# Treaty Diplomacy and the Global Firm<sup>\*</sup>

## Calvin Thrall<sup> $\dagger$ </sup>

#### Abstract

Over the course of the 20th century, states have developed large networks of bilateral or small-group economic treaties in several issue areas. These treaties, which are important tools of foreign economic policy, redistribute the gains and losses of globalization. Why do states sign treaties with some partners and not others? Motivated by the observation that the same pairs of states tend to sign multiple treaties within a short time period, I develop a theory of treaty regime *co* evolution that centers corporate demand for treaties. Firms expand into new foreign markets in search of profit, paying fixed costs to do so. However, once the initial cost is paid, these firms become the primary beneficiaries of any future treaty between home and host states. Incumbent firms therefore have incentive to lobby home state legislators and diplomats in favor of signing treaties with their host states, across several issue areas. Strong private sector demand can lead to the formation of multiple types of treaties between pairs of states, creating firm-driven interdependence across treaty networks. Using quantitative and qualitative data—including novel data from the USSR, declassified diplomatic cables, and elite interviews—I find support for my theory. The results have implications for the decline of multilateralism in foreign policy, and suggest new avenues for studying the effects of treaties.

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<sup>&</sup>lt;sup>†</sup>PhD Candidate, University of Texas at Austin. E-mail: cthrall@utexas.edu.

## 1 Introduction

Over the course of the 20th and early 21st centuries, the rapid expansion of international business activity has been a defining feature of the "second wave" of globalization. The rise of cross-border trade, investment, and migration has created new foreign economic policy issues: how should multinational corporations be taxed (and by whom)? Which standards should apply to migrant workers? How can states with weak domestic institutions gain access to foreign capital? Multilateral solutions for these problems have proven politically infeasible; instead, states frequently conduct foreign economic policy via bilateral or smallgroup treaties that regulate and incentivize international trade, investment, taxation, and so on. The structure of international economic law is therefore composed of thousands of treaties across several overlapping treaty networks, or "regimes." These treaties meaningfully affect the distribution of the gains (and losses) from globalization across states: they have been shown to direct flows of goods and capital (Barthel, Busse and Neumayer, 2010; Büthe and Milner, 2008; Rose and Spiegel, 2009), limit the capacity of developing nations to implement regulatory policies or collect taxes (Arel-Bundock, 2017b; Moehlecke, Thrall and Wellhausen, 2019), and redistribute market share to the largest global firms (Baccini, Pinto and Weymouth, 2017).

Why do states choose to sign treaties with some partners and not others? In other words, what explains variation in bilateral foreign economic policymaking? Due to the substantive importance and rapid proliferation of modern treaty regimes, scholars of international political economy have dedicated substantial effort to answering this question. The standard analytical approach has been to focus on a single regime, such as bilateral investment treaties (BITs) or preferential trade agreements (PTAs), and develop and test a theory that explains how states select their treaty partners. Adherents to this approach make the implicit assumption that separate treaty regimes resulted from separate data generating processes, each of which can be studied in isolation from the others. In this framework, which Oatley (2011) calls methodological reductionism, scholars learn about the broader dynamics of

foreign economic policymaking by aggregating the results of each single-regime study.

This paper is motivated by two empirical trends that highlight the limits of methodological reductionism as a strategy for learning about the evolution of international regimes. First, I show that much of the growth in five of the largest and most salient economic treaty networks—investment, trade, taxation, labor, and environmental—has been driven by the same pairs of states. For example, in the year 2000 only 14% of dyads had signed a tax treaty; however, among dyads that had signed a bilateral investment treaty, 66% had signed a tax treaty as well. Second, I show that the pairs of states who sign multiple types of economic treaties together tend to do so within a very narrow timeframe. Of all between-treaty "gaps" (e.g., the number of years in between two states signing two different types of treaties), 37% are three years or less and 19% are one year or less. The combination of excessive overlap and significant temporal clustering suggest that, rather than merely growing alongside one another, nominally separate treaty regimes evolved *interdependently* as complementary components of states' foreign economic policies. By studying the growth of individual treaty networks in isolation, single-regime studies can tell us little about the nature and the sources of cross-regime interdependence.

What explains the observed trends of overlap and clustering in the evolution of separate treaty networks? To answer this question, I introduce a theory that takes seriously the influence of private actors in foreign economic policymaking. Firms trade with or invest abroad in partner states that offer favorable market opportunities, creating bilateral business ties between home and host state. Once firms have paid the fixed cost to invest or begin trading with the host state, they become the primary beneficiaries of any present or future bilateral economic treaty between the home and host states. These potential benefits incentivize firms to lobby both domestic legislatures and diplomatic agencies to sign multiple types of treaties with their host government(s). To the extent that firms are successful, they have created interdependence between nominally separate treaty networks. I refer to this process as *firm-driven interdependence*. Empirically, I begin by modeling patterns of overlap and temporal clustering in treaty formation among a global sample of dyads over several decades. I find evidence in support of the firm-driven interdependence theory: past treaties are far more predictive of future treaties among dyads with strong business ties (operationalized as bilateral trade relationships). I also find that dyads that have strong business ties tend to sign multiple treaties within a substantially shorter timespan than those that do not, suggesting that states may face pressure to sign multiple types of treaties with the governments that host their firms.

To address the potential issue of reverse causality (prior diplomatic ties influence both business ties and future treaties), I turn to a unique setting: the dissolution of the USSR. Prior to gaining independence in 1991, the former Soviet Socialist Republics' (SSRs) firms engaged in international trade, but all diplomatic affairs were managed by the federal government. Using novel data, I show that the strength of the SSRs' *pre*-independence business ties is a strong predictor of their *post*-independence treatymaking across multiple regimes. This is strong evidence that diplomatic negotiations in several issue areas are motivated by bilateral commercial relationships. Finally, I examine in detail the bilateral relations of the U.S. and Kazakhstan (1991-1992) to demonstrate how pressure from business interests can produce multiple treaties within a short period of time.

These results contribute to a growing body of work that studies firms' dynamic political preferences and the strategies that they use to translate preferences into policies (Kim et al., 2018; Kim, Liao and Miyano, 2020; Peters, 2014), as well as recent work on the preferences of diplomats and the political impacts of diplomacy (Goldsmith, Horiuchu and Matush, 2021; Malis, 2021). I highlight an underexplored strategy through which private actors can achieve their preferred policies: in addition to lobbying legislatures (Kim, 2017), firms can engage directly with diplomats in order to petition for their desired foreign policy outcomes (including the formation of economic treaties). While primary source documents and diplomatic histories such as Maurer (2013) suggest that such interaction is common and effective, the

direct industry-diplomacy channel has been underexplored by IPE scholars.<sup>1</sup>

More broadly, the results can help us understand the shift away from the multilateral institutions that characterized the Liberal International Order towards the bilateralism that dominates modern foreign economic policy. The predominant narrative is that, as capital mobility grew and the multinational firm rose to prominence, capital-importing states turned to bilateral economic agreements in order to compete with one another to attract foreign investment (Barthel and Neumayer, 2012; Elkins, Guzman and Simmons, 2006). My theory reverses the sequencing, arguing that bilateral treaties are better at generating rents for current investors than they are at attracting new investment. Global firms prefer bilateral to multilateral foreign economic policies, as they provide targeted benefits that do not apply to the firms' domestic (or foreign multinational) competitors. As multinational firms grew both in size and political influence over the late 20th century, they fostered the creation of bilateral pro-business treaties in order to increase their own competitiveness. An understanding of bilateral treaties as generating rents for incumbent investors can help to explain the stagnation of the World Trade Organization and the flourishing of preferential trade agreements as global trade becomes increasingly intra-firm (Bagwell, Bown and Staiger, 2016), as well as the challenges inherent in pursuing multilateral agreements such as the OECD's base erosion and profit shifting (BEPS) initiative.

## 2 The regimes under study

Even within the realm of economic exchange, there are dozens (if not hundreds) of extant treaty regimes. In this paper, I limit my focus to five: investment and the BIT network, international taxation and the BTT network, trade and the PTA network, labor and the BLA network, and environment and the BEA network. I selected this set of regimes for two primary reasons: first, due to their prominence both in real world international politics and in the study of IPE. Second, each regime experienced substantial growth during the postwar

<sup>&</sup>lt;sup>1</sup>Notable exceptions include Gertz (2018) and Strange (1992).

era, allowing me to examine patterns of coevolution. Below, I briefly introduce each of the treaty regimes under study.

First formed in the late 1950s, the modern investment treaty regime is today composed of over 2,900 bilateral investment treaties (BITs), of which 2,342 are currently in force.<sup>2</sup> The primary function of these treaties is to establish rules for the treatment of foreign investors from the partner state – for example, investors must not face discriminatory treatment due to their foreignness – and to give investors access to international arbitration courts in the event that the rules are broken. In addition to explaining BIT formation,<sup>3</sup> IPE scholars have extensively studied the economic and political effects of BIT-enabled investment arbitration.<sup>4</sup>

The treaty regime for international taxation originated in the League of Nations during the late 1920s (Jogarajan, 2018), but most of its growth has occurred post-1960. Composed of over 2,000 bilateral tax treaties (BTTs), the regime was originally created as a technical fix for the problem of double taxation: the treaties were designed to ensure that firms operating abroad were not taxed twice on their profits (once by the host state and once by the home state). However, because each treaty lowers the taxes levied on transfers of capital between signatories, the BTT became a tool of tax competition over the course of the 20<sup>th</sup> century (Rixen, 2011). In addition to BTT formation, IPE scholars have studied the impact of BTTs on domestic corporate tax rates (Arel-Bundock, 2017*b*) as well as FDI flows (Barthel, Busse and Neumayer, 2010).

