

**Sequencing Regional Trade Integration and Cooperation Agreements:
Describing a Dataset for a New Research Agenda**

**Antoni Estevadeordal and Kati Suominen
Integration and Regional Programs Department
Inter-American Development Bank**

Submitted for publication in the *World Economy* in 2006

Abstract

Trade integration agreements and other international cooperation agreements have proliferated en masse in recent years around the world. Rather than being spurred by exogenous forces alone, the two phenomena are likely to an extent both path-dependent and endogenous to one another. However, the theoretical and empirical understanding of the relationships between agreements forged in different domains of cooperation remains nascent. The purpose of this article is to describe a new, extensive dataset on international agreements that can be employed to start mending the gaps in the literature, and to develop a research agenda on the best practices of sequencing international agreements so as to obtain higher pay-offs from cooperation. Of particular interest here is the relationship between trade integration agreements and other cooperation agreements; the data provide preliminary grounds for hypothesizing that trade integration agreements can be a particularly likely catalyst for further cooperation between states.

Sequencing Regional Trade Integration and Cooperation Agreements: Describing a Dataset for a New Research Agenda

Antoni Estevadeordal and Kati Suominen *

Introduction

Trade integration agreements and other international cooperation agreements have proliferated *en masse* in recent years around the world.¹ Rather than being spurred by exogenous forces alone, the two phenomena are likely to an extent both path-dependent and endogenous to one another. Indeed, economics literature has long viewed trade integration as evolving in sequential steps from a free trade agreement (FTA) to a custom union (CU) and further to a common market. Political science, which has explored a wider range of cooperation domains, such as security, the environment and human rights, has provided grounds for expecting that international cooperation can generate Pareto-improving outcomes that encourage states to expand their cooperation. However, the theoretical and empirical understanding of the relationships between agreements forged in different domains of cooperation remains nascent.

The purpose of this article is to describe a new dataset on trade integration agreements—here, preferential trading arrangements (PTAs)—and other international agreements that can be employed to start mending the gaps in the literature on cooperation, and to develop a research agenda on the “best practices” of sequencing international agreements so as to obtain higher pay-offs from global cooperation. Of particular interest here is the relationship between PTAs and agreements in other domains of cooperation; the data provide preliminary grounds for hypothesizing that PTAs can be a particularly likely catalyst for further cooperation between states.

The first section discusses the motivation for building the dataset in light of the existing literature on the progression of international cooperation. The second section maps out the dataset, and puts forth hypotheses about sequencing of PTAs and other types of cooperation agreements. Section three concludes.

* The authors are grateful to Robert Pahre and all other participants in the Conference “The Sequencing of Regional Economic Integration: Issues in the Breadth and Depth of Economic Integration in the Americas” at Notre Dame University in September 2005. Yusuke Kuwayama, Masahiro Matsumoto, and Akiko Oncken provided excellent and persistent research assistance.

¹ “Cooperation” refers here to mutual adjustment of policies by two or more states. Trade integration refers here to cooperation in the domain of trade. International agreements are here understood as a subset of international institutions. We follow Koremenos et al. (2001: 762) in defining international institutions as “explicit arrangements, negotiated among international actors that prescribe, proscribe, and/or authorize behavior.”

I. A Brief Survey of Literature on Trade and Cooperation Agreements: Toward a Research Agenda

Economics literature has long followed Balassa's (1961) linear notion of the progression of regional trade integration from an FTA to a CU and further to a common market and potentially also a monetary union.² The more recent dynamic path literature aims to establish whether these arrangements could be a sequential step toward multilateral trade liberalization.³ Perroni and Whalley (1994) and Whalley (1996) examine another type of sequence—the feasibility for small states to form PTAs with large partners before other states do so. However, the theoretical grounds and empirical evidence remain thin on the sequencing of FTAs, CUs, and other types of PTAs among a pair or a set of states. Political economy studies by Maxfield (1990) and Frieden (1996) who focus on the progression from trade integration to monetary cooperation, and Pastor (2001), who develops an agenda for furthering North American integration on the basis of the EU's integration experience, are among the exceptions.

Political science has brought international politics to the analysis of the evolution of integration and international cooperation. Ernst Haas's 1958 functionalist study of the then-European Economic Community argued that integration would acquire its own logic, claim states' loyalties, and engender "spillovers"—further cooperation and integration in other issue areas. In the 1980s, neo-liberals gave sturdier theoretical bases for these notions, establishing that repeated interactions between states, particularly when conducted in the context of international institutions, can help overcome market failures and Prisoner's Dilemmas inherent to international relations, and thereby spur further cooperation.⁴ The more recent veins of literature have employed a range of strategic factors—beliefs, information, reputation, signaling, and credibility of commitment—to explain the prospects and progression of inter-state cooperation.⁵ Constructivism, which departs from the rational choice-based theories altogether, goes further to view the pay-offs from inter-state interactions as helping to merge states' preferences and identities with those of the collective—which, in turn, should render sequential cooperation among states near-automatic.⁶

² The earlier academic contestations centered on the respective static welfare effects of FTAs and CUs. See Viner (1950), Meade (1955), Lipsey (1960), Johnson (1965), Mundell (1964), Corden (1972), and Kemp and Wan (1976). Richardson (1994) and Panagariya and Findlay (1996) extend the political economy analysis of PTA formation to looking at welfare implications of endogenously determined PTAs. Several more recent studies have sought to introduce a variable measuring the "depth" of different PTAs in a gravity model. See, for example, Li (2000) and Adams et al. (2003).

