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Hubs of Governance: Path Dependence and Higher-Order Effects of Preferential Trade Agreement Formation*

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In this paper, we investigate the causes and consequences of institutional design choices in the liberalization of services trade and investment in preferential trade agreements (PTAs). We distinguish between a positive-list and a negative-list approach to services liberalization, and analyze PTAs signed by countries of the Asia-Pacific. We develop an information-based argument that explains why these different types induce path dependence in subsequent choices, and derive hypotheses that capture the "history" effect of choosing either institutional model. In doing so, we examine whether particular "modes of governance" diffuse through the growing network of trade agreements through the adoption of rules by third parties in their own PTAs. The empirical analysis tests these hypotheses using simulation-based dynamic network analysis methods. We find evidence of strong path dependence in the choice of liberalization approach, affecting the evolution of PTA networks in the Asia-Pacific and the diffusion of services liberalization in general. Such path dependence has long-term consequences for the institutional features of the international trade regime.

As the negotiations in the World Trade Organization (WTO) Doha Development Round enter their second decade, it is becoming evident that a comprehensive agreement may be impossible to achieve. Yet, while multilateral negotiations appear stalled, liberalization and the creation of rules for international commerce proceed apace in the growing number of preferential trade agreements (PTAs). PTAs are by definition agreements that eliminate tariff barriers between members only. Yet, by creating rules beyond the domains covered by existing WTO agreements, PTAs are now the principal venue to negotiate regulatory changes "behind the border." More and more PTAs do not just reduce tariffs or common nontariff barriers for goods, but create regulations governing market access in services, investment, and intellectual property rights.

PTAs have thus emerged as the next frontier of rule-making in international relations (IR), where policy choices and issue areas covered raise new questions about institutional design. In economic terms, the most important issue among these is the liberalization of services trade. WTO figures indicate that services exports amounted to US $3350 billion in 2009, or a fifth of global commercial exports (WTO 2010). Since the early 2000s, services investments have comprised the bulk of foreign direct investment (FDI) stock (United Nations Conference on Trade and Development (UNCTAD) 2004). As services liberalization is a relatively recent development compared with the reduction of tariffs, the unfulfilled economic potential is even greater.

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In the panoply of PTAs, service liberalization is addressed in different ways and to different degrees. Although there is an emergent, primarily policy-focused literature on services liberalization in the context of PTAs, there is very little work that seeks to explain the considerable variation in the inclusion of rules beyond trade in goods in PTAs. In particular, to our knowledge there is no study that offers an explanation for why countries choose one of two fundamentally different *modi operandi*—the "positive-list" or the "negative-list" approach to services liberalization in terms of offering market access for foreign providers.

When signing a PTA that liberalizes services under Article V of the General Agreement on Trade in Services (GATS), states can adopt a "positive-list" approach, whereby they list only the specific industries in which they want to allow foreign access. The negotiating partners then stipulate what "commitments" to services liberalization are undertaken. Only those industries that are "bound" in this way through specific language that describes signatories' commitments will be liberalized, and everything else is left "unbound" at the discretion of the country (Hoekman 1995). This is the approach taken in the current multilateral regime on services: the GATS under the WTO. By contrast, with a "negative-list" approach, all services sectors are liberalized, except for those explicitly listed as excluded. Among PTAs, the North American Free Trade Agreement (NAFTA) is a prominent example of a negative-list approach. The choice of a positive-list or negative-list approach to scheduling is fundamentally important, as it precedes any negotiation over the scope and depth of the agreement, i.e., the coverage and liberalization of individual service industries.

In this paper, we analyze the determinants of states' institutional choices for a negative-list or positive-list approach in PTAs. Our analysis focuses on PTAs in the Asia-Pacific region, i.e., agreements involving countries in East and Southeast Asia, Oceania, and the Pacific littoral states of the Americas. Not only is the Asia-Pacific region one of the most active in terms of PTA formation in recent years, but it is also one in which we observe conspicuous patterns and changes over time in PTAs with negative-list and positive-list scheduling approaches. In the early years of our sample period, positive-list agreements clearly predominate, but the Americas see a rapid rise in negative-list PTAs. Over time, negative-list PTAs become more common in Asia. In the second half of our analysis period most agreements are of this type, as are most trans-Pacific agreements.

Our study finds that the initial choices countries make regarding the scheduling approach in services liberalization exert a strong influence on the future trade agreements they negotiate. In other words, they induce path dependence. Countries that choose a negative-list approach in their first PTA continue to show a preference for this approach, and the more such agreements they have negotiated, the more attractive they become for other partners. Moreover, we find that a negative-list approach prevails when two countries consider a services PTA and already have negative-list PTAs with a common third party. Countries choosing negative-list PTAs also form a dense network of trade agreements, while countries forming positive-list agreements are much more loosely connected. We also find strong evidence for the influence of the United States as the "leader" of the negative-list approach, which begins with NAFTA and continues across the Pacific to shape PTAs with trading partners in Asia. The PTAs of the United States and its allies in Asia have produced a distinct "hub of governance" that features a negative-list approach and WTO-plus commitments in services liberalization.

Our paper makes several contributions to the scholarship on institutional design. In particular, we engage with the analytical framework of the rational design project (Koremenos, Lipson and Snidal 2001) and show that institutional formation does not start from *tabula rasa:* institutional choices are shaped by participants' past decisions and exhibit significant path dependence.[1]

[1] For a discussion of various approaches to analyzing institutional design in IR, see Jönsson and Tallberg (2008).

Our paper analyzes this "history" effect in the case of services liberalization through PTAs: we predict and find evidence that outcomes depend on past choices and the order in which they occurred. Because these predictions are difficult to test with conventional statistical approaches, we use a two-mode network analysis for our quantitative tests—in itself (to our knowledge) a novelty in IR. We extend, both theoretically and empirically, the analytical notion of path dependence to the international trade regime, where governments must repeatedly make institutional choices when concluding trade agreements with other governments.

Second, we demonstrate that individual, path-dependent choices have effects on the character of the trade regime in services as a whole. As countries separate into those that prefer a negative-list approach and others that choose a positive-list approach, two separate networks emerge, one in which countries are closely connected, and another with far fewer ties between countries. Notably, the more closely connected network builds on an institutional form quite different from the GATS and the WTO.

Third, we identify the role of the United States in creating "hubs of governance" with its strong preference for the negative-list approach. We show that this approach to services liberalization is promoted not by the United States itself, but by closely associated states. Remarkably, countries with close *political* ties to the United States choose the negative-list approach even though stronger *economic* ties with the United States (weakly) pull in the opposite direction, while those with weak *economic* ties to the United States regularly opt for a positive-list approach. This substantive development has not been discussed in the literature so far.