The goal of the preferential trade agreement (PTA) is reciprocal trade liberalization: each partner removes strategically selected trade barriers for one another while continuing to protect key domestic industries, allowing partial liberalization and fostering increased trade between signatories. The first modern PTAs were signed in the early postwar years, though much of the growth in this regime has occurred since the beginning of the World Trade Organization's indefinitely stalled Doha Round in 1994 (Bagwell, Bown and Staiger,

 $<sup>{}^{2}</sup>See \ https://investmentpolicy.unctad.org/international-investment-agreements.$ 

<sup>&</sup>lt;sup>3</sup>See e.g. Elkins, Guzman and Simmons (2006).

<sup>&</sup>lt;sup>4</sup>(Allee and Peinhardt, 2011; Wellhausen, 2016).

2016). All aspects of the PTA regime – formation, depth and design, and effects – have been studied extensively by scholars of IPE.<sup>5</sup>

The treaty regime concerning migrant workers, first created in the early postwar years, is composed of almost 800 bilateral labor agreements (BLAs). While different agreements vary in their substantive provisions, the broad goal of the BLA is to facilitate bilateral labor flows by establishing rules for the sending state's screening and the receiving state's treatment of migrant workers (Chilton and Posner, 2018). Some BLAs cover migrant workers across several industries; others are targeted towards "project workers" who are employed by a firm in the sending state and are working on one of the firm's projects in the receiving state (Peters, 2019).<sup>6</sup> In addition to recent studies of BLA formation, past work has studied the effects of BLAs on labor mobility (Liao, 2014; McKenzie, Theoharides and Yang, 2014) as well as sending state development (Skeldon, 2012).

Finally, states have signed almost 2,000 bilateral environmental agreements (BEAs) since 1960. States sign BEAs that address a wide range of environmental issue areas, including sustainable fishing, biodiversity management, pollution control, and so on. Some BEAs are signed between contiguous states concerning regional issues: for example, Norway and Sweden have a BEA regulating the treatment of cross-border reindeer.<sup>7</sup> However, many are not. For example, South Africa and Iran have a BEA concerning the states' cooperation in the area of water resource management. In particular, the treaty encouraged cooperation between South African and Iranian firms; Article 4(e) lists "promoting joint ventures between South African and Iranian planning, design, and construction management companies" as a key cooperative goal of the partnership.<sup>8</sup> In addition to studying BEA formation (Egger, Jeßberger and Larch, 2011), IPE scholars have also examined BEA design and efficacy (Mitchell, 1994; Mitchell et al., 2020) as well as the effects of BEA formation on economic integration (Rose and Spiegel, 2009).

<sup>&</sup>lt;sup>5</sup>See Baccini (2019) for a review.

<sup>&</sup>lt;sup>6</sup>Note that in the latter case, BLAs are directly supporting FDI.

<sup>&</sup>lt;sup>7</sup>See https://iea.uoregon.edu/treaty/4920.

<sup>&</sup>lt;sup>8</sup>For full text, see: https://treaties.un.org/doc/Publication/UNTS...pdf.

## 3 Designing treaties, choosing partners

International economic law is largely composed of several overlapping treaty networks; each network contains hundreds or thousands of treaties, but each treaty has only a small number of signatories (most often two). How did this particular structure come to be? Previous research has disaggregated this broad question into two subcomponents: first, why do states pursue bilateral or small multilateral agreements rather than large multilateral agreements? Second, holding design constant, how do states choose their treaty partners?

### 3.1 Designing treaties

States rarely turn to large multilateral institutions to regulate international business issues; even the World Trade Organization (WTO), which has long been the exception to the rule, has stagnated in recent decades while smaller preferential trade agreements (PTAs) have proliferated (Bagwell, Bown and Staiger, 2016). Why? First, as evidenced by the failure of the Doha Round, the difficulty of striking an acceptable bargain increases exponentially in the number of parties at the bargaining table (Busch and Reinhardt, 2006).<sup>9</sup> Further, because states design agreements with which all parties are willing to comply (Downs, Rocke and Barsoom, 1996), agreements that emerge from large multilateral negotiations are likely to be shallower than some participants may have liked.

Bilateral and small-group treaties solve both of these problems. The transaction costs associated with the negotiation and ratification of such treaties are relatively low, drastically simplifying the two-level game associated with forming international agreements (Putnam, 1988). One reason for this is standardization: PTAs are often composed primarily of recycled text (Allee and Elsig, 2019; Jo and Namgung, 2012), and states such as the U.S. have

<sup>&</sup>lt;sup>9</sup>Likewise, the number of potential parties increased dramatically over the 20th century as new states began to develop their economies. A 1977 policy report from the U.S. State Department read: "One result of economic success by these semi-industrialized and increasingly self-confident countries will be a continuing drift away from the G-77 bloc view on specific policy issues. From energy imports to foreign investment to trade in manufactures, the objectives of these countries cannot be met through the common positions espoused by the G-77. Significant moves will be in bilateral linkages or limited size functional groupings rather than in the large and more political international forums" (emphasis added).

adopted "model treaties" in the tax<sup>10</sup> and investment<sup>11</sup> regimes that can be adjusted to any partner with minimal customization. At the same time, small-group treaties also allow for heterogeneous contracting; State A may wish to include a stronger version of a certain provision in its treaty with State B and a weaker version in its treaty with State C, which may not have been possible if A, B, and C were all parties to a multilateral treaty (Allee and Peinhardt, 2014). States and firms are likely to have a strong preference for contract heterogeneity at the bilateral level on economic issues, given the wide degree of variation in the trade and investment relationships between pairs of states.

### 3.2 Choosing partners

States therefore have several reasons to select bilateral and small-group treaties as their foreign economic policy tool of choice. Conditional on this choice of instrument, how do states choose their treaty partners?<sup>12</sup> In other words, how do treaty networks evolve? Scholars of IPE have dedicated substantial effort to answering this question, although the vast majority of extant studies seek to explain the evolution of a single treaty network. However, regardless of the treaty regime under study, most theoretical explanations for treaty formation rely on one of the three following mechanisms: competitive diffusion, normative diffusion, and utilitarian matching. I discuss each in turn, limiting my focus to the five treaty regimes that are the focus of this study.

By a large margin, the most common explanations for how states choose their treaty partners draw on the logic of competitive diffusion. The basic premise of such explanations is that economic treaties offer private benefits for the states that sign them; capital-exporting treaty signatories often receive better access to their partner states' markets and capitalimporting signatories receive greater investment from their partners, to the benefit of both

<sup>&</sup>lt;sup>10</sup>See https://www.irs.gov/pub/irs-trty/model006.pdf.

<sup>&</sup>lt;sup>11</sup>See https://ustr.gov/sites/default/files/BIT%20text%20for%20ACIEP%20Meeting.pdf.

<sup>&</sup>lt;sup>12</sup>Note that this is an inherently *dyadic* question: which pairs of states sign treaties together? It is therefore separate from questions such as which states are more likely to sign treaties with any partner (Mansfield, Milner and Rosendorff, 2002), or that of which systemic conditions lead to greater treaty formation in general (Betz and Kerner, 2016; Mansfield, 1998).

partners. If a state's competitors sign treaties, that state is incentivized to sign treaties with the same partners to remain competitive. The competition-based diffusion approach has been applied extensively to explain states' choices of BIT partners (Elkins, Guzman and Simmons, 2006; Jandhyala, Henisz and Mansfield, 2011), PTA partners (Baccini and Dür, 2015; Baldwin and Jaimovich, 2012), tax treaty partners (Barthel and Neumayer, 2012; Rixen, 2011), and environmental treaty partners (Davies and Naughton, 2014).

Other theories maintain that, while treaty partner selection is diffusion-based, the nature of the diffusion is more normative than competitive. For example, Jandhyala, Henisz and Mansfield (2011) argue that many BITs signed between pairs of developing states were designed to bring legitimacy to the signatories; signing BITs was perceived to be a sign of good governance, and doing so brought reputational (if not economic) benefits to both signatories. Relatedly, some scholars have drawn on the concept of bounded rationality to explain patterns of BIT (Poulsen, 2014) and tax treaty (Hearson, 2018) diffusion. Bounded rationality explanations argue that, while developing states may have perceived themselves as signing treaties in order to become more competitive at attracting foreign capital, they were actually falling victim to unsubstantiated and ultimately false ideas about the treaties' costs and benefits.

Finally, some explanations of treaty network formation rely on a logic that I call utilitarian matching. Unlike diffusion-based theories, matching-based theories focus solely on characteristics of the potential partner states themselves rather than using past treaties to explain future ones. States seek out ideal partners for the economic exchange at hand (trade, migrant labor, etc), and then sign treaties in order to remove potential barriers to that exchange. For example, Peters (2019) and Chilton and Posner (2018) argue that labor agreements are more likely to form between states with complementary labor markets and labor regulations. Baccini (2014) shows that dyads with stronger joint rule of law and lower joint corruption are more likely to form PTAs after controlling for a wide range of economic factors, arguing that stronger political institutions reduce the transaction cost of negotiating the treaties.

Extant studies of treaty regime formation overwhelmingly focus on the evolution of a single regime.<sup>13</sup> To borrow Oatley (2011)'s language, this choice is likely methodological rather than ontological; the argument implicit in this work is not that, for example, two states' decision to sign an investment treaty together is actually independent from their decision to sign a tax treaty together. Rather, the argument is that the distinct causes of tax and investment treaty formation can be theorized and modeled separately, and the regime-specific findings can later be aggregated to form broader knowledge of foreign economic policymaking.

However, as the data presented in the following section will make clear, the single-regime approach obscures two important patterns: the same pairs of states often negotiate and sign multiple types of treaties simultaneously, and growth in all five treaty networks is primarily driven by a relatively small percentage of dyads. The overlap and temporal clustering across regimes is much greater than we would expect to see in a world where separate regimes resulted from wholly distinct data generating processes. Gaining a more complete understanding of foreign economic policymaking therefore requires studying how different regimes grow together, and theorizing the processes that lead states to decide to sign multiple types of treaties with the same partners.