³ Kemp and Wan (1976), Deardorff and Stern (1992), Baldwin (1993), Wei and Frankel (1995), Bergsten (1995), Frankel, Stein, and Wei (1997), and, on the political science side, Oye (1992) and Kahler (1995), provide grounds for believing that PTAs can be ever-expanding and propel strategic interactions conducive to global free trade. For further works, see Haveman (1992), Bagwell and Staiger (1993), Saxonhouse (1993), Stein (1994), Bond and Syropoulos (1995), Krueger (1997), Krishna (1998), Lawrence (1996), and Bond, Syropoulos, and Winters (2001). In contrast, Bhagwati (1993) argues that reduced protection between PTA members will be accompanied by heightened protection vis-à-vis outsiders, with PTAs ultimately undermining multilateral liberalization.

⁴ See Axelrod (1984), Keohane (1984), and Oye (1986).

⁵ See, for example, Morrow (1992) and Fearon (1997).

⁶ See, for example, Wendt (1992).

The common simple prediction arising from the vast range of literature is that inter-state cooperation, once launched, can both enhance the odds of and condition further cooperation. However, empirical assessments of the pool of hypotheses are still relatively limited and consist largely of qualitative case studies.⁷ Moreover, although there is a vast body of literature examining why cooperation occurs in a given domain,⁸ studies do not usually problematize the choice of the domain—make the domain a continuum. And even though scholars have examined the effects of cooperation agreements on economic and political outcomes in a number of domains (such as the impact of PTAs on the likelihood of interstate disputes or the effects of security alliances on trade flows),⁹ little particularly empirical attention has been paid to the endogeneity of different types of agreements to each other.

To our knowledge, there are as yet no genuinely global data and mappings of the various domains and dimensions of international cooperation agreements. The static and dynamic relationships between the domains of cooperation, including the potential complementarity (or substitutability) between agreements formed in different domains, also await analysis.¹⁰ Yet, an examination of the types and sequencing of international agreements is compelling in light of the proliferation of PTAs and many other types of international cooperation agreements around the world over the past few decades.

From an analytical point of view, an empirical examination of how agreements are related and sequenced is crucial to capturing both the determinants and the political and economic outcomes of cooperation. Indeed, studies that have encountered causality between agreements in certain domains (such as trade) and outcomes (inter-state disputes) may suffer from an omitted variable bias should the causality travel through another, intervening domain instead (a security cooperation agreement). Moreover, given that empirical studies have focused on relatively limited samples of states and domains, they risk selecting on the dependent variable, and, as such, supporting the authors' theoretical biases.

From the policy perspective, an improved understanding the relationships between different types of agreements can help governments sequence their external agendas so as to obtain higher pay-offs from cooperation, including better developmental outcomes

⁷ Koremenos (2003), using a large-N study to the flexibility of agreements, is a promising exception.

⁸ For example, for the determinants of trade agreements, see, for example, Yarbrough and Yarbrough (1992), Nye (1992), McLaren (1997), Milner (1997ab), Ethier (1998), Mattli (1999), and Mansfield et al. (2000).

⁹ On the impact of PTAs on disputes between states, see, for example, Mansfield and Pevehouse (2000). See also Russett and O'Neal (2001) for an extensive research on economic interdependence and security. Haftel (2004) examines the effects of different types of regional trade integration schemes, such as schemes with a security policy component, on intramural conflict; however, the paper is not about sequencing agreements in different domain, but, rather, of agreements with divergent dimensions. See, for example, Gowa and Mansfield (1993) and Gowa (1994) on security alliances and trade.

¹⁰ The potential relationships between the dimensions and domains of agreements have also yet to be submitted to systematic empirical scrutiny. The few existing empirical studies that problematize the dimensions of agreements are not necessarily generalizable for usually following a case study format and focusing on developed countries.

than could be attained through unilateral policies alone. The dataset presented here aims at paving the way for such an improved understanding of the optimal sequencing of international cooperation.

II. Two Hundred Years of Trade and Cooperation Agreements: Dataset and Some Hypotheses

The section unfolds our dataset on international cooperation. It is divided into five main parts: (1) summary of data and sources; (2) overview of the patterns of global cooperation in 1800-2005; (3) mapping of the main “cooperator” states and their main cooperation partners; (4) mapping of the domains—or issue areas—of cooperation by partners and over time; and (5) a preliminary look at the potential sequences of the domains of cooperation.

A. Summary of Data and Sources

The dataset encompasses 12,247 international agreements in 1808-2005. 94 percent of the agreements are bilateral (have two parties), while six percent are multilateral (have three or more parties). The sample contains a total of 241 states and overseas territories.¹¹ Their number varies over time given the entry and exit of states in the international system. The maximum number of states and territories per year is 219 (since year 2002), while the minimum is 60 (in 1808) (appendix figure 1). The bulk of the data for states’ life spans come from Lake and O’Mahony (2004); the *CIA World Factbook* is employed to complement their data.

The dyadic dataset that carries all possible bilateral relationships carried by bilateral and multilateral agreements (here, “bilateral contractual relationships”) has a total of 128,731 observations. The total number of pairs with at least one cooperation agreement in the set is 15,810.

The dataset consists of a total of 23 domains of cooperation ranging from trade to investment, customs, infrastructure, and transportation, among others. The domains are listed in table 1. The choice of domains is influenced by the goal of our subsequent research to explore the interactions between PTAs and other forms of cooperation. As such, the sample here centers on domains that could plausibly be relatively immediately related to trade integration. We employ distinct sources for data on PTAs (a total of 1,462 agreements), Bilateral Investment Treaties (BIT) (2,285), and the 21 other domains (8,500), respectively. Data on “modern” PTAs (signed in the post-war era) come from World Trade Organization and Arashiro et al. (2005), while data on PTAs signed before World War I come from Pahre (2005), and on PTAs concluded in the inter-war era from Smith (1996), United Nations (UN) (1947), and the US State Department website. Data

¹¹ The data contains both independent states and overseas territories, primarily due to the fact that many preferential trade schemes as well as other international agreements are formed between a colonizer state and its overseas territories. Further iterations can derive the choice of states from theory. For instance, a neo-realist formulation would limit the sample to independent states, while a neo-liberal model might cover a more comprehensive category of customs territories or other units. Also, in this version of the paper, none of the agreements is assumed to have expired.

on BITs are from UN Conference on Trade and Development (UNCTAD). The data on cooperation agreements come from the UN Treaty Series Database (UNTS), which encompasses more than 50,000 international agreements primarily for the post-war era.

Besides classifying each agreement by its domain, we code five dimensions of each agreement: age (year of signature and year of entry into effect); membership (or “exclusiveness”, the total number of members); multilateralism (bi- or multilateral); scope (number of issue areas covered); and obligation (agreement’s “legal definition”, such as convention, agreement, exchange of notes, protocol, and amendment, which are converted into a categorical variable ranging from 1 [least binding] to 6 [most binding]). While not explored here, the dimensions of cooperation agreements will be of analytical interest in further iterations of this paper—and contribute to the growing literature on *how* states structure their cooperation.¹² The descriptive statistics by domain are included in table 1.¹³ Table 2 summarizes the categorization of the various legal definitions by obligation.¹⁴

[Table 1 here]

[Table 2 here]

B. *Patterns of Global Cooperation*

Figures 1a-1c explore the three main sets of data—PTAs, BITs, and all other cooperation agreements (including other trade and investment agreements obtained from the UNTS). All figures contain both bi- and multilateral agreements.

Figure 1a displays the three main waves of regional economic integration. The first wave endures from the early 19th century to the start of World War I, and contains a number of bilateral agreements formed particularly by Great Britain, France, Italy, various Latin American countries both with each other and with the United States, and the web of agreements formed by the German Zollverein founded in 1834.¹⁵ The second, inter-war ear wave includes primarily a web of bilateral agreements forged by Western European

¹² A notable example is Koremenos et al. (2001), who explore the determinants and interplay of such dimensions of international institutions, such as scope, flexibility, membership, and hierarchy. Among their hypotheses is that scope increases with the heterogeneity of members, which tends to increase with membership; and that states are likelier to enter into binding and long-term agreements when membership grows large. See also Pahre (2001). The rational design-school was preceded by a ground-breaking study by Lake (1999), who problematizes the degree of hierarchy in international security relationships. In another important contribution, Goldstein et al. (2000) and Kahler (200) examine the extent of “legalization” of international agreements and institutions.

¹³ Data on the scope of the third wave of PTAs remains to be built.

¹⁴ The degrees of obligation were developed on the basis of consultations with legal scholars, and aim to capture the degree to which an agreement is binding. However, it should be kept in mind that the categorization here is based on the legal definition at the time of signature rather than how the degree of obligation may be interpreted in international adjudication: agreements that are here classified as least binding can in an arbitration be interpreted to be as binding as treaties.

¹⁵ See Pahre (2001). For further treatments, see, for instance, Milner and Mansfield (1999), Irwin (1993), and Pollard (1974).

states such as Belgium, Denmark, Finland, Germany, Great Britain, Iceland the Netherlands, Norway, Portugal, and Sweden both with each other and other East European states, as well as by the United States with various Latin American countries, in particular. The third and current wave surged gained force in the late 1980s and early 1990s particularly in Europe and the Americas. However, it has come to claim all regions of the world and also acquired a trans-continental quality, with such pairs as United States and Morocco, Mexico and Japan, and Chile and European Union (EU) having recently entered into agreements.

Importantly, the waves are not equal, but differ in two main ways. First, while the first two waves carried PTAs of relatively limited issue coverage—generally commerce and navigation—today’s PTAs are highly complex and comprehensive in coverage, regulating member states’ behavior in such issue areas as services, investment, government procurement, and competition policy. Second, while the inter-war wave in particular was highly discriminatory vis-à-vis third parties, today’s PTAs are formed against the backdrop of open regionalism—simultaneous reduction of preferential and most-favored nation (MFN) duties by the member states.

Figure 1b centers on the much more recent but potent phenomenon of BITs. Inherently formed between two states, BITs stipulate reciprocal promotion and protection of investments. They generally cover a host of issues, such as admission and establishment, national treatment, MFN treatment, compensation in the event of expropriation, and dispute settlement mechanisms. Their reach is truly global: they often link even some distant developing countries, such as Uruguay and Malaysia, to each other.

Figure 1c unwraps all the cooperation agreements based on the UNTS data that is thus far coded for this exercise (see table 1). It illustrates the forceful surge of global cooperation in the post-war era. To be sure, the pattern is to an extent also due to the limitations on the availability of comprehensive data from the 19th and early-20th centuries.

[Figures 1a-1c here]

Figure 2 explores the global distribution of contractual relationships in different periods of time. The green and orange dots mark the share of agreements by each of the 241 states and territories of all contractual relationships (whether under bilateral or multilateral agreements) forged around the world in 1808-2005 and in 1946-2005, respectively. The red and blue dots show the various states’ shares of contractual relationships in the pre-war era and the inter-war era, respectively. The figure is ordered by the number of agreements that each state has in the period 1808-2005. The states with the highest number of agreements during the period are the United States (5,394), United Kingdom (4,841) Germany (4,354), the Netherlands (4,184), Denmark (4,132), and France (4,068); their data points are thus clustered at the left-hand side of the figure.

[Figure 2 here]

The main message of the figure is that the post-war era has been marked by a globalization or “leveling” of global cooperation: virtually all states are today member to several agreements, and the shares of the various states of the total number of contractual ties are more even than they were in the pre-World War II era. In other words, the Gini index of participation in global cooperation has declined. For instance, the most prominent cooperator state, the United States, is party to only 2.2 percent of all bilateral contractual relationships formed in 1945-2005, while in the 1808-1914 period France was party to 8 percent and Italy to 6.9 percent of all bilateral contractual relationships.

Figures 3a-3b take a further look at the globalization of cooperation. 3a examines the share of dyads with at least one common agreement and one common PTA, respectively, of all existing dyads in the world over time.¹⁶ Cooperation agreements have come to cover an impressive number of pairs in the post-war era: in some years, the share of dyads that enter an agreement of all dyads is nearly 60 percent. In contrast, as the data stand for now, only some 2-3 percent of dyads entered cooperation agreements in the 19th century. PTAs have also arisen to cover a growing share of bilateral relations over the past two decades, with up to 2 percent of all dyads entering PTAs with each other in the peak PTA years.

[Figures 3a-3b here]

The leveling of the global cooperation playing field owes to a large extent to the rise of multilateral agreements in the post-war era. Indeed, as figure 4 shows, the bulk of most states’ dyadic contractual relationships are forged in the context of multilateral agreements. This is particularly the case for small states and territories, which often have all or nearly all of their contractual ties forged in a multilateral setting. Meanwhile, the more powerful states—such as France, Germany, and United Kingdom—have fewer than 80 percent of their respective contractual relationships formed under multilateral agreements; the figure descends to 55 percent in the case of the foremost global cooperator, the United States. To be sure, this outcome speaks to the fact that these powers were important at the global stage already in the 19th century during the prime of bilateralism. Nonetheless, it also suggests that smaller states may lack the resources and the needs of great powers to negotiate on several fronts at once—and/or that states with greater capacities may prefer bilateral agreements for potentially being able to dominate the terms of such agreements more easily than those of a large multilateral agreement.¹⁷

[Figure 4 here]

An important message implicit in the above figures is that the latest wave of PTAs is inherently embedded in a multilateral framework—the General Agreement on Tariffs and Trade (GATT) signed in 1947 and the World Trade Organization (WTO) launched in 1994. Bilateral agreements in other domains—such as on non-proliferation—are often

¹⁶ The number of dyads in the set is 3,540 in 1815, and 47,306 in 2005.

¹⁷ A hypothesis that refutes this notion is that since great powers operate simultaneously on several fronts around the world, they would prefer multilateral agreements as a tool for economizing the transaction costs of negotiating several bilateral agreements.

similarly signed against the backdrop of multilateralism. Contestations continue as to the extent to which PTAs and multilateral trade agreements are endogenous to one another. A further empirically unexplored question is the extent to which the obligations of PTAs are complementary to those their members have assumed in the GATT/WTO agreements.

C. *Actors and Partnerships: Who Cooperates, When, and with Whom?*

This part focuses on the partnerships emerging from the data. Figure 5 takes the first look, exploring the formation of cooperation agreements by states in the main world regions. It shows a marked contrast between the long-standing formal cooperation by states in Europe and the Western Hemisphere, on the one hand, and the recent ascendance of global cooperation by Asian states, on the other.¹⁸ Figure 6 focuses on the intra-regional agreements only, revealing that while Europe and the Americas also feature the longest-standing intra-regional cooperation, other regions and post-colonial Africa in particular, have recently seen an impressive wave of intra-regionalism.

A closer look at the data shows a correlation between regions' total number of cooperation agreements and the share of intra-regional agreements of the total. That states in regions with few agreements, such as Middle East and Oceania, tend to sign agreements primarily with extra-regional partners may simply indicate the real or perceived futility of investing resources in forging intra-regional agreements, should that come at the expense of extra-regional ties. This is certainly the case in the domain of trade, where the dynamism and size of the intra-regional market shape the incentives to form agreements with regional partners. However, it may also be the case that states in these regions will start focusing on the intra-regional market for agreements only after connecting with key extra-regional partners, such as with their former colonizer. Should intra-regional engagements grow over time rise to constitute a growing share of a state's agreements, regionalism could be hypothesized to be particularly amenable to path-dependence.

[Figures 5-6 here]

Table 3 turns to country-level data. It lists the top 30 cooperator states (states with the largest number of agreements in the set) and their top 10 partners. The traditional great powers—the United States and Western European countries—form a distinct global club of cooperators: not only are they the most prolific cooperators *per se*, but most of their agreements are with each other. The results also indicate that the gravity model variables—income, distance, common border, common language, and other shared cultural affinities—may play a central role in the choice of cooperation partners, much like they do in arbitrating the trade volumes. However, limiting the analyzed period to the past 15 years suggests that gravity parameters may to a degree have been trumped by other variables, such as international and domestic institutional factors. Table 4 shows that trans-Atlantic and trans-Pacific agreements have been gaining ground, along with the rise of agreements between Western and Eastern European states—a change

¹⁸ To be sure, the scale should not steal the attention in the regional figures, given that the actual number of contractual relationships by region is not weighted by the overall number of states within the region.

precipitated in good part by the post-Cold War security panorama.¹⁹ In the realm of trade, such variables as technology—the lowering of global communications costs—and a potential saturation of the regional PTA market could also have contributed to the search for more distant and perhaps unexpected partnerships.

[Tables 3-4 here]

D. *Domains of Cooperation: In Which Issue Areas do States Cooperate?*

Do states differ from each other in their choice of domains of cooperation? Although the dataset presented here is hardly exhaustive in terms of the number of domains of cooperation, it can provide some answers. The data do reveal marked variation in the distribution of agreements across domains—but also that the distribution is similar across states.²⁰ Trade agreements dominate the data for all top global cooperators, followed by weapons, investment, and transportation agreements. Figure 7 explores the pattern further by grouping the 23 domains under seven broad categories and exploring their distribution in the agreements formed by the top-6 cooperators. It seconds the earlier findings.

[Figure 7 here]

That trade agreements make up a prominent share of the data is indicative of the fact that trade agreements hail back to the 19th century, whereas some domains examined here, such as non-proliferation, are inherently post-war domains. However and less trivially, the outcome potentially also reflects four relatively unique properties of the domain of trade.

First, obtaining pay-offs from expanded market access generally requires international cooperation. In contrast, governments arguably have great many purely unilateral tools at their disposal to respond to domestic demands in the domains of, say, monetary or health policy. Second, trade agreements can be made a club good through such instruments as MFN tariffs and restrictive rules of origin, which provides greater incentives for “providing” trade agreements than agreements with more purely public characteristics, such as air quality agreements, for instance. Third, trade is potentially more divisible than many other domains: trade agreements can be forged on a single product (e.g., steel or textiles) and/or issue (e.g., standards). As such, any dyad can plausibly have multiple trade agreements. Indeed, about a third of the trade agreements based on the UNTS data are sectoral agreements. Fourth, modern PTAs in particular often follow a relatively standard model, so that the domestic and international transaction costs of negotiating each successive agreement be significantly lower relative to those of negotiating the first agreement.

¹⁹ Note that the top 10 cooperators in the first column are states with the largest number of agreements during the *entire sample*; only the top 10 partners are affected by the change in the period under analysis.

²⁰ The data also reiterate the leveling of the global cooperation playing field. For instance, Ireland, which is 20th on the list, has 2,851 agreements, which represents now fewer than 53 percent of the total number of agreements of the primary global cooperator, the United States.

Overall, trade agreements—and bilateral trade agreements in particular—might be easier to reach than agreements in other domains. Should this be the case, trade agreements could be considered a particularly likely first node in interactions between two states previously uninitiated to bilateral cooperation. Whether they might also *cause* further cooperation is preliminarily explored in the next section.

E. Sequencing of Cooperation

Empirical explorations to the choice of the domain of cooperation agreements and the sequencing of the various domains remain nascent. This part strives to start mending this gap by putting forth some preliminary notions on the potential sequential relationships between PTAs and other domains of inter-state cooperation.

“Sequencing” requires a clear definition. While inherently carrying a temporal connotation, sequencing can take various formats. Table 6 presents four main types—“deepening” sequencing (a series of agreements formed in one domain between states A and B), “spillover” sequencing (a series of agreements formed in different domains between A and B); “demonstration” or “domino” sequencing (adoption of agreement between C and D in the domain where A and B have an agreement); and “expansion” sequencing (agreement between A and C in the domain where A and B have an agreement). Here, we understand sequencing primarily as the spillover sequencing, and are particularly interested in the sequence between a dyad’s PTAs and its agreements in other domains of cooperation.

[Table 5 here]

None of the sequencing types necessarily implies causality. However, academic literature has produced a number of theoretical reasons why cooperation in time t may propel cooperation in $t+1$. Furthermore, there are at least three reasons to expect that trade integration could be a particularly likely harbinger of future cooperation in other domains.

First, the third wave PTAs are often more multifaceted than many other types of international agreements, extending to such areas as competition policy and intellectual property rights. As such, they could be hypothesized to open ample opportunities for states to engage in issue-linkages and log-rolling, which, in turn, could facilitate the attainment of further cooperation agreements.²¹

Second, PTAs can produce negative externalities, such as border congestion and air pollution, which, in turn, could give rise to demands for cooperation in other domains, such as for regional transportation networks or environmental protection (Devlin and Estevadeordal 2004).²²

²¹ Multi-faceted agreements can also reduce the need for compensatory schemes (Schiff and Winters 2002)—that might undercut the incentives of the net contributors to cooperate.

²² Similarly, the synchronization of business cycles that tends to accompany trade integration will also synchronize economic downturns and can increase the propensity for the transmission of financial

Third, the positive externalities of PTAs, such as lowered barriers to trade and expanded markets, can augment the policy salience of and pay-offs from regional rules and regulations, and awakening latent interests in the member states to demand further cooperative agreements.²³ Moreover, if and when PTAs spur institutional efficiency in the member states, they can render the members increasingly attractive as future cooperation partners.

Figure 8 provides a starting point to using the data for examining the sequencing of PTAs and other cooperation agreements, whether by deepening, spillover, demonstration, or expansion.²⁴ It shows that the dataset as of now contains an important number of PTAs that were concluded well prior to the impressive surge of the post-war era proliferation of cooperation agreements. Should the finding hold across further domains of cooperation, one potential hypothesis would be that to the extent that PTAs have provided incentives for states to forge further cooperation agreements, the proliferation of PTAs over the past two decades could in the future years be matched by an unprecedentedly sweeping wave of cooperation agreements.

[Figure 8 here]

Figure 9 takes a preliminary cut at the spillover sequencing between PTAs and other cooperation agreements. It uses the year of entry into force of a pair's first PTA and first cooperation agreement as the "PTA benchmark year" and "cooperation benchmark year", respectively, and calculates the "distance" between these benchmark years and the years in which the dyad's other PTAs and other cooperation agreements are forged. The first box shows the distance of dyads' PTAs from the benchmark PTA, that is, the year in which dyads' *first* PTA entered into effect (for the 4,479 dyads that have at least two common PTAs). The second box examines the distance of dyads' cooperation agreements from their cooperation agreement bench year (for the 124,179 dyads that have at least two common cooperation agreements), while the third box focuses on the distance between cooperation agreements from the PTA bench year (for the 35,026 dyads with at

instabilities, and, as such, generate demands for economic surveillance and macroeconomic coordination. More generally put, in the presence of economies of scale or inter-state externalities, market solutions to problems may be sub-optimal while regional cooperation can have marked payoffs (Schiff and Winters 2002). PTAs, in short, can spur demand for a host of regional public goods (RPGs), which, given their public goods characteristics, require formal frameworks for regional cooperation—such as regional cooperation agreements (Estevadeordal et al. 2004). If this were the case, the causal relationship between PTAs and further cooperation agreements should be particularly strong when PTAs are "productive"—when they live up to their promise of expanded trade flows and generate traffic, expanded market size, and business cycle synchronization.

²³ For example, increased trade flows can generate demands for agreements aimed at cutting any remaining policy or other barriers hampering trade and raising trade costs, such as poor regulatory frameworks, cumbersome standards, and inefficient customs procedures. Furthermore, an PTA can induce the parties to have sunk assets—fixed costs or irreversible investments that are independent of output and that a firm must bear to operate and that cannot be recouped even if the decision to produce is later reversed—in a bilateral relationship. As such, it can spur demands for hedging against defection by the partner through further and more precise agreements between the member states.

²⁴ This figure does not take into consideration the expiration of some of the PTAs signed in the pre-WWI era.

least one common PTA and one common cooperation agreement), and the fourth box on the distance of PTAs from the cooperation agreement bench year.

[Figure 9 here]

The first two boxes show that on average, the time lag between a dyad's first PTA and its subsequent PTA(s), and also between its first cooperation agreement and its subsequent cooperation agreements is relatively short—a decade or less—once cooperation kicks off. The third box is of particular interest here. It shows that the bulk of a dyad's cooperation agreements follow PTAs (by about 20 years), rather than preceding them. Moreover, that the whiskers extend far up indicates that once a pair enters into a PTA, it can be entering cooperation agreements for the next several decades. A potential sequence of cooperation for a dyad might thus be PTA-COOP-COOP-COOP, for example. The fourth box is also of interest. It indicates that a dyad's first cooperation agreement tends to be followed rather than preceded by PTA(s). As such, the sequence of cooperation could be COOP-PTA-PTA-COOP—or, potentially, PTA-COOP-COOP-PTA-COOP, for instance.

Figure 10 provides an alternative visualization of the third box, with the zero on the y-axis as the PTA bench, and the blue line marking the distance in years of the various dyads' cooperation agreements from their PTA bench. Cooperation agreements most immediately above the PTA bench could be more reasonably attributed to the effects of the PTA and PTA negotiations. The farther up from the bench year one moves, the larger the number of intervening variables—including other PTAs and cooperation agreements forged between the pair—likely grows. Conversely, cooperation agreements formed immediately prior to the dyad's PTA (data points immediately below the PTA bench) may have influenced the formation of the PTA.

[Figure 10 here]

III. Conclusion

This paper has described a new dataset on PTAs and other international cooperation agreements, and put forth some testable hypotheses about the dynamic relationships between these two broad types of international agreements.

The patterns emerging from the data yield three main messages. First, global cooperation has leveled: today, all states belong to a cooperation agreement of some kind, and the distribution of the number of agreements per state is more balanced than in earlier eras. Multilateralism has enabled even poor and distant states to join global cooperation—and to cooperate with each other. The “clubbiness” of global cooperation—that the top cooperators tend to be each other's main partners—may be yielding to more heterogeneous partnerships potentially based on new institutional determinants and/or on post-Cold War international realignments.

Second, the extent to which states cooperate *per se* and the number of agreements they forge within their regions fluctuate together: the most avid cooperators at the global stage forge a larger share of their agreements with their regional partners than states with few agreements do.

Third, on average, states cooperate disproportionately more in the domain of trade than in other domains. This may suggest that trade has properties that render it particularly amenable to formal as well as bilateral cooperation.

We have elaborated on some reasons why PTAs and other trade agreements could spur further cooperation between states; if they do so, today's forceful PTA wave could be followed by an impressive tide of other cooperation agreements around the world. Next iterations of this paper will strive to expand the dataset, identify typologies of the potential patterns of cooperation, as well as to perform an econometric analysis to establish whether PTAs do serve as catalysts of international agreements in other domains. Discussion will also be extended to relate the domains of agreements with the various qualitative aspects or dimensions of agreements.

Analysis of international cooperation is ultimately made meaningful only through an assessment of the *outcomes* of cooperation. Particularly central is to establish the conditions under which the proliferating formal cooperation is "productive", or yields national, regional and global public goods that states would not be able to attain through unilateral action. The design, implementation, and sequencing of agreements all play a role in the process. It is the task of this project to generate policy recommendations on how states can leverage these aspects to make the most of their international agendas.

Table 1 - Descriptive Statistics by Domains and Dimensions

Domain	Total No.	% of Total	Year Signed				Year of Entry				Number by Type		Number of Parties				Scope				Obligation			
			Min.	Max.	Std. Dev.	Mean	Min.	Max.	Std. Dev.	Mean	Bilat.	Multilat.	Min.	Max.	Std. Dev.	Mean	Min.	Max.	Std. Dev.	Mean	Min.	Max.	Std. Dev.	Mean
Trade (General)	4,685	38.3	1808	2002	42	1944	1808	2002	42	1948	4,360	325	2	134	4.9	2.7	1	11	1.4	2.5	1	6	0.7	5.1
PTA Modern (1960-2005)	315	2.6	1957	2004	10	1994	1958	2005	10	1995	243	72	2	78	6.8	4.1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
PTA All (1808-2005)	1,462	11.9	1808	2004	53	1909	1808	2005	52	1908	1,383	79	2	78	3.3	2.5	1	5	0.9	1.9	2	6	1.0	5.4
<i>Subtotal: All Trade</i>	<i>5,000</i>	<i>40.8</i>	<i>1808</i>	<i>2004</i>	<i>42</i>	<i>1947</i>	<i>1808</i>	<i>2006</i>	<i>42</i>	<i>1951</i>	<i>4,603</i>	<i>397</i>	<i>2</i>	<i>134</i>	<i>5.1</i>	<i>2.8</i>	<i>1</i>	<i>11</i>	<i>1.4</i>	<i>2.5</i>	<i>1</i>	<i>6</i>	<i>0.7</i>	<i>5.1</i>
Investment (General)	267	2.2	1922	2002	14	1974	1923	2003	15	1979	249	18	2	78	5.6	2.6	1	8	1.2	2.1	3	6	0.2	5.0
BIT	2,285	18.7	1905	2005	9	1993	1962	2005	8	1992	2,285	0	2	2	0.0	2.0	1	1	0.0	1.0	6	6	0.0	6.0
<i>Subtotal: All Investment</i>	<i>2,552</i>	<i>20.8</i>	<i>1905</i>	<i>2005</i>	<i>11</i>	<i>1991</i>	<i>1923</i>	<i>2005</i>	<i>11</i>	<i>1989</i>	<i>2,534</i>	<i>18</i>	<i>2</i>	<i>78</i>	<i>1.8</i>	<i>2.1</i>	<i>1</i>	<i>8</i>	<i>0.5</i>	<i>1.1</i>	<i>3</i>	<i>6</i>	<i>0.3</i>	<i>5.9</i>
Customs	17	0.1	1925	1983	15	1962	1928	1993	16	1967	2	15	2	78	18.1	21.1	1	4	1.1	2.6	5	6	0.2	5.1
Energy	111	0.9	1949	1997	10	1978	1941	2002	15	1976	103	8	2	11	1.3	2.3	1	9	1.4	3.6	2	6	0.5	4.9
Infrastructure	516	4.2	1920	2001	15	1974	1911	2001	15	1977	504	12	2	7	0.4	2.1	1	8	1.2	2.9	2	6	0.3	5.0
Visas	834	6.8	1927	2000	15	1966	1929	2002	16	1969	809	25	2	11	0.6	2.1	1	6	1.0	1.7	3	5	0.1	5.0
Immigration	60	0.5	1926	1995	14	1971	1933	1998	14	1976	51	9	2	63	10.9	4.7	1	6	1.5	3.2	2	6	0.7	4.8
Frontiers	474	3.9	1866	2003	16	1973	1869	2003	17	1977	443	31	2	55	3.8	2.4	1	10	1.3	2.6	2	6	0.5	5.0
Air Transport	1,383	11.3	1875	1995	13	1965	1875	2003	13	1966	1,343	40	2	121	6.2	2.7	1	7	1.1	2.6	3	5	0.2	5.0
Passenger Transport	55	0.4	1945	1995	10	1976	1945	1995	10	1978	48	7	2	27	6.6	4.1	2	8	0.9	4.1	4	5	0.1	5.0
Merchandise Transport	67	0.5	1952	1994	9	1975	1952	1994	9	1976	61	6	2	27	4.2	3.0	2	6	0.6	3.2	3	5	0.2	5.0
Road Transport	148	1.2	1939	1994	9	1970	1947	1994	9	1972	124	24	2	45	6.7	4.2	1	9	1.0	2.5	2	6	0.3	5.0
Rail Transport	4	0.0	1950	1952	1	1952	1951	1956	2	1953	0	4	6	21	6.4	11.8	2	6	1.8	4.0	2	5	1.5	4.3
Economic Assistance	131	1.1	1942	2001	12	1964	1942	2001	12	1965	128	3	2	9	0.8	2.1	1	7	1.2	2.5	2	5	0.3	5.0
Financial Assistance	272	2.2	1942	1992	7	1974	1942	1992	7	1974	272	0	2	2	0.0	2.0	1	7	1.0	2.5	5	5	0.0	5.0
Technical Assistance	107	0.9	1943	1993	11	1970	1943	1993	11	1970	106	1	2	3	0.1	2.0	1	9	1.4	3.3	3	5	0.5	4.8
Industrial Cooperation	194	1.6	1954	1994	7	1977	1954	1994	7	1978	187	7	2	5	0.4	2.1	1	10	1.3	4.4	2	6	0.4	4.9
Educational Cooperation	189	1.5	1945	1996	13	1970	1945	1997	13	1971	185	4	2	9	0.5	2.1	1	9	1.9	4.1	2	6	0.4	4.9
Arms	31	0.3	1914	1985	19	1969	1942	1997	14	1973	29	2	2	4	0.4	2.1	1	6	1.1	3.1	3	6	0.5	5.0
Weapons	45	0.4	1954	2002	13	1972	1954	2002	14	1973	37	8	2	112	24.8	10.6	1	7	1.7	3.1	3	6	0.8	4.9
Non-Proliferation	5	0.0	1968	2001	13	1991	1970	2002	13	1992	3	2	2	110	46.8	28.2	2	5	1.3	3.5	5	5	0.0	5.0
All Agreements	12,247	100.00	1808	2005	33	1965	1808	2006	33	1965	11,572	675	2	134	4.7	2.6	1	11	1.5	3.9	1	6	0.6	5.2

Table 2 – Categorization of Legal Definitions by the Degree of Obligation

Obligation	Definition
1	Agreed Minutes Agreed Record Letter Long-Term Program Records of Discussion
2	Certification Declaration Joint Communiqué Joint Statement Proces-Verbal
3	Memorandum of Understanding Modus Vivendi Understanding
4	Adjustment Amendment Extension Protocol
5	Accession Agreement Arrangement Convention Exchange of notes constituting an agreement Final Act
6	Treaty

Figure 1a – Data on PTAs, 1808-2005 (new agreements by year)

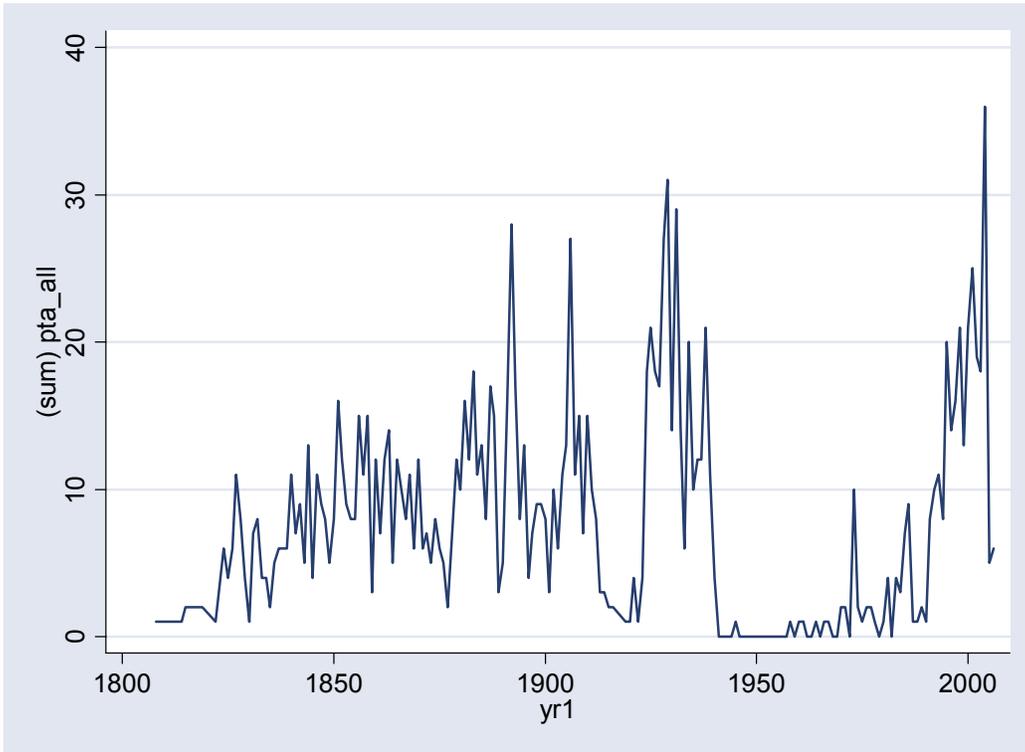


Figure 1b - Data on BITs, 1808-2005 (new agreements by year)

