Spillover Effects in International Law: Evidence from Tax Planning*

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Abstract

Multinational firms frequently engage in *in*direct investment, holding ownership of their foreign assets through shell companies incorporated in third states. This allows them to arbitrage other states' international agreements; increasingly, firms engage in a practice I call proxy arbitration, using their shell companies to file investor-state disputes against their host states using other states' bilateral investment treaties. I argue that proxy arbitration—which dramatically increases the scope of the international investment regime—is actually a *spillover effect* of corporate tax avoidance. Firms establish indirect ownership structures in order to access the bilateral tax treaty network, which lowers the tax rate charged on cross-border capital transfers. However, tax and investment treaty networks overlap extensively; investors who sought tax treaty coverage often gain investment treaty coverage as a side benefit, enabling them to file proxy arbitration in the event of a dispute. Using novel, fine-grained data on the ownership structures of multinational firms, I find evidence in support of the spillover effects theory. The results suggest that understanding the true political and economic impacts of global governance institutions requires attention to how firms strategically change their legal forms to access or avoid them, as well as how corporate arbitrage in one regime spills over into others.

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The modern regime for the regulation and protection of foreign investment—composed mainly of thousands of bilateral investment treaties (BITs)—is undergoing a legitimacy crisis, with states terminating or renegotiating their investment treaties increasingly frequently (Haftel and Thompson, 2018; Peinhardt and Wellhausen, 2016; Thompson, Broude and Haftel, 2019). Capital-importing states thought that BITs would allow them to make a calculated bilateral exchange: in return for offering access to costly investor-state dispute settlement (ISDS) to investors from the partner state, they would receive greater foreign direct investment. However, the returns to BITs have been modest at best,[1] and host states have faced greater legal liabilities than they signed up for (See e.g. Poulsen, 2014).

The latter is true in large part due to the *in*direct structure of modern foreign direct investment: firms and individuals who invest abroad often route their investments through intermediate (or "conduit") subsidiaries (typically shell companies) incorporated in other states, fragmenting ownership across multiple national jurisdictions (Kerner, 2014). As each subsidiary is legally considered to be a national of the state in which it is incorporated, it has access to all of that state's BITs, and the ultimate owner of the subsidiary can thus file ISDS against the host state using a legal agreement to which its own home state is not a party. Host states can therefore face legal liabilities from third-party investors under bilateral investment treaties, and evidence suggests that these cases are becoming increasingly common (Betz, Pond and Yin, 2020). In a recent example, British telecom giant Vodafone Plc won a USD $3B arbitration against India; however, the case was actually filed not by Vodafone Plc itself but rather by one of Vodafone's Dutch holding companies under the Netherlands-India BIT.[2] Just two years after the case was filed, India unilaterally terminated its BIT with the Netherlands.[3]

What explains the growing number of ISDS cases in which foreign investors use an in-

[1] See Brada, Drabek and Iwasaki (2020) for a meta-analysis of BITs and FDI.

[2] Upmanyu Trivedi and Ragini Saxena, "Vodafone Scores a Victory in $3 Billion Tax Spat With India", *Bloomberg*, 25 September 2020.

[3] Kavaljit Singh and Burghard Ilge, "Remodeling India's Investment Treaty Regime", *The Wire*, 16 July 2016.

termediate subsidiary in order to access another state's BIT, engaging in a practice I label "proxy arbitration?" Scholars of international law (Skinner, Miles and Luttrell, 2010; van Os and Knottnerus, 2012) and more recently political science (Betz, Pond and Yin, 2020; Gray, 2020) have posited that investors structure their investments in order to ensure that their foreign assets are protected under an investment treaty. According to this treaty shopping hypothesis, investors take the investment treaty network into account when planning their investment; if their home state does not have a treaty with the potential host state, they route their investment through a holding company in a third state that does have a treaty with the host state.

In this paper, I complicate the investment treaty-shopping argument by noting that multinational firms operate in a world characterized by multiple, overlapping bilateral treaty networks. The network of BITs exists alongside an equally large network of bilateral tax treaties (BTTs, sometimes referred to as double taxation treaties) that set the rates levied on transfers of capital between pairs of states. Originally intended as a technical fix for the problem of double taxation, BTTs have created opportunities for legal tax avoidance (or "tax planning," in the parlance of the business world): because BTTs create low-tax "paths" between certain pairs of states, firms can lower their overall tax bill by investing indirectly through third-state subsidiaries in a way that allows them to take advantage of these paths (Arel-Bundock, 2017; Rixen, 2011; Van 't Riet and Lejour, 2018).

I argue that, in most cases, the decision to invest indirectly is motivated by tax concerns and that the location of intermediate subsidiaries is therefore determined by the BTT network rather than the BIT network. However, the BIT and BTT networks are highly correlated: 55% of the dyads that have an active BTT also have an active BIT.[4] Intermediate subsidiaries that were created for tax purposes can therefore be repurposed as ISDS claimants in the event that a dispute arises with the host government. In this way, the tax avoidant behaviors induced by the tax treaty network create *spillover effects* on the

[4]Source: author's calculations based on BIT/tax treaty data from 2007.

investment treaty regime.

In order to evaluate predictions drawn from my argument, I draw on two sources of data on indirect investment. First, I introduce a new dataset on the corporate ownership structures of over 1,000 claimant firms that have filed ISDS cases between 1987 (the year of the first modern ISDS case) and 2015. Consulting a wide range of sources, I determine whether or not each of the claimants involved in 726 distinct ISDS cases was the direct and/or the ultimate owner of the disputed assets, and if not I determine who *was*. I find that 41% of ISDS cases contain at least one claimant that is investing indirectly through one or more third party-incorporated subsidiaries, and that 27% of all cases are proxy arbitrations in which the claimants are themselves subsidiaries of a third party-incorporated parent. Second, I use publicly available regulatory filings from the Securities and Exchange Commission (SEC) to construct a dataset on the complete ownership structures of 64 large U.S. multinationals (7,747 foreign subsidiaries in total).

I present a range of evidence in support of the tax planning hypothesis. First, I use the SEC data to show that tax planning, rather than investment treaty shopping, drives selection into indirect investment; firms are substantially more likely to hold ownership of a foreign subsidiary indirectly when the tax savings are largest. Second, conditional on choosing to invest indirectly, I show that firms are much more likely to incorporate their conduit subsidiaries in jurisdictions that offer them access to the tax treaty network and to lower tax rates on cross-border capital payments. Third, while tax considerations drive the initial decision to invest indirectly, firms are more likely to choose conduit locations that give them BIT access when host state political risk—defined as the government's ability to arbitrarily change or reinterpret policies in a way that enables predation—is highest. These results hold, and indeed are highly similar, for both the ISDS and SEC samples. Finally, I provide descriptive evidence that the overlap between tax and investment treaty networks means that tax-planning indirect investors will often gain access to third state BITs as a side benefit. 21% of the conduit subsidiaries in the SEC data are incorporated in states

that have a BIT with the host state, meaning that one in five indirect investments could generate a proxy arbitration case; however, 92% of these subsidiaries *also* offer tax treaty access, strongly suggesting that BIT access was secondary to tax planning.

These findings contribute to the literature on strategic investor behavior in the international investment regime (Moehlecke, 2019; Pelc, 2017), as well as recent work on corporate arbitrage in international law more generally (Arel-Bundock, 2017; Betz, Pond and Yin, 2020; Chapman et al., 2020). By using extremely fine-grained data on the structure of individual foreign direct investments, I provide a novel way to study global firms' attempts to access (or avoid) international political institutions. Further, I identify a new political consequence of corporate tax avoidance: while it is well known that tax avoidance impedes development (Tørsløv, Wier and Zucman, 2019) and fosters inequality (Alstadsæter, Johannesen and Zucman, 2019) by depriving states of tax revenue, I show that the indirect ownership structures that firms adopt in order to gain access to tax treaties create additional legal liabilities for states by opening them up to costly proxy arbitration cases.

Multinational firms are increasingly able to detach their *de jure* corporate forms from their actual global operations, whether by changing their state of incorporation without moving their headquarters[5] or by routing their investments through anonymous shell companies. This separation of legal ownership and real activity fundamentally changes the nature of global economic governance: in a world in which corporate nationality is malleable, institutions like BITs and tax treaties that apply to firms according to their nation of origin will necessarily become global (if they are favorable) or easily avoided (if not). I show that firms can select into (or out of) these institutions by investing indirectly without changing their real business activity at all, underscoring the importance of conceptualizing foreign direct investment as involving a "chain" of companies and nationalities rather than simply consisting of a parent firm and their host state assets. Further, I show that—in a world of

[5]For example, U.S.-listed, Chinese-headquartered e-commerce giant Alibaba incorporated in the Cayman Islands in order to skirt China's rules on foreign ownership of Chinese assets. See Michael Kitchen, "Beware: Alibaba IPO isn't really selling Alibaba", *MarketWatch*, 07 May 2014.

overlapping institutions—firms who select into one type of agreement often gain access to others as well. Understanding the true political and economic impacts of global governance institutions therefore requires an understanding of how firms strategically attempt to access or avoid them, as well as how corporate arbitrage in one regime spills over into others.

1 BITs, states, and firms

The first BITs were signed in the late 1950s and early 1960s in order to solve a problem: capital-exporting states wanted to protect their firms operating abroad and depoliticize commercial disputes (Vandevelde, 1993), developing state governments wanted foreign direct investment (FDI) but could not credibly commit not to expropriate, and attempts to regulate international investment multilaterally had failed (Allee and Peinhardt, 2014).[6] Substantively, BITs provide formal regulations for investors (e.g., which types of inward investment are allowed) as well as standards for the treatment of foreign investors (e.g., investors must be allowed to repatriate profits back to their home country), and often they also allow firms access to binding international arbitration in the event that the standards are violated. These bilateral treaties diminish the risk to firms of investing in developing states in two primary ways: first, the potential for arbitration raises the cost to the host government of expropriating or otherwise mistreating foreign investors, thereby deterring mistreatment (Simmons, 2014). Second, in the event that expropriation does occur, investors may be able to recoup some of the damages from the host government through the arbitration mechanism.

States who sign a BIT together make a calculated tradeoff: in exchange for the prospect of increased foreign investment, signatory states extend a set of special protections to each other's firms and open themselves up to costly investor-state arbitration in the event that these protections are violated. However, there is evidence that capital-importing states did not fully understand the nature of this tradeoff during the early decades of the bilateral

[6]There is also evidence to suggest that capital-exporting states like France and the UK put substantial pressure on their former colonies to sign BITs and ratify the ICSID Convention; see St John (2020).

investment treaty regime (1959-1987). Poulsen (2014) argues that, while states knew that their BITs left them liable to be sued by foreign investors in a process called investor-state dispute settlement (ISDS), they did not foresee how costly ISDS would prove to be. Other research suggests that only once states face arbitration themselves do they begin to question the utility of their treaties, deciding not to sign further BITs (Poulsen and Aisbett, 2013) or even renegotiating or terminating their current treaties (Haftel and Thompson, 2018; Peinhardt and Wellhausen, 2016). States who are taken to arbitration may cease to receive the increased inward FDI flows that BITs bring, making reevaluation a rational decision (Aisbett, Busse and Nunnenkamp, 2018; Allee and Peinhardt, 2011).[7]

Not only did states underestimate the frequency and intensity with which firms would file ISDS cases, they also failed to predict the variety of different ways that firms would use arbitration. Moehlecke (2019) demonstrates that firms can use arbitration in order to suppress the global diffusion of a regulatory measure, targeting early adopters in order to "chill" other potential adopters. Similarly, Pelc (2017) points to investors' lack of success in arbitration as evidence that firms file low-quality cases not in order to win, but merely in order to make adopting unfavorable regulations more expensive for host governments.[8] Gray (2020) highlights the phenomenon of proxy arbitration, in which a parent firm gains access to arbitration against a host state via a foreign subsidiary. Gray posits that proxy arbitration is the result of investment treaty-shopping, defined as the practice in which "nonstate actors such as firms structure their ownership to take advantage of other countries' arrangements" (Gray, 2020, 1). Betz, Pond and Yin (2020) provide support for the BIT/IIA-shopping hypothesis using data on multinational firms' subsidiary creation decisions.

