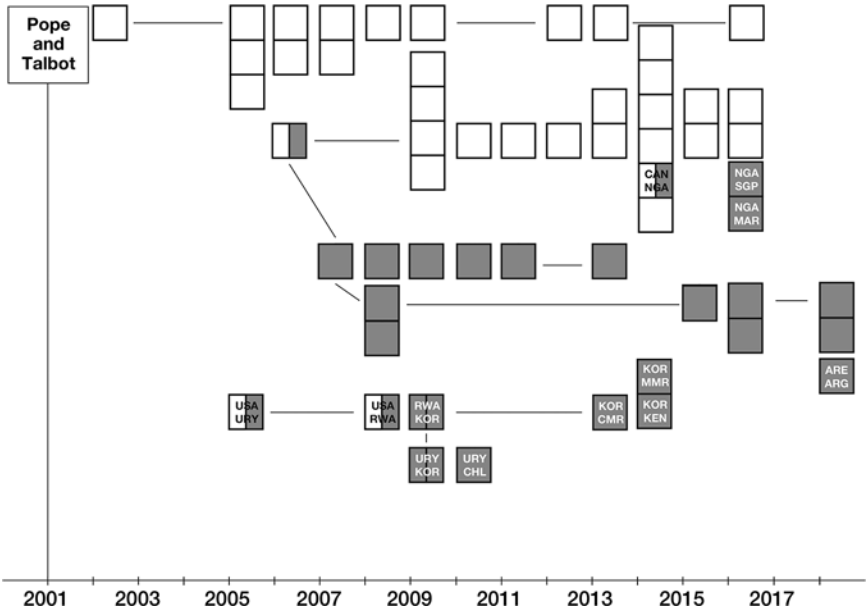

Figure 8: CIL Minimum Standard for FET: Diffusion 2

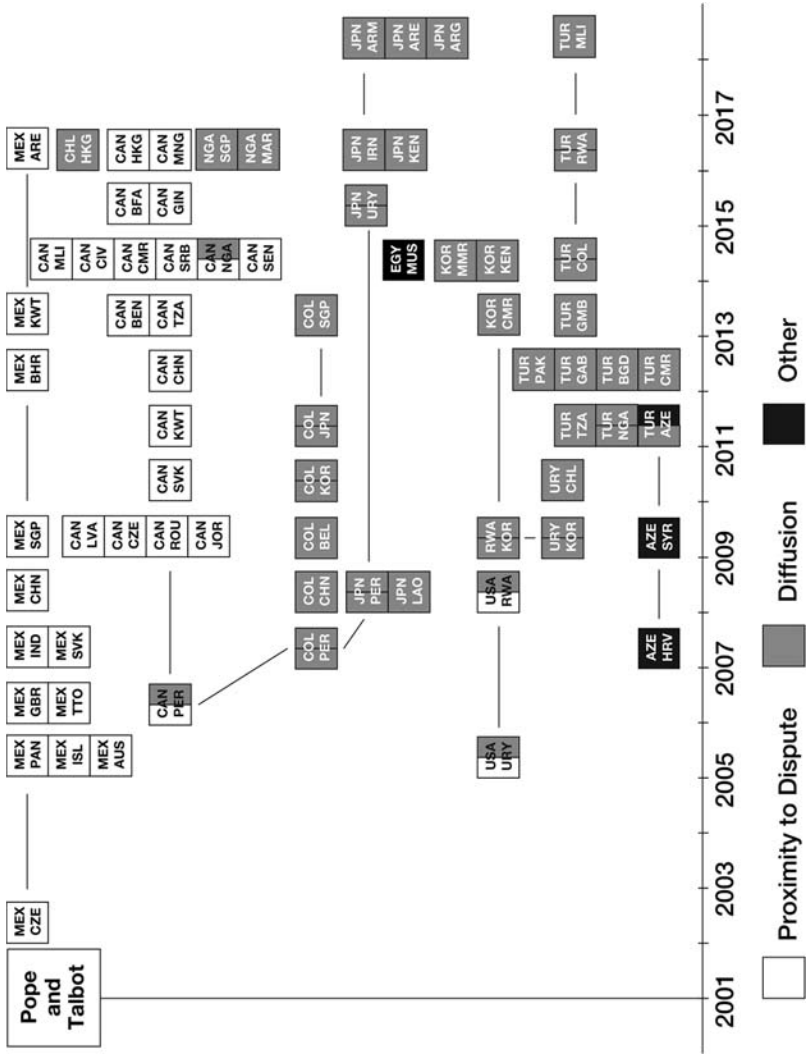

Figure 9: CIL Minimum Standard for FET: All

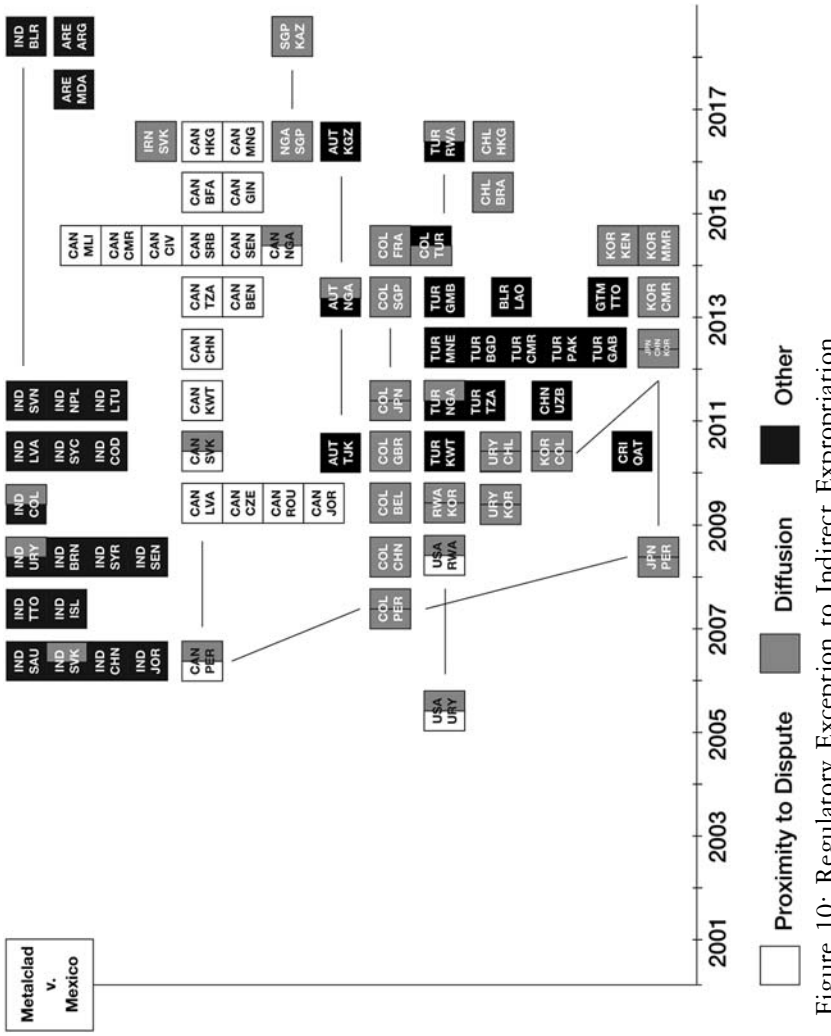

Figure 10: Regulatory Exception to Indirect Expropriation

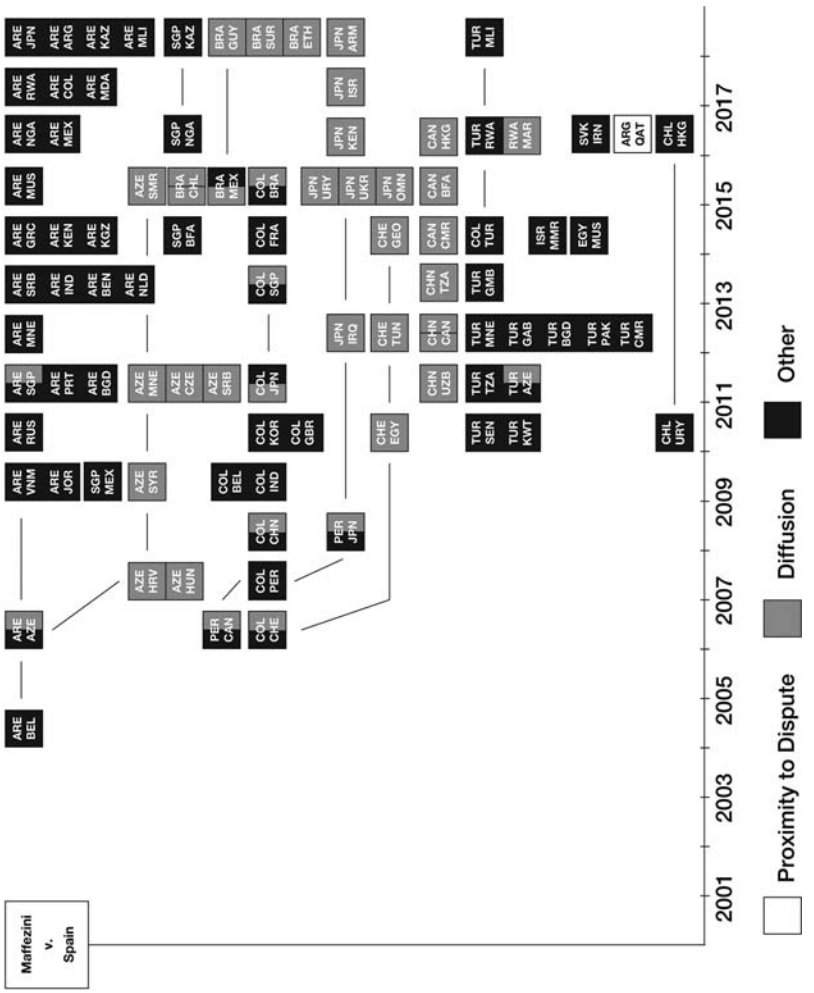

Figure 11: ISDS Exception to MFN

Case Name	Case Number	Decision Name	Date	Outcome	Pincite
Pope & Talbot v. Canada	UNCITRAL	Award on the Merits of Phase 2	10-Apr-01	Investor	pp. 46-56
