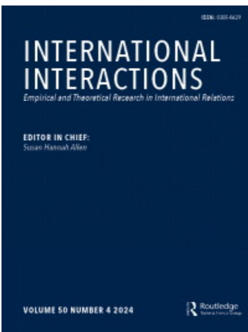

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The power of boilerplate: Bilateralism, plurilateralism, and the international tax system

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ABSTRACT
How do states exercise power in complex, decentralized governance regimes? This article sheds light on this question by analyzing one of the pillars of the post-war economic order: the international tax regime. The taxation of multinational enterprises is governed by a system composed of thousands of Bilateral Tax Treaties signed between pairs of national governments. We argue that despite the bilateral nature of these treaties, their legal content is largely controlled by a small group of economically powerful governments. By drafting and promoting "boilerplate" legal language, and by leveraging network effects, OECD countries were able to build a coherent, encompassing, quasi-multilateral regime to govern the taxation of multinationals in most of the world. We test and find support for our arguments about the role of network effects and the power of boilerplate using inferential network analysis and an automated text analysis of a corpus of 3200 treaty texts.

KEYWORDS
international political economy; international relations; international multinationals; oecd; taxationtaxation

RESUMEN
¿Cómo ejercen el poder aquellos Estados que tienen regímenes de gobernanza complejos y descentralizados? Este artículo arroja luz sobre esta cuestión analizando uno de los pilares del orden económico de la posguerra: el régimen fiscal internacional. La tributación de las empresas multinacionales se rige por un sistema compuesto por miles de Tratados Fiscales Bilaterales (BTT, por sus siglas en inglés), los cuales son firmados entre pares de Gobiernos nacionales. Argumentamos que, a pesar de la naturaleza bilateral de los BTT, su contenido legal está controlado, en gran medida, por un pequeño grupo de Gobiernos económicamente poderosos. Los países de la OCDE lograron crear, mediante la redacción y promoción de un lenguaje jurídico "estándar" y el aprovechamiento de los efectos de redes, un régimen coherente, incluyente y cuasi multilateral con el que poder regir la tributación de las multinacionales en la mayor parte del mundo. Probamos y encontramos apoyo para nuestros argumentos en materia del papel de los efectos de las redes y del poder del lenguaje estándar mediante el uso del análisis inferencial de redes y un análisis de texto automatizado de un corpus de 3200 textos procedentes de tratados.

RESUME
Comment les États exercent-ils leur pouvoir dans des régimes de gouvernance complexes et décentralisés? Cet article tente

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d'éclaircir cette question en analysant l'un des piliers de l'ordre économique d'après-guerre : le régime fiscal international. La fiscalité des multinationales est régie par un système composé de milliers de conventions fiscales bilatérales (CFB) signées par deux gouvernements nationaux. Nous affirmons que malgré la nature bilatérale des CFB, leur contenu légal est largement régi par un petit groupe de gouvernements puissants sur le plan économique. En rédigeant et en promouvant un langage juridique type, et en exploitant les effets de réseau, les pays de l'OCDE ont pu construire un régime quasi multilatéral cohérent et inclusif pour régir la fiscalité des multinationales dans la majorité du monde. Nous testons et trouvons des éléments pour venir étayer nos arguments quant au rôle des effets de réseau et au pouvoir du langage type à l'aide d'une analyse de réseau par inférence et d'une analyse de texte automatique d'un corpus de 3 200 textes de traité.

How do states exercise power in decentralized governance regimes? This article sheds light on this question by analyzing one of the most important, but critically understudied, bodies of law in international relations: the international tax system.

Much like the global investment regime, which is composed of many Bilateral Investment Treaties, the international tax system is made up of thousands of Bilateral Tax Treaties (BTT). BTTs answer the "who taxes what" question, by splitting multinationals' income between the different jurisdictions where they do business. By allocating the tax base between countries, tax treaties play a crucial role for policy coordination: They ensure that a single dollar of profit will not be taxed by multiple governments at once, which is often a precondition for the establishment of global value chains.

Bilateral policy coordination has an important drawback relative to multilateral solutions: MNEs can exploit mismatches and gaps between BTTs to shift profits from high to low-tax jurisdictions. The decentralized and bilateral nature of the international tax system thus enables MNEs to adopt aggressive tax minimization strategies (Arel-Bundock 2017). This limits governments' revenue-generation capacity, and leads to what the OECD calls tax "base erosion and profit shifting."