The investment treaty-shopping argument rests on two key assumptions: first, that the insurance that BITs provide against host state mistreatment outweighs the costs associated with indirect investment. Second, that investors choose where to locate their conduit sub-

[7]Interestingly, there is substantial variation in reinvestment behavior among the very firms that file arbitration (Wellhausen, 2019).

[8]However, see Johns, Thrall and Wellhausen (2020) and Strezhnev (2017) on the problems with making inferences from observed win-rates in ISDS cases.

sidiaries based on the BIT network, rather than some other factor. I posit that whether or not these assumptions hold is contingent on the domestic political institutions of the host state. In particular, the insurance function of BITs is more valuable to investors who are operating in states with unstable and unpredictable regulatory environments, as the probability that a dispute arises is higher in these states. Further, it is clear from the data that gaining access to ISDS is not investors' sole motivation for investing through conduit subsidiaries: in 37% of observed proxy arbitration cases, the parent firm already had access to ISDS against the host and therefore did not need to use a conduit subsidiary to gain access.

In the following section, I introduce a new explanation for the rise of proxy arbitration in the international investment regime: corporate tax planning, or tax avoidance.

2 Theory: tax planning and proxy arbitration

My basic argument is as follows. First, indirect investment—investing through a wholly-owned conduit subsidiary in a third state, the only purpose of which is to hold direct ownership of the host state assets—is costly for investors, and they will only pursue this strategy when the expected benefits outweigh the costs. Indirect investment carries two potential benefits: BIT access, which is more valuable for investors in host states with high political risk, and tax planning, which can be further decomposed into tax treaty access and access to a low-corporate income tax jurisdiction. Investors will choose to locate their conduit subsidiaries in the states that provide the highest return across both factors. However, since there is a high degree of overlap between the tax and investment treaty networks, many of the investors who chose their conduit location to maximize tax favorability will gain access to a BIT as well. Herein lies the *spillover effect*: conduit subsidiaries that were created to access the bilateral tax treaty regime can often be *re*purposed as ISDS claimants in the event that a dispute arises. By encouraging investors to invest abroad indirectly through third state subsidiaries—and influencing where these subsidiaries are created—the tax treaty

regime brings about proxy arbitration cases that affect the stability of the investment treaty regime.

2.1 The costs and benefits of indirect investment

2.1.1 Costs

Indirect investment carries several fixed costs for investors. Would-be indirect investors must pay fees to incorporate the intermediate subsidiary, they must pay for office space in the hosting state, and some states require that even holding companies maintain at least one employee. Even in business-friendly jurisdictions such as the Netherlands, investors must pay some annual fees to maintain the subsidiary. Investing indirectly through a subsidiary also requires the assistance of legal and accounting firms, both of which carry costs. While no high-quality data exists on the costs of indirect investment, rough estimates of the cost of establishing an intermediate subsidiary range from USD $15,000[9] - $50,000[10] with subequent costs of $40,000 per year.[11] While these amounts may be relatively small for large firms, they are costly enough that indirect investment is not the default strategy for investors; Weichenrieder and Mintz (2008) use German FDI microdata to show that only 30% of German outward FDI is indirect.

2.1.2 Benefits: BIT access

Past studies have provided both qualitative (Gray, 2020) and quantitative (Betz, Pond and Yin, 2020) evidence to suggest that investors engage in BIT-shopping, routing their foreign assets through intermediate states with the express purpose of gaining access to those states' investment treaties. In general, having access to a BIT is valuable to firms for two reasons. First, the knowledge that an investor has access to ISDS may deter a host

[9] https://velocityglobal.com/blog/international-subsidiary-company-benefits-and-risks, first cited in Betz, Pond and Yin (2020).

[10] https://10leaves.ae/publications/difc/how-much-does-it-cost-to-set-up-a-holding-company-in-the-difc

[11] See footnote 9.

state from expropriating or mistreating that investor's assets in the first place. Second, in the event that the investor's assets are mistreated by the host government, ISDS offers investors the opportunity to recoup some of their losses in the form of a binding award or settlement (Kerner, 2009). While ISDS does not guarantee investors a payout—only 51% of arbitrations end in either an investor victory or a negotiated settlement[12]—the combination of the deterrence and insurance effects means that investors whose home and host states do not have a BIT together might rationally seek to gain access to one via indirect investment.

However, I argue that gaining access to BIT protection is unlikely to be equally valuable for all investors. Rather, BIT access is most valuable for the investors who operate in high-political risk host states.[13] First, the deterrence effect of BITs should provide the greatest returns in the presence of a credible threat; if the probability of host state mistreatment was already near zero in the absence of a BIT, gaining access to one will provide little additional protection. Second, just as individuals are willing to pay more for health insurance as they grow older (and the probability of falling ill rises), investors should be willing to pay more to gain access to insurance against host state mistreatment as the probability of mistreatment rises. Further, the lowest-risk host states tend to be developed democracies like the United States, that—given their superior legal resources and bargaining positions—are less likely to lose ISDS cases in general, reducing the insurance value of arbitration (Strezhnev, 2017). In sum, I argue that investing indirectly in order to gain access to BITs will only be rational for investors operating in host states characterized by high levels of political risk.

2.1.3 Benefits: tax planning

There are two categories of taxation that most directly impact multinational firms. The first is the corporate income tax, which is levied on corporate profits (defined as the firm's revenue after deducting expenses). The second is withholding taxes, which firms must pay

[12]Source: author calculations using UNCTAD data.

[13]Political risk stems from two primary factors. First, the state's ability to enact policy changes that negatively affect investors (raising taxes, imposing regulations, etc); second, the state's ability to directly expropriate any assets within its borders (Henisz, 2000).

to State A when transferring capital from State A to State B (for example, sending dividend payments to foreign shareholders or paying interest on an intra-firm loan). Both taxes are highly costly, with rates often in excess of 30%, and firms therefore have a strong incentive to find ways to avoid paying them. The measures that firms take to avoid taxation are referred to as tax planning, and importantly they usually involve indirect investment through strategically located subsidiaries.

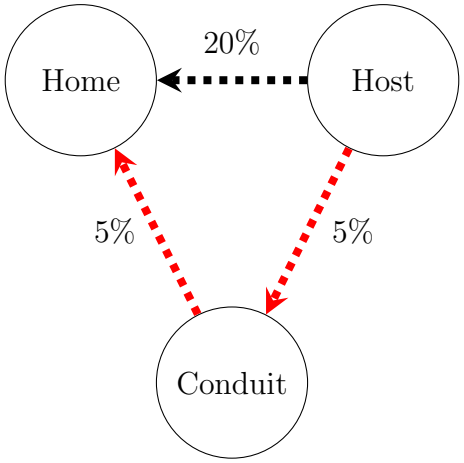
Table 1: **Definitions: two types of corporate taxation.**

Tax	Applied to:	Varies at the:	Set by:
Corporate income tax (CIT)	Firms' profits (operating revenue minus operating expenses).	National level	Domestic law
Withholding taxes (WHT)	Transfers of capital (dividends, interest payments, and royalties) between states. Discussed in context of intra-firm transfers between parent firms and their subsidiaries.	Directed-dyadic level	Tax treaties, Domestic law

Indirect investment allows firms to benefit from cross-national heterogeneity in domestic corporate tax rates: the U.S. taxes corporate profits at 21%, while Bermuda does not tax corporate profits at all (Tørsløv, Wier and Zucman, 2019). Thus, firms who wish to reduce their tax burden may wish to "book" their profits in a low-tax jurisdiction in a process called "profit-shifting" (Hines Jr. and Rice, 1994). For a parent firm, this process involves establishing a subsidiary in a low-tax state whose only purpose is to hold ownership of one of the firm's foreign assets; this type of subsidiary is sometimes referred to as a "conduit entity" (Wamser, 2011). In this case, the conduit subsidiary would book the profits generated by the asset in its own low-tax jurisdiction, reducing the parent firm's tax liability.

When firms transfer capital across borders, they must pay withholding taxes to the state that the capital is being transferred out of. Such cross-border transfers are common for multinational firms, who frequently want to distribute dividend payments to foreign shareholders, fund their subsidiaries using intra-firm loans, or simply repatriate profits earned

Figure 1: **Indirect investment, tax treaties, and tax savings: a toy example.**



by a foreign subsidiary to the home state. Unlike corporate income tax rates, withholding tax rates vary at the directed-dyadic level; the withholding rate on interest payments made from Ukraine to Canada may be different from the rate on interest payments made from Ukraine to France, which may in turn be different from the rate on interest payments made from France to Ukraine. This variation exists because, similar to the investment treaty regime, international cooperation on issues of corporate taxation mainly occurs at the bilateral level in the form of bilateral tax treaty negotiations (Rixen, 2011). States have signed thousands of BTTs, each one lowering the withholding tax rates charged on transfers between State A and State B. As a result, there is substantial variation in the cost to firms of transferring capital between pairs of states.

Indirect investment allows firms to take advantage of this heterogeneity. By establishing an intermediate subsidiary in a strategically selected third state, investing firms can gain access to lower-tax "paths" on which to send their capital. Figure 1 provides a (fictional) example of how this works: imagine that an investor wants to transfer capital from its host state subsidiary to its home state. The home and host states do not have a tax treaty together, so a direct transfer from host to home state would face a withholding tax of 20%. However, there may exist some third conduit state with which both home and host states have a tax treaty, and thus transfers from the host state to the conduit state and the conduit

state to the home state are taxed at the reduced rate of 5%. The investor could thus reduce its effective withholding tax burden from 20% to 1-(1-.05)(1-.05) = 9.75% by investing *indirectly* through a subsidiary created in the conduit state, taking advantage of the lower cost indirect path created by the bilateral tax treaty network.

2.2 Spillover effects: tax planning and proxy arbitration

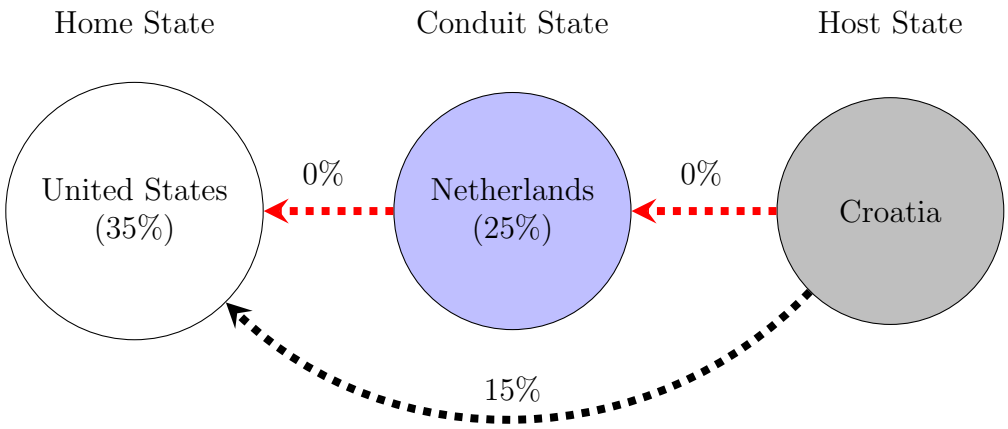
In sum, I have argued that an indirect investor from home state i investing in host state k should choose to locate their conduit subsidiary in the state j that maximizes the following expression:

$$\underbrace{(BIT_{jk} \times Risk_k)}_{\text{BIT access}} + \underbrace{f(t_j^C + t_{ijk}^W)}_{\text{Tax planning}} \tag{1}$$

Where BIT_{jk} is equal to 1 when the conduit state has a BIT with the host state, $Risk_k$ is some measure of the political risk in the host state, t_j^C is the corporate income tax rate in the conduit state, t_{ijk}^W is the withholding tax rate levied on transfers of capital made indirectly through the conduit (which is determined by tax treaties), and f is a function that is decreasing in both t_j^C and t_{ijk}^W.