CMS v. Argentina	ICSID ARB/01/8	Award	12-May-05	Neither	pp. 79-83
Saluka v. Czech Republic	UNCITRAL	Partial Award	14-Mar-06	Investor	pp. 61-63
Azurix v. Argentina (I)	ICSID ARB/01/12	Award	14-Jul-06	Neither	pp. 129-135
Enron v. Argentina	ICSID ARB/01/3	Award	22-May-07	Investor	pp. 80-82
Vivendi v. Argentina (I)	ICSID ARB/97/3	Award II	20-Aug-07	Investor	pp. 202-204
Sempra v. Argentina	ICSID ARB/02/16	Award	28-Sep-07	Investor	pp. 87-89
Bayindir v. Pakistan	ICSID ARB/03/29	Award	27-Aug-09	Investor	pp. 47-50
Lemire v. Ukraine (II)	ICSID ARB/06/18	Award - Voss Dissent	28-Mar-11	Investor	pp. 49-51
BG v. Argentina	UNCITRAL	Final Award	15-Jul-11	Investor	pp. 91-92
Binder v. Czech Republic	UNCITRAL	Final Award	15-Jul-11	Investor	pp. 84-87
Bureau Veritas v. Paraguay	ICSID ARB/07/9	Further Decision on Objs. to Jurisd.	9-Oct-12	Neither	pp. 37-38
Murphy v. Ecuador (II)	PCA No. 2012-16	Partial Final Award	6-May-16	Neither	pp. 64-66
Garanti Koza v. Turkmenistan	ICSID ARB/11/20	Award	19-Dec-16	Investor	pp. 149-153