If bilateralism is a suboptimal policy coordination mechanism, and if regime complexity can be exploited by private firms for profit, then why have governments adopted BTTs as their instrument of choice? An important part of the answer is that bilateralism increases flexibility in agreement design, and allows governments to circumvent distributional conflicts that would make deep multilateral agreement difficult to reach. In that respect, the tax field is similar to other complex regimes in trade and investment.

This article highlights a second complementary explanation, which makes bilateralism appealing for governments at the economic core of the international system. We point out that BTTs form a complex regime whose

constituent parts are created in decentralized fashion, but whose overall design can be driven and controlled by agreement between a core group of powerful countries. From the outside BTTs look purely bilateral but, in fact, the international tax regime was largely designed on a plurilateral basis by a small group of technocrats and representatives from OECD countries. We argue that this regime-building strategy is best understood as a case of what Gruber (2000, 7) calls "go it alone power":

> "[I]nstitutionalized cooperation by one group of actors (the winners) can have the effect of restricting the options available to another group of actors (the losers), altering the rules of the game such that members of the latter group are better off playing by the new rules despite their strong preference for the original, pre-cooperation status quo. Once the winners seem likely to establish their new cooperative structure – something they would do even if they were destined to be its only members – the losers conclude that being left out would be even worse than joining."

Our study shows how powerful countries were able to go it alone, by leveraging boilerplate text and network effects to lock-in their authority over the tax field. This observation makes an important contribution to the study of international cooperation in general and international taxation in particular, a field which is often framed in terms of simple cooperation problems, or as governed by the exercise of bilateral power. Whereas much of the literature treats bilateralism, plurilateralism, and multilateralism as distinct ideal types, we show that ostensible bilateralism can actually be driven in large part by plurilateral agreement over a set of core principles and shared legal text. Our argument thus renews longstanding debates on cooperation and the exercise of power in multi-actor settings.

Highlighting the power of shared legal text—or "boilerplate"—allows us to tell a nuanced story, which contrasts with both the power-based and functionalist/institutionalist logics that underpin much work in International Relations (IR) theory. On the one hand, the historical record suggests that pure power relations are insufficient to explain the development of the international tax regime. Bilateralism arose to provide flexibility when great powers were unable (or unwilling) to reach a global multilateral coordination mechanism. This contrasts with classic arguments which suggest that (market) power dictates both the likelihood of formation and the nature of international institutions (Krasner 1976; Drezner 2008; Gilpin 2011). In some cases, distributional conflicts and the principle of state sovereignty might prevent powerful states from fully setting the rules of the game. On the other hand, we show that institutional developments in international tax law cannot simply be understood as the product of "rational design," or as an exercise in transaction cost minimization (Keohane 1984; Koremenos, Lipson, and Snidal 2001). Indeed, we show how the various design features of international treaties can be instrumentalized by powerful states to protect their authority and economic

interests. This logic is consonant with the work of authors like Ikenberry (2011), who argues that the establishment of a liberal order consolidated America's power. Our empirical narrative also complements prior work which, from a more sociological point of view, has highlighted the key role of professionals, technocrats, and transnational elites in the international diffusion of legal norms and policies (Christensen 2021; Alschner 2019).

To be clear, our argument is not wholly novel. Indeed, our views on the emergence and expansion of the global tax regime are broadly consistent with work by legal scholars and political scientists who have highlighted the role of the OECD Committee on Fiscal Affairs as a forum for cooperation between representatives of powerful national tax agencies (Cockfield 2005; Ring 2010; Hearson 2021). But whereas most researchers working in this issue area rely on case studies and historical narrative,[1] we complement the existing qualitative evidence with large scale quantitative data, network analysis, and text-as-data empirical strategies.

Hybrid Governance through Boilerplate

The primary impetus for international tax policy coordination is the threat of double taxation: when the income of a multinational is taxed at the full rates by both its home and host governments. Double taxation would disadvantage multinationals relative to domestic firms and could deter international investment.

To avoid double taxation, states must decide "who taxes what?" Achieving such agreement can be challenging due to competition over investments and revenue protection, leading to contentious tax base allocation decisions.

One of the main axes of distributional conflicts on tax base allocation relates to the taxation of profits at residence (where the enterprise is managed or incorporated) or source (where the economic activity occurs). Capital-exporting countries typically prefer the residence principle. Conversely, capital-importing countries often favor the source principle, enabling them to claim a larger tax share. Since the interwar period, conflicting preferences over taxation at source or residence were a major impediment to broad-based cooperation in international taxation (Gregg 1947; Picciotto 1992; Teo 2023).