Investors therefore take both the BIT and BTT networks into account when structuring their investments. However, the benefits of BIT access are conditional on the level of political risk in the host state while the benefits of tax planning are unconditional. At the same time, there is a high level of overlap between the two treaty regimes; if two states have a tax treaty together, there is a strong chance that they also have an investment treaty. This creates two opportunities for *spillover effects* across the tax and investment treaty regimes. First, it is possible that tax planning subsidizes BIT shopping; firms seeking investment treaty access are able to do so more profitably thanks to the tax treaty network, which incentivizes BIT shopping by firms who would not have otherwise found it worthwhile. Second, it is possible that even firms who invest indirectly purely for tax purposes—meaning they put no value on BIT access—will gain access to new BITs via their conduit subsidiaries. In both cases,

Figure 2: **From tax planning to proxy arbitration: the example of *B3 Croatian Courier v. Croatia*, ICSID 2015.**



Blue shading identifies the ISDS claimant, grey shading identifies the ISDS respondent. The black arrow represents the direct transfer from host state to home state, red arrows represent the indirect path of transfers. Percentages above arrows indicate the withholding tax rate levied on interest payments made from State A → State B. Percentages inside parentheses indicate corporate income tax rates.

the tax treaty regime leads investors to create conduit subsidiaries that can be used to file proxy arbitration cases in the event of a dispute.

Figure 2 provides an illustrative example drawn from an actual ISDS case, *B3 Croatian Courier v. Croatia*. In this case, the American parent firm (Bancroft Group) invested in Croatia indirectly through a conduit subsidiary (B3 Croatian Courier) incorporated in the Netherlands. The tax benefits of this arrangement are clear: first, the Netherlands' corporate income tax rate was substantially lower than that of the United States. Second, indirect investment also results in a lower effective withholding tax rate. As illustrated by the black dashed line, the withholding tax rate on direct interest payments from Croatia to the U.S. is 15%, and the U.S. and Croatia do not have a tax treaty together. However, the Netherlands has tax treaties with both Croatia and the U.S., creating a tax-free indirect path (Croatia→Netherlands→U.S.) for the parent investor.

When a dispute arose with the Croatian government, the American parent firm chose to file ISDS via its Dutch subsidiary using the Croatia-Netherlands BIT, making this a case of proxy arbitration. However, the firm could also filed the case directly under the

Croatia-United States BIT, which is comparable to the Croatia-Netherlands BIT on all relevant dimensions. It is not clear why Bancroft chose to engage in proxy, instead of direct, arbitration; the firm may have been attempting to avoid reputational damage from association with (unpopular) arbitration (Hahm et al., 2019). However, what is clear is that Bancroft invested indirectly through a Dutch subsidiary in order to minimize its tax burden, and that the subsidiary was then repurposed as an ISDS claimant when a dispute arose with the host state. Further, because the parent firm already had access to ISDS against Croatia through one of its home state's BITs, it is unlikely that its initial decision to invest indirectly was made in order to gain BIT access.

Drawing on the applied example and the previous discussion of tax planning, it is possible to form some general predictions about where investors will choose to locate their conduit subsidiaries. From the tax planning perspective, the most desirable conduit states have low corporate income tax rates, low withholding tax rates, and have tax treaties with both the host state and the investor's home state. When political risk in the host state is high, investors should be more likely to choose conduit states that have a BIT with the host state in order to ensure access to ISDS.

Hypothesis 1: Parent investors are more likely to incorporate conduit subsidiaries in states that have tax treaties with both home and host states.

Hypothesis 2: Parent investors are more likely to incorporate conduit subsidiaries in states that offer lower effective withholding tax rates (e.g., give investors access to cheaper "indirect paths").

Hypothesis 3: Parent investors are more likely to incorporate conduit subsidiaries in states with low corporate income tax rates.

Hypothesis 4: When host state political risk is high, parent investors are more likely to incorporate conduit subsidiaries in states that have a bilateral investment treaty with the host state.

In order to evaluate the above hypotheses, I use novel data on the ownership structures of ISDS claimant firms as well as detailed data on the ownership structures of American MNCs gathered from their filings with the Securities and Exchange Commission (SEC). Before moving to the research design, the next section descibes the data, the data collection process, and provides some descriptive trends.

3 Data

3.1 Ownership structures of ISDS claimants, 1987-2015

In order to explain trends in indirect investment and proxy arbitration, it is necessary to first identify the ISDS cases that are associated with these strategies. Doing so requires collecting two critical pieces of information about each claimant in each case:

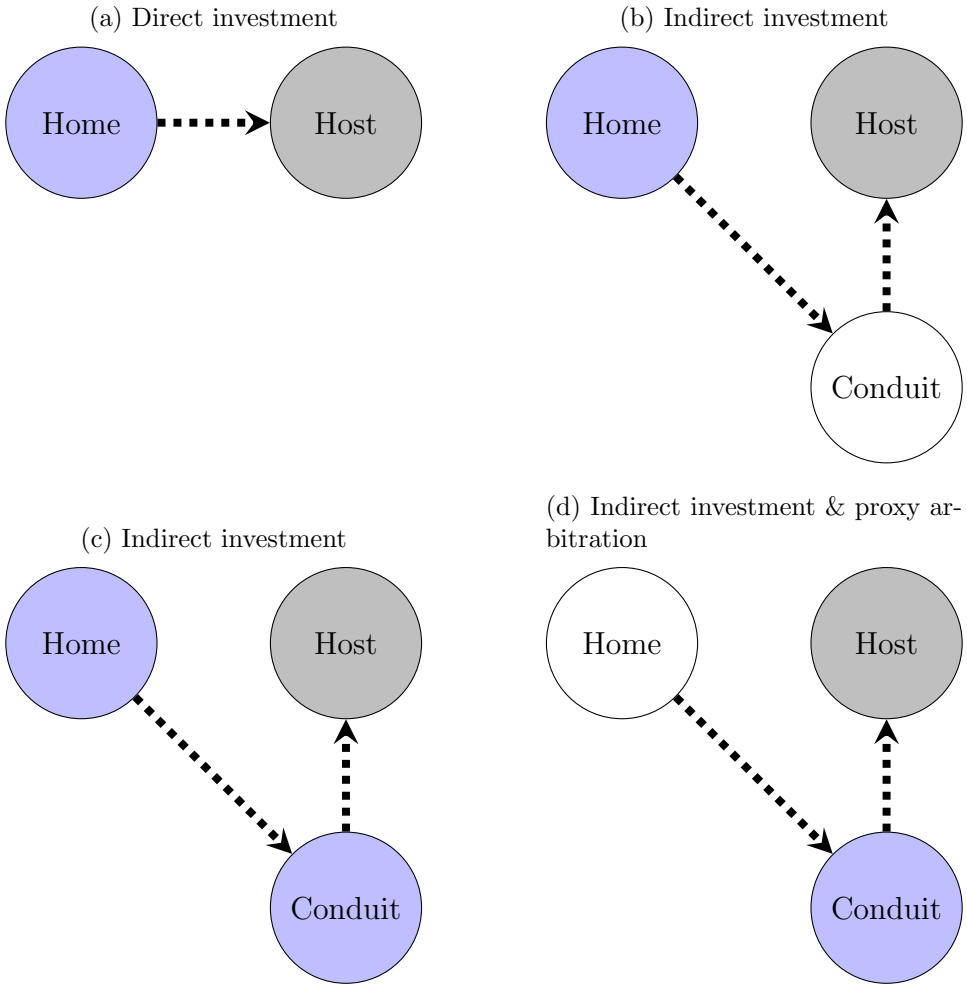
1. Is the claimant firm owned by an investor (firm or individual) from a third-party state? If so, what is the nationality of the ultimate/beneficial owner?

2. Does the claimant firm hold ownership of the disputed host state assets indirectly through one or more conduit subsidiaries? If so, where are these subsidiaries incorporated?

I collected this information for over 1,000 claimants in 726 ISDS cases filed between 1987 (the first modern ISDS arbitration) and 2015. I consulted a wide range of resources in order to verify firms' ownership structures. First, as the ownership of the investment is often a salient issue in ISDS cases, I began by checking case documents for information about claimant ownership structures.[14] Next, I searched business databases such as Orbis, Mergent Online, and Dun & Bradstreet; SEC filings and their non-US equivalents (such as SEDAR

[14]Figure 6 provides an example of an ownership diagram (also called an "organigram") that was included in a case document.

Figure 3: **Classification of ISDS cases according to claimant ownership structure.**



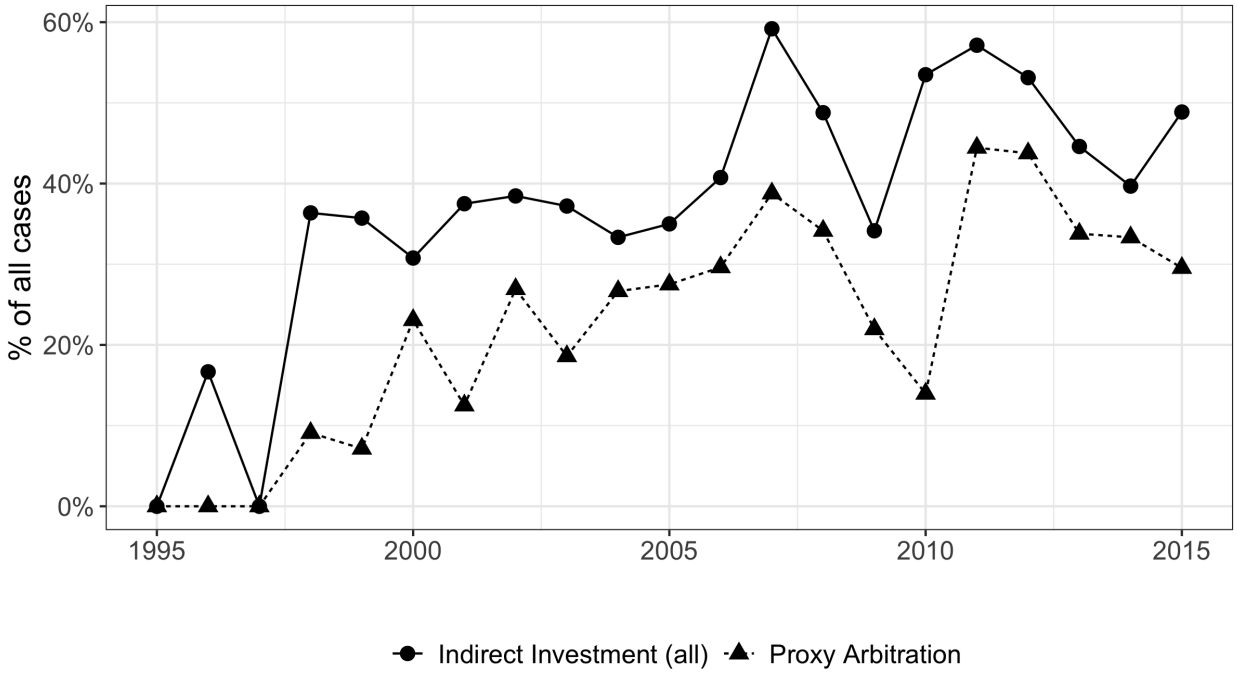
Grey nodes represent the host states where the disputed assets are located, and are the respondents in the ISDS case; blue nodes represent the firms that are claimants in the ISDS case; dashed arrows identify ownership relationships, pointing from owner to subsidiary.

filings in Canada, or Companies House in the UK); firms' own websites and investor reports; leaked data from offshore service providers;[15] and secondary sources including local news, investigative reports, and specialized media outlets such as *IA Reporter*. With this data, I construct the ownership chain—the full set of ownership relationships and intermediate entities connecting the ultimate owner to the host state assets—for each firm.