Table 1: Citing Decisions - Pope & Talbot

Case Name	Case Number	Decision Name	Date	Outcome	Pincite
Metalclad v. Mexico	ICSID ARB(AF)/97/1	Award	30-Aug-00	Investor	pp. 28-30
Feldman v. Mexico	ICSID ARB(AF)/99/1	Award	1-Dec-02	State	pp. 37-39
Tecmed v. Mexico	ICSID ARB(AF)/00/2	Award	29-May-03	Investor	pp. 43-46
Methanex v. USA	UNCITRAL	Final Award Jurisd. and Merits	3-Aug-05	State	Part IV Ch. D, pp. 3-4
Saluka v. Czech Republic	UNCITRAL	Partial Award	17-Mar-06	State	pp. 52-54
Fireman's Fund v. Mexico	ICSID ARB(AF)/02/1	Award	17-Jul-06	State	pp. 83-85
Telenor v. Hungary	ICSID ARB/04/15	Award	13-Sep-06	Neither	pp. 35-36
ADM v. Mexico	ICSID ARB(AF)/04/5	Award	21-Nov-07	State	p. 77
Corn Products v. Mexico	ICSID ARB(AF)/04/1	Decision on Responsibility	15-Jan-08	State	pp. 41-44
Rumeli v. Kazakhstan	ICSID ARB/05/16	Award	29-Jul-08	Investor	pp. 187-188
Glamis Gold v. USA	UNCITRAL	Award	8-Jun-09	State	pp. 155-156
Walter Bau v. Thailand	UNCITRAL	Award	1-Jul-09	Neither	pp. 118-119
EMV v. Czech Republic	UNCITRAL	Partial Award on Liability	8-Jul-09	State	p. 37
Chemtura v. Canada	UNCITRAL	Award	2-Aug-10	State	p. 78
El Paso v. Argentina	ICSID ARB/03/15	Award	31-Oct-11	State	pp. 72-75
Roussalis v. Romania	ICSID ARB/06/1	Award	7-Dec-11	Investor	p. 57
Deutsche Bank v. Sri Lanka	ICSID ARB/09/2	Award	31-Oct-12	Investor	p. 114
Ryan and others v. Poland	ICSID ARB(AF)/11/3	Award	24-Nov-15	State	pp. 166-167
Oxus Gold v. Uzbekistan	UNCITRAL	Award	17-Dec-15	State	pp. 291-292
Philip Morris v. Uruguay	ICSID ARB/10/7	Award	8-Jul-16	State	pp. 81-88
Windstream Energy v. Canada	PCA No. 3013-22	Award	27-Sep-16	Neither	p. 76