Finally, we contribute to the literature on policy diffusion by analyzing how and why countries opt for specific policies. However, unlike in landmark studies of such diffusion (e.g., Elkins and Simmons 2005; Dobbin, Simmons and Garrett 2007; Gilardi 2010), our outcome of interest is an international agreement between sovereign states, and thus the joint decision of two countries that is heavily dependent on their respective histories of institutional choice in preceding PTAs. Our approach and findings thus speak to a growing set of studies arguing that international agreements are indeed interdependent, not only across space but also across time (Egger and Larch 2008; Baier, Bergstrand and Mariutto 2011; Baccini and Dür 2012).

The paper is organized as follows. In the next section, we provide a brief overview of services liberalization under the auspices of the WTO and the present scholarship on services commitments in PTAs. We then develop a theoretical framework to explain the choice of liberalization approach and hypotheses regarding the choice of modalities in services liberalization through PTAs, and present the results of the network analysis. In the final section, we offer our conclusions and an outlook on future research.

PATTERNS OF SERVICES LIBERALIZATION IN PTAS

Membership in the WTO entails signing up to the principal multilateral regime for services, the GATS. In the absence of progress in multilateral negotiations, however, countries are under no obligation to proceed with the opening of their services sectors. What is more, in the GATS, developing countries have generally made only very limited pledges to liberalize trade in the sector (Hoekman 1995; Hoekman and Mattoo 2000; Mattoo and Low 2000; Sauvé 2000). This contrasts with the steps taken in various PTAs. The 2011 WTO World Trade Report highlights that many PTAs go well beyond what is committed under the WTO or has been offered in the Doha Round (WTO 2011). As a complement to General Agreement on Tariffs and Trade (GATT) Article XXIV that allows for the formation of "regional trade agreements" to coexist with multilateral obligations, the GATS includes Article V (Economic Integration), which

permits "agreement[s] liberalizing trade in services between or among the parties to such an agreement." As a result, PTAs with services agreements are often called "economic integration agreements."

The legal language and structure of the GATS have exerted considerable influence on PTAs in services. In GATS parlance, services are divided into four categories, or "modes" of provision. These are mode 1—cross-border supply, mode 2—consumption abroad, mode 3—commercial presence, or effectively FDI, and mode 4—presence of natural persons to supply a service. All GATS members are required to offer most-favored-nation treatment (MFN), or treatment no worse than that accorded to any other WTO partner, although some have taken out "exceptions" to this rule for individual sectors. More importantly, they should in principle provide national treatment (NT), or treatment comparable with their own domestic suppliers. Yet, NT only applies to services industries they choose to liberalize. Countries list their "commitments," stipulate the time frame for the elimination of measures restricting foreign suppliers, and mention which modes in which services industries remain "unbound," i.e., where no commitments are undertaken. Services not explicitly listed are presumed not liberalized, and for unbound services, countries can regulate foreign access however they choose on the basis of purely domestic laws and regulations. This positive-list approach is also used in many PTAs that are notified to the WTO under GATS Article V. Often the language closely resembles that of the GATS itself.[2] Just like in the GATS, PTAs often have separate chapters for financial and telecommunications services that take their cues from the respective sectoral agreements in the WTO (Hoekman and Kostecki 2010, 347–50).

Services liberalization only came onto the agenda of trade negotiations in the 1980s, when the United States was instrumental in its inclusion in the Uruguay Round of the GATT, following intense lobbying (Hoekman and Kostecki 2010, 335) by the private sector and a drawn-out process of identifying and formulating trade policy positions on this new issue (Drake and Nicolaïdis 1992). During the Uruguay Round negotiations, the United States proposed the most liberal institutional design for services liberalization: MFN status was to apply to all signatories and NT a general binding principle for all sectors across all modes of supply, subject to specific exemptions—a negative-list approach, though it was not yet referred to as such at the time. The developing countries opposed the inclusion of services in any form, while the European Union (EU) sought NT to be applied only to negotiated sectors and mode(s) of supply. The negotiations in the Round resulted in the "softer" agreement favored by the EU and the developing countries, the equivalent of a positive-list approach: NT would not be universal but would be negotiated on a sector-by-sector basis under each mode of supply.[3] The Uruguay Round negotiations thus created the original institutional templates of positive-list and negative-list approaches.

[2] The GATS approach is sometimes called "hybrid approach" as in Fink and Molinuevo (2007). In the absence of a NT and MFN obligation, it is theoretically possibly to have a "pure positive-list" approach that only lists the specific service and type of market access permitted. However, this approach is only used in two PTAs, the Macau S.A.R.-PR China and Hong Kong S.A.R.-PR China agreements, which by virtue of their status as specially administered Chinese regions are not comparable with countries that negotiate their trade policy independently.

[3] It remains to be seen whether the EU preference for positive-list scheduling of commitments will persist. The Lisbon Treaty has centralized the institutional structure for negotiating services liberalization. While previously competence for services regulation remained with the member states, under the Lisbon Treaty the competence has shifted to the Commission, which will now negotiate services liberalization on behalf of all members.

Concurrently with the negotiation of the GATS, the negative-list approach was fully codified in NAFTA, largely at the instigation of US domestic interest groups that sought the maximum possible liberalization from Mexico (Cameron and Tomlin 2000, 42–3).[4] Following this method, the negotiating partners must first catalogue all existing restrictions—a process that is often administratively challenging for developing countries—and then bargain over which can be maintained, and which will be phased out and over which time period. Because the existing restrictions are made transparent, negative lists have a built-in tendency to yield more liberalization. Once the PTA has been ratified, new restrictions on services trade cannot be legally introduced without negotiations with the PTA partners to offer compensation. Moreover, services that are newly developed or become tradable because of technological advancements are generally not subject to restrictions, but may be so under a positive-list approach.

While it is in principle possible to achieve the same degree of liberalization with either approach, in practice negative lists are much more demanding: all restrictions on foreign market entry that a country wishes to claim as exemptions from liberalization of its services market have to be made explicit, and are therefore put on the table in the negotiations.

Although the difference may seem technical, it can have profound effects on trade negotiations. Anecdotes abound that point to fundamental disagreement over the approach in numerous cases. For example, the Canada–EU trade agreement negotiations were delayed significantly because Canada proposed a negative-list approach, while the EU side insisted on continuing its usual positive-list negotiations (O'Neil 2011). Disagreement over which approach to use reportedly contributed to the failure of the United States–Malaysia and United States–Thailand FTA negotiations.[5] At the time of writing in March 2013, the Colombia–Israel negotiations have stalled because of the same issue, with Israel preferring a positive-list agreement.[6] The negative-list approach used in the "P4" agreement between Brunei, Chile, Singapore, and New Zealand was criticized harshly by trade unions in New Zealand.[7] The then-co-leader of the Green Party of New Zealand, Rod Donald, stated at the time that "[i]n an unprecedented move for the Labour Government, its negotiators have put a 'negative list' in the table—anything not on that list is up for grabs," asking that the public policy of future governments not be constrained: "[A]t the very least the Government must ensure that the risks are minimised by using a positive list."[8]

Conversely, the proposed WTO plurilateral agreement on services will use a positive-list approach, again at the insistence of the EU and despite US proposals to move to a negative-list approach, deemed more liberalizing by the US Coalition of Services Industries, the most important lobby group of the sector in the United States.[9] The choice of institutional design can make or break negotiations, and thus has a long-term impact on the development of the global trade regime.