After collecting information on claimants' ownership structures, I classify each ISDS case according to the diagram presented in Figure 2. If the claimant firm is both the direct and

[15] Accessed at https://offshoreleaks.icij.org/.

Figure 4: **Indirect investment and proxy arbitration in ISDS, 1995-2015**

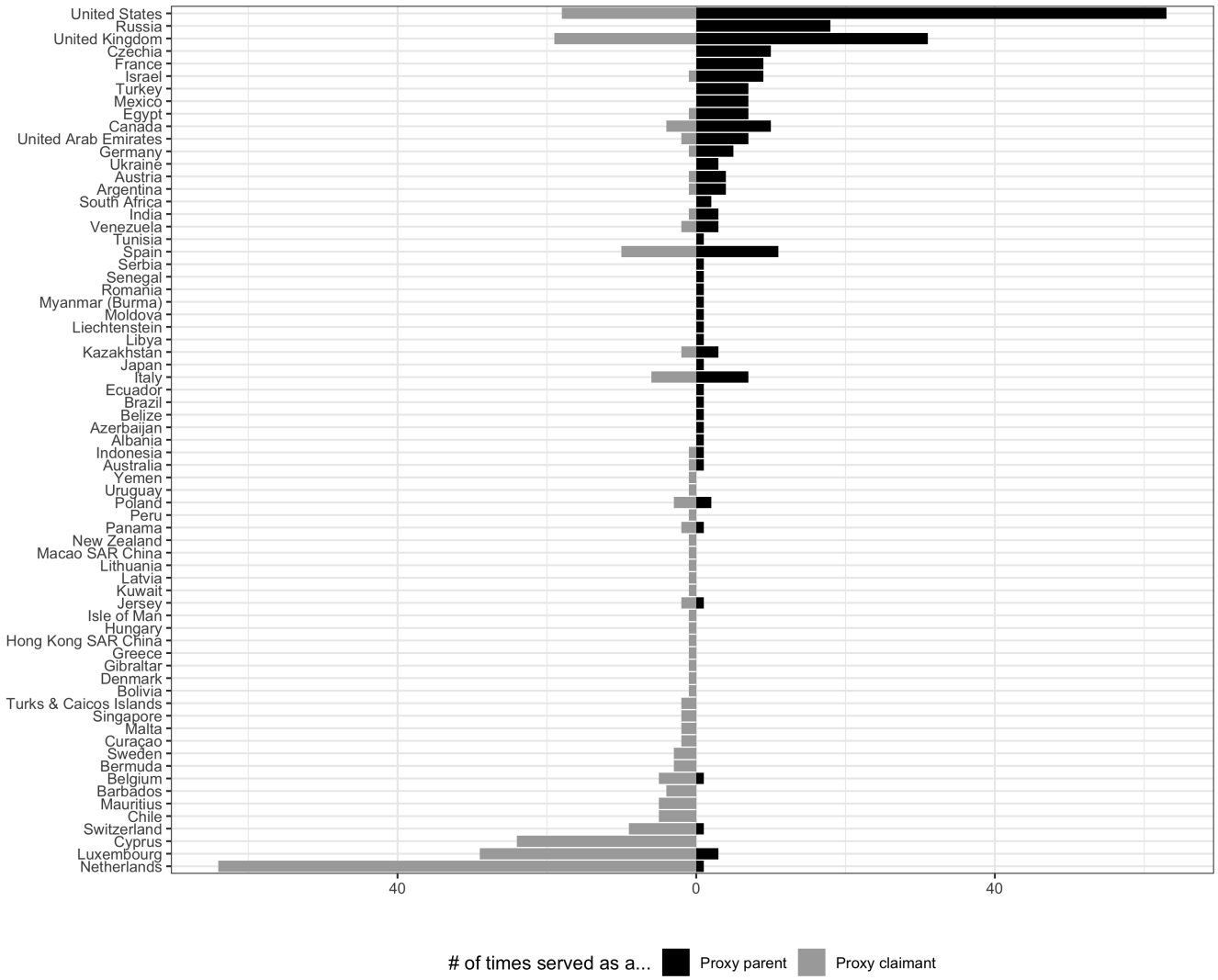


the ultimate owner of the host state assets, the case is one of direct investment. If the claimant firm is the ultimate owner but not the direct owner, the case is one of indirect investment but not proxy arbitration. Finally, if the claimant is owned or controlled by a third-party entity who is *not* a claimant on the case—meaning that the true parent investor used another state's BIT instead of its own home state's—the ultimate owner has engaged in both indirect investment and proxy arbitration. As noted by Figure 2 (c), cases in which the ultimate owner and the direct owner are both claimants are still indirect investment but not proxy arbitration.

How common are indirect investment and proxy arbitration in the international investment regime? Figure 3 graphs both the absolute number of cases filed annually and the percentage of cases filed annually that involve indirect investment and proxy arbitration.[16] First, note that while indirect investment and proxy arbitration are growing increasingly common, both strategies have long been present in investment arbitration. Second, note

[16] I begin the time series in 1995 rather than 1987, as 1995 is the first year that a non-trivial number of cases were filed.

Figure 5: **How does proxy arbitration affect the distribution of claimant nationalities in ISDS?**



that while the trends in indirect investment and proxy arbitration tend to move in tandem, there remain a substantial number of non-proxy arbitration cases in which the claimant(s) nevertheless invested indirectly. Investing indirectly through conduit subsidiaries, and filing ISDS through them, are mainstream rather than niche corporate strategies.

By cloaking the true nationality of the parent investor, proxy arbitration biases our understanding of which states' investors are the primary beneficiaries of ISDS. Figure 4 demonstrates this by plotting two quantities for each state: the number of times an investor from that state has engaged in proxy arbitration as a parent firm (in black), and the number

of times an investor filed ISDS indirectly using a conduit entity incorporated in that state (in grey). First, note that almost all of the states at the bottom of the graph—the states who are net hosts of conduit subsidiaries—are well-known facilitators of tax avoidance. While the Netherlands is by far the largest host of conduit entities,[17] other major players include low-CIT jurisdictions (Cyprus, Mauritius, Barbados) and financial centers with large tax treaty portfolios (Switzerland, Luxembourg). Second, while the US and the UK are two of the largest home states for investors who engage in proxy arbitration, they also host substantial numbers of conduit entities. This is not surprising: both the US and the UK are key faciliators of global tax avoidance (through Delaware[18] and BVI/Jersey/Monaco/Isle of Man, respectively).

3.2 Ownership structures of American multinationals

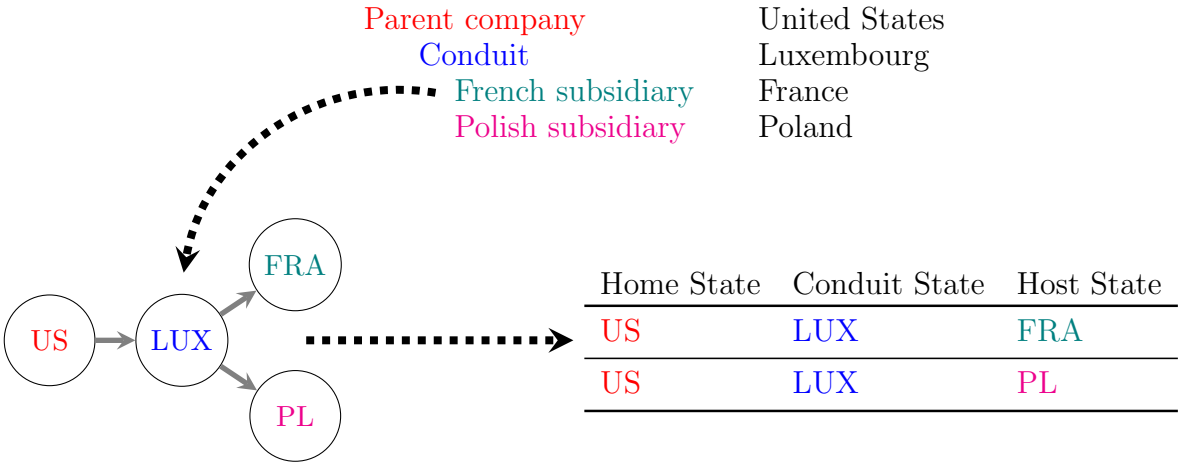
Collecting information on the ownership structures of the firms who actually engaged in ISDS is essential for measuring the spillover effects of tax planning on the international investment regime. However, the resulting sample is not random; firms who filed ISDS cases may be systematically different from other multinationals on important metrics, such as tax planning aggressiveness, that could present a barrier to inference. Further, while the sample does include indirect investors whose home state did not have a BIT with the host state, as well as indirect investors whose conduit state did not have a BIT with the host state, it does *not* include indirect investors who had no access to any BITs with the host state (as these investors could not have filed ISDS in the first place). The nonrandom nature of the sample therefore limits the generalizability of any findings that emerge from analysis of the ISDS ownership structure data alone.

To address this issue, I draw on regulatory filings to construct an additional dataset of the indirect ownership structures of large, publicly-traded American multinational firms. In

[17] Thus validating prior qualitative work on the topic's focus on the Netherlands (van Os and Knottnerus, 2012).

[18] See e.g. Leslie Wayne, "How Delaware Thrives as a Corporate Tax Haven", *The New York Times*, 30 June 2012.

Figure 6: **Recovering ownership structure from SEC filings.**



the United States, the Securities and Exchange Commission (SEC) requires public firms to publicly report the names and jurisdictions of all of their "significant" subsidiaries as part of their annual 10-K report in what are known as Exhibit 21 (Ex 21) filings.[19] While firms may have incentive to underreport, particularly regarding their subsidiaries in low-tax jurisdictions, comparisons of firms' Ex 21 filings and their confidential IRS filings reveal very high levels of compliance (Dyreng et al., 2020). Importantly for my purposes, many firms report not only the names and jurisdictions of their subsidiaries but also the ownership relationships between them. This allows me to determine whether each foreign subsidiary was owned either directly or indirectly, and in the latter case to determine the location of the conduit entity or entities.

Ex 21 filings are submitted as HTML documents and hosted on the SEC website. Ownership structure is typically denoted via text formatting: subsidiaries are listed below their owners with greater indentation, and their own subsidiaries are listed below them with additional indentation, and so on. Figure 6 demonstrates the process of identifying unique ownership chains from these filings: the text reveals an ownership structure in which a US parent firm owns a Luxembourgish subsidiary, which in turn owns both a Polish and a French subsidiary. Because the parent firm uses the conduit to make two distinct indirect

[19] Significant subsidiaries are those in which the reporting firm owns at least 50% of the shares, and which meet one of three capital requirements (listed in Appendix section A.2.)

investments, this structure would result in two unique ownership chains.