Table 2: Citing Decisions - Metalclad

Case Name	Case Number	Decision Name	Date	Outcome	Pincite
Maffezini v. Spain	ICSID ARB/97/7	Dec. on Jurisd.	25-Jan-00	Investor	p. 25
PSEG v. Turkey	ICSID ARB/02/5	Dec. on Jurisd.	4-Jun-04	Neither	p. 45
Siemens v. Argentina	ICSID ARB/02/9	Dec. on Jurisd.	3-Aug-04	Investor	p. 41
Salini v. Jordan	ICSID ARB/02/13	Dec. on Jurisd.	9-Nov-04	State	p. 40
Plama v. Bulgaria	ICSID ARB/03/24	Dec. on Jurisd.	8-Feb-05	State	p. 59
Camuzzi v. Argentina (I)	ICSID ARB/03/2	Dec. on Jurisd.	11-May-05	Neither	pp. 32-22
Gas Natural v. Argentina	ICSID ARB/03/10	Dec. on Jurisd.	17-Jun-05	Investor	p. 20
Berschader v. Russia	SCC 080/2004	Award	21-Apr-06	State	p. 70
Suez and Interagua v. Argentina	ICSID ARB/03/17	Dec. on Jurisd.	16-May-06	Investor	p. 38
Telefo´nica v. Argentina	ICSID ARB/03/20	Dec. on Jurisd.	25-May-06	Investor	p. 59
National Grid v. Argentina	UNCITRAL	Dec. on Jurisd.	20-Jun-06	Investor	p. 29
AWG v. Argentina	ICSID ARB/03/19	Dec. on Jurisd.	3-Aug-06	Investor	p. 36
Suez and Vivendi v. Argentina (II)	ICSID ARB/03/19	Dec. on Jurisd.	3-Aug-06	Investor	p. 36
Telenor v. Hungary	ICSID ARB/04/15	Award	13-Sep-06	State	p. 55
RosInvest v. Russia	SCC 079/2005	Award on Jurisd.	7-Oct-07	Investor	p. 83
BG v. Argentina	UNCITRAL	Final Award	24-Dec-07	Neither	p. 53
Biwater v. Tanzania	ICSID ARB/05/22	Award	24-Jul-08	Neither	p. 93
Wintershall v. Argentina	ICSID ARB/04/14	Award	8-Dec-08	State	p. 121
TSA Spectrum v. Argentina	ICSID ARB/05/5	Award	19-Dec-08	Neither	p. 34
Renta 4 v. Russia	SCC 024/2007	Award on Prelim. Objs.	20-Mar-09	State	p. 51
Tza Yap Shum v. Peru	ICSID ARB/07/6	Dec. on Jurisd.	19-Jun-09	State	p. 77
Austrian Airlines v. Slovak Republic	UNCITRAL	Final Award	9-Oct-09	State	p. 38
Frontier v. Czech Republic	UNCITRAL	Final Award	12-Nov-10	Neither	p. 83
Impregilo v. Argentina (I)	ICSID ARB/07/17	Award	21-Jun-11	Investor	p. 27
HOCHTIEF v. Argentina	ICSID ARB/07/31	Dec. on Jurisd.	24-Oct-11	Investor	p. 18
ICS v. Argentina (I)	PCA 2010-9	Award on Jurisd.	10-Feb-12	State	p. 110
Daimler v. Argentina	ICSID ARB/05/1	Award	22-Aug-12	State	pp. 119-120
EURAM Bank v. Slovakia	PCA 2010-17	Award on Jurisd.	22-Oct-12	State	p. 157
Urbaser and CABB v. Argentina	ICSID ARB/07/26	Dec. on Jurisd.	19-Dec-12	Neither	p. 68
Teinver and others v. Argentina	ICSID ARB/09/1	Dec. on Jurisd.	21-Dec-12	Investor	p. 42
Ambiente and others v. Argentina	ICSID ARB/08/9	Dec. on Jurisd.	8-Feb-13	Neither	p. 216
Philip Morris v. Uruguay	ICSID ARB/10/7	Dec. on Jurisd.	2-Jul-13	Neither	p. 50
Kılıç v. Turkmenistan	ICSID ARB/10/1	Award	2-Jul-13	State	p. 87
Granti Koza v. Turkmenistan	ICSID ARB/11/20	Dec. on Jurisd.	3-Jul-13	Investor	p. 46
ST-AD v. Bulgaria	PCA 2011-06	Award on Jurisd.	18-Jul-13	State	p. 101
Dede v. Romania	ICSID ARB/10/22	Award	5-Sep-13	Neither	p. 50
Sanum Investments v. Laos (I)	PCA 2013-13	Award on Jurisd.	13-Dec-13	State	p. 94
˙Ic¸kale v. Turkmenistan	ICSID ARB/10/24	Award	8-Mar-16	Neither	p. 87
MMEA and AHSI v. Senegal	ICSID ARB/15/21	Award	5-Aug-16	State	p. 47

Table 3: Citing Decisions - Maffezini

Respondent Country	Adopter Status	Adoption Year	Most Recent BIT Year	Citing Decision Year(s)	Case Count	Loss Count	Post Resp BIT Count	Post BIT Count w/ Text	Post BIT Count w Limit
Argentina	Non-Adopter	-	2018	2005 2006 2007* 2011*	6	4	2	2	0
Czech Republic	Non-Adopter	-	2017	2006* 2011*	2	2	11	10	1
Pakistan	Non-Adopter	-	2014	2009*	1	1	3	3	1
Paraguay	Non-Adopter	-	2018	2012	1	0	2	1	0
Ukraine	Non-Adopter	-	2017	2011*	1	1	2	1	0
Canada	Adopter	2006	2016	2001*	1	1	20	20	20
Ecuador	Dormant	-	2002	2016	1	0	0	N/A	N/A
Turkmenistan	No Info	-	2011	2016*	1	1	0	N/A	N/A

Years marked with a * indicate a Citing Decision year in which the arbitration tribunal rendered a decision in favor of the investor.
BIT counts in a ☐ indicate all BITs that include the new provision are signed with an existing adopter and so do not indicate a pattern of adoption for the respondent.