### 4 Interdependence in treaty regime evolution

I document two stylized facts about the development of separate treaty regimes. First, I show that the five treaty networks overlap extensively; a small proportion of dyads account for the majority of treaties in the sample, and the extent of the overlap has largely remained constant (or grown) over time. Second, I show that the pairs of states that sign multiple types of treaties together tend to do so within a short period of time. Taken together, these trends are highly suggestive of interdependence across regimes: states appear to be signing

 $<sup>^{13}</sup>$ Though see Kinne (2013) and Kinne and Bunte (2018) for notable exceptions.





multiple treaties with the same partners, in response to the same pressures, in order to achieve broader foreign policy goals.

How concentrated is the distribution of treaties across dyads? Figure 1 illustrates the extent of concentration at the end of the sample period (2007) by plotting the percentage of all treaties (across all five regimes) that are accounted for by the top x% of dyads. The data points on the figure, which can be read like a standard CDF plot, correspond to dyads that have five, four, three, two, one, and zero treaties respectively. The plot reveals a high degree of concentration. Nearly one-third of the treaties in the sample are accounted for by the 6.5% of dyads that have signed three or more treaties together, 58% of all treaties are accounted for by the 16% of dyads that have signed two or more treaties together, and the majority of dyads (56%) have signed no treaties at all. Notably, this is not merely a reflection of concentration at the state level; Table B.1 shows that the state-level distribution of treaties is much more uniform. Rather, it indicates that a relatively small number of strong bilateral relationships account for a relatively large proportion of all five treaty regimes.<sup>14</sup>

<sup>&</sup>lt;sup>14</sup>For additional illustrations of this stylized fact, see Figures B.2 and B.3 as well as Table B.2.



Figure 2: Overlapping regimes.

 Proportion of dyads with column treaty
 Proportion of dyads with row treaty that also have column treaty How did this concentration evolve over time, and which regimes are most correlated? Figure 2 tracks regime overlap over time by plotting two different proportions for each pair of treaty regimes in each year between 1945 and 2007. First, the solid line represents the proportion of dyads that had signed each type of (column) treaty in the given year. Second, the dashed line represents the proportion of dyads that had signed each type of column treaty in the given year *conditional* on having also signed the row treaty. If treaty regimes were fully independent of one another, these proportions would be the same; the gap between solid and dashed lines is thus an indicator of excess overlap.

First, note that overlap is present in every cell of Figure 2. It is often drastic: for example, while only 16% of dyads had signed a BTT as of 2007, 80% of the dyads who had signed an environmental agreement had also signed a BTT. Second, note that in most cases the excess overlap is growing or remaining constant as regimes coevolve over time, suggesting that much of the growth in treaty networks across regimes has been at the intensive margin (the same dyads signing additional treaties together) rather than at the extensive margin (new dyads signing at least one treaty together).<sup>15</sup> Figure 2 therefore provides an important descriptive foundation for interdependence across regimes: dyads that have signed one type of treaty are (often much) more likely to have signed another type, and for most pairs of regimes this relationship has maintained or strengthened over time.

Figures 1 and 2 jointly show that a small percentage of dyads have driven much of the growth in all five treaty regimes over the first six decades of the postwar era. Next, focusing in on these multi-treaty dyads, I present the second stylized fact: pairs of states that sign more than one treaty together tend to do so within a short period of time. Figure 3 presents the results of an empirical exercise designed to gauge the extent of temporal clustering in within-dyad treaty formation. The left facet plots the distribution, density, and mean of observed within-dyad "gaps" between signing treaties in different regimes; for example, Austria and Albania signed a PTA in 2006 and a BTT in 2007, resulting in a gap of 2007 - 2006 = 1.

<sup>&</sup>lt;sup>15</sup>For a state-level view, see Figure B.2.



Figure 3: Within dyads, treaty formation clusters in time.

Small gaps are highly common; in fact, the most commonly observed gaps in the data are 1, 2, 3, and zero years, in that order. Almost half (48%) of all observed gaps are five years or less, and 19% are 1 year or less.

How does the observed distribution differ from what we might expect in a world where treaties in separate regimes were formed independently of one another? To answer this question, I conduct a counterfactual exercise using simulated data. An example illustrates the intuition. Consider a pair of states that signed three treaties together during the sample period (1945-2007), generating treaty-years  $\{t_1, t_2, t_3\}$  and between-treaty gaps  $\{t_2 - t_1, t_3 - t_2\}$ . To generate counterfactual gaps for this dyad, I take three draws from the distribution U(1945, 2007) and sort them from smallest to largest in order to generate counterfactual treaty-years  $\{t_1^*, t_2^*, t_3^*\}$ ; I then calculate the differences between adjacent treaty-years to generate counterfactual treaty gaps  $\{t_2^* - t_1^*, t_3^* - t_2^*\}$ .

By repeating this procedure for all pairs of states that have signed multiple types of treaties together, I am able to generate the distribution of between-treaty gaps that we would expect to see under the null hypothesis of independence between regimes.<sup>16</sup> The right

<sup>&</sup>lt;sup>16</sup>Some dyads were not observed at each year in the sample, mainly due to the fact that one or both of

facet of Figure 3 plots the histogram, density, and mean of this counterfactual distribution. First, note that the observed distribution is far more right-skewed than the counterfactual; the former has far greater density in the 0-10 year range and far lower density in the 40-60 year range. Second, note that the average gap in the counterfactual distribution is 17 years, approximately 7.5 years longer than that of the observed distribution. This difference is significant at the p < .001 level.

To summarize, I have documented two related trends in foreign economic policymaking. First, much of the growth in all five treaty regimes has been driven by a relatively small number of dyads that sign multiple types of treaties with one another, generating substantial overlap between treaty networks that has grown or remained constant over time. Second, it is highly common for pairs of states to negotiate and sign multiple types of treaties within just a few years. The combination of system-level overlap and dyad-level temporal clustering strongly suggest that states' decisions to sign different types of treaties with the same partners are not made independently. Rather, the same forces may be driving pairs of states to sign multiple types of treaties together at the same point in time. Understanding the nature of these forces requires a theoretical framework that goes beyond those provided by single-regime studies. In the following section, I provide an explanation for regime coevolution that centers two often-overlooked actors in foreign economic policymaking: firms and diplomats.

### 5 Private interests and firm-driven interdependence

In brief, my argument is as follows. First, firms expand into new foreign markets to take advantage of new economic opportunities: emerging consumer markets, growing labor forces, resource discoveries, privatizations, and so on. Once firms have invested abroad, they become the primary beneficiaries of any present or future bilateral treaty between their

the states did not exist for the entire sample. Figure B.1 demonstrates that the results are unchanged when these dyads are excluded.



Figure 4: Firm-driven interdependence: a diagrammatic representation

home state and the host state. These "incumbent" firms therefore have an incentive to lobby for their home government to sign several types of treaty with the host government. Additionally, home governments may view signing treaties with their firms' host governments to be good foreign policy even in the absense of any direct lobbying. Treaties are the product of diplomacy: if firms from State A desire treaties with State B, diplomats can face both direct pressure (through direct contact with firms, industry associations, chambers of commerce, etc) and indirect pressure (if firms' preferences affect the preferences of diplomats' principals, e.g. government officials) to pursue them. To the extent that the same corporate pressure produces treaties across regimes, private actors have induced interdependence across treaty networks. I refer to this as *firm-driven interdependence*.

### 5.1 Incumbent firms and treaty rents

While firms' decisions to enter new foreign markets (or to begin trading with new partners) are affected by host state political factors such as democracy (Jensen, 2003) or bilateral treaties, recent analyses suggest that economic considerations such as GDP growth and labor stock play a much larger role (Arel-Bundock, 2017*a*; Bergstrand and Egger, 2007; Blonigen and Piger, 2014). An intuitive explanation for this finding is that foreign investment and trade carry large fixed costs; firms must select partners with ideal consumer/labor markets (or suppliers/buyers in the case of trade) in order to recoup these costs. No treaty or domestic institution would convince a firm to do business with a state in the absense of an economic rationale for doing so, but the converse is not true. Thus, firms frequently trade with and invest in foreign markets even if the host and home states have not signed any trade or investment-promoting treaties.

Once firms enter a new foreign market, however, they find themselves in a new position: they are now the primary beneficiaries of any present or future bilateral treaty between the host state and their home state.<sup>17</sup> A PTA would lower the cost of engaging in trade, both inter- and intrafirm;<sup>18</sup> a BIT or a BTT would lower the cost of maintaining foreign assets, by tempering political risk or lowering firms' tax burdens (respectively); a labor agreement could streamline the process of transferring employees between parent firm and subsidiary (or vice versa); and an environmental agreement could stimulate trade and investment by harmonizing standards or directly subsidizing certain types of investment. For firms that have already made the decision to invest or trade with the partner state, any future bilateral treaties would lower their operating costs without lowering the operating costs of either their domestic competitors or their internationalized competitors who do not do business with the partner state.

Incumbent firms therefore receive sizeable, *targeted* benefits from bilateral treaties signed between their home and host states; this creates an incentive to lobby for treaties. A similar logic has been applied to explain corporate lobbying on preferential trade agreements (Kim, 2017; Manger, 2012; Osgood, 2017), but there is reason to believe that it should apply to other treaty regimes as well. First, like PTAs, treaties in other regimes only benefit firms

<sup>&</sup>lt;sup>17</sup>This principle is illustrated by the following quote from Donald Gleason, former Comptroller of Corn Products Co. (now Ingredion), speaking in favor of a U.S.-Thailand BTT in a congressional hearing: "In the usual sense I do not think that this treaty, if it were fully applied, would tend to change our investment policy very much. It would, however, make such investments as we have from a tax and financial standpoint easier to manage."