Using Ex 21 data collected by CorpWatch,[20] I identify 64 U.S. multinationals that reported hierarchical ownership among their subsidiaries in 2007 (as demonstrated in Figure 6).[21] I then recover the ownership structures for each of these firms' complete foreign assets, totaling 5,806 distinct indirect ownership chains (as well as 1,941 directly owned foreign subsidiaries). The resulting dataset complements my novel data on the ownership structures of ISDS claimants, providing an additional sample that avoids potential issues of selection on a post-treatment variable (involvement in ISDS) and allows me to compare direct and indirect investments within the same parent firm.

4 Research design

I have argued that firms invest abroad indirectly through third state conduit subsidiaries in order to access low-tax jurisdictions and the tax treaty network, but—due to the overlap between tax and investment treaty networks—the conduit subsidiaries that give them access to tax treaties often give them access to investment treaties as well, creating the opportunity for them to file proxy arbitrations in the event of a dispute. To test the hypotheses drawn from this argument, I conduct two sets of analyses. First, because the SEC sample includes information on firms' indirect *and* direct foreign investments, I use this sample to predict selection into indirect investment; my theory suggests that the initial decision to invest through a conduit subsidiary should be motivated by tax concerns.

Second, I use both the ISDS and SEC ownership structure datasets to predict indirect investors' choice of conduit subsidiary location: conditional on making the choice to invest indirectly, why do investors choose to incorporate their conduits in one jurisdiction over another?[22] The validity of this strategy is based on the fact that conduit subsidiaries are typically shell companies with no real business operations, consisting of little more than a set

[20] See http://api.corpwatch.org/.
[21] A full list of firms can be found in Appendix Table A.1.
[22] This approach has been used in the accounting literature; see Dyreng et al. (2015).

of legal documents and a bank account, and therefore that they could have just as easily been established in a different jurisdiction. My theory suggests that investors should strategically locate their conduits in the jurisdictions that offer the greatest tax benefits: access to tax treaties, low withholding rates on capital transfers, and low corporate income tax rates. To test H4, I also examine the conditional effect of host state political risk on indirect investors' choice to seek out conduit locations that offer them investment treaty protection.

4.1 Tax data sources

I use three data sources to assemble my key independent variables. First, as previously mentioned I use panel data on national corporate income tax rates that was compiled by the Tax Foundation. To put together the panel (which spans the years 1980-2018), the Tax Foundation combined their own coding of government websites with yearly tax reports published by Big Four accounting firms and other academic tax databases.[23] I use this data to determine the CIT rate that would apply to each potential conduit entity.

Second, I require dyadic data on tax treaties as well as directed-dyadic data on withholding tax rates. For the former I rely on Barthel and Neumayer (2012)'s replication data, which contains dyad-year tax treaty data for the period 1959-2007. For the latter, I draw on accounting/corporate services firm PricewaterhouseCoopers (PwC)'s publicly available territory tax reports.[24] For each territory,[25] PwC records the withholding rates for three types of transfers: interest payments, dividends, and royalties. For each type of transfer, territories maintain both a non-treaty rate (the withholding rate that is applied when a transfer is made to a non-treaty partner state) and a set of (typically lower) treaty-specific rates that vary based on the treaty partner to which the transfer is being sent. For example, New Zealand's non-treaty rates on interest/dividends/royalties are 15%/15%/15%, but its

[23]For more information, see: https://taxfoundation.org/publications/corporate-tax-rates-around-the-world/.

[24]For an example, see: https://taxsummaries.pwc.com/japan/corporate/withholding-taxes.

[25]Note that, because there is subnational variation in withholding tax rates (for example, England's withholding rates are different from those of the British Virgin Islands), the territory – rather than the nation-state – is the appropriate level of measurement.

treaty-specific rates for transfers made to Belgium are 15%/10%/10%.

A limitation of the PwC data is that they are not longitudinal: they reflect only the tax treaties and withholding rates in force as of 2019. To address this issue, I take the following approach. First, I use Barthel and Neumayer (2012)'s tax treaty data to determine whether a given dyad had a tax treaty together in the relevant time period; if they did I use the 2019 treaty rates, and if they did not I use the 2019 non-treaty rates. The validity of this approach draws on the empirical observations that tax treaties are rarely amended (and thus the treaty rates rarely change) and states rarely change their non-treaty rates, so the primary issue with using the 2019 rates is simply that some treaties which were in force as of 2019 were not yet in force during the sample period.

4.2 Variable construction and controls

4.2.1 Tax variables

Using the Tax Foundation data, I create Corporate Income Tax Rate which is equal to the corporate income tax rate in each potential conduit state. In line with Hypotheses 3, I expect the coefficient on this variable to be negative: investors should choose to incorporate conduit subsidiaries in states with low corporate income tax rates to facilitate profit-shifting. Using Barthel and Neumayer (2012)'s tax treaty data, I create variables to indicate whether there exists a tax treaty between the host state and the potential conduit (Tax Treaty with Host) and whether there exists a tax treaty between the conduit and the home state (Tax Treaty with Home). Both of these variables make a given conduit location more favorable, and thus I expect each of them to be positively signed.

Finally, I calculate the effective withholding rate levied on interest and dividend payments were they to be routed from host to conduit and then conduit to the parent's home state (Withholding Tax (Interest) and Withholding Tax (Dividends), respectively). To do so, I follow Arel-Bundock (2017)'s method for both interest and dividend rates. For each home-host-conduit triplet ijk, the effective withholding rate on transfers made from i

to j indirectly through k is equal to:

$$WHT^{E}_{ijk} = 1 - (1 - \tau_{jk})(1 - \tau_{ki}) \tag{2}$$

Where τ_{jk} is the withholding rate on transfers from host to conduit, and τ_{ki} is the rate on transfers from conduit to the parent's home state. I expect a negative sign on the effective rate variables: higher effective withholding rates make a given indirect path less favorable for the parent investor.

To account for the fact that the subsidiaries in my data were created prior to the year in which I observe them, I lag all independent variables by 10 years. However, the results are robust to other lag lengths as well.

4.2.2 Other variables

The most important control variable addresses the possibility of investment treaty shopping, or seeking out conduit locations that offer the investor access to an investment treaty. To account for this possibility, I control for the presence of an active BIT between the potential conduit state and the host state. I control for the per capita GDP of the potential conduit state, and I include an indicator variable equal to one when the potential conduit location is the Netherlands to ensure that its outlier status is not driving the results. In the models predicting selection into indirect investment, I control for host state regime type using V-Dem's additive polyarchy index. I also control for host state political risk using V-Dem's v2cltrnslw variable, which measures policy stability and predictability in how policy is enforced; I invert the scale such that higher values equate to greater political risk (e.g., lower stability/predictability). Finally, I include various fixed effects to address unobserved heterogeneity, where appropriate.

Table 2: **Summary statistics for both samples.** Columns 2 and 3 present summary statistics for all potential conduit locations, while Columns 4 and 5 present summary statistics for observed conduit locations.

SEC sample	All observations		Chosen = 1	
	Mean	SD	Mean	SD
BTT w/host	0.34	0.47	0.74	0.44
BTT w/home	0.39	0.49	0.81	0.39
Withholding tax rate (Dividends)	0.20	0.12	0.13	0.10
Withholding tax rate (Interest)	0.17	0.11	0.09	0.08
Withholding tax rate (Royalties)	0.20	0.12	0.08	0.09
Corporate income tax rate (conduit)	0.32	0.11	0.31	0.11
BIT w/host	0.20	0.40	0.21	0.41
Political risk (host)	-2.04	1.38	-1.99	1.42
GDPP per cap (conduit)	12108.79	16215.19	36714.96	15375.45
ISDS sample	All observations		Chosen = 1	
	Mean	SD	Mean	SD
BTT w/host	0.25	0.43	0.68	0.47
BTT w/home	0.45	0.50	0.81	0.39
Withholding tax rate (Dividends)	0.20	0.13	0.16	0.12
Withholding tax rate (Interest)	0.20	0.12	0.10	0.11
Withholding tax rate (Royalties)	0.22	0.12	0.11	0.12
Corporate income tax rate (conduit)	0.30	0.10	0.29	0.12
BIT w/host	0.18	0.38	0.45	0.50
Political risk (host)	-0.61	1.29	-0.66	1.31
GDPP per cap (conduit)	12859.55	17533.31	40190.10	22577.68

5 Results & Discussion

5.1 Which investments are made indirectly?

While Hypotheses 1-4 concern investors' choice of conduit location conditional on having decided to invest indirectly, my theory also makes clear predictions about the conditions under which investors should choose an indirect investment strategy in the first place. Specifically, if tax avoidance is the primary motivation for indirect investment, then firms should be more likely to invest indirectly as the tax burden associated with direct investment grows larger. If firms are investing indirectly with the explicit goal of gaining BIT access, however,

Table 3: **Tax variables predict selection into indirect investment.**

	DV: Investment made indirectly = 1.			
	(1)	(2)	(3)	(4)
Tax Treaty (home-host)	-0.004	-0.006	-0.116**	-0.071**
	(0.041)	(0.041)	(0.056)	(0.035)
Withholding tax (Dividends)	0.007***	0.006***	0.007***	0.005***
	(0.001)	(0.001)	(0.001)	(0.001)
Withholding tax (Interest)	0.004	0.004	-0.000	-0.003
	(0.003)	(0.003)	(0.003)	(0.002)
Withholding tax (Royalties)	-0.013***	-0.013***	-0.016***	-0.011***
	(0.003)	(0.003)	(0.004)	(0.003)
BIT (home-host)		0.050	0.082	0.096*
		(0.050)	(0.062)	(0.054)
Controls	No	No	Yes	Yes
Firm FE	No	No	No	Yes
Num.Obs.	7,418	7,418	6,868	6,868
R2	0.018	0.019	0.038	0.267

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

indirect investment should be most likely when the firm's home state does not have a BIT with the host state.

I test these predictions using the SEC ownership structures data. The SEC data allows me to determine, for each parent firm, which of their foreign subsidiaries are owned directly and which are owned indirectly. Noting that ownership structure is a choice—any foreign assets could be owned either directly or indirectly—I use tax and nontax variables at the host state and home-host levels to predict whether each foreign subsidiary is owned indirectly. My theory predicts that indirect investment should be more likely when home and host states do not have a tax treaty together, and when the withholding tax rates on direct transfers of capital from host to home states are higher. Control variables include host state regime type, GDP per capita (logged), and political risk.