Table 4: Respondents in Citing Decisions: Pope & Talbot

Respondent Country	Adopter Status	Adoption Year	Most Recent BIT Year	Citing Decision Year(s)	Case Count	Loss Count	Post Resp BIT Count	Post BIT Count w/ Text	Post BIT Count w Limit
Czech Republic	Non-Adopter	-	2017	2006 2009	2	0	11	10	1
Hungary	Non-Adopter	-	2017	2006	1	0	5	2	0
Kazakhstan	Non-Adopter	-	2018	2008*	1	1	9	9	0
Mexico	Non-Adopter	-	2016	2000* 2002 2003* 2006 2007 2008	6	2	19	17	0
Romania	Non-Adopter	-	2010	2011	1	0	0	N/A	N/A
Thailand	Non-Adopter	-	2015	2009	1	0	1	1	0
United States	Adopter	2005	2008	2002 2009	2	0	2	2	2
Argentina	Maybe Adopter	2018	2018	2011	1	0	2	2	1
Canada	Pre-Adopter	2006	2016	2010 2016	2	0	15	15	15
Uruguay	Pre-Adopter	2005	2015	2016	1	0	0	N/A	N/A
Poland	Dormant	-	2006	2015	1	0	0	N/A	N/A
Sri Lanka	No Info	-	2011	2012*	1	1	0	N/A	N/A
Uzbekistan	No Info	-	2017	2015	1	0	1	0	0

Years marked with a * indicate a Citing Decision year in which the arbitration tribunal rendered a decision in favor of the investor.
BIT counts in a ☐ indicate all BITs that include the new provision are signed with an existing adopter and so do not indicate a pattern of adoption for the respondent.

Table 5: Respondents in Citing Decisions: Metalclad

Respondent Country	Adopter Status	Adoption Year	Most Recent BIT Year	Citing Decision Year(s)	Case Count	Loss Count	Post Resp BIT Count	Post BIT Count w/ Text	Post BIT Count w Limit
Bulgaria	Non-Adopter	-	2009	2005 2013	2	0	4	2	0
Czech Republic	Non-Adopter	-	2017	2010	1	0	3	2	1
Hungary	Non-Adopter	-	2017	2006	1	0	5	3	1
Jordan	Non-Adopter	-	2017	2004	1	0	26	26	1
Russia	Non-Adopter	-	2016	2006 2007* 2009	3	1	23	23	1
Slovakia	Non-Adopter	-	2016	2009 2012	2	0	4	3	0
Spain	Non-Adopter	-	2009	2000*	1	1	32	32	0
Tanzania	Non-Adopter	-	2013	2008	1	0	7	6	1
Argentina	Adopter	2016	2018	2004* 2005* 2006* 2007* 2008 2011* 2012* 2013	18	10	3	3	2
Turkey	Adopter	2010	2018	2004	1	0	56	24	13
Peru	Pre-Adopter	2006	2008	2009	1	0	0	N/A	N/A
Laos	No Info	-	2013	2013	1	0	0	N/A	N/A
Romania	No Info	-	2010	2013	1	0	0	N/A	N/A
Senegal	No Info	-	2015	2016	1	0	0	N/A	N/A
Turkmenistan	No Info	-	2011	2013* 2016	3	1	0	N/A	N/A
Uruguay	No-Info	-	2015	2013	1	0	1	1	1

Years marked with a * indicate a Citing Decision year in which the arbitration tribunal rendered a decision in favor of the investor.
BIT counts in a ☐ indicate all BITs that include the new provision are signed with an existing adopter and so do not indicate a pattern of adoption for the respondent.

Table 6: Respondents in Citing Decisions: Maffezini

	Pope & Talbot	*Metalclad*	*Maffezini*	Total
Non-Adopter	62.5%	46.2%	50%	51.4%
Adopter	12.5%	7.7%	12.5%	10.8%
Maybe Adopter	0%	7.7%	0%	2.7%
Pre-Adopter	0%	15.4%	6.3%	8.1%
Dormant	12.5%	7.7%	0%	5.4%
No Information	12.5%	15.4%	31.3%	21.6%
Respondent Countries (count)	8	13	16	37
Citing Decisions (count)	14	21	38	73