[4] The Australia-New Zealand Closer Economic Relations Trade Agreement (1983) was the first to use the negative-list approach, but provisions covered cross-border trade in services only and lacked an investment chapter (Mattoo and Sauvé 2011).

[5] Inside US Trade, 10 November 2006; Inside US Trade, 14 October 2005, "USTR claims progress in Thailand FTA, but key problems remain" (available at http://insidetrade.com, accessed 12 June 2012).

[6] Personal communication, Prof. Yoram Haftel, 8 March 2013.

[7] *Otago Daily Times*, 3 June 2005.

[8] New Zealand Press Association, "Green Party Co-leader Rod Donald," 18 August 2004. Accessed through Factiva, 26 March 2013.

[9] Inside US Trade, 8 February 2013. The proposed plurilateral agreement includes a "negative-list element" in that exemptions from NT obligations will have to be specified for individual sub-sectors if the overarching services sector has been scheduled for liberalization. Market-access commitments, the essential liberalizing element, follow a positive-list approach (available at http://insidetrade.com, accessed 10 February 2013).

Despite the importance of institutional design choices, the existing literature on PTA formation offers limited guidance, especially as regards the question of the choice of modalities in services liberalization. An extensive literature exists on the compatibility of PTAs with the existing multilateral trade regime.[10] Much less scholarship has accumulated, however, on the workings of services liberalization through PTAs or the political economy of services liberalization more broadly (Chase 2008), in spite of the growing importance of services trade. The PTA literature has largely focused on trade in goods, and trade in services is sufficiently different as to warrant a distinct theoretical framework. Trade in services involves close geographical proximity between supplier and consumer, and discrimination (as well as preference) concerns domestic regulations and restrictions that govern the movement of labor and capital (Mattoo and Sauvé 2011, 237).

Two recent studies on services commitments in PTAs examine commitments by 36 countries across 32 agreements (Roy, Marchetti and Lim 2007; Marchetti and Roy 2008). The authors map liberalization commitments for mode 1 (cross-border trade) and mode 3 (commercial presence), which comprise the bulk of services trade. Drawing on prior work (Hoekman 1995), they distinguish between full commitment without limitations (1), partial commitments (0.5), and no commitment (0). They find overall that commitments by these countries not only go well beyond current GATS levels but also surpass offers currently on the table in the Doha Round (Roy, Marchetti and Lim 2007).[11] A comprehensive study of services agreements in the East Asian region employs the same methodology that includes all sub-sectors and all four modes of supply (Fink and Molinuevo 2007; Fink and Molinuevo 2008). In the next section, we offer an explanation for why countries generally adhere to one model of liberalization.

Explaining the Choice of Modalities in Services Liberalization

What explains why countries choose to adopt either a positive-list or negative-list approach? A "bottom-up," or positive-list approach, as described above, includes only modes and sectors that states are willing to liberalize. In contrast, the negative list, or "list it or lose it" approach liberalizes all sectors and modes, unless otherwise specified as exceptions. The choice of modalities goes to the heart of how governments utilize domestic rules, regulations, and policies to discriminate against foreign suppliers. The positive-list approach, modeled after the WTO's GATS, allows countries to specify the terms of liberalization, i.e., the terms of market access for foreign suppliers. They retain the right to eschew commitments and to bypass the obligation to provide information on domestic regulations that may be discriminatory.

While both approaches could yield identical results in terms of actual services trade liberalization, the negative approach is regarded as "governance enhancing" in two main ways (Mattoo and Sauvé 2011, 252). First, it commits signatories to a general obligation of transparency. This is especially important, as the negative-list approach requires signatories, in listing their respective exemptions, to identify and enumerate non-liberalized domestic measures. Second, it locks in the status quo regulatory system in the signatories. The listing of exemptions under the negative-list approach, aside from providing valuable information on

[10] This voluminous literature includes but is not limited to studies by Viner (1950), Bhagwati (1991), Bhagwati (1993), Baldwin, Haaparanta and Kiander (1995), Grossman and Helpman (1995), Levy (1997), Bagwell and Staiger (1999), Panagariya (1999), Panagariya (2000), Pomfret (1988), Aghion, Antrās and Helpman (2007), Limão (2006), and Limão (2007).

[11] The data, including additional PTAs that expand the data to 53 WTO members across 62 agreements, is available online (available at http://www.wto.org/english/tratop_e/serv_e/dataset_e/dataset_e.htm, accessed 12 June 2012).

current restrictions, provides the benchmark for commitments not to adopt new and discriminatory regulations.

In principle, countries could choose either approach, given that the institutional templates have been provided in NAFTA and the GATS. Due to the broad membership in the GATS, we could expect positive lists to be the default option, but countries with more competitive services sectors could be expected to promote a negative-list approach, supported by politically influential export-oriented industries. This would be in line with the predictions of a domestic policy approach to trade policy that has proven highly successful in explaining trade policy in goods.[12]

In practice, however, the relative strength of the services sector is only weakly linked with institutional choice. Rather, we observe that the negative-list approach has spread from NAFTA to various other PTAs, first in the Americas and then in the Asia-Pacific, with no apparent relation to the importance of the service sector in the economies concerned. What is more, countries tend to consistently choose either positive- or negative-list approaches—except for a small number that have switched from positive to negative list, but never the other way around. This evolution is inconsistent with a straightforward domestic policy-centered explanation. Likewise, it appears improbable that dozens of individual bargaining outcomes would lead to this outcome if they were independent events.

Instead, we advance two theoretical arguments: first, countries make high initial investments when they opt for a negative-list approach that are only recouped through negative-list agreements, and second, negative lists reveal information, making it highly unattractive for countries to switch from negative-list PTAs back to positive-list agreements. As a consequence, the institutional choices induce path dependence and a separation of countries into two separate, barely connected networks.

The initial investment in a negative list can be considerable. A negative-list PTA requires a cataloguing of all existing restrictions on foreign market access. If a country maintains explicit measures, then it is obviously administratively demanding to draw up a complete list. Countries therefore incur a one-off but potentially high cost in acquiring this information. Yet, once this investment has been made, subsequent agreements do not require any further administrative effort: existing regulations are locked in, and "new" services or services that have become tradable because of technological innovation are unrestricted.

By contrast, a positive-list agreement can in principle be drawn up without even consulting domestic legislation—all that is required is to take the GATS sector list and note "unbound" for every mode, a method followed apparently by India in several PTAs. In other words, the "increasing returns" are much greater for a negative list, an element that already induces path dependence. Countries that choose positive lists are still likely to prefer this approach, but unless additional sectors are liberalized, each successive agreement should *ceteris paribus* be equally costly.

More importantly, however, is that unlike a positive-list PTA, a negative-list PTA reveals information in the bargaining process. With a negative-list PTA, the complete list provides detailed insight about the current extent of restrictions imposed on the negotiating partner, who can choose to demand their removal in the negotiations. Because both parties have to supply their exemption lists at the beginning of the negotiations, domestic interest groups with an eye on the other country's market have immediate access to them. Both strengthen the hand of "offensive" interests in the language of trade policy, i.e., those who seek liberalization of the other country's trade barriers. A negative-list PTA provides information to the other party and *reduces* the negotiating costs of the party demanding liberalization.

[12] See *inter alia* Gawande and Bandyopadhyay (2000), Nelson (1988), and Milner (1988).

By comparison, a positive-list approach works on the basis of the GATS "request and offer" approach. This means that the onus is on the party seeking better market access to gather information about the other's trade barriers and to decide upon the degree of liberalization sought. Countries can strategically make offers, but do not have to specifically list existing trade barriers and do not have to provide them to the negotiating partner. This puts the offensive interest at an informational disadvantage, and *imposes* a cost on the side demanding liberalization.

This has implications for future PTA choices once a country has negotiated a particular type of services agreement. Once a country has signed one negative-list PTA, its existing restrictions are public in the text of this PTA. Indeed, as "revealed" sectors and levels of exemptions, such a negative-list PTA provides the baseline for negotiating future agreements, as it will tend to approximate the reservation value of a country in the previous negotiations. Moreover, when countries implement the commitments made in a services PTA, they usually do so on a non-discriminatory basis. In most cases, a sector whose restrictions will be eliminated through a PTA becomes legally accessible to all foreign providers, not just those from the PTA partner. Even where this is not the case, a negotiating partner can use the "revealed" sector list and demand parity in access. A positive list, by comparison, provides much less information. The list of bound and unbound sectors obscures domestic regulations that may be discriminatory.

Because of this asymmetry in information, countries that have negotiated negative-list PTAs before are likely to insist on this approach in future PTAs. This makes it much easier to partner with other countries that have already negotiated negative-list PTAs themselves. What is more, countries with negative-list PTAs are attractive for countries that have so far negotiated positive-list PTAs and who have an informational advantage, but the reverse will not be the case. Positive-list PTA countries will therefore often continue with the same liberalization approach, unless they are willing to switch for unrelated reasons. Meanwhile, negative-list countries will hardly ever switch to a positive-list approach, as the informational advantage cannot be regained. Accordingly, the choice of liberalization approach exhibits a strong self-reinforcing "history" effect.

Such path dependence is an implicit possibility in the rational design approach advanced by Koremenos, Lipson and Snidal, but their explicit focus is on institutional evolution as states "modify institutions in stages (…), by imitating features from other institutions that work well in similar settings (…)" (2001, 767). They acknowledge that states may select different institutions over time. We emphasize that states are often not free in their choice of institutional design because past choices increase the relative cost of some options over others. Path-dependent institutional choice is still rational and incentive compatible, i.e., actors choose institutional forms because it is in their interest. Although governments see an institutional option out there that might—all else equal—be preferable, given past investments in a particular institutional form, it is less costly and more attractive to stick to the same.

We thus advance our first two hypotheses:

HYPOTHESIS 1A : The more negative (positive)-list PTAs a country has negotiated, the more likely that it will negotiate future negative (positive)-list agreements.

HYPOTHESIS 1B : The history effect should be stronger for negative-list than for positive-list PTAs.

A related, subtler effect is that countries with negative-list PTAs can negotiate such agreements with each other with relative ease. The elimination of measures that restrict foreign

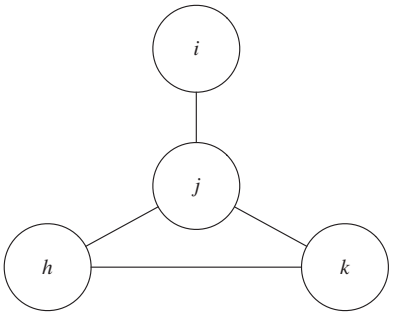

Fig. 1. Unbalanced network

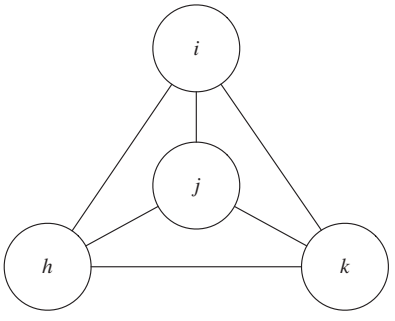

Fig. 2. Balanced network

market access will generally be non-discriminatory, and the list of measures retained can form the basis of negotiations. This results in a *higher-order effect* of PTA negotiations. That is, countries negotiating PTAs, if they had already adopted negative-list commitments in services in earlier agreements, will utilize the information about the negative lists adopted by each other's previous PTAs. Consider Figure 1: country *j* has already negotiated negative-list PTAs with countries *h* and *k*, country *i* only with country *j*, and *h* and *k* have a negative-list PTA.

Consequently, country *i* can draw on these earlier negotiations to obtain information about the commitments made by *h* and *k*. Conversely, *h* and *k* can use information about the negative list provided by *i* in its earlier negotiations with *j*. The outcome would yield two further PTA ties, or what in network terminology would be called a "balanced graph" shown in Figure 2, where all countries have PTAs with each other.

Our second hypothesis captures this *higher-order effect* in the formation of negative-list PTAs:

HYPOTHESIS 2 : Countries with negative-list PTAs should be more likely to form negative-list PTAs with the partners of their existing negative-list PTA partners, thus forming balanced networks.

We have no such expectation for positive-list PTAs. Moreover, as a consequence of these two effects, we expect countries to separate into two distinct PTA networks through their choice of liberalization approach. Countries signing negative-list PTAs will strongly gravitate toward other such countries because neither party would be at an informational disadvantage, thanks to

the transparency of domestic regulations established by previous agreements. Thus, the choice of a negative-list approach should have an effect on the evolution of PTAs throughout the region.[13]

It is important to note that the negative-list approach has been promoted by the United States, making it a precondition for the negotiation of a PTA with the United States. However, compared with other countries, the United States has been slow to negotiate trade agreements, with only 13 agreements in force at the time of writing in 2013. The growing popularity of negative-list agreements is therefore not primarily due to US insistence, but the result of the choices of other countries. A small number of countries first signed negative-list PTAs with the United States, and then went on to negotiate such agreements with third countries. In other words, the US approach to services liberalization diffuses through *other* countries' PTAs. Nonetheless, it is important to consider alternative explanations, of which several depend on the role of the United States.

First, countries with military alliance ties with the United States could follow a "US approach" simply because they are more likely to sign a PTA with the United States. They are also more likely to accept the institutional model required by the United States, given that they benefit greatly from the security guarantees extended to them, and considering the economic asymmetry in negotiations with the United States. This would predispose these countries to pursue negative-list agreements. Applied to the Asian region, this argument is especially relevant as scholars such as Ravenhill (2009, 2010) have argued that PTAs in Asia are largely political and geared strongly toward security and strategic gains.

Second (and not mutually exclusively), countries with strong trade links with the United States could prefer a US-style, negative-list approach with a view to prepare for future negotiations with the United States.

Third, both types could simply spread through the network through diffusion and learning. A learning model would suggest that policymakers and bureaucrats in country's foreign policy and trade establishment become proficient in one approach and prefer this approach in subsequent negotiations. Positive-list and negative-list types would stick to their learned approaches, but *ceteris paribus* the networks would develop along similar trajectories. Recall that our predictions are that negative-list PTAs should induce greater path dependence, and that negative-list PTAs should result in more balanced ties. A diffusion model would predict that countries are more likely to learn from countries that have similar legal traditions or cultural commonalities (Simmons and Elkins 2004, 175). As services liberalization is legally more complex than tariff reductions, it is possible that governments simply adopt suitable clauses from other countries' rules and regulations. This would not create path dependence either, but predispose countries that share the diffusion channel (e.g., a common official language) toward the same approach.

Finally, countries could simply have specific preferences for the liberalization of their services sectors. More free trade-oriented countries would opt for the more liberalizing negative-list approach, and the choice would simply be a revealed preference rather than a network effect. Such individual preferences might have to cross a threshold, so that some countries appear as negative-list types, while the default would be the positive-list approach that is both older and used in the GATS. Such a preference likely reflects a more competitive or more open service sector, so that countries in which tradable services make up a bigger share of the economy would prefer negative-list agreements. Alternatively, countries that have already

[13] Our online appendix, available at the *Political Science Research and Methods* dataverse with all replication files, provides a number of further illustrations and visual analysis.

undertaken considerable liberalization before negotiating PTAs could prefer the negative-list approach: governments that have liberalized unilaterally or in the GATS negotiations have already overcome protectionist domestic resistance and their domestic service industries will have adjusted to foreign competition, so that a negative-list approach is less politically costly. We revisit these alternative explanations below when we discuss our control variables.

A caveat is that we do not offer an explanation of the initial choice for a positive- or negative-list approach, in particular why one was preferred in NAFTA and the other in the GATS. However, we submit that with NAFTA and the GATS in existence, there are no genuine "first choices" for countries, as both institutional templates became available in 1994 (although the GATS was not ratified, the text was mostly complete), and neither are we aware of any studies that uncover why these separate approaches were proposed.

ANALYSIS

In our analysis of PTAs in the Asia-Pacific region, we include agreements involving countries in East and Southeast Asia, Oceania, and the states of the Americas bordering on the Pacific. We include a PTA if at least one of the members is a state from this group. We restrict our analysis to this "region" for several reasons. First, the Americas and the Asia-Pacific geographic region are the sites of the greatest activity of PTA formation in recent years and especially in this century (Dent 2006; Aggarwal and Urata 2006; Fiorentino, Verdeja and Toqueboeuf 2007; Capling 2008; Ravenhill 2010).

Second, with strengthening trade links, the number of "cross-regional" agreements between Asian and Latin American countries bordering on the Pacific has grown rapidly in recent years (Katada and Solís 2008; Katada, Solís and Stallings 2009). This process builds on earlier efforts in Asia-Pacific Economic Cooperation (APEC) (Ravenhill 2010), and has recently been invigorated with the negotiations toward the Trans-Pacific Partnership agreement.[14] Conveniently, the timing of these agreements helps us avoid a problem that arises when we use the sample in a network analysis. While some countries in our sample have ties with countries beyond it, the number of these ties is extremely small, and in all cases only creates a slight bias in our coefficients because the chosen liberalization approach matches our predictions.

Third, PTAs in other regions such as Europe have often been preparatory steps for later EU accession, so no higher-order effects can be discerned because countries effectively gave up an independent trade policy and delegated it to Brussels instead.

Fourth, nearly all agreements in the Asia-Pacific are bilateral rather than plurilateral in nature, so that a network approach, ultimately an extension of dyadic analysis, is appropriate and the model is not misspecified on these grounds (Poast 2010).

Finally, while there are multiple PTAs in Africa and the Middle East, they only very rarely involve services liberalization, and in some cases no liberalization at all (Gray 2014). In sum, for our purposes the PTA "population" is heterogeneous, and we focus on a (relatively) homogeneous subset of it. Nonetheless, the network we analyze comprises a third of the WTO members, just over half of all services PTAs in force, and more than half of all trade and investment in services, with the remainder chiefly United States–EU and EU–Latin America trade. The analysis builds on an original data set that codes the scheduling approach of all PTAs involving at least one Asia-Pacific country.

[14] At the time of writing, Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, the United States, and Vietnam are negotiating, and South Korea may be joining at a later stage.

Longitudinal Network Analysis

Network analysis is related to the more common dyadic estimation frameworks in IR research, but offers several distinct advantages.[15] The dependent variable in network is an $N \times N$ matrix, in which the off-diagonal entries represent ties (in our case, PTAs) between actors. Unlike dyadic models, this approach can take into account higher-order dependencies, e.g., if indirect ties affect tie formation, and endogenous popularity, i.e., if more ties make an actor more attractive for future ties. Moreover, unlike dyadic models, network models allow for the estimation of monadic and dyadic effects.

We use a particular type of model referred to as "stochastic actor-oriented model" (Snijders 2001). In these models, individual actors evaluate their position in the network structure and form or break ties to increase their utility. Actors change their ties between observed instances of networks. Their behavior is assumed to be goal directed, but myopic, so that all additional long-term strategic considerations are taken into account by exogenous covariates or structural network effects. Each micro-step taken by an actor changes the network structure for this and all other actors, and hence implies a strong dependence between actor choices.

Data

The dependent variables are $N \times N \times T$ arrays, in which the presence of a PTA tie is binary. As we analyze the evolution of negative-list and positive-list PTAs, we include two sets networks, one for each PTA type, over 18 years from 1994 to 2011. The choice of 1994 follows from the fact that it is the first year in which we have information on both networks, in that a negative-list PTA is in existence (specifically, NAFTA), and a positive-list agreement is signed by two countries.[16] The approach allows for two countries to first sign a PTA of one type and then subsequently a PTA of the other type. This assumption is more appropriate than a multinomial model with three exclusive choices, as some countries (e.g., Australia–Singapore) have signed a positive-list PTA first and a negative-list PTA later.

The control variables in the analysis include bilateral merchandise trade and democracy, which are the commonly featured economic and political determinants in studies of PTA formation and design. Bilateral trade is calculated in terms of log-transformed imports reported by each of the dyad member from the other. We also include the log-transformed gross domestic product (GDP) of each country in the dyad to reflect the size of the economy and its impact on services liberalization commitments, and the GDP per capita values for both countries, and measures of similarity of these values, because the choice of liberalization approach could simply be "imposed" by the larger or much richer side on the other country. Data for GDP and GDP per capita were obtained from the *World Development Indicators* (*WDI*), and bilateral trade data from the IMF *Direction of Trade Statistics*. The analysis also controls for regime type, including the *Freedom House* measure for each dyad member.[17]

[15] Examples in recent years include Cao (2009), Cao (2012), Hafner-Burton, Kahler and Montgomery (2009), Hafner-Burton and Montgomery (2006), Hoff and Ward (2004), Maoz et al. (2006), Maoz (2006), and Cranmer, Desmarais and Kirkland (2012).

[16] We could include earlier years in the analysis, but without any services PTAs in existence, they would not contain any information and the analysis would merely be computationally less efficient while statistical significance might be artificially inflated.

[17] The Freedom House index is not ideally suited to longitudinal analysis because the coding of the variable has changed over time, but we have reasons to believe that this does not apply to our sample period and countries: the annual cross-correlation between the Freedom House score and the (consistently coded) Polity IV score lies between 0.84 and 0.89 in our sample.

We also include several variables as controls that are indicative of the economic importance of the services sectors and thus may have an impact on whether countries choose positive- or negative-list approaches in services liberalization. The analysis includes the share of services trade in the countries' GDP, also obtained from WDI, US investment (FDI) in the services sector, and the existence of a bilateral investment treaty (BIT) in force between agreement partners (Haftel and Thompson 2013).[18] Data on US FDI were obtained from the Bureau of Economic Analysis (BEA).[19] In addition, we include a control that proxies for the existing level of services liberalization that has already been undertaken unilaterally by the agreement partners. We employ data from the Services Trade Restrictiveness Database compiled by Borchert, Gootiiz and Mattoo (2011, 2012a, 2012b) and made available by the World Bank. The database provides an overall score of services trade restrictiveness—[0-100], least (open) to most restrictive (closed), which we invert for ease of interpretation—based on policy regimes in key sectors and over three modes of delivery.[20] Finally, we also control for the previous signature of a PTA covering goods only, reasoning that such a PTA may be a precursor to a later more comprehensive economic integration arrangement. PTAs for trade in goods have been signed for over a century, while services PTAs are a recent arrival on the trade policy scene.

Estimation

To analyze the evolution of these networks, we use the longitudinal network analysis package RSiena (Ripley, Snijders and Preciado Lopez 2011).[21] In this framework, an evaluation function is used to model the probability calculations of both countries that are given the opportunity to form a PTA. The evaluation function is defined as a linear combination of terms:

$$f_i(\beta, x) = \sum_{k=1}^{n} \beta_k s_{ik}(x), \tag{1}$$

where the β_k are the parameters, and the $s_{ik}(x)$ are covariate values, the value of a structural network statistic, or combination of the two. In addition, a random element with a Gumbel distribution is included, so that actors (i.e., countries) stochastically optimize the evaluation function plus this random disturbance. RSiena simulates networks until the parameters converge to values that produce simulated networks with characteristics similar to those of our actually observed networks.

[18] We thank Yoram Haftel for sharing data on BIT ratification dates.

[19] We thank an anonymous reviewer for recommending a control for US FDI and for unilateral liberalization in services. For the first, the BEA provides annual data on outward FDI flows by sector calculated on a historical-cost basis. The analysis employs the log-transformed aggregate value of FDI in all sectors except mining, petroleum, and manufacturing (available at http://www.bea.gov/iTable/iTable.cfm?ReqID=2&step=1#reqid=2&step=3&isuri=1&202=1&200=1&201=1). As a robustness check, supplementary analyses employed the (logged) stock of FDI in the country, drawn from the UNCTAD FDI statistics database (accessed 12 July 2014).

[20] Available at http://iresearch.worldbank.org/servicetrade/home.htm (accessed 12 July 2014). The project assesses policy regimes in five key services sectors, which in turn comprise 19 sub-sectors and three modes of delivery (GATS modes 1, 3, and 4: cross-border supply, commercial presence, and presence of a natural person). The five sectors include financial services, retail distributions, professional services, telecommunications, and transportation.

[21] RSiena is not yet widely used in Political Science and has some experimental properties (none of which, luckily, are problematic in our data), but is according to Franzese, Hays and Kachi (2012, 185) "the state of the art" for the analysis of simultaneous tie formation and behavioral choices of actors.

Just like in the traditional dyadic framework, our evaluation function includes monadic and dyadic variables, but the network approach allows the inclusion of structural effects. The first effect we include is the number of existing PTAs in each category for ego and alter (*degree* and *degree of alter*). To achieve model convergence, we hold fixed the ego degree effect in the evaluation function, and focus on the *degree of alter* instead. This effect operationalizes one aspect of the path dependence of PTAs. By comparing the relative importance of the *degree of alter* for the choice of a negative- and positive-list PTA, we can directly observe if our Hypotheses 1a and 1b find support, and if negative-list PTAs induce relatively more such PTAs in subsequent years. We expect a positive effect for *degree of alter* in joining either positive-list or negative-list PTA networks, which in turn creates a path dependence and separates countries into different networks. Initial choices are likely to have a much greater effect than later choices, so that we take the square root of the sum of the degrees of alter. In other words, we assume that the "history effect" is non-linear and diminishing in strength the more agreements of a specific type a country has formed. This value is defined by the sum of the square roots of the out-degrees of the others to whom i is tied. We always refer to the country in question (ego in network speak) as i, the partner as j, and any third country as h:

$$S^{\text{net}}_{i\,\text{sqrt degree}} = \sum_j x_{ij} \sqrt{\sum_h x_{hj}}. \tag{2}$$

Second, we include an effect to measure the tendency of actors to balance their network ties, i.e., to be tied to countries with a similar set of ties, as predicted by Hypothesis 2. With this effect, we operationalize the tendency of a country to seek partners with comparable ties within either a positive-list or a negative-list PTA network. In other words, we evaluate whether a country, once it has signed a positive- or negative-list PTA, eventually seeks PTAs with other countries that already have PTAs with its current agreement partners. Concretely, if countries separate themselves into different groups, then a stronger balancing effect in one group should lead to a more densely connected group that have structurally equivalent ties. This effect is defined as the similarity in ties of country i and the ties of country j to which country i is tied with a PTA of either specific type:

$$S^{net}_{i\,balance}(x) = \sum_{j=1}^{n} x_{ij} \sum_{h=1, h\neq i,j}^{n} \left(b_0 - |x_{ih} - x_{jh}|\right), \tag{3}$$

where b_0 is a constant included to reduce the correlation between the *balance effect* and the *degree effect*. The effects are defined separately for negative- and positive-list PTAs, i.e., the *degree* is measured for a country's negative- and positive-list PTAs separately to capture the effects of the two networks.

The inclusion of a separate *degree of alter* and *balance* effects also allows us to assess whether countries simply exhibit a preference for countries that pursue a similar liberalization approach (an atheoretical notion of homophily) and select themselves into such a network. In this case, the *balance* effect would not be statistically significant.

For our control variables GDP and GDP per capita, the expectation is that larger and more developed economies are more likely to have a substantial service sector and trade in services that makes liberalization commitments both feasible and a major bargaining issue. Also, as democracies are more likely to sign trade agreements in the first place (Mansfield, Milner and Rosendorff 2002), we test also whether they are more likely to sign a positive- or negative-list services agreement.

We also include the distance-weighted trade with the United States and China for each country in the network. Countries that trade more with either partner relative to the network average and their geographic distance from the United States or China can be seen as have unusually close economic links with them. A country with close links to the United States, e.g., could be expected to adopt a US-style negative-list approach for its PTAs in anticipation of a PTA with the United States. Conversely, a country with close links to China would opt for a positive-list PTA. Furthermore, we include a dummy variable if a country has a formal military alliance with the United States (Mansfield, Milner and Rosendorff 2002).

Our estimation framework is fundamentally a qualitative choice approach, so that we cannot include a full set of country dummies without creating convergence problems, but we estimate year-specific rate parameters akin to year fixed effects in a conventional statistical framework.

Findings

Table 1 presents the results of the analysis. The parameter estimates in our analysis can be used to calculate the probability of a services PTA tie of either type being proposed by a country and confirmed by its partner. *Ceteris paribus* the given network structure, the exponentiated parameters can be interpreted as the multiplicative factor of the probability of the making or breaking of a tie, given a one-unit increase in the variable under consideration. For ease of reading, shaded lines in Table 1 refer to variables whose effects are discussed in this section.

As shown in Table 1, model (1) is our minimal model containing only structural effects in each network and essential economic and geographic control variables. As the *degree of alter* parameter estimate indicates, the more negative-list PTAs a country has signed, the more likely it is also chosen as partner for further such agreements. This finding supports Hypothesis 1a of a path-dependent effect. We also find evidence of path dependence in the positive-list network, but the estimated parameter is less than half the size, which lends credence to Hypothesis 1b.

Second, *balance* is a positive and significant effect in the negative-list PTA network. In other words, countries are more likely to sign negative-list PTAs with the same partners as the other countries that have signed negative-list PTAs. This confirms our Hypothesis 2 that negative-list PTAs form a network of countries that tend to all be tied to each other. The controls for *trade* are significant and have the expected positive sign consistent with findings of existing studies.

Model (2) includes a full set of controls. Particularly noteworthy is the result that political ties in the form of a military alliance with the United States makes countries much more likely to choose the negative-list approach. Substantively, this is the most important control variable in the network of negative-list PTAs after *balance* and *degree of alter*. Surprisingly, trade in goods with the United States has a slightly negative effect on the formation of negative-list PTAs and a more pronounced negative effect on the formation of positive-list PTAs. We also find evidence that domestic political economy factors influence the choice of liberalization approach: the more extensive the prior, non-discriminatory commitments to services liberalization under the GATS, the more likely a country is to choose a negative-list PTA. This could imply that the more of the initial political resistance against liberalization has been overcome, the more likely a demanding negative-list PTA could be signed. Relatedly, we find that the more important services trade is in a country's GDP, the less likely it is to choose a positive-list PTA, while the corresponding parameter estimate for negative-list PTAs has a positive sign but narrowly misses conventional levels of statistical significance. As both US FDI in services and services trade over GDP are probably endogenous to PTA formation, we do not want to make too much of these findings and just note that they do not contradict our results. Moreover, the parameter estimates are substantively small, suggesting only a weak influence of distributive implications on country choices.

TABLE 1 *Estimation Results*

	(1)		(2)	
	Parameter Estimate	SE	Parameter Estimate	SE
Negative-list PTAs				
Balance	0.292	0.090**	0.252	0.100*
(sqrt) Degree$_j$	3.918	0.737***	3.528	0.780***
Distance	–0.023	0.321	–0.312	0.343
Trade	0.266	0.140*	0.129	0.107
PTA in goods			–1.012	0.966
Democracy			–0.200	0.354
Democracy$_i$ × Democracy$_j$			–0.051	0.089
ln GDP	–0.479	0.242	0.251	0.355
ln GDP similarity	1.522	1.778	1.486	1.579
ln GDP per capita	0.711	0.452	0.560	0.695
GDP per capita similarity	2.746	1.633	0.598	1.604
ln US trade			–0.311	0.119**
ln China trade			–0.149	0.174
US alliance			4.911	2.140*
Services trade/GDP	–0.017	0.013	0.059	0.034
ln US FDI	0.130	0.085	0.205	0.174
GATS commitments			0.090	0.035**
Positive-list PTAs				
Balance	0.073	0.076	0.006	0.082
(sqrt) Degree$_j$	1.950	0.521***	2.019	0.557***
Distance	0.315	0.283	0.233	0.312
Trade	0.405	0.167*	0.350	0.170*
PTA in goods			–0.162	0.669
Democracy			–0.568	0.161***
Democracy$_i$ × Democracy$_j$			–0.102	0.045*
ln GDP	–0.331	0.260	–0.609	0.289*
ln GDP similarity	0.420	1.838	–0.398	1.824
ln GDP per capita	–0.232	0.248	0.245	0.420
GDP per capita similarity	–0.889	0.999	–0.287	1.055
ln US trade			–0.475	0.161**
ln China trade			0.091	0.058
US alliance			0.016	0.532
Services trade/GDP	–0.013	0.008	–0.049	0.015***
ln US FDI	0.128	0.097	0.589	0.188*
GATS commitments			–0.051	0.029

Note: results are based on 3000 simulation runs. Year rate parameters not shown.
PTA = preferential trade agreement; GATS = General Agreement on Trade in Services; GDP = gross domestic product; FDI = foreign direct investment.
*p < 0.05, **p < 0.01, ***p <0.001.

In Figure 3, we show the relative importance of the parameters that reach statistical significance at least at the 5 percent level, following the procedures developed by Indlekofer and Brandes (2013), in each year for both networks averaged over all actors. This procedure compares the sum of the absolute values of pointwise differences between two choice probabilities as they are influenced by each network effect or covariate. For example, a value of 1 for a covariate or network effect indicates that the choice by the actor to form or disband a specific tie from one time point to the next is determined exclusively by the value of this covariate.[22]

[22] See the online appendix for further details.

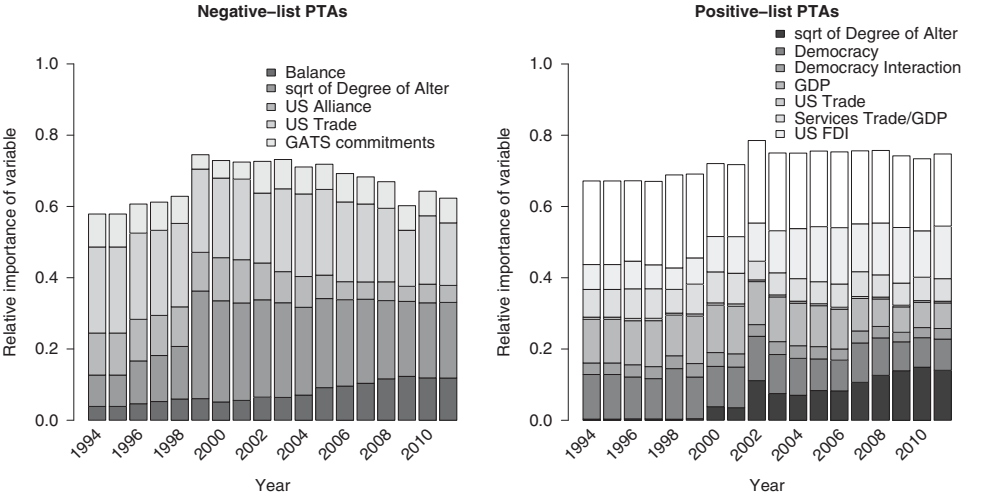

Fig. 3. Relative importance of effects for negative-list (left panel) and positive-list (right panel) preferential trade agreement (PTA) choices
Note: GATS = General Agreement on Trade in Services; GDP = gross domestic product; FDI = foreign direct investment.

As evident in the left panel of Figure 3, the effects of *balance* and *degree of alter* are substantively the most important for the decisions of actors to form negative-list PTAs. Furthermore, these parameters become relatively more important, the more negative-list PTAs have been formed over the years—a declining importance would strongly contradict any notion of path dependence. Combined, the two effects account for more than a third of all decisions to form negative-list PTAs since 1999. The next important variable is the effect of having an alliance with the United States, which contributes on average a quarter of the total propensity to choose a negative-list PTA, and never more than the *degree of alter* effect by itself already.

The right panel in Figure 3 shows the corresponding graph for the choice of a positive-list PTA. The *degree of alter* is never more than one-sixth of an actor's decision, comparable with the size of the effects of services trade over GDP. While there is modest evidence of a "history" effect for positive-list PTAs as well, it is clearly a much less pronounced influence on actor decisions than in the negative-list network. In our online appendix, we also calculate substantive effects for both types and networks, and present detailed graphs of the relative importance for each year and each actor in our network separately. Throughout, we find consistent and strong evidence of path dependence in the negative-list network as operationalized through our network effects, with effect sizes growing over time as the network becomes denser and more PTA ties are formed. These effects are either much weaker or not present at all in the positive-list network, as in the case of *balance*.

The online appendix also reports the results for a number of robustness checks that include additional control variables: we substitute US FDI in services with total FDI from any source in any sector in the host country. This variable is relatively highly correlated with US FDI in services, so that we can only include one of the two in the model. We also test if the presence of a BIT in force between the countries affects PTA formation, as at least some BITs will affect services liberalization, and test separately if this is the case when we exclude all BITs by EU members. None of these variables come close to statistical significance, and nothing changes about our other results. Furthermore, we test for the presence of various diffusion effects. In the

literature (see, e.g., Elkins and Simmons 2005), having a common language and common origin of the legal system are often considered possible channels of diffusion. We find no evidence of such channels of diffusion influencing actor decisions.

CONCLUSION

This paper has investigated institutional choice in the approach to services liberalization in PTAs. Specifically, we examine why countries choose a negative-list approach or a positive-list approach, focusing on the "history" effect of institutional formation and the tendency of governments to choose institutional partners with similar patterns in their own agreement histories. We find that path dependence is strongly evident in international trade agreements. Using a strict definition of path dependence that relies on state dependence, or a "history" effect, we have shown that the choices countries make not only condition their future options, but also have effects at the international level. In the specific issue area of services trade and investment liberalization, we have provided evidence that once countries agree to a negative-list approach in a PTA negotiation, they become more attractive partners for other countries that want to negotiate a negative-list PTA in services. Furthermore, countries that have negotiated a negative-list PTA with another country are more likely to seek negative-list PTAs with that country's PTA partners. As a result of these effects, countries negotiating negative-list services trade agreements sort themselves into a separate network of states. In this network, nearly all members are connected to each other.

The distinction between the positive- and negative-list approaches to scheduling liberalization commitments in services yields a significantly different picture from simply assessing who signs with whom. By taking account of the features of agreement between signatories, we have found that, at least in PTAs involving Asian countries, stronger and more "embedded" hubs of governance are found for those countries that commit to the negative-list approach. In other words, past choices in the membership design of international institutions can set countries on different tracks, and can have outcomes for the institutional landscape far beyond the additive effect of individual country decisions.

Substantively, our findings indicate that a country's prior PTA partnerships strongly influences the design of later agreements. A country seeking a PTA with the United States is required to draw up a negative list to strike a deal, and is much more likely to stick to this approach in its own, subsequent PTAs. Over time, the specific approach to services liberalization preferred by the United States therefore spreads and comes to dominate, but through the efforts of partner countries in their own PTAs. It is evident, however, that the network of negative-list PTAs is driven by US partners to the exclusion of countries that prefer a different approach. Very few countries are members of both networks. In the absence of a multilateral, comprehensive deal on services liberalization that advances the GATS commitments of its members, two separate regimes for services liberalization may emerge, one based on a positive-list approach, the other on negative-list agreements.

Independently of the path dependence we identify, political as well as economic ties condition institutional choices for PTAs involving the United States. Countries that are US allies that extend their political ties into the economic realm favor the US/NAFTA model of a negative-list approach to services liberalization. Our analysis also finds trade in goods to be an important correlate of liberalization of trade in services, irrespective of whether the institutional choice involves a negative-list or positive-list services agreement. Our study finds some support for political economy factors found in the literature that are expected to be related to services

liberalization, such as the stock of US investment or prior unilateral liberalization. None of these variables, however, are of substantive importance relative to the path dependence and tendency toward balanced ties in the negative-list PTA network.

Overall, the findings of this paper suggest strongly that country choices at the international level are far more interdependent than existing studies have assumed, and that there are different evolutionary paths that international regimes consisting of multiple formal institutions—like the international trade regime—can follow. This calls for more theoretically informed considerations of interdependence and path dependence in the study of institutional design.

Our approach also suggests new avenues of inquiry: our method of tracing the choice of a particular liberalization pattern within the network of PTAs should be applicable to any set of bilateral agreements. One example would be bilateral air transportation agreements that are governed by a complex network of treaties, whose institutional diversity presents a field wide open for research. In the multitude of international institutions, history matters, and much insight could be gained from further research in this direction.

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