Figure 7: **Host state political risk does not moderate the relationship between home-host BIT protection and the choice to invest indirectly.**

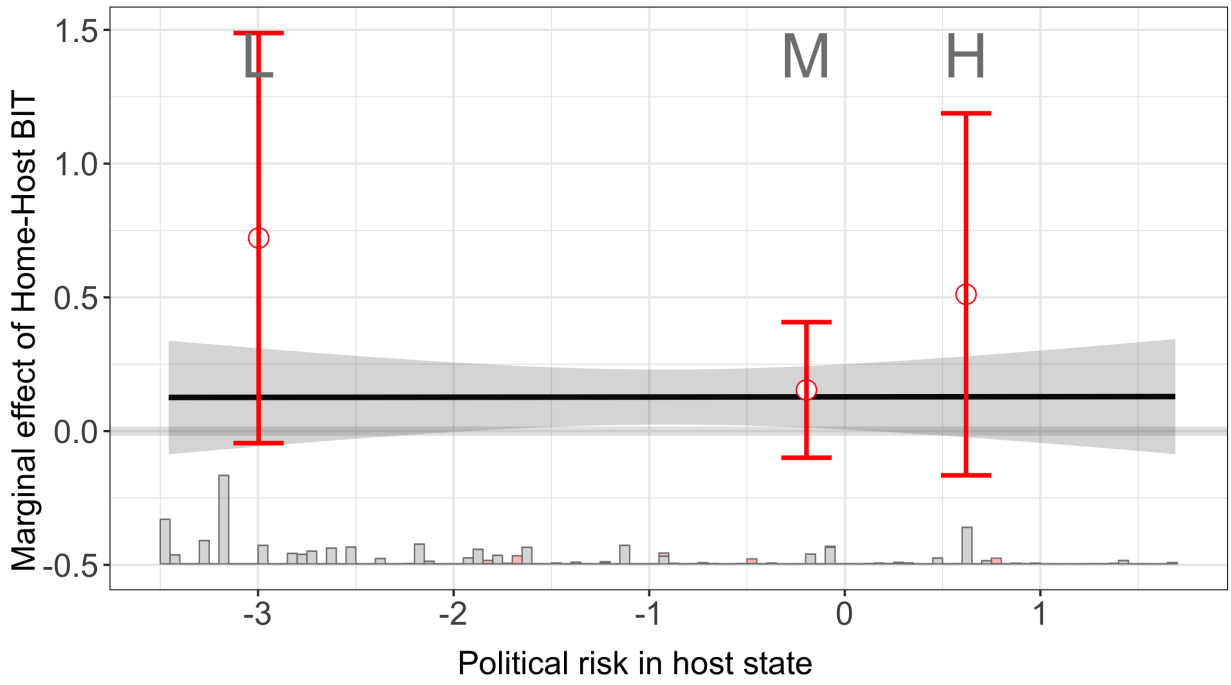


Table 3 presents the results of four models, estimated via ordinary least squares with robust standard errors clustered on the firm. The results generally support the tax planning argument. In Model (4), which includes firm-level fixed effects as well as the host state covariates, the presence of a tax treaty between the home state (which is always the U.S. in the SEC sample) and the host state reduces the likelihood that the investment is owned indirectly by 7 percentage points. This is consistent with tax treaty shopping, in which investors choose an indirect ownership structure in order to access tax treaty coverage when their own home state does not provide them with it. As expected, higher withholding tax rates on direct dividend payments are associated with a higher probability of indirect investment; puzzlingly, the opposite relationship maintains with regard to withholding tax rates for royalty payments.

I find no evidence of BIT shopping, and if anything the results suggest that indirect investment may be *more* likely when the investor's home state already has a BIT with the host state. However, while the lack of BIT access may not be a driver of indirect investment

on average, Hypothesis 4 suggests that the relationship may be moderated by the level of political risk in the host state. Firms may be more likely to invest indirectly to gain BIT access when host state political risk is high, as I have argued that BITs provide the greatest returns under these circumstances. To test this possibility, I use Hainmueller, Mummolo and Xu (2019)'s binning estimator to estimate the marginal effect of home-host BIT protection on the decision to invest indirectly at different levels of host state political risk. The binning estimator divides the sample into three equal-sized bins according to the moderating variable, then estimates marginal effects separately at the median value of each bin; this allows for nonlinearity in the marginal effect of the treatment variable on Y as the moderating variable increases. As Figure 7 shows, however, the level of political risk in the host state does not seem to moderate the relationship between BIT protection and the decision to invest indirectly. Regardless of the political environment in the host state, selection into indirect investment is associated primarily with tax concerns.

5.2 Tax planning and conduit location choice

The results presented in the previous section provide support for my theory of spillover effects: among a sample of large American multinationals, the decision to invest indirectly appears to be driven by tax concerns rather than investment treaty access. I now turn to the paper's primary analysis, which seeks to predict investors' choice of location for their conduit subsidiary conditional on having chosen to invest indirectly. As a reminder, my theory predicts that investors will choose jurisdictions that maximize tax favorability—those that offer tax treaty access, lower withholding rates, and lower corporate income tax rates. I argue that, even when firms invest indirectly solely for tax planning purposes, the overlap between tax and investment treaty networks means that they will often gain BIT protection as a side benefit.

To predict conduit location choice among indirect investors, I do the following for both the ISDS and SEC samples. First, for each distinct ownership chain (composed of a home

Table 4: **Tax variables predict investors' choice of conduit subsidiary location.**

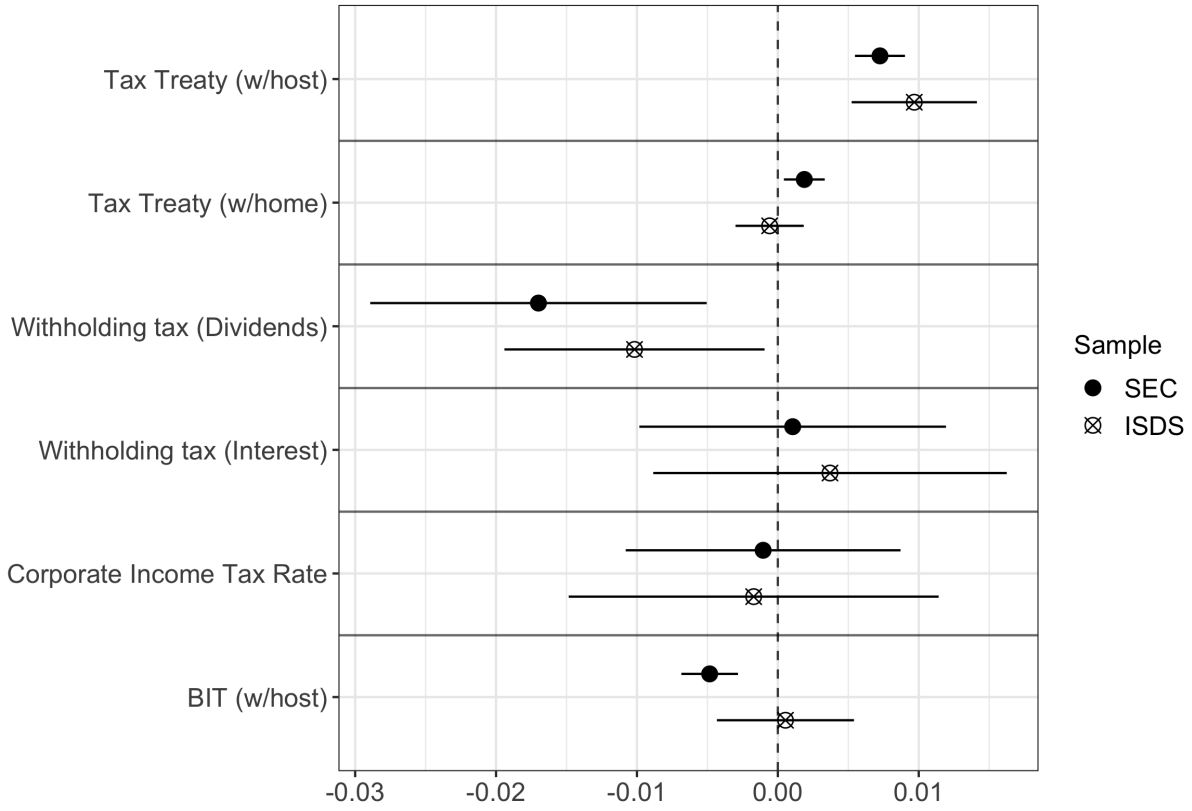
	DV: chosen as conduit location							
	Sample: ISDS claimants				Sample: SEC firms			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Tax treaty (w/home)	0.002*		-0.000	-0.001	0.008***		0.004***	0.002**
	(0.001)		(0.001)	(0.001)	(0.001)		(0.001)	(0.001)
Tax treaty (w/host)	0.010***		0.008***	0.010***	0.008***		0.008***	0.007***
	(0.001)		(0.002)	(0.002)	(0.001)		(0.001)	(0.001)
Withholding tax (dividends)	-0.005		-0.009**	-0.010**	-0.015**		-0.011*	-0.017***
	(0.004)		(0.005)	(0.005)	(0.006)		(0.006)	(0.006)
Withholding tax (interest)	-0.011**		0.003	0.004	-0.024***		-0.009	0.001
	(0.006)		(0.006)	(0.006)	(0.008)		(0.008)	(0.006)
Corporate income tax rate	0.001		-0.002	-0.002	-0.012**		0.001	-0.001
	(0.006)		(0.007)	(0.007)	(0.006)		(0.005)	(0.005)
BIT (w/host)		0.008***	0.000	0.001		0.001	-0.005***	-0.005***
		(0.002)	(0.002)	(0.002)		(0.001)	(0.001)	(0.001)
Mean Y	0.008	0.007	0.008	0.008	0.008	0.006	0.008	0.008
Controls	No	No	Yes	Yes	No	No	Yes	Yes
Firm FE	Not applicable				No	No	No	Yes
Year FE	No	No	Yes	Yes	Not applicable			
Case FE	No	No	No	Yes	Not applicable			
Num.Obs.	24,151	32,040	22,388	22,388	650,771	841,547	592,654	592,654
R2	0.075	0.066	0.075	0.088	0.009	0.000	0.015	0.069

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

state, conduit state, and host state), I generate a list of 155 potential jurisdictions in which the conduit subsidiary could have been incorporated. The unit of analysis is therefore the home state-potential conduit state-host state. The dependent variable is a binary indicator of whether or not each potential jurisdiction was in fact chosen to host the conduit subsidiary. I then use a combination of tax planning, investment treaty, and control variables to identify the predictors of investors' choice to access certain conduit states' institutions.

Table 4 presents the results of eight models estimated via ordinary least squares with robust standard errors clustered on the ISDS case (for the ISDS claimants sample) or the

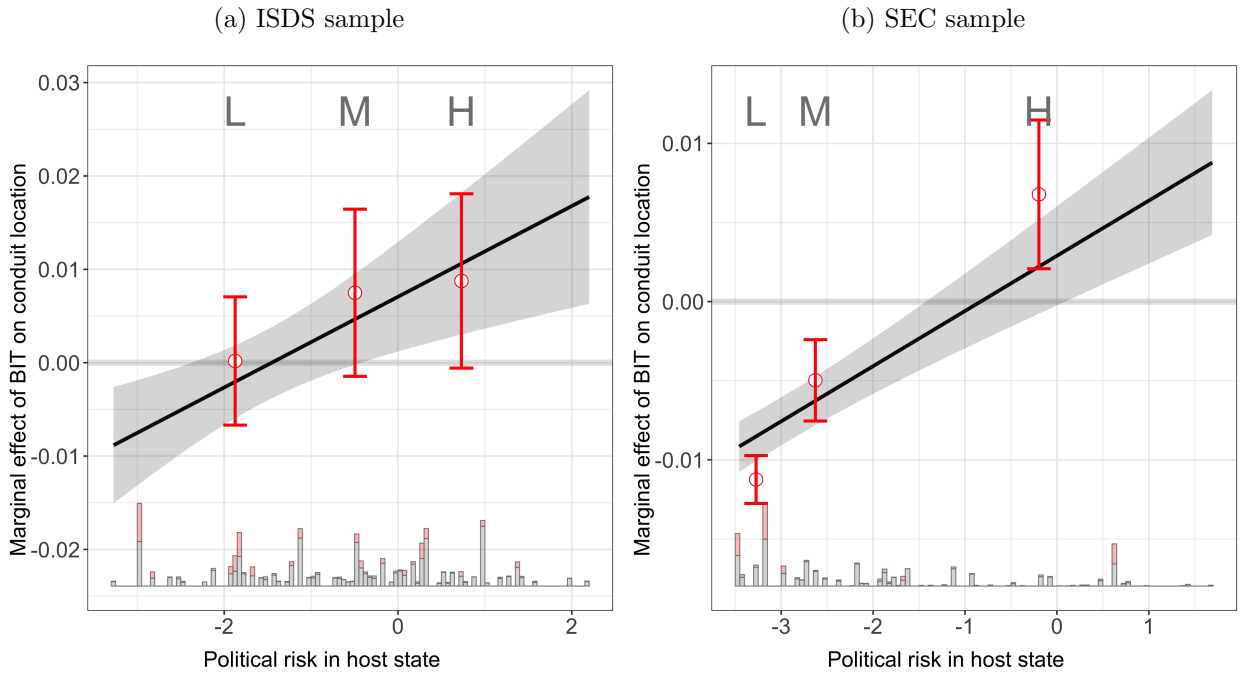
Figure 8: **Results are similar for both ISDS and SEC samples.** The presented estimates are from Models (4) and (8) of Table 4.



parent firm-ownership chain (for the SEC sample). In support of my first hypothesis, note that across all model specifications in both the ISDS claimant and SEC firm samples, indirect investors are much more likely to locate their conduit subsidiaries in jurisdictions that have a bilateral tax treaty with the host state; in four of the six models, jurisdictions that have tax treaties with the home state are also significantly more likely to be selected. The magnitude of the relationship is substantively signficant; in Model (4), having a tax treaty with the host state is associated with a 1 percentage point increase in the probability of selection, doubling the unconditional probability of 0.8%. Appendix Figures B.1 and B.2 disaggregate the results of Model (8) by parent firm, showing that the positive relationship between tax treaties and conduit selection is robust across a wide range of firms and sectors.