Table 7: Citing Decisions Summary

	(1)		(2)		(3)		(4)	
Adopter (t-1)	0.930***	(0.02)	0.935***	(0.02)	0.935***	(0.02)	0.891***	(0.02)
Respondent	0.168***	(0.04)	0.278***	(0.05)	0.311***	(0.05)	0.341***	(0.07)
Signatory	0.208***	(0.03)	0.327***	(0.04)	0.354***	(0.05)	0.390***	(0.06)
Diffusion	0.160***	(0.01)	0.163***	(0.01)	0.164***	(0.01)	0.172***	(0.02)
Resp. (Citing Decision)			0.027	(0.02)	0.006	(0.02)	0.016	(0.04)
Resp. (IIA Provision)			-0.012**	(0.00)	-0.013**	(0.00)	-0.014**	(0.01)
Resp. (All)			0.004	(0.00)	0.004	(0.00)	0.004	(0.00)
prior BITs					0.000	(0.00)	-0.000	(0.00)
BITs in t					-0.003	(0.00)	-0.004	(0.00)
post BITs					0.000	(0.00)	0.001	(0.00)
FDI in							0.011	(0.01)
FDI out							-0.015	(0.01)
log GDP per cap.							0.005	(0.00)
Observations	1147		1147		1126		747	

$* p < 0.05$, $** p < 0.01$, $*** p < 0.001$

Table 8: Deciding to Adopt: CIL Min. Standard

	(1) CIL Min. Standard		(2) Reg. Except. to Expro.		(3) ISDS Except. to MFN	
Adopter (t-1)	0.891***	(0.02)	0.881***	(0.02)	0.956***	(0.02)
Respondent	0.341***	(0.07)	0.098	(0.08)	-0.016	(0.04)
Signatory	0.390***	(0.06)	0.329***	(0.05)	0.004	(0.11)
Diffusion	0.172***	(0.02)	0.100***	(0.01)	0.100***	(0.02)
Resp. (Citing Decision)	0.016	(0.04)	-0.001	(0.02)	-0.007	(0.01)
Resp. (IIA Provision)	-0.014**	(0.01)	-0.017**	(0.01)		
Resp. (All)	0.004	(0.00)	0.009**	(0.00)	0.000	(0.00)
prior BITs	-0.000	(0.00)	-0.000	(0.00)	-0.000	(0.00)
BITs in t	-0.004	(0.00)	-0.003	(0.00)	-0.003	(0.00)
post BITs	0.001	(0.00)	0.001	(0.00)	0.002**	(0.00)
FDI in	0.011	(0.01)	0.015	(0.01)	0.031**	(0.01)
FDI out	-0.015	(0.01)	0.007	(0.01)	0.020*	(0.01)
log GDP per cap.	0.005	(0.00)	0.000	(0.00)	0.007*	(0.00)
Observations	747		845		845	

$* p < 0.05$, $** p < 0.01$, $*** p < 0.001$

Table 9: Deciding to Adopt: All

	(1) CIL Min.	(2) Reg. Except.	(3) ISDS Except.
Developed only Adopter	-0.170	0.0852	-0.355***
	(0.102)	(0.0971)	(0.0831)
Both Adopters	0.144	0.181	0.109
	(0.132)	(0.138)	(0.116)
Observations	110	97	138

Standard errors in parentheses.

"Developing only Adopter" is specified as the baseline category.

$* p < 0.05$, $** p < 0.01$, $*** p < 0.001$

Table 10: Adopters and Relative GDP per Capita

	(1) CIL min.	(2) Reg. Except.	(3) ISDS Except.
One Adopter with Model	0.404*** (0.0940)	0.313* (0.122)	-0.0818 (0.0913)
Both Adopters	0.416*** (0.115)	0.390* (0.159)	0.286* (0.116)
Observations	110	97	138

Standard errors in parentheses.
"One Adopter without Model" is specified as the baseline category.
$* p < 0.05$, $** p < 0.01$, $*** p < 0.001$