<sup>&</sup>lt;sup>18</sup>Baccini, Pinto and Weymouth (2017) find evidence that PTAs redistribute market share towards large, exporting multinationals.

from the host state who invest in or trade with the partner state. For this subset of firms, lobbying for treaties can thus improve their position relative to competitors within their industry. Second, the rise of the global value chain and intra-firm trade means that many firms engage in both FDI and trade with the same host states (Bernard et al., 2010). These vertically-integrated firms have especially strong incentives to lobby on a wide range of treaty regimes, including PTAs but also more directly investment-promoting treaties such as BITs and BTTs. Finally, there is empirical evidence that firms do lobby on non-trade foreign policy issues (Skonieczny, 2017), and that multinationals are much more likely to do so (Kim and Milner, 2020).

### 5.2 Lobbying diplomats

Most extant studies of corporate lobbying, including foreign policy lobbying (Kim and Milner, 2020), focus on the self-reported activities of registered lobbyists. While global firms certainly make use of the standard domestic lobbying channels, they also have access to another avenue for influencing foreign policy: the diplomats that are assigned to the firms' host states. For firms seeking bilateral treaties, diplomats are favorable lobbying targets for three reasons. First, all treaties are the product of diplomacy. While most states require some form of ratification by the domestic legislature, diplomats are responsible for initiating, conducting, and finalizing treaty negotiations across issue areas. Second, one of the primary missions of bilateral diplomacy is typically to foster trade and investment, making private industry a key constituency.<sup>19</sup> Third, diplomats typically hold strong preferences in favor of cooperation with their host state and are willing to fight for policies that would improve bilateral relations (Malis, 2021). Since economic treaties are generally viewed as cooperative agreements, diplomats are likely to be responsive to firms' requests for them (Poulsen and Aisbett, 2016).

<sup>&</sup>lt;sup>19</sup>In correspondence with former U.S. Secretary of State Warren Christopher, diplomat Joan E. Spero underscored this point: "When travelling overseas, I have made it a point to meet with U.S. business, a practice which I will continue.... [The U.S. Department of] State's expertise and resources *are at the full disposal of the U.S. business community.*" U.S. Department of State, Doc No. C17824007. Emphasis added.

Contact between diplomats and firms operating abroad is highly common; a former U.S. diplomat told me that, while at post, he had a monthly meeting with the local branch of the U.S. Chamber of Commerce (Interview 1). As the entities actively involved in foreign investment, incumbent firms are uniquely positioned to offer diplomats information about on-the-ground conditions for foreign investors. Diplomats therefore actively seek to consult with firms regarding business-related foreign policy issues such as economic treatymaking. For example, during Deputy Secretary of State Strobe Talbott's 1996 visit to Venezuela, he met with U.S. Ambassador Jeffrey Davidow and a number of representatives from U.S. oil companies operating in Venezuela. While the incumbent firms were generally pleased with the business environment—noting that "proximity to the United States, infrastructure, experience, and vast [oil] reserves make Venezuela uniquely attractive"—they petitioned for bilateral investment and tax treaties between the U.S. and Venezuela.<sup>20</sup> Amb. Davidow agreed that the treaties were "essential," but noted that amendments to Venezuela's domestic intellectual property (IP) laws would be a prerequisite. Still, the U.S and Venezuela signed a bilateral tax treaty just three years later.

Governments may also instruct their diplomats to sign multiple types of treaties with the states that host their firms, even in the absense of direct lobbying, because doing so aligns with non-economic foreign policy goals. For example, both FDI and (free) trade have been shown to reduce the risk of conflict between partners (Bussmann, 2010; Mcdonald, 2004). States may wish to solidify existing trade and investment relationships using treaties in order to maintain their security. However, as evidenced by the ratification of a U.S-Venezuela tax treaty despite IP concerns, lobbying can still be effective even when firms' preferences are not fully aligned with states' broader foreign policy goals; Maurer (2013) provides several examples in which U.S. foreign investors successfully petitioned for U.S. intervention abroad, in spite of initial governmental reluctance and to the ultimate detriment of bilateral relations.

<sup>&</sup>lt;sup>20</sup>U.S. Department of State, Doc No. C06697914.

### 5.3 Observable implications

Firms internationalize in search of profit; once abroad, they lobby for bilateral treaties in order to subsidize their operations. Diplomats, receptive to incumbent firms' requests, negotiate multiple types of treaties with the same partners. The result is firm-driven interdependence across treaty networks. Following the two stylized facts presented in the previous section, I investigate two parallel observable implications of my theory. First, If corporate interests drive diplomats' strategies on multiple issue areas, and if firms have the strongest interests in the states where they already conduct business, then overlap between treaty regimes should be strongest among dyads with strong business ties. In other words:

H1: Past treaties should be more predictive of future treaties among dyads with stronger bilateral business ties.

Second, I have argued that two treaties are more likely to be interdependent—e.g., created as a result of the same data generating process—if they are signed within a short time of one another. Since my theory suggests that pressure from incumbent firms is the source of this interdependence, it follows that the temporal clustering documented in Figure 3 is driven by pairs of states with strong bilateral business ties.

H2: Among dyads with multiple treaties, stronger bilateral business ties should be associated with shorter periods of time in between signing each treaty.

The remainder of the paper consists of three empirical analyses of the above implications. First, I conduct quantitative tests using the full sample of dyad-years. Second, to overcome the potential confounder of prior diplomatic relations (which might drive bilateral business ties and bilateral treaty formation), I conduct another set of quantitative analyses using novel data on the pre-independence business ties of former Soviet Socialist Republics (SSRs). Finally, to illustrate the mechanism of corporate demand (and diplomatic advocacy) for treaties, I draw on declassified diplomatic cables to study the forces that led the United States and Kazakhstan to sign several treaties—including an investment treaty, a tax treaty, and an environmental agreement—in just two years (1992-1994).

### 6 Empirical evidence

### 6.1 Full sample

In order to test the first implication, I model treaty formation in each of the five regimes under study in this paper. The dependent variable is thus a binary measure of whether or not each pair of states signed the given treaty in the given year.<sup>21</sup> The unit of analysis is the dyad-year, the sample contains approximately unique 10,000 dyads, and the time range covers 1960-2007. I operationalize bilateral business ties as the total bilateral trade flows (imports + exports) between states *i* and *j* in a given year. Ideally I would also be able to measure bilateral FDI flows and stocks; however, such data are not available for the majority of the dyad-years in the sample.<sup>22</sup> The key independent variable is therefore an interaction term between the trade variable and a count of the number of prior treaties each dyad had signed in other regimes. A positive coefficient on the interaction would support my theory, suggesting that past treaties are more predictive of future treaties among dyads with stronger bilateral business relationships.

To address unobserved temporal and unit heterogeneity, I include year and dyad fixed effects in all models. I also control for a number of factors: home and host per capita GDP, home and host regime type (using V-Dem's additive polyarchy index), and the UN ideal point difference between home and host (Bailey, Strephney and Voeten, 2017). To control

 $<sup>^{21}</sup>$ Following the advice of McGrath (2015), I censor dyads that have already signed a treaty rather than including them as zeroes.

<sup>&</sup>lt;sup>22</sup>Reassuringly, trade flows and FDI stocks are highly correlated. For example, data from the Bureau of Economic Analysis shows that the correlation between U.S. bilateral FDI stocks and U.S. bilateral trade flows is .52 for the 1966-2009 period, and .79 for the 1966-1980 period.

		DV: states $i$ and $j$ signed a						
	BIT	BTT	PTA	Env. treaty	Labor treaty			
Trade (log)	-0.000***	-0.000***	$0.000^{***}$	-0.000	-0.000**			
Prior treaties	(0.000) - $0.002^{**}$	-0.005***	(0.000) $0.041^{***}$	-0.001***	-0.002***			
Trade*Prior treaties	(0.001) $0.001^{***}$ (0.000)	(0.001) $0.001^{***}$ (0.000)	(0.007) - $0.002^{***}$ (0.000)	(0.000) $0.000^{***}$ (0.000)	(0.000) $0.000^{***}$ (0.000)			
Controls:	Y	Y	Y	Y	Y			
Year FE:	Υ	Υ	Υ	Υ	Υ			
Dyad FE:	Υ	Υ	Υ	Υ	Υ			
Num.Obs.	286,233	269,731	230,620	291,212	293,803			
R2	0.164	0.155	0.149	0.198	0.123			
			* $p < 0.1$	1, ** p < 0.05	, *** p < 0.01			

Table 1: Firm-driven interdependence and treaty formation.

All independent variables are lagged by five years; all models estimated with robust standard errors clustered on the dyad. Variation in sample size across models is driven by the fact that dyads are censored after they have already signed the treaty in question; regimes that evolved earlier or grew larger, such as the BTT/PTA networks, will therefore have fewer observations.

for within-regime diffusion processes that may be potential confounders, I follow Elkins, Guzman and Simmons (2006) in calculating the following spatial lags for both home and host in each year:

$$lag_{it} = \frac{(w_{ij} \times y_{jt}) + (w_{ik} \times y_{kt}) \dots + (w_{iz} \times y_{zt})}{w_{ij} + w_{ik} \dots + w_{iz}}$$
(1)

Where  $w_{ij}$  is the geographic distance between states *i* and *j* and  $y_j$  is the total number of treaties that state *j* has signed in a given regime. This variable is thus a weighted average of the treaties signed by state *i*'s neighbors, which should influence its propensity to sign additional treaties according to the logic of competitive diffusion. To mitigate potential simultaneity bias and anticipation effects, I lag all independent variables by five years.

Table 1 displays the results of five models, each estimated using OLS with robust standard errors clustered on the dyad. As expected, the interaction between trade and prior treaties

DV: gap between signing treaties (years)				
	(1)	(2)	(3)	(4)
Trade (log)	-0.520***	-0.537***	-0.293***	-0.362**
Prior treaties	(0.039) -1.241*** (0.304)	(0.041) -4.613** (2.335)	(0.056) -0.149 (1.940)	(0.160) -0.176 (3.934)
Trade*Prior treaties		$0.193 \\ (0.128)$	-0.045 (0.106)	-0.014 (0.215)
Controls:	Ν	Ν	Y	Y
Dyad FE:	Ν	Ν	Ν	Y
Num.Obs.	2889	2889	1919	1919
R2	0.102	0.103	0.037	0.825
	* p	< 0.1, ** p	< 0.05, ***	p < 0.01

is a positive and significant predictor of treaty formation in four out of the five examined regimes. This means that, among dyads with strong trade relationships, prior treaties signed in other regimes are positively associated with the formation of a treaty in the regime at hand. Put another way, the results indicate that separate treaty regimes are more closely related to one another – in a manner suggestive of interdependence – among pairs of states with stronger pre-existing business ties.<sup>23</sup> The exception is the PTA regime, in which the opposite relationship holds: trade is a positive and significant predictor of PTA formation in the absense of prior treaties, but the interaction effect between trade and prior treaties is negative and significant. This is consistent with the lower levels of observed overlap between the PTA network and other networks, as observed in Figure 3.

Next, I estimate an additional set of models in order to determine whether or not temporal clustering in treaty formation is stronger among dyads with stronger bilateral business ties. To do so, I first limit the sample to dyads that have signed at least two treaties together. The dependent variable is the number of years in between signing each successive treaty, generating  $k_{ij} - 1$  observations for each dyad (where  $k_{ij}$  is the total number of treaties signed by each dyad). The key independent variable for these models is simply the measure of

<sup>&</sup>lt;sup>23</sup>Appendix Table C.1 presents additional models that disaggregate the *Prior treaties* variable.

bilateral trade, again lagged five years from the date at which the first treaty was signed. I include the same set of control variables, excluding the spatial lags, and I estimate both the across and within-dyad relationships.

Table 2 presents the results of four models, again estimated via OLS with robust SEs clustered on the dyad. In all models, the coefficient on the bilateral trade variable is negative, statistically significant, and relatively large in magnitude. Even when dyad fixed effects are included in Model (4), a one standard deviation increase in bilateral trade is associated with a 2.7 year reduction in the gap between signing treaties in separate regimes; holding all else equal, increasing the bilateral trade variable from its mean to its maximum value is associated with a seven year reduction. In line with the firm-driven interdependence hypothesis, dyads that have strong bilateral business ties sign multiple treaties within a substantially shorter timeframe than those that do not.

### 6.2 Evidence from the dissolution of the USSR

One potential concern with the evidence presented so far is that bilateral business ties and the creation of bilateral treaties are both driven by prior diplomatic relations between pairs of states. If dyads with historically strong diplomatic ties are more likely to do business and sign treaties together, then it may be the case that diplomacy affects commercial strategy more than the opposite. To address this concern, I conduct additional quantitative analyses in a unique historical setting: the breakup of the Soviet Union into 15 independent states.<sup>24</sup>

The dissolution of the USSR offers a favorable opportunity to study the relationship between business ties and treaty network coevolution because the former Soviet Socialist Republics (SSRs) existed as distinct administrative units within the Soviet Union prior to their (re)emergence as independent nations. The SSRs engaged in foreign trade, building business ties, but all diplomatic relations were under the control of the central government via the Ministry of Foreign Affairs (Motyl, 1982). Thus, the Soviet Republics could *not* 

<sup>&</sup>lt;sup>24</sup>The states being: Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Krygyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.



Figure 5: Growth in the treaty networks of the post-soviet states.

engage in diplomacy or sign their own treaties.<sup>25</sup> As Figure 5 shows, however, the former Soviet states built their treaty networks rapidly in the years following the dissolution of the USSR. Any correlation between the SSRs' pre-independence trade relationships and their post-independence treatymaking is therefore unlikely to be confounded by prior bilateral diplomatic interactions.

To gauge pre-independence business ties, I collect data on each of the former SSRs' preindependence (1990) bilateral trade relationships from a 1995 World Bank report on Soviet trade statistics (Belkindas and Ivanova, 1995).<sup>26</sup> Bilateral imports and exports were reported for a set of 34 partner states, the full list of which is available in the appendix. Using the pre-independence data, I estimate a simple model of treaty formation:

$$\sum_{t=1991}^{2007} \sum_{r=1}^{5} treaty_{ij} = \alpha_i + \beta trade_{ij}^{1990} + \eta X_{ij} + \xi X_j + \epsilon_{ij}$$
(2)

The dependent variable is the sum of treaties signed by SSR i and partner state j across

 $<sup>^{25}{\</sup>rm However},$  treaties signed by the USSR applied to the constituent republics as well. Even after independence, many former SSRs continue to honor these treaties.

 $<sup>^{26}</sup>$ The data were originally compiled by the USSR's statistical agency (*Goskomstat*).

	DV: treaties signed in post-USSR era						
	(1)	(2)	(3)	(4)	(5)	(6)	
Bilateral trade	0.189***	0.189***	0.195***				
$(1990, \log ed value)$	(0.024)	(0.027)	(0.028)				
Bilateral trade (1990, proportion of total)				$5.346^{***}$ (1.048)	$5.346^{***}$ (1.700)	$3.876^{**}$ (1.460)	
Dyad controls	Y	Y	Y	Y	Y	Y	
Partner controls	Ν	Ν	Y	Ν	Ν	Υ	
SSR FEs	Υ	Υ	Y	Y	Υ	Υ	
CRSEs	Ν	Υ	Υ	Ν	Υ	Υ	
Num.Obs.	510	510	465	510	510	465	
R2	0.426	0.426	0.508	0.386	0.386	0.469	
R2 Adj.	0.403			0.361			
			* p <	0.1, ** p <	< 0.05, ***	p < 0.01	

Table 2: Pre-independence trade and post-independence treaty formation amongthe former Soviet Republics.

all regimes r between 1991 and 2007 (e.g. the number of treaties signed by each dyad in the post-independence period),  $\alpha_i$  is an SSR fixed effect,  $trade_{ij}^{1990}$  is one of two measures of 1990 trade (exports + imports) between SSR i and partner state j,  $X_{ij}$  is a matrix of dyad-level covariates and  $X_j$  is a matrix of partner state-level covariates, and  $\epsilon_{ij}$  is the error term. To account for the possibility that either relative or absolute business ties influence regime coevolution, I alternatively measure trade as (1) the natural log of total flows between i and j, and (2) the proportion of the SSR's total trade that was conducted with partner j in 1990.

At the dyad level, I control for the population-weighted distance between each pair of states, and the presence of an inherited bilateral treaty from the USSR in each regime. I also control for two partner state variables that might jointly influence pre-independence business ties and post-independence treatymaking: logged GDP per capita and regime type (measured using V-Dem's additive polyarchy index). Controlling for regime type is particularly important, as it is possible that developed Western Bloc democracies used both pre-independence trade and bilateral treaties as geopolitical tools to weaken Russian influ-



Figure 6: Disaggregating results from Table 2 by treaty regime.

ence in the region. The parameter of interest is  $\beta$ ; a positive and significant estimate of this parameter would indicate that the SSRs' pre-independence business ties influence their post-independence treaty formation across different treaty networks, as predicted by the

firm-driven interdependence theory.

Table 2 presents OLS estimates of Equation (2), using both measures of pre-independence trade, with and without robust standard errors clustered on the SSR. In all six models, the relationship between pre-independence trade and post-independence treatymaking is positive, significant, and substantively large. Holding all else equal, a one standard deviation increase in either trade variable is associated with approximately .5 additional treaties; increasing either variable from zero to its maximum value is associated with approximately two additional treaties.

To show that this result is not being driven by a single regime, I reestimate Model (3) and Model (6) for each treaty regime separately. Figure 6 plots the results, showing that both measures of trade are significantly associated with treaty formation across multiple regimes. The exception appears to be the PTA regime, for which pre-independence trade appears to have no effect on post-independence formation. However, this null may be driven in part by the 2003 Cotonou Agreement, a somewhat larger multilateral PTA that bound together many dyads that had no prior business ties (such as Estonia and Syria). When this PTA is excluded from the sample, the coefficient on the logged 1990 trade variable becomes positive and significant at the p < .05 level ( $\hat{\beta} = .008$  [.002, .013]).

#### 6.3 Illustrative case: U.S.-Kazakhstan relations, 1988-1994

The previous analyses provided strong support for the firm-driven interdependence theory in two different cross-national samples. However, the lack of systematic data on interaction between firms and diplomats necessarily limits quantitative analysis to testing the reduced form. To provide some insight into the proposed mechanism of demand for multiple treaties by incumbent firms, I turn to a qualitative analysis of one particular bilateral relationship: that between the U.S. and Kazakhstan. American firms were in negotiations to invest in Kazakhstan via joint ventures for many years prior to the dissolution of the Soviet Union; following the 1991 collapse, these negotiations began to bear fruit. Newly incumbent American firms (Chevron, in particular) put pressure on diplomats to sign multiple treaties with the nascent government, and diplomats in turn made the case for treaties to the U.S. Secretary of State. As a result, the U.S. signed more economic treaties with Kazakhstan—and signed them much more quickly—than it did with other post-soviet states that lacked the strong interest of U.S. firms.

#### 6.3.1 "Perhaps the world's biggest untapped market"

Long before the end of the Cold War, American multinationals were attempting to break into the Soviet market; despite the tangled bureaucracy and ideological opposition, some (such as Pepsi-Cola) were successful as early as 1971.<sup>27</sup> These efforts escalated as firms interpreted President Mikhail Gorbachev's economic reforms as a signal of future openness. In 1988, American businessman James Giffen brought together six large U.S. multinationals (including Chevron, Johnson & Johnson, and Ford Motor Company) to form the American Trade Consortium (ATC) in order to collectively negotiate a total of 25 joint venture agreements with the Soviet government.<sup>28</sup> Despite the difficulty of entering the closed economy, American firms were driven by the opportunity to sell goods and services to a large population with a strong demand for western products, with little domestic competition. Justifying the company's interest in the Soviet Union, a Ford executive noted that "The waiting list for Soviet-made cars is four years long... It is perhaps the world's biggest untapped market."<sup>29</sup>

By far the largest investment deal to come out of the ATC was Chevron's 1990 tentative agreement, signed at a joint summit attended by Presidents Bush and Gorbachev, to form a joint venture in order to manage production at the Tengiz and Korolev oilfields in the Kazakh SSR. Tengiz was the real prize for Chevron, as its 25 billion barrels of reserves made it one of the world's largest "supergiant" oilfields.<sup>30</sup> Despite being hampered by political

<sup>&</sup>lt;sup>27</sup>See Mark Stenberg, "How the CEO of Pepsi, by bartering battleships and vodka, negotiated Cold War diplomacy and brought his soda to the Soviet Union," *Business Insider*, 11 November 2020.

<sup>&</sup>lt;sup>28</sup>Louis Kraar, "Top U.S. Companies Move Into Russia", Fortune, 31 July 1989.

<sup>&</sup>lt;sup>29</sup>Claudia H. Deutsch, "Taking a Team Approach to Soviet Trade," New York Times, 31 July 1988.

<sup>&</sup>lt;sup>30</sup> "Chevron-Soviet Joint Venture Nearer with Inclusion of Tengiz Field", *Platts Oilgram News*, 5 June 1990.

infighting and some negative coverage from Russian media outlets,<sup>31</sup> Chevron's deal survived the year of 1991 during which their host state transitioned from the USSR to Kazakhstan. As an analyst commented in reference to the situation, "...It won't stop the movement. The Soviets need this investment too much, and foreign companies need too much to be here."<sup>32</sup>

#### 6.3.2 Nazarbayev goes to Washington

Just ten days prior to the formal dissolution of the USSR, Kazakhstan became the last Soviet Republic to declare independence on December 16, 1991. The U.S. wasted no time establishing bilateral relations, officially recognizing Kazakhstan's independence on Christmas day (the first state to do so) and opening a U.S. Embassy in former capital Alma-Ata (now Almaty) in January, 1992.<sup>33</sup> William Harrison Courtney, a career diplomat with a doctorate in economics, was appointed to lead the new embassy.

In April 1992, Courtney sent a cable to Washington (addressed to Secretaries of State and Commerce, as well as the U.S. Trade Representative) from Alma-Ata detailing early developments in bilateral economic relations. "To lay a foundation for normalized and productive economic ties with Kazakhstan," he wrote, "The U.S. has proposed early conclusion of four economic agreements. They concern trade, OPIC [the Overseas Private Investment Corporation], investment, and taxation."<sup>34</sup> The U.S. had sent negotiators to Kazakhstan as early as December 1991 to begin discussions on the four economic treaties, and—despite a sluggish response to U.S. efforts—Kazakh President Nursultan Nazarbayev decided in March that he wanted to sign all four treaties during his visit to the U.S. in May 1992.<sup>35</sup>

In the cable to his superiors, Courtney came out strongly in support of the treaties. He wrote that "it is in America's interest to do [sic] conclude these accords promptly. This will... improve the climate for U.S. trade and investment in this vast land rich in oil and

 $<sup>^{31}\</sup>mathrm{As}$  reported in "Proposed Chevron Tengiz venture stalls amid Soviet political squabble,"  $Oil~\mathscr{C}$  Gas Journal, 5 August 1991.

 $<sup>^{32}\</sup>mathrm{See}$  above footnote.

<sup>&</sup>lt;sup>33</sup>See https://kz.usembassy.gov/embassy-consulates/almaty/history/.

<sup>&</sup>lt;sup>34</sup>U.S. Department of State, Doc No. C05702961.

 $<sup>^{35}\</sup>mathrm{U.S.}$  Department of State, Doc No. C05702925.

minerals."<sup>36</sup> Why make this push in Kazakhstan, rather than any of the other former Soviet Republics? Courtney wrote, "Kazakhstan is only one of several [Commonwealth of Independent States] states with which the U.S. seeks to normalize economic relations. Nonetheless, given Nazarbayev's impending visit and rising American business interest in Kazakhstan, we should make an extraordinary effort rapidly to conclude the agreements."<sup>37</sup>

Courtney encountered little pushback, even receiving a cable from Washington with advice on how to move BIT negotiations along.<sup>38</sup> By the time Nazarbayev arrived in the U.S. in late May, three of the four agreements were ready to sign. Over the course of May 19-20, the U.S. and Kazakhstan concluded a trade agreement,<sup>39</sup> a bilateral investment treaty, and an OPIC agreement. The bilateral tax treaty required additional negotiations and was officially signed in 1993.<sup>40</sup> In a joint statement issued by Presidents Bush and Nazarbayev, the leaders claimed that the new treaties "constitute the basic framework of our economic relationship."

#### 6.3.3 Discussion

The case of early U.S.-Kazakhstan bilateral relations illuminates each step in the firmdriven interdependence process. First, American firms had strong interests in Kazakhstan long before any treaties were signed; Chevron, for example, had negotiated and signed the joint venture agreement prior to the country's independence. Rather, the combination of natural resource availability, favorable consumer markets, and relaxing of domestic regulations were the main attractions for U.S. investors.

However, once American firms began to sign their investment contracts, demand for treaties intensified. Chevron was a particularly influential pro-treaty interest, as it was about

<sup>&</sup>lt;sup>36</sup>U.S. Department of State, Doc No. C05702961.

<sup>&</sup>lt;sup>37</sup>See above footnote.

<sup>&</sup>lt;sup>38</sup>U.S. Department of State, Doc No. C05702956.

<sup>&</sup>lt;sup>39</sup>The trade agreement had previously been negotiated between the U.S. and the Soviet Union and was approved by congress in November 1991, but was updated to reflect Kazakhstan's independence; for this reason, it does not enter into the DESTA dataset. U.S. Department of State, Doc No. C05883270.

<sup>&</sup>lt;sup>40</sup>Though it was not part of the four original economic treaties, the U.S. and Kazakhstan also concluded an environmental agreement in 1994.

to make a large investment in fixed assets that would generate large amounts of profits to be repatriated and products to be exported; investment, tax, and trade agreements between the U.S. and Kazakhstan would directly subsidize the firm's operations. Chevron also had unparalleled access to U.S. diplomats for two primary reasons. First, James Giffen—organizer of the ACT (of which Chevron was a member), and close advisor to Nazarbayev—was selected by Kazakhstan to administer the unofficial parts of Nazarbayev's trip, working directly with the U.S. Embassy in Kazakhstan.<sup>41</sup> Second, in 1992 Chevron's board of directors included both former Secretary of State George Schultz and future Secretary of State Condoleeza Rice. Rice, who knew Nazarbayev personally from her time at the National Security Council, traveled to Kazakhstan in 1992 to advocate on the firm's behalf.<sup>42</sup>

Courtney, in turn, made the pro-treaty case to Washington. Tellingly, even in private (formerly classified) communication with his colleagues, his argument in favor of treaties was based on current—rather than future—American business interests in Kazakhstan.<sup>43</sup> Trade, investment, and tax agreements were all described as complementary elements of pro-business foreign economic policy. Further, Courtney pointed to the relatively strong business interest as a justification for prioritizing Kazakhstan over other former Soviet Republics. A look at the data supports this view; it's true that Kazakhstan had nuclear weapons in 1992, but so did Belarus, and the latter state's only treaty with the U.S.<sup>44</sup> is a BIT that was never ratified. It's also true that the U.S. may have had geopolitical interests in securing access to oil, but despite Azerbaijan's substantial oil reserves the two states have only signed a BIT and did not do so until 1997. Rather, what set Kazakhstan apart was Chevron's pre-existing, multi-billion dollar deal, which created in Chevron a powerful lobbyist for bilateral treatymaking.

 $<sup>^{41}\</sup>mathrm{U.S.}$  Department of State, Doc No C05702933.

<sup>&</sup>lt;sup>42</sup>To honor her work, in 1993 Chevron named an oiltanker the "SS Condoleeza Rice." See Russell Baker, "Condi and the Boys", New York Review of Books, 3 April 2008.

<sup>&</sup>lt;sup>43</sup>Similarly, a former U.S. BIT negotiator told me that the U.S. BIT program was more about investment protection than investment promotion (Interview 2).

<sup>&</sup>lt;sup>44</sup>Of the five regimes under study.

## 7 Conclusion

In this paper, I began by drawing attention to two robust empirical patterns: growth in five nominally separate economic treaty regimes has been largely driven by a small number of multi-treaty dyads, and multi-treaty dyads tend to sign multiple treaties within a short time period. I argued that these trends suggested interdependence across economic treaty networks, signaling a need to treat foreign economic policymaking—both theoretically and empirically—as more than the sum of its constituent parts (Oatley, 2011).

I then introduced a theory of treaty regime evolution that highlights the role of firms and diplomats. Firms go abroad to take advantage of market opportunities: natural resources, labor and consumer markets, favorable regulations, and so on. Once abroad, these incumbent firms seek bilateral treaties between home and host in order to subsidize their operations (but not those of their domestic or foreign multinational competitors). Diplomats, who are influential in initiating and negotiating treaties across issue areas, are a key target of corporate lobbying on treaties and a key domestic advocate for international business. As evidenced by the case of the United States and Kazakhstan, the same corporate pressure can produce multiple economic treaties, creating firm-driven interdependence. In two sets of quantitative analyses, supplemented by a case study and elite interviews, I find strong support for this theory.

Though the focus of this study has been on the formation of treaties, the results carry meaningful implications for how future research might more effectively study treaties' effects. For example, several studies have examined the effect of BITs on aggregate FDI flows, finding mixed (and often ambiguous) results (Berger et al., 2011; Brada, Drabek and Iwasaki, 2020; Kerner, 2018). However, if the treaties were formed in response to pressure from firms that have already invested abroad, they may simply serve to redistribute the gains of globalization towards the largest and most influential firms rather than increasing aggregate levels of trade or investment. As an analyst commented on the proposed China-EU Comprehensive Agreement on Investment (CAI), "[The CAI] will essentially benefit 15 to 20 EU multinationals,

half of which are probably German."<sup>45</sup> If this is the case, then economic treaties may play an important and understudied role in fostering growth of within-industry inequality and the rise of "superstar" firms (Autor et al., 2020). Future studies could fruitfully follow Baccini, Pinto and Weymouth (2017) in examining the distributional effects of other bilateral economic agreements.

<sup>&</sup>lt;sup>45</sup>Noah Barkin from the Rhodium Group, quoted in Alan Beattie, "EU's investment deal will give it limited inroads into China," *Financial Times*, 18 March 2021.

## References

- Allee, Todd and Clint Peinhardt. 2011. "Contingent Credibility: The Reputational Effects of Investment Treaty Disputes on Foreign Direct Investment." *International Organization* 65(3):401–432.
- Allee, Todd and Clint Peinhardt. 2014. "Evaluating three explanations for the design of bilateral investment treaties." World Politics 66(1):47–87.
- Allee, Todd and Manfred Elsig. 2019. "Are the contents of international treaties copied and pasted? Evidence from preferential trade agreements." *International Studies Quarterly* 63(3):603–613.
- Arel-Bundock, Vincent. 2017a. "The Political Determinants of Foreign Direct Investment: A Firm-Level Analysis." International Interactions 43(3):424–452.
- Arel-Bundock, Vincent. 2017b. "The Unintended Consequences of Bilateralism: Treaty Shopping and International Tax Policy." *International Organization* 71(2):349–371.
- Autor, David, David Dorn, Lawrence F Katz, Christina Patterson and John Van Reenen. 2020. "The Fall of the Labor Share and the Rise of Superstar Firms." *Quarterly Journal* of Economics 135(2):645–709.
- Baccini, Leonardo. 2014. "Cheap talk: Transaction costs, quality of institutions, and trade agreements." *European Journal of International Relations* 20(1):80–117.
- Baccini, Leonardo. 2019. "The Economics and Politics of Preferential Trade Agreements." Annual Review of Political Science 22:75–92.
- Baccini, Leonardo and Andreas Dür. 2015. "Investment Discrimination and the Proliferation of Preferential Trade Agreements." *Journal of Conflict Resolution* 59(4):617–644.

- Baccini, Leonardo, Pablo M. Pinto and Stephen Weymouth. 2017. "The Distributional Consequences of Preferential Trade Liberalization: Firm-Level Evidence." International Organization 71(2):373–395.
- Bagwell, Kyle, Chad P. Bown and Robert W. Staiger. 2016. "Is the WTO passé?" Journal of Economic Literature 54(4):1125–1231.
- Bailey, Michael A., Anton Strezhnev and Erik Voeten. 2017. "Estimating Dynamic State Preferences from United Nations Voting Data." Journal of Conflict Resolution 61(2):430– 456.
- Baldwin, Richard and Dany Jaimovich. 2012. "Are Free Trade Agreements contagious?" Journal of International Economics 88(1):1–16.
  URL: http://dx.doi.org/10.1016/j.jinteco.2012.03.009
- Barthel, Fabian and Eric Neumayer. 2012. "Competing for Scarce Foreign Capital: Spatial Dependence in the Diffusion of Double Taxation Treaties." *International Studies Quarterly* 56(4):645–660.
- Barthel, Fabian, Matthias Busse and Eric Neumayer. 2010. "The impact of double taxation treaties on foreign direct investment: Evidence from large dyadic panel data." *Contemporary Economic Policy* 28(3):366–377.
- Belkindas, Misha V. and Olga V. Ivanova. 1995. Foreign Trade Statistics in the USSR and Successor States. Technical report The World Bank.
- Berger, Axel, Matthias Busse, Peter Nunnenkamp and Martin Roy. 2011. "More stringent BITs, less ambiguous effects on FDI? Not a bit!" *Economics Letters* 112(3):270–272.
  URL: http://dx.doi.org/10.1016/j.econlet.2011.05.026

Bergstrand, Jeffrey H. and Peter Egger. 2007. "A knowledge-and-physical-capital model

of international trade flows, foreign direct investment, and multinational enterprises." Journal of International Economics 73(2):278–308.

- Bernard, Andrew B., J. Bradford Jensen, Stephen J. Redding and Peter K. Schott. 2010. "Intrafirm trade and product contractibility." *American Economic Review* 100(2):444–448.
- Betz, Timm and Andrew Kerner. 2016. "The influence of interest: Real US interest rates and bilateral investment treaties." *Review of International Organizations* 11(4):419–448.
  URL: http://dx.doi.org/10.1007/s11558-015-9236-6
- Blonigen, Bruce A. and Jeremy Piger. 2014. "Determinants of foreign direct investment." Canadian Journal of Economics 47(3):776–812.
- Brada, Josef C., Zdenek Drabek and Ichiro Iwasaki. 2020. "Does Investor Protection Increase Foreign Direct Investment? a Meta-Analysis." *Journal of Economic Surveys* pp. 1–36.
- Busch, Marc L and Eric Reinhardt. 2006. "Three's a Crowd: Third Parties and WTO Dispute Settlement." World Politics 58(April):446–77.
- Bussmann, Margit. 2010. "Foreign direct investment and militarized international conflict." Journal of Peace Research 47(2):143–153.
- Büthe, Tim and Helen V. Milner. 2008. "The politics of foreign direct investment into developing countries: Increasing FDI through international trade agreements?" American Journal of Political Science 52(4):741–762.
- Chilton, Adam S. and Eric A. Posner. 2018. "Why countries sign bilateral labor agreements." Journal of Legal Studies 47(S1):S45–S88.
- Davies, Ronald B. and Helen T. Naughton. 2014. "Cooperation in environmental policy: a spatial approach." *International Tax and Public Finance* 21(5):923–954.
- Downs, George W, David M Rocke and Peter N Barsoom. 1996. "Is the Good News about Compliance Good News about Cooperation?" International Organization 50(3):379–406.

- Egger, Peter, Christoph Jeßberger and Mario Larch. 2011. "Trade and investment liberalization as determinants of multilateral environmental agreement membership." International Tax and Public Finance 18(6):605–633.
- Elkins, Zachary, Andrew T Guzman and Beth A Simmons. 2006. "Competing for Capital: The Diffusion of Bilateral Investment Treaties, 1960–2000." International Organization 60(Fall):811–846.
- Gertz, Geoffrey. 2018. "Commercial diplomacy and political risk." International Studies Quarterly 62(1):94–107.
- Goldsmith, Benjamin E, Yusaku Horiuchu and Kelly Matush. 2021. "Does Public Diplomacy Sway Foreign Public Opinion? Identifying the Effect of High-Level Visits." American Political Science Review.
- Hearson, Martin. 2018. "When Do Developing Countries Negotiate Away Their Corporate Tax Base?" Journal of International Development 30(2):233–255.
- Jandhyala, Srividya, Witold J. Henisz and Edward D. Mansfield. 2011. "Three waves of bits: The global diffusion of foreign investment policy." Journal of Conflict Resolution 55(6):1047–1073.
- Jensen, Nathan M. 2003. "Democratic Governance and Multinational Corporations: Political Regimes and Inflows of Foreign Direct Investment." *International Organization* 57(3):587– 616.
- Jo, Hyeran and Hyun Namgung. 2012. "Dispute Settlement Mechanisms in Preferential Trade Agreements: Democracy, Boilerplates, and the Multilateral Trade Regime." *Journal* of Conflict Resolution 56(6):1041–1068.
- Jogarajan, Sunita. 2018. Double Taxation and The League of Nations. Cambridge: Cambridge University Press.

- Kerner, Andrew. 2018. "What Can We Really Know about BITs and FDI ?" *ICSID Review* 33(1):1–13.
- Kim, In Song. 2017. "Political Cleavages within Industry: Firm-level Lobbying for Trade Liberalization." American Political Science Review 111(1):1–20.
- Kim, In Song and Helen V Milner. 2020. Multinational Corporations and their Influence Through Lobbying on Foreign Policy. In *Global Goliaths: Multinational Corporations in* the 21st Century Economy. Brookings Institution pp. 1–37.

**URL:** https://scholar.princeton.edu/hvmilner/publications/multinational-corporationsand-their-influencethrough-lobbying-foreign-policy

- Kim, In Song, Helen V. Milner, Thomas Bernauer, Iain Osgood, Gabriele Spilker and Dustin Tingley. 2018. "Firms and Global Value Chains: Identifying Firms' Multidimensional Trade." International Studies Quarterly.
  - **URL:** https://scholar.princeton.edu/hvmilner/publications/firms-and-global-valuechains-identifying-firms-multidimensional-trade
- Kim, In Song, Steven Liao and Sayumi Miyano. 2020. "Why Trade and FDI Should Be Studied Together." Working Paper.
- Kinne, Brandon J. 2013. "Network dynamics and the evolution of international cooperation." American Political Science Review 107(4):766–785.
- Kinne, Brandon J. and Jonas B. Bunte. 2018. "Guns or Money? Defense Co-operation and Bilateral Lending as Coevolving Networks." *British Journal of Political Science* (December 2012):1–22.
- Liao, Steven. 2014. "Panacea for International Labor Market Failures? Bilateral Labor Agreements and Labor Mobility." SSRN Electronic Journal pp. 0–35.

- Malis, Matt. 2021. "Conflict, Cooperation, and Delegated Diplomacy." International Organization.
- Manger, Mark S. 2012. "Vertical Trade Specialization and the Formation of North-South PTAs." World Politics 64(4):622–658.
- Mansfield, Edward D. 1998. "The Proliferation of Preferential Trading Agreements." *Journal* of Conflict Resolution 42(5):523–543.
- Mansfield, Edward D, Helen V Milner and B Peter Rosendorff. 2002. "Why Democracies Cooperate More : Electoral Control and International Trade Agreements." *International Organization* 56(3):477–513.
- Maurer, Noel. 2013. The Empire Trap: The Rise and Fall of U.S. Intervention to Protect American Property Overseas, 1893-2013. Princeton University Press.
- Mcdonald, Patrick J. 2004. "Peace through trade or free trade?" Journal of Conflict Resolution 48(4):547–572.
- McGrath, Liam F. 2015. "Estimating Onsets of Binary Events in Panel Data." *Political Analysis* 23(4):534–549.
- McKenzie, David, Caroline Theoharides and Dean Yang. 2014. "Distortions in the international migrant labor market: Evidence from filipino migration and wage responses to destination country economic shocks." *American Economic Journal: Applied Economics* 6(2):49–75.
- Mitchell, Ronald B. 1994. "Regime Design Matters: Intentional Oil Pollution and Treaty Compliance." *International Organization* 48(3):425–458.
- Mitchell, Ronald B., Liliana B. Andonova, Mark Axelrod, Jörg Balsiger, Thomas Bernauer, Jessica F. Green, James Hollway, Rakhyun E. Kim and Jean Frédéric Morin. 2020. "What

we know (and could know) about international environmental agreements." *Global Envi*ronmental Politics 20(1):103–121.

- Moehlecke, Carolina, Calvin Thrall and Rachel L Wellhausen. 2019. "Global Value Chains as a Constraint on Sovereignty: Evidence from Investor-State Dispute Settlement." Working Paper pp. 1–47.
- Motyl, Alexander J. 1982. "The Foreign Relations of the Ukrainian SSR." *Harvard Ukrainian* Studies 6(1):62–78.
- Oatley, Thomas. 2011. "The Reductionist Gamble: Open Economy Politics in the Global Economy." *International Organization* 65(2):311–341.
- Osgood, Iain. 2017. "Industrial fragmentation over trade: The role of variation in global engagement." *International Studies Quarterly* 61(3):642–659.
- Peters, Margaret E. 2014. "Trade, foreign direct investment, and immigration policy making in the United States." *International Organization* 68(4):811–844.
- Peters, Margaret E. 2019. "Immigration and International Law." International Studies Quarterly 63(2):281–295.
- Poulsen, Lauge N. Skovgaard. 2014. "Bounded Rationality and the Diffusion of Modern Investment Treaties." *International Studies Quarterly* 58(1):1–14.
- Poulsen, Lauge N.Skovgaard and Emma Aisbett. 2016. "Diplomats want treaties: Diplomatic agendas and perks in the investment regime." Journal of International Dispute Settlement 7(1):72–91.
- Putnam, Robert D. 1988. "Diplomacy and Domestic Politics : The Logic of Two-Level Games." *International Organization* 42(3):427–460.

- Rixen, Thomas. 2011. "From double tax avoidance to tax competition: Explaining the institutional trajectory of international tax governance." *Review of International Political Economy* 18(2):197–227.
- Rose, Andrew K. and Mark M. Spiegel. 2009. "Non-economic Engagement and International Exchange: The Case of Environmental Treaties." *Journal of Money, Credit, and Banking* 41:337–363.
- Skeldon, Ronald. 2012. "Going Round in Circles: Circular Migration, Poverty Alleviation and Marginality." *International Migration* 50(3):43–60.
- Skonieczny, Amy. 2017. Corporate Lobbying in Foreign Policy. In Oxford Research Encyclopedia of Politics. Number October pp. 1–25.
- Strange, Susan. 1992. "States, firms and diplomacy." International Affairs 68(1):1–15.
- Wellhausen, Rachel L. 2016. "Recent trends in investor-state dispute settlement." Journal of International Dispute Settlement 7(1):117–135.

## Appendix

## A Interviews

Interview ID	Interviewee	Date
1	Former U.S. Foreign Service Officer	04/30/2021
2	Former Treaty Negotiator at U.S. Department of State	06/09/2021
3	Former U.S. Ambassador	07/03/2021

Table A.1: Supplemental interviews.

To supplement the quantitative and case study analyses in the body of the paper, I conducted a small number of elite interviews with former U.S. diplomats. Interviewees were selected according to their subject matter expertise and contacted via email. Interviews were loosely structured, approximately 1 hour in duration, and primarily intended to increase my understanding of the day-to-day functioning of diplomatic affairs.

## **B** Additional descriptives: interdependence

Table B.1:	While mos	t states	have	at lea	ast soi	me tre	reaties,	a sn	nall p	roport	ion (	of
dyads acc	ount for all	nost all	treation	es.								

	% of treaties			
Quintile	State	Dyad		
1	41%	64%		
2	23%	29%		
3	17%	7%		
4	13%	0%		
5	6%	0%		

This table displays the percentage of total treaties (across all five regimes) that are accounted for by each quintile (1 = top 20%, 2 = 20-40 percentile, etc) of states and dyads, respectively.

Figure B.1: Histogram of the number of years between signing different treaties (within dyads), excluding dyads not observed for the entire sample.



Figure B.2: The majority of states' treaties are signed with partners that the states have signed at least one other treaty with.



Each vertical line represents a single state. Colors represent the percentage of each state's treaties that are signed with partners that the state has signed 1, 2, 3, 4, or 5 treaties with. Darker colors indicate that the state tends to sign more treaties with the same partners.

Figure B.3: After approximately 50 treaties, most of the growth in states' treaty portfolios is at the intensive margin. Dashed line has slope 1 and intercept 0.



Table B.2: Regressions accompanying Figure B.3.

DV: # of treaty partners	(1)	(2)	(3)	(4)	(5)	(6)
Total $\#$ of treaties	$0.754^{***}$	0.761***	0.804***	0.896***	0.983***	1.119***
Total # of treaties squared	(0.042) -0.001*** (0.000)	(0.047) -0.001*** (0.000)	(0.057) -0.001*** (0.000)	(0.067) -0.002*** (0.000)	(0.080) - $0.002^{***}$ (0.000)	$(0.107) \\ -0.003^{***} \\ (0.001)$
Sample: $\langle x \text{ treaties} \rangle$	_	350	300	250	200	150
Num.Obs.	185	183	175	166	152	136
R2	0.878	0.871	0.844	0.817	0.789	0.773
R2 Adj.	0.876	0.870	0.842	0.814	0.786	0.770
			*	p < 0.1, **	p < 0.05, **	** $p < 0.01$

# C Additional information: Quantitative analysis

	DV: states $i$ and $j$ signed a						
	BIT	BTT	РТА	Env. treaty	Labor treaty		
Trade (log)	-0.000***	-0.000***	0.000***	-0.000	-0.000		
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)		
BIT		-0.035*	0.016	-0.003	-0.007*		
		(0.020)	(0.015)	(0.004)	(0.004)		
BTT	$0.025^{***}$		0.049***	-0.004*	-0.006**		
	(0.009)		(0.011)	(0.002)	(0.003)		
PTA	-0.003***	-0.003***	× ,	-0.001**	-0.001***		
	(0.001)	(0.001)		(0.000)	(0.000)		
Env. treaty	0.010	-0.039***	0.090***		-0.010*		
·	(0.012)	(0.014)	(0.026)		(0.006)		
Lab. treaty	0.032*	-0.096***	0.010	-0.014			
v	(0.017)	(0.031)	(0.031)	(0.010)			
Trade*BIT	× ,	0.004***	-0.001	0.000	0.000*		
		(0.001)	(0.001)	(0.000)	(0.000)		
Trade*BTT	-0.000	× ,	-0.003***	0.000**	0.000***		
	(0.000)		(0.001)	(0.000)	(0.000)		
Trade*PTA	0.000***	$0.001^{***}$	× ,	0.000***	0.000***		
	(0.000)	(0.000)		(0.000)	(0.000)		
Trade*Env	-0.000	0.005***	-0.004***		0.001**		
	(0.001)	(0.001)	(0.001)		(0.000)		
Trade*Lab	-0.002*	0.009***	-0.000	$0.001^{*}$			
	(0.001)	(0.002)	(0.001)	(0.001)			
Controls:	Y	Y	Y	Y	Y		
Year FE:	Υ	Υ	Υ	Υ	Υ		
Dyad FE:	Y	Y	Y	Y	Y		
Num.Obs.	286233	269731	230620	291212	293803		
R2	0.165	0.155	0.150	0.198	0.123		
R2 Adj.	0.130	0.119	0.108	0.165	0.087		
	* $p < 0.1$ , ** $p < 0.05$ , *** $p < 0.01$						

Table C.1: Firm-driven interdependence and treaty formation (disaggregated Prior treaties variable).

Afghanistan	Australia	Austria
Aignamstan	Australia	Austria
Belgium	Bulgaria	China
Denmark	$\operatorname{Egypt}$	Finland
France	Germany	Hungary
Iceland	India	Iraq
Ireland	Italy	Japan
Libya	Mongolia	Netherlands
North Korea	Norway	Poland
Romania	South Korea	Spain
Sweden	Switzerland	Syria
Turkey	United Kingdom	United States
Vietnam		

Table C.2: Partner states included in the USSR sample.