In line with my second hypothesis, the coefficient on the withholding tax rate for dividend

Figure 9: **When host state political risk is high, indirect investors are more likely to choose conduit locations that offer BIT protection.**



payments is negative and significant in both samples; as the withholding tax rates decreases, the probability of selection increases. This suggests that firms do seek out conduit locations that offer them access to less costly indirect paths on which to transfer capital between host and home states. A similar relationship holds with the withholding rate on interest payments, though it is not robust to the inclusion of nontax covariates. I find little support for H3: conditional on the other tax variables, investors do not seem to prefer conduit locations with lower headline corporate income tax rates. Finally, I do not find any evidence of BIT shopping in either sample: after controlling for the tax variables, jurisdictions that have a BIT with the host state are no more likely (and, as Models (7) and (8) show, may be *less* likely) to be chosen as conduit subsidiary locations on average.

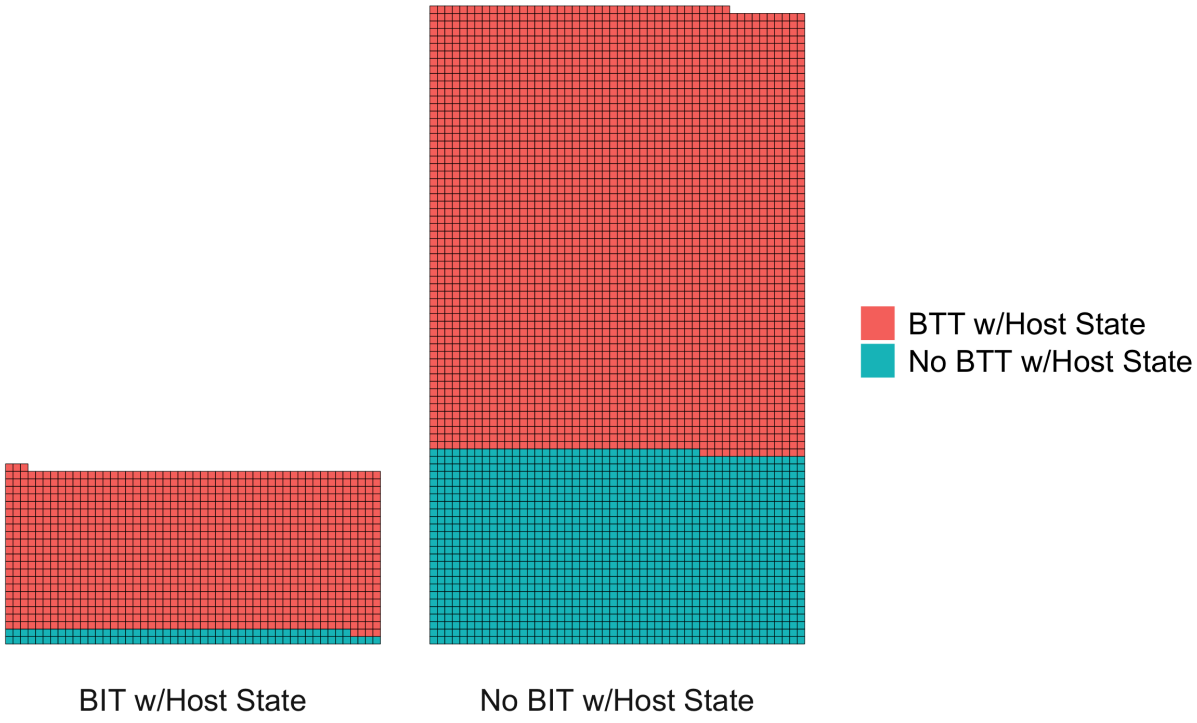
Next, I turn to the moderating effect of host state political risk. As demonstrated in Figure 7, the absence of a BIT between an investor's home and host states does not appear to be driving selection into indirect investment regardless of the level of political risk in the host state. Therefore, risk-motivated BIT shopping cannot explain firms' initial decision

to make their investment indirectly through a conduit subsidiary. However, conditional on choosing to invest indirectly, H4 predicts that firms should be increasingly likely to seek BIT protection as host state political risk rises. To test this prediction, I again use Hainmueller, Mummolo and Xu (2019)'s binning estimator to estimate the marginal effect of conduit-host BIT coverage on the probability of selection at different levels of host state political risk for both samples.

Figure 9 presents the results. As predicted, host state political risk does appear to be associated with indirect investors' choice of jurisdiction for their conduit subsidiaries. Specifically, for host states with the highest levels of political risk (in the top tercile), indirect investors into these states are more likely to route their investments through conduit subsidiaries that give them access to a BIT with the host state. However, this effect disappears (or reverses) at medium and low levels of host state risk. When taken together with the results presented in Table 3 and Figure 7, this finding provides support for H4 as well as for the broader theory. Investors' access to a BIT with the host (or lack thereof) does not drive their initial decision to invest indirectly, which is instead motivated by gaining access to tax treaties and low withholding tax rates. However, conditional on investing indirectly, indirect investors will seek to jointly gain access to tax and investment treaties when operating in a high-risk host state. In this way, BIT shopping—to the extent that it exists—is facilitated by the tax treaty regime.

On the whole, the results of the conduit location models provide strong support for my theory. I find that indirect investors are strategically routing their ownership chains through intermediate states that offer them access to the tax treaty network, and which lower their withholding tax burden. Further, as Figures 8 and 9 demonstrate, the results are highly similar for two distinct samples: first, the full set of indirect investors that filed ISDS cases, and second, every foreign subsidiary indirectly owned by 64 large U.S. multinational firms. Even for the indirect investors who used their conduit subsidiaries to file ISDS cases under other states' BITs, the decision to create those subsidiaries in those states appears to be

Figure 10: **Among conduit states that have a BIT with the host state, 92% have a tax treaty as well.** Each cell represents one conduit subsidiary from the SEC data. Each row contains 50 cells.



heavily influenced by the tax treaty network.

My theory of spillover effects rests on the overlap between tax and investment treaty networks; conduit subsidiaries that are created to access the tax treaty network can often be used to file proxy arbitration cases, because pairs of states that have a bilateral tax treaty together are highly likely to have a bilateral investment treaty together as well. An implication is that, while the models in Table 4 indicate that indirect investors do not disproportionately select conduit locations with BITs after controlling for the tax variables, the locations that they do select should often still offer them BIT access. Figure 10 shows that this is indeed the case among the SEC sample, plotting each individual conduit subsidiary in the sample according to whether or not the conduit gave its parent firm access to a BIT and/or a tax treaty with the host state. The results are striking: 21% of all conduit subsidiaries ($n = 1,153$) are incorporated in states that have a BIT with the host state,

allowing the parent firm the opportunity to file proxy arbitration in the event of a dispute. Further, among these conduit subsidiaries with BIT access, almost every single one—92% (1,057/1,153)—is incorporated in a state that has a tax treaty with the host state as well, strongly suggesting that their parent firms gained access to BIT protection as a side benefit of tax treaty shopping.

6 Conclusion

Foreign investors are often able to use their overseas subsidiaries—typically "shell" companies with no substantial business activity of their own—to gain access to ISDS against their host state via other states' investment treaties. This practice of proxy arbitration has fundamentally expanded the scope of the investment treaty regime: BITs may be bilateral in the sense that they are signed by two states, but they are global in the sense that they can be used by any investor that has structured their investment in the right way. Further, while proxy arbitrations only comprise 26% of all ISDS cases, these cases are associated with 75% of all damages ever awarded in the regime ($88B). Paradoxically, capital-importing states have faced the greatest legal liabilities not from their BIT partners' firms, but instead from third-party firms who gained access to those treaties by way of indirect investment.

In this paper, I argue that proxy arbitration is a spillover effect that arises from corporate tax avoidance: firms make their foreign investments indirectly through third state conduit subsidiaries in order to take advantage of the bilateral tax treaty network (Arel-Bundock, 2017; Van 't Riet and Lejour, 2018; Weichenrieder and Mintz, 2008). Thanks to the overlap between the bilateral tax and investment treaty networks, investors can often *re*purpose these subsidiaries as ISDS claimants in the event of a dispute with the host state. Using two highly detailed datasets on indirect investment—novel data on the ownership structures of the companies that filed ISDS cases, as well as data on the complete foreign ownership structures of 64 U.S. multinationals—I find evidence in support of the spillover effect theory.

First, I find that firms' selection into indirect (as opposed to direct) foreign investment is motivated by tax treaty access rather than investment treaty access. Second, conditional on investing indirectly, I find that firms are much more likely to locate their conduit subsidiaries in the states that give them access to tax treaties and lower tax rates on cross-border capital transfers. I find that firms do seek out conduit states that give them BIT access, but only when investing in high-political risk host states. Finally, I present descriptive evidence to suggest that BIT access is a spillover from tax treaty shopping: while indirect investors choose conduit locations that give them BIT access 21% of the time, 92% of the conduit locations that provide BIT access also provide tax treaty access. By encouraging firms to adopt indirect investment structures, the tax treaty network dramatically increases the number of investments that are protected by a BIT and thereby increases the number of potential proxy arbitration cases that can be filed.

The case of tax planning and ISDS is merely one example in a broader universe of spillover effects that can occur as global economic governance regimes grow increasingly complex. Firms have never before faced such a wide range of regulations affecting their global operations: in the form of bilateral/regional treaty networks in the areas of trade, migrant labor, and environmental protection (in addition to tax and investment), via public-private regulatory initiatives such as the UN Global Compact or the OECD Anti-Bribery Convention (Jensen and Malesky, 2018; Thrall, 2021), through domestic laws with transnational effects such as FATCA in the U.S. or the Duty of Vigilance law in France (Evans, 2020), and potentially soon through truly worldwide regulations such as a global minimum tax rate.[26] Each of these regulations seeks to bring about positive political outcomes (such as development, anti-corruption, and climate change mitigation) by changing firm behavior. Counterintuitively, however, layering multiple types of regulations on top of one another may actually reduce their efficacy; as in the case of the tax and investment treaty networks, forum-shopping in one regime may have unexpected consequences for the functioning of another. Future re-

[26]See Liz Alderman, Jim Tankersly and Eshe Nelson, "U.S. Proposal for 15% Global Minimum Tax Wins Support From 130 Countries," *The New York Times*, 01 July 2021.

search could fruitfully apply insights from state-centric work on regime complexity (Busch, 2007; Raustiala and Victor, 2004) to understand how overlapping global economic governance institutions affect political outcomes by incentivizing strategic behavior on the part of private actors.