Table 11: Adopters and Model BITs

	Adopt Year	BITs total	CIL min.	No FET	w/ list	CIL	IL	Unqual	Share broad	Model BIT
Mexico	2005	15	12	1	0	2	0	0	0.13	2008
U.S.A.	2005	2	2	0	0	0	0	0	0	2004
Uruguay	2005	6	4	0	0	0	0	2	0.33	-
Canada	2006	20	20	0	0	0	0	0	0	2004
Peru	2006	3	3	0	0	0	0	0	0	2000
Colombia	2007	12	7	1	4	0	0	0	0	2008
Azerbaijan	2007	16	3	1	1	0	0	11	0.69	2016
Japan	2008	17	6	0	0	1	7	3	0.65	-
Rwanda	2008	5	3	1	1	0	0	0	0	-
South Korea	2009	6	6	0	0	0	0	0	0	-
Turkey	2011	13	11	0	0	0	0	2	0.15	2009
Nigeria	2014	6	4	0	0	0	0	2	0.33	-
Hong Kong	2016	2	2	0	0	0	0	0	0	-

Table 12: Other Limitations: Pope & Talbot

	Adopt Year	BITs total	Reg. Except.	No Indirect Exp.	Define	Unqual.	Share broad	Model BIT
Uruguay	2005	5	3	1	3	1	0.2	-
U.S.A.	2005	2	2	0	0	0	0	2004
India	2006	28	18	0	17	6	0.21	2003
Canada	2006	22	22	0	22	0	0	2004
Peru	2006	5	4	1	4	0	0	2000
Colombia	2007	15	13	0	14	1	0.07	2008
Japan	2008	18	4	0	6	12	0.67	-
Rwanda	2008	3	2	0	0	1	0.33	-
South Korea	2009	10	10	0	10	0	0	-
Austria	2010	3	3	0	0	0	0	2008
Turkey	2010	15	11	0	2	4	0.27	2009
Chile	2010	3	3	0	0	0	0	-
Nigeria	2013	5	3	0	3	1	0.2	-
Singapore	2016	3	2	0	0	1	0.33	-
United Arab Emirates	2017	7	2	0	0	0	0.71	-

Table 13: Other Limitations: Metalclad

	Adopt Year	BITs total	ISDS Except	No MFN	Unqual.	Share broad	Model BIT
United Arab Emirates	2004	37	26	0	11	0.30	-
Azerbaijan	2006	16	7	0	9	0.56	2016
Peru	2006	3	3	0	0	0	2000
Canada	2006	10	3	0	7	0.7	2004
Colombia	2006	13	11	0	2	0.15	2008
Switzerland	2006	13	4	0	9	0.69	-
China	2008	6	3	0	3	0.5	-
Japan	2008	18	10	0	8	0.44	-
Singapore	2009	10	4	0	6	0.6	-
Turkey	2010	15	13	0	2	0.13	2009
Chile	2010	3	2	0	1	0.33	-
Japan	2012	14	5	0	9	0.64	-
Brazil	2015	6	5	1	0	0	2015
Argentina	2016	2	2	0	0	0	-
Rwanda	2016	3	3	0	0	0	-

Table 14: Other Limitations: Maffezini

	CIL min standard Adopting Year	Reg. except. Adopting Year	ISDS except. MFN Adopting Year
Argentina	-	-	2016
Austria	-	2010	-
Azerbaijan	2007	-	2006
Brazil	-	-	2015
Canada	2006	2006	2006
Chile	-	2010	2010
China	-	-	2008
Colombia	2007	2007	2006
Hong Kong	2016	-	-
India	-	2006	-
Japan	2008	-	2008
Mexico	2002	-	-
Nigeria	2014	2013	-
Peru	2006	2006	2006
Rwanda	2008	2008	2016
Singapore	-	2016	2009
South Korea	2009	-	-
Switzerland	-	-	2006
Turkey	2011	2010	2010
United Arab Emirates	-	2017	2004
United States of America	2005	2005	-
Uruguay	2005	2005	-
Total	13	13	14

Table 15: Adopters

	CIL min standard	Reg. except.	ISDS except. MFN
Adopters	14	13	14
Dormant countries	45	45	45
Non-Adopting BITs between:			
Adopters	25	23	33
Adopters/Dormants	84	95	125
Dormants	59	59	67
Total	168	177	225
Current Adopting BITs	72	80	91
Projected Growth in Adopting BITs	233%	221%	247%

Table 16: Projecting Adoption Under the MII