[1]Hearson (2017a) is a notable exception and Barthel and Neumayer (2012) is the most direct precursor to our work. In the latter study, the authors use spatial econometric models to show that competition over foreign direct investment drives BTT signing. Our findings on tax competition are consistent with theirs. In our paper, we push the ball forward by focusing on the role of institutional membership in the OECD as a vector of policy diffusion, by taking a broader set of network effects into account, and by considering 20 more years of data. Moreover, we use a text-as-data approach to study the power of boilerplate, the diffusion of legal text, and patterns of legal convergence over time.

In the 1950s and early 1960s, a group of like-minded governments formed negotiating groups at the Organization for European Economic Co-operation, and later at the Organization for Economic Co-operation and Development (OECD). The restricted membership of these groups facilitated deeper agreement (Avery Jones 2009), as has been seen in other areas of international relations (Downs, Rocke, and Barsoom 1998; Costantini et al. 2007).

OECD members adopted a hybrid approach: they developed a "Model Tax Convention" on a plurilateral basis, and then customized the model in bilateral talks to conclude BTTs. This approach aimed to balance flexibility and harmonization, easing distributional concerns, while achieving some level homogeneity and coherence in the regime, thereby reducing transaction costs.

The first comprehensive draft of the "OECD Model Tax Convention" was circulated in 1963 to guide BTT negotiations. The Model Convention recommends about 30 articles for inclusion in BTTs, covering a wide range of issues such as defining a taxable "permanent establishment," governing profit allocation, setting withholding tax rates, and describing exemptions and credits for double taxation. Other provisions address entry into force, termination, and dispute resolution.

Several tax scholars argue that the Model's provisions favor countries where multinationals are headquartered (e.g., Dagan 2000; Hearson 2017a), and capital-importing countries were initially reluctant to endorse its legal language (Figueroa 1992, p. 9). Early resistance focused on preserving the host country's right to tax passive income (Gregg 1947), and countries like Ghana, Saudi Arabia, and Brazil initially refused to adopt the OECD text in BTT negotiations with major economies (Picciotto 1992; Irish 1974). Despite the initial resistance and the asymmetric revenue benefits, over 3000 BTTs now regulate multinational taxation globally, and most of them are remarkably similar to the OECD model. How did the Model gain such influence?

In the rest of the paper, we argue that the OECD Model established its dominance in two phases. First, OECD countries aggressively pursued BTTs both among themselves and with non-OECD countries. Second, once a critical mass of treaties was signed, network effects changed governments' incentives and locked in the OECD Model's legal language as a pillar of international economic law.

OECD Countries Kickstart the Regime

Above, we described the distributional conflict that opposes capital-importing and capital-exporting countries: A move toward residence-based taxation shifts tax revenues toward capital-exporting countries. This is

especially salient in asymmetric dyads, where most multinationals are headquartered in one of the two countries. In such dyads, adopting the residence principle leads to a unilateral transfer of tax revenues to the multinationals' home. In contrast, when two countries hold relatively balanced investment positions, a shift toward residence-based taxation does not have sharp distributional consequences. In such dyads, both countries keep taxing rights over their own MNEs.

Most pairs of OECD member countries fit that second profile: their bilateral investment positions are relatively balanced. Thus, conducting negotiations at the OECD's Committee on Fiscal Affairs mitigated distributional conflicts and increased the likelihood of reaching deep, incentive-compatible agreements. In the early regime-building years, many treaties were signed among OECD countries, based on the OECD Model.

Yet, agreement within a limited club is insufficient to create a comprehensive double taxation elimination regime. With many multinationals operating in non-OECD countries, the need to broaden the regime's scope was clear. For instance, Picciotto (1992, p.44) reports early lobbying by the American oil industry for the US to conclude BTTs with Indonesia and Saudi Arabia. To extend the coverage of principles in the Model Convention, OECD countries therefore set out to conclude BTTs with non-OECD members. North-South negotiations typically reflected the underlying power asymmetry, attributable to three primary factors.

First, economic power asymmetry between negotiating partners can skew outcomes in international tax policymaking (Hakelberg 2015, 2016). For instance, Hearson (2017b) examined 103 bilateral negotiations, finding that asymmetric dyads tend to sign treaties allocating more tax revenue to the country where multinationals are headquartered. Given the prominent role of OECD countries in the global economy, it is unsurprising that they can secure favorable deals. In contrast, investment-seeking developing nations have less leverage when seeking to attract capital from OECD partners (Daurer and Krever 2014).

Second, non-OECD countries may lack the knowledge and legal capacity to negotiate BTTs effectively (Irish 1974; Hearson 2017b). Limited experience and preparation can reduce the likelihood of tax rules favoring capital-importing countries and increase the chance of accepting the OECD model provisions as-is. For instance, Akunobera (2012) showed that the lack of resources of Uganda's negotiation team undermined its chances of obtaining host-friendly clauses. Also see Quinones Cruz (2012) for an example in Colombia, and Poulsen (2015) for a similar view in investment treaty negotiations.

Third, Morriss and Moberg (2017) showed that pro-liberalization interest groups within non-OECD countries were attracted to the OECD's

liberalization message and lobbied for closer cooperation with OECD countries. These lobbying efforts constrained non-OECD governments' outside options, leading them to make concessions at the international bargaining table to foster cooperation with OECD countries and satisfy domestic stakeholders.

In summary, OECD members played a pivotal role in the initial regime-building stages, both by designing a model treaty and actively seeking to sign BTTs that incorporated the model treaty text with both OECD and non-OECD partners. In the empirical portion of the paper, we document the success of this regime-building effort by highlighting patterns in both treaty ratification, and also convergence in the text of treaties over time.

Network Effects Lock-in Standardized Text

The second part of our argument concerns system effects driving BTT adoption. As the treaty network becomes dense, states' incentives to participate in the international tax regime evolve. Network effects may lead initially reluctant non-OECD countries to join later. We consider two distinct types of network effects.

First, the competitive disadvantage of remaining an outsider provides strong incentives for holdout governments to seek treaties with countries that have BTTs. Countries not committed to reducing double taxation lose attractiveness as hosts for multinationals. For instance, Venezuela and Colombia, despite initial reluctance, accepted taxation on foreign income to attract foreign investors and combat capital flight, signing BTTs with both developed and developing countries (McLure 1992; Barthel and Neumayer 2012).

This tax competition story is illustrated in Panel A of Figure 1. When countries j and k sign an agreement, i becomes a less attractive host for investments from country k, and it may thus seek to sign an agreement with that country. This standard form of tax competition has two observable implications, which we assess below. To begin, the propensity to sign BTTs should be a function of the number of treaties that our competitors sign. Then, as a result of competition, we should see the emergence of many "2-path" structures (Figure 1), wherein i seeks to sign a treaty with k to equalize the playing field with respect to competitor j.

The second network dynamic that we consider arises from the possibility of treaty shopping. As Arel-Bundock (2017), Thrall (2021) and others have argued, firms can often route funds strategically across borders in order to reduce their tax liabilities. Consider a hypothetical situation where two BTTs are in force: one between j and k, and one between i and k. Since there is no agreement between i and j, making cross-border interest,

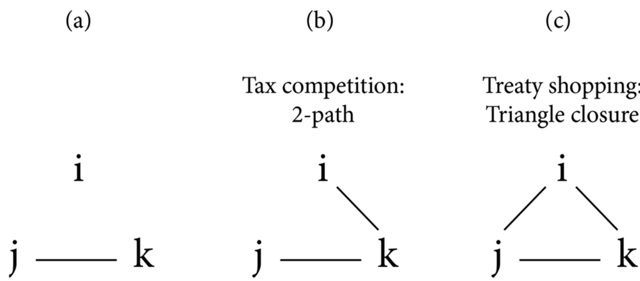

Figure 1. Tax competition, treaty shopping, and tie formation.

dividend, or royalty payments directly between those two countries could trigger heavy taxes. Under some conditions, firms in *i* could instead engage in treaty shopping, by channeling funds *in*directly from *i* to *k* to *j* (Panel b of Figure 1). In the presence of treaty shopping, Arel-Bundock (2017) shows that governments have incentives to "close the triangle" (Panel c in Figure 1). Below, we operationalize this intuition by measuring the extent to which "triangle" structures emerge in the network graph.

Empirical Analysis

We now empirically examine how OECD membership and network effects contributed to legal diffusion, rule transfer, and the expansion of the global tax regime. We test four main expectations: (1) non-OECD members should be less likely to sign BTTs than members; (2) the reluctance of non-members to sign agreements built on the OECD boilerplate should be attenuated over time as the Model Convention becomes a *de facto* standard; (3) competition and treaty shopping dynamics should produce many network structures of the forms described in panels b and c of Figure 1. Finally, (4) if network dynamics change incentives for non-OECD countries to join the network, we should not only see that probability that they sign treaties increases, but also that the *content* of those treaties should converge over time.

Descriptive Results: Which Governments Sign Tax Treaties?

The discussion implies that OECD members should be key proponents of tax treaties in the early tax regime stages, with initially reluctant non-OECD members becoming active participants over time. Data supports this expectation.

Before 1980, approximately 93% of new BTTs involved at least one OECD member, with France, Great Britain, Germany, Switzerland, and Belgium being the most active negotiators. After 1980, about 38% of new BTTs included no OECD member. Figure 2 illustrates the same trend,

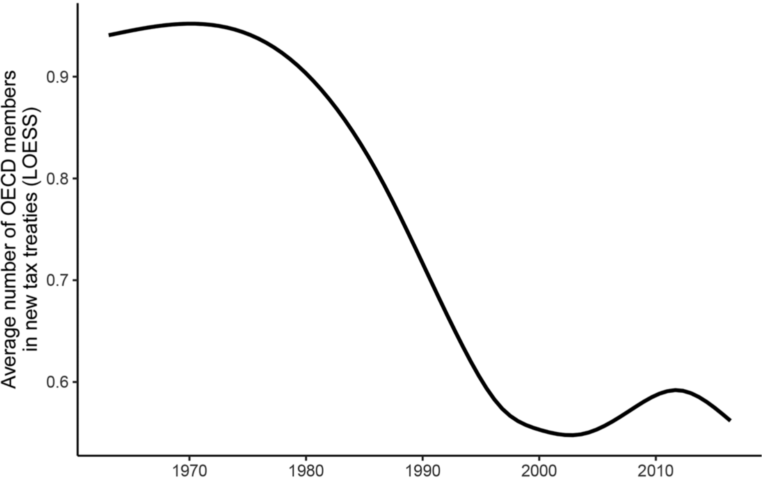

Figure 2. Average number of OECD members per bilateral tax treaty over time.

showing that in the tax regime's early stages, most BTTs were signed by pairs of OECD members or mixed dyads. Since then, non-OECD countries have become much more active in regime building.

These statistics suggest that OECD countries were first movers, and non-OECD countries were gradually integrated into the regime over time. However, the conclusions drawn are limited. To more systematically study treaty-making determinants and address the threat of omitted variable bias, we employ techniques in the Exponential Random Graph family of inferential network analysis models (ERGMs).

Temporal Exponential Random Graph Models

ERGMs are a model class that allows us to specify a probability distribution over a set of nodes (e.g., countries) and edges (e.g., treaties). Essentially, the idea is to consider a "benchmark" random network with a similar number of nodes and edges as the observed network. By studying the systematic differences between the benchmark and the observed networks, we can identify which covariates are associated with the likelihood of two nodes forming a relationship.

ERGMs offer two significant advantages for our purposes over traditional multiple regression. Firstly, they allow us to control for both exogenous and endogenous network effects, as well as for country and country-pair characteristics. Secondly, ERGMs relax a key assumption of standard regression analysis: They do not require that links between units be independent from one another. This is particularly relevant given that competition and externalities are key considerations in international tax policy-making, and in light of criticism that international political economy scholars do not

sufficiently take into account sytem dependence and network dynamics (Oatley 2011; Weinberg 2016).

The specific model we use, TERGM, is an ERGM extension for dynamic data, where the network structure and covariates can change over time (Leifeld, Cranmer, and Desmarais 2018). TERGMs allow us to control for autoregressive terms, critical in our case as BTTs are rarely terminated, making our dependent variable sticky over time.

One TERGM disadvantage is the need for "rectangular" panel format data, i.e., they do not allow missing data points. As complete data are rare in political economy, many of our covariates are partially observed. Therefore, each of the models presented below was estimated using multiple imputation. We began by imputing our dataset ten times using software by Honaker, King, and Blackwell (2011). Then, we drew 500 bootstrap samples for each of those datasets, estimating the TERGM model in each bootstrap replicate. Finally, we pooled the bootstrap replicates from each imputation to build confidence intervals using quantiles of the empirical distribution of estimates.[2]

Our dependent network considers countries' decision to conclude any BTT as the phenomenon to be examined: An edge between two nodes exists when those two countries sign an agreement together, and for all subsequent years in the sample. This model allows us to study the determinants of treaty signature and assess the network characteristics contributing to the global tax regime's expansion.

We discussed earlier how institutional membership in the OECD should lead states to embrace the regime and sign many bilateral tax treaties. To empirically test this, our TERGM models include an *OECD Dyad* variable, counting the number of OECD members in a given dyad (0, 1, or 2) in a given year t. To assess when and to what extent non-OECD members buy-in, we interact the OECD variable with a linear time trend. If the pattern in Figure 2 holds up to scrutiny and statistical controls, the OECD variable's coefficient estimate should be positive, and the interaction term negative. This would lead us to conclude that OECD membership increases the probability of signing a BTT but that, over time, as non-OECD members join, the OECD effect is attenuated.

We previously noted that specific network configurations can alter states' incentives and affect the probability of concluding BTTs. Following this tax competition logic, a state should be more likely to sign a treaty with another state when one or more of its competitors have an agreement with that state. In network analysis terms, we should observe more 2-path

[2]While no study appears to have specifically investigated the use of multiple imputation and bootstrapping in TERGM models, simulations in Schomaker and Heumann (2016) suggest this procedure yields accurate results.

structures than expected under a purely random data generation process. Following treaty shopping logic, a state should be more likely to sign a treaty with another state when there exists an "indirect path" through which firms can make payments between the two states. In network terms, we should observe more triangle closures than expected under a purely random process. To operationalize these concepts, we use two network statistics: The *2-path* and *Triangle* statistics (Leifeld, Cranmer, and Desmarais 2018).

An important inference threat is that OECD countries may sign more agreements simply because they are wealthy democracies with significant revenue-generation capacities. Higher taxation increases the potential for double taxation, making policy coordination more important. Moreover, since OECD countries send and receive more cross-border investments, tax policy coordination can be more relevant to them. Thus, it's crucial for our analysis to estimate the relationship between institutional membership in the OECD and the propensity to sign BTTs, *net of* the economic and political factors associated with OECD membership and capital exporting capacity. To achieve, this, our TERGM models thus include an autoregressive term and a battery of control variables which are typically found in gravity models of trade and investment:
Polyarchy is an index from the Varieties of Democracies project which operationalizes Robert Dahl's concept of polyarchy.;[3] (ii) *log GDP* (World Bank, 2019); (iii) *Geographic Proximity* is one of two measures of proximity between pairs of countries (geographic or economic) from Berry, Guillén, and Zhou (2010); (iv) *Autoregression* checks whether ties from previous networks are carried on to the current network. (v) *Edges* represents the analogue of an intercept in the TERGM model (omitted from the plot); (vi) *Alliance* is a binary variable from the Correlates of War equal to 1 if a pair of countries has concluded a security alliance; (vii) *Trade agreement* is a binary variable from the DESTA dataset which indicates if a pair countries have concluded a preferential trade agreement; (viii) *Trade volume* is a measure of bilateral trade flows from version 4.0 of Barbieri, Keshk, and Pollins (2009); (ix) *Eastern Bloc* is a binary variable which equals one for members of the Easter Bloc before 1990;[4] (x) *FDI/GDP* is the share of FDI outflow to GDP (World Bank, 2019); (xi) *Haven* is a binary variable which equals one if Gravelle (2009) categorizes the country as a tax haven; (xii) *Triangle* and *Two-Path* are the network statistics described above.

[3]Along the lines of Mansfield et al. (2002), democracies could be more likely to cooperate than semi-democracies, or autocracies.

[4]ALB, ARM, AZE, BGR, BIH, BLR, CZE, EST, GEO, HRV, HUN, KAZ, KGZ, LTU, LVA, MDA, MKD, MNE, POL, ROU, RUS, RUS, SRB, SVK, SVN, TJK, TKM, UKR, UZB.

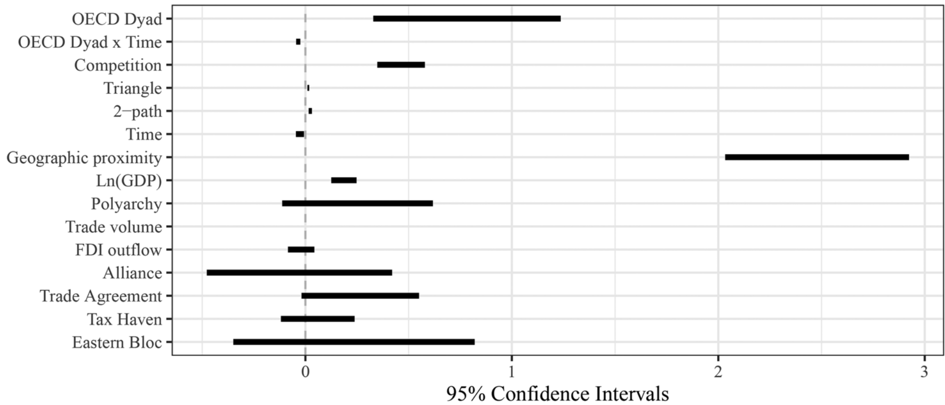

Figure 3. Who signs bilateral tax treaties? Temporal Exponential-family Random Graph Models estimates.

Who Signs Tax Treaties?

Figure 3 show results from our core TERGM model. The results conform to our expectations: *OECD dyad* is associated with a higher likelihood of signing a BTT, even after we in models with several control variables. This association is substantively strong and statistically significant. At the start of the sampling period, an additional OECD-member in a dyad nearly doubles the odds of tie formation, although the strength of this relationship varies somewhat across specifications.[5]

In addition, coefficient on the interaction term between OECD-dyad and time is negative and statistically significant. In the earliest years of our sample (1960s), an additional OECD-member is associated with a large increase in the odds of tie formation. As we move forward in time, the propensity of OECD members to sign BTTs becomes indistinguishable from the propensity of non-OECD members. This is consistent with our historical narrative and arguments about the birth of the international tax regime. Finally, the *2-Path* and *Triangle* terms produce positive and statistically significant estimates, which is consistent with the story we have told above.

Is There Convergence in Law over Time?

Thus far, we have discussed the regime-building strategy and used large-n quantitative analysis to assess the OECD's influence and network effects in expanding the complex regime currently governing international taxation. Now, we aim to study the regime expansion's consequences. Specifically, we want to determine if regime expansion has resulted in normative convergence or left us with a complex spaghetti bowl of heterogeneous

[5]TERGM coefficient estimates can be interpreted in terms of log-odds.

agreements. In more detail, we will measure if there's convergence in legal text over time. To do this, we adopt a text-as-data approach.

We obtained the full text of over 3200 tax treaties from a commercial provider, the International Bureau of Fiscal Documentation (IBFD).[6] We also gathered the texts of all published versions of the OECD Model Treaty. These models are used to measure the level of similarity between actual treaties and models, and to assess the level of convergence in legal text over time and across types of countries.

Before measuring treaty similarity to the OECD model, we need to convert all texts to a numerical representation. After parsing the raw documents using a python script to extract each treaty's text, we apply pre-processing techniques to the text before quantitative analysis (Silge and Robinson 2017). We remove punctuation, convert all text to lowercase, and count blocks of three consecutive words (3-grams), thereby preserving word order.

After completing these data processing steps, we build a document term matrix, collecting the count of each 3-gram for each document, and use that matrix to compute the pairwise cosine similarity score for every treaty and every version of the OECD model. These scores allow us to measure how closely a treaty follows the legal standard set by the international organization.

Our measure of textual similarity can be interpreted in terms of both language and scope. Firstly, the variable we construct reveals greater similarity between a treaty and a model when the two documents use the same legal terms and expressions. Secondly, the variable also detects differences in the range of issues covered by the two documents.

Figure 4 displays trends in the degree of similarity between the treaties signed in any given year and the OECD model. Each dot represents an agreement, and the curve was drawn using Local Regression (LOESS). Several conclusions can be drawn from Figure 4.

Firstly, the early years of the international tax regime were relatively inactive, with treaty-signing activity increasing significantly in the 1980s and 1990s.

Secondly, there is a notable pattern of convergence over time toward the OECD model. In previous decades, governments concluded agreements that substantially deviated from the OECD model; there is considerable variation along the y-axis in the early period, but not so much in the later period. Today, new treaties tend to closely follow the OECD model.[77]

[6]Downloaded from http://ibfd.org on 2016-06-02. We exclude treaties that do not cover corporate income tax. Most treaties are written in English, and there are usually English translations available for the treaties concluded in other languages. We count non-English treaties in our binary analysis, but assume that the very small subset of BTTs not published in English are *not* OECD-compliant.

[7]There are exceptions. For instance, the US uses a very different model as a baseline in its own negotiations.

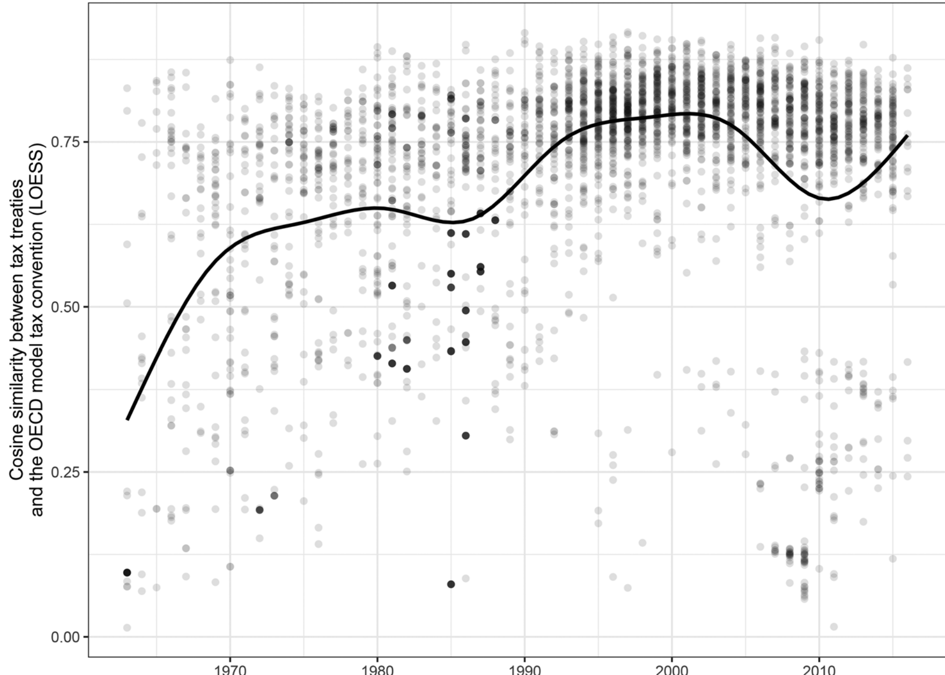

Figure 4. Similarity of bilateral tax treaties to the OECD Model Tax Convention.

These findings raise an interesting puzzle: Why do developing countries, in their bilateral tax treaties (BTTs) with each other, adopt language similar to treaties between OECD and non-OECD states, seemingly against their own interests? Resolving this apparent contradiction lies outside the scope of this research note, but we can highlight a few potential explanations. First, as we have noted above, BTTs have the strongest distributional implications when economic flows are asymmetric between a pair of countries. When flows are balanced, taxing at source or at residence makes less difference, between both partners still gets to tax the same share of income. Furthermore, the influence of international standards and norms cannot be overlooked. Hearson's (2021) work on" Imposing Standards" highlights how global norms and standards, often set by dominant economies, shape the policies and agreements of less powerful nations. Additionally, Poulsen's (2015) research on" Bounded rationality and economic diplomacy" provides insight into how developing countries navigate complex international tax negotiations. These factors combined suggest that the alignment of BTT language across different country dyads may be less about direct economic benefit and more about conforming to established international norms and navigating diplomatic realities.

Conclusion

This study has highlighted how historical distributional conflict between the North and South hampered the development of a comprehensive multilateral tax regime. In response, OECD countries drafted a Model Tax Convention, providing boilerplate legal language to guide Bilateral Tax Treaty (BTT) negotiations. To export the model treaty's legal content, OECD governments embarked on intense bilateral negotiations to sign BTTs with both OECD and non-OECD countries. Over time, network dynamics (competition and treaty shopping) emerged, and the opportunity cost of non-participation increased; non-OECD countries then faced strong incentives to join in and adopt the *de facto* standard OECD boilerplate. These developments show how OECD countries were able to use boilerplate text and exploit network effects to lock-in their authority.

This nuanced narrative extends beyond the ideal types typically studied in International Relations: bilateralism, plurilateralism, multilateralism. Indeed, we suggest that some ostensibly bilateral regimes are largely built by a core group of countries. When these core countries can influence the regime's nature as a whole, we might be witnessing a hybrid regime-building strategy, halfway between bilateralism and plurilateralism. We also highlight how such hybrid governance models can enable an indirect form of power politics.

This finding has significant implications for fiscal policy in a globalized economy and can also illuminate other problems in international relations. Indeed, we contend that international tax policy is far from *sui generis*, and it shares many similarities with other issue areas, including investment protection and trade negotiations.

The international tax system shares several key features with the international investment protection regime. Both fields are governed by thousands of bilateral agreements, based on somewhat "standardized" text, signed by pairs of national governments aiming to solve cooperation problems with deep distributional implications.

Similarities can be drawn with the trade field as well. Scholars have debated since the early 1990s whether bilateralism represents a stepping stone or a stumbling block for multilateral trade. The deadlock of the Doha-Round has argued that bilateral agreements hinder further progress at the World Trade Organization (WTO) (Bhagwati 2008; Krueger 1999). On the other hand, others argue that bilateralism lowers transaction costs, facilitating a consensus among all WTO members (Lawrence 1991; Baldwin 1997; Limao 2006). Further evidence suggests that Preferential Trade Agreement (PTA) content converges, potentially easing negotiations at the multilateral bargaining table (Allee and Elsig 2019).

Given the similarities between the tax, investment, and trade fields, the arguments and findings in this paper should lay the groundwork for a

comparative analysis spanning several issue areas. Such an analysis could yield important insights into the nature and consequences of complex, hybrid governance regimes in international relations.

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