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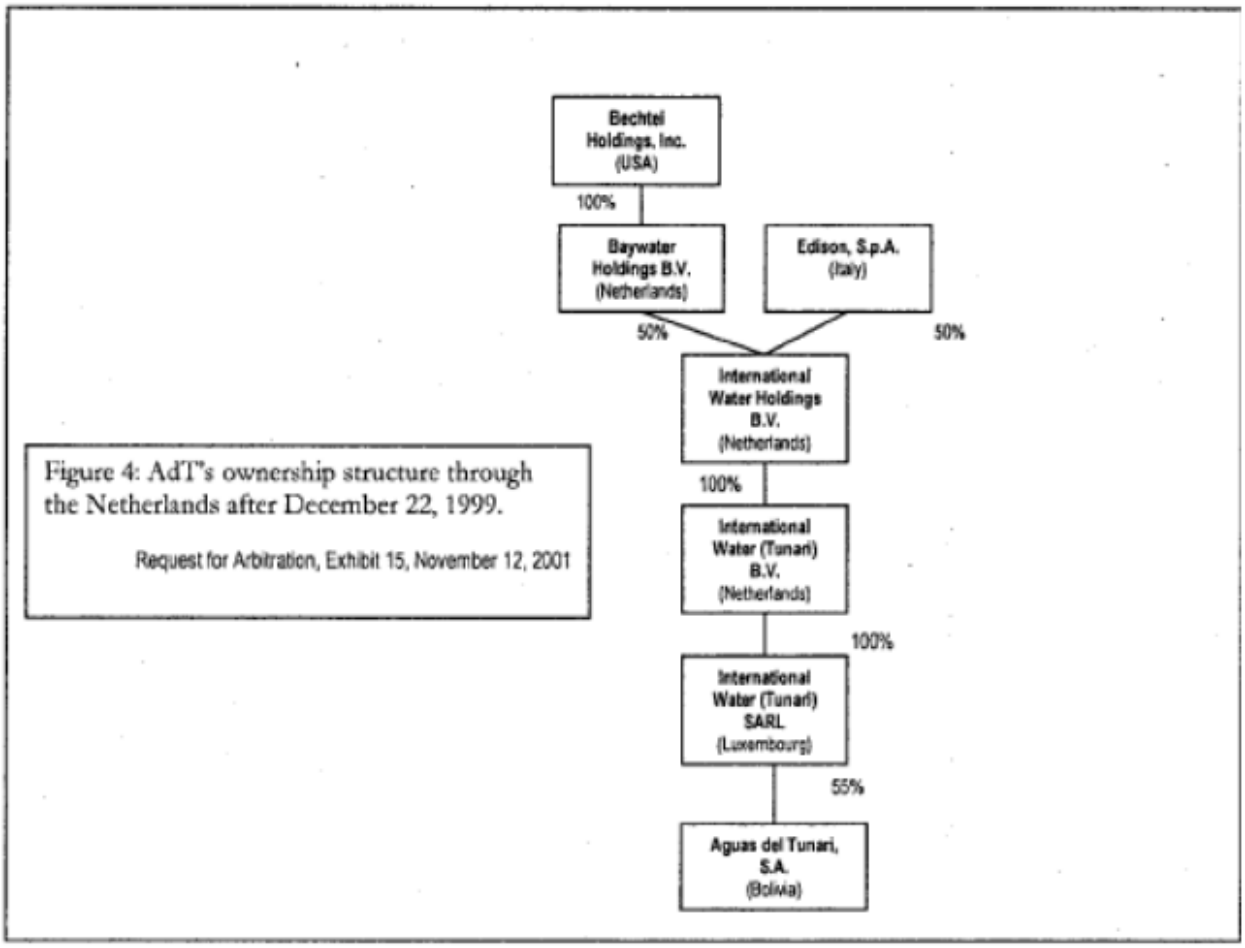
Appendix

A Additional information: ISDS and SEC data

A.1 Example organigram

Figure A.1: Organigram from *Aguas del Tunari v. Bolivia*



A.2 Legal definition of "significant subsidiary"

CFR 210.1-02 (w) Significant subsidiary. The term significant subsidiary means a subsidiary, including its subsidiaries, which meets any of the following conditions:

1. The registrants and its other subsidiaries investments in and advances to the subsidiary exceed 10% of the total assets ofthe registrant and its subsidiaries consolidated as of the end of the most recently completed fiscal year (for a proposed combination between entities under common control, this condition is also met when the number of common shares exchanged or to be exchanged by the registrant exceeds 10% of its total common shares outstanding at the date the combination is initiated); or

2. The registrants and its other subsidiaries proportionate share of the total assets (after intercompany eliminations) of the subsidiary exceeds 10% of the total assets of the registrants and its subsidiaries consolidated as of the end of the most recently completed fiscal year; or

3. The registrants and its other subsidiaries equity in the income from continuing operations before income taxes, extraordinary items and cumulative effect of a change in accounting principle of the subsidiary exclusive of amounts attributable to any noncontrolling interests exceeds 10% of such income of the registrant and its subsidiaries consolidated for the most recently completed fiscal year.

A.3 Parent firms in the SEC sample

Table A.1: **Parent firms in the SEC sample.** These are the firms that filed the Ex 21 documents from which the data was collected.

ALCOA INC	KADANT INC
AMERICAN INTERNATIONAL GROUP INC	LEAR CORP
AMERICAN LIFE INSURANCE	LEHMAN BROTHERS HOLDINGS INC
AMETEK INC	LENNOX INTERNATIONAL INC
ANIXTER INTERNATIONAL INC	LILLY ELI & CO
APACHE CORP	MASCO CORP
BALL CORP	MCGRAW HILL COMPANIES INC
BRINKS CO	MERRILL LYNCH & CO INC
CAMERON INTERNATIONAL CORP	MGM MIRAGE
COCA COLA CO	MILACRON INC
CRANE CO	MIRANT CORP
DELPHI CORP	MORGAN STANLEY
DOW CHEMICAL CO	NEWMONT MINING CORP
EASTMAN KODAK CO	NORTHERN TRUST CORP
EDISON INTERNATIONAL	OSHKOSH TRUCK CORP
EMERSON ELECTRIC CO	OWENS ILLINOIS INC
EXIDE TECHNOLOGIES	PHELPS DODGE CORP
FEDEX CORP	PRUDENTIAL FINANCIAL INC
FLUOR CORP	QUEST DIAGNOSTICS INC
FORD MOTOR CO	RPM INTERNATIONAL INC
FORTUNE BRANDS INC	SUNTRUST BANKS INC
GENERAL DYNAMICS CORP	SYNOVUS FINANCIAL CORP
GENERAL MOTORS CORP	TELLABS INC
GLOBALSANTAFE CORP	TENNECO INC
GOLDMAN SACHS GROUP INC	TEXTRON INC
GOODRICH CORP	THERMO FISHER SCIENTIFIC INC
HARRAHS ENTERTAINMENT INC	TRINITY INDUSTRIES INC
IMS HEALTH INC	UGI CORP
INTERNATIONAL BUSINESS MACHINES CORP	VISHAY INTERTECHNOLOGY INC
J P MORGAN CHASE & CO	WASHINGTON POST CO
JACOBS ENGINEERING GROUP INC	WEYERHAEUSER CO
K2 INC	YRC WORLDWIDE INC

B Additional analysis

B.1 Conduit location predictors, SEC sample, disaggregated by parent firm

Figure B.1: **Across most firms in the SEC sample, tax treaties with the host state are a strong predictor of conduit location choice.** Results presented for the 38 firms that account for 90% of the sample.

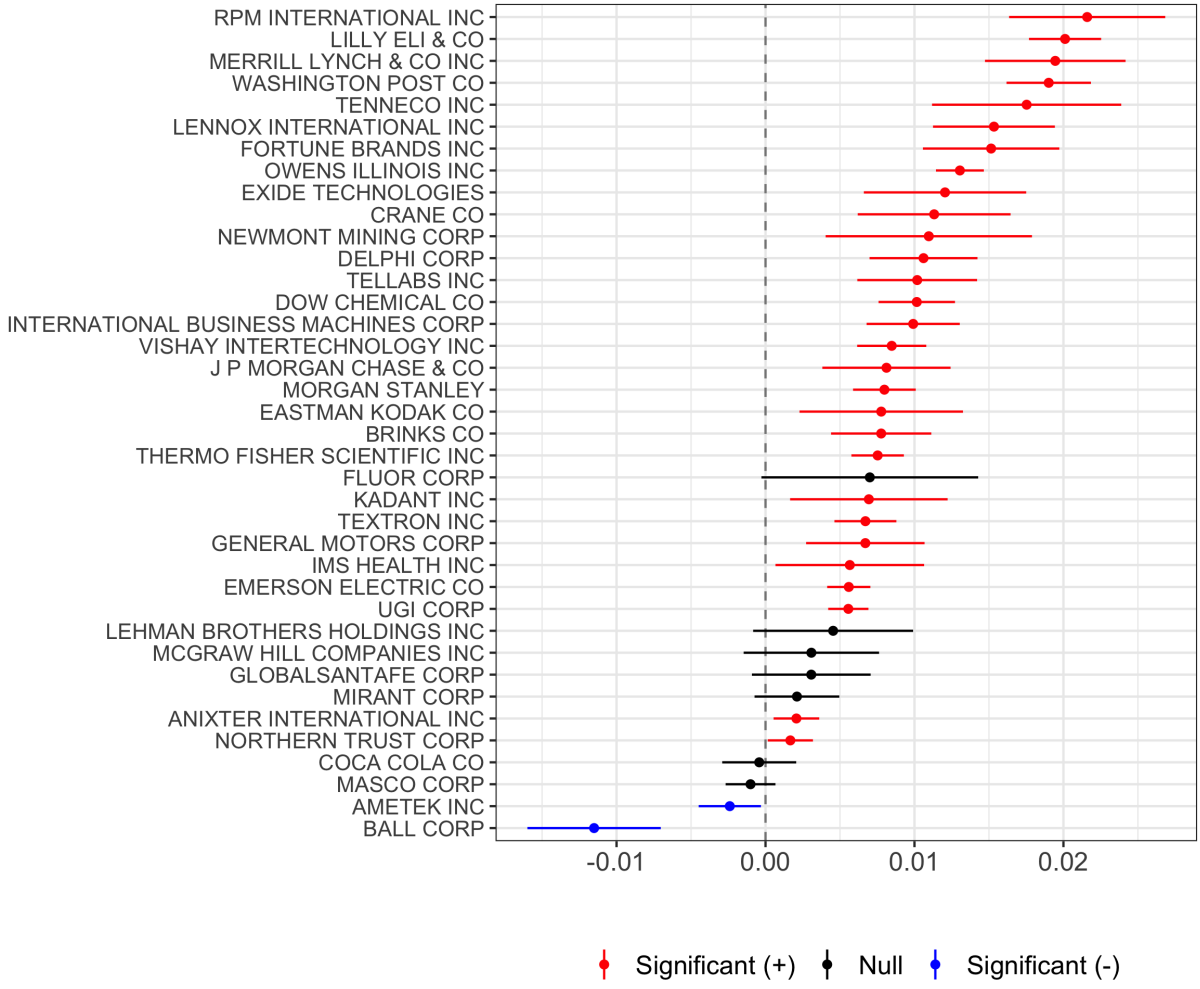


Figure B.2: **Across most firms in the SEC sample, tax treaties with the home state are a strong predictor of conduit location choice.** Results presented for the 38 firms that account for 90% of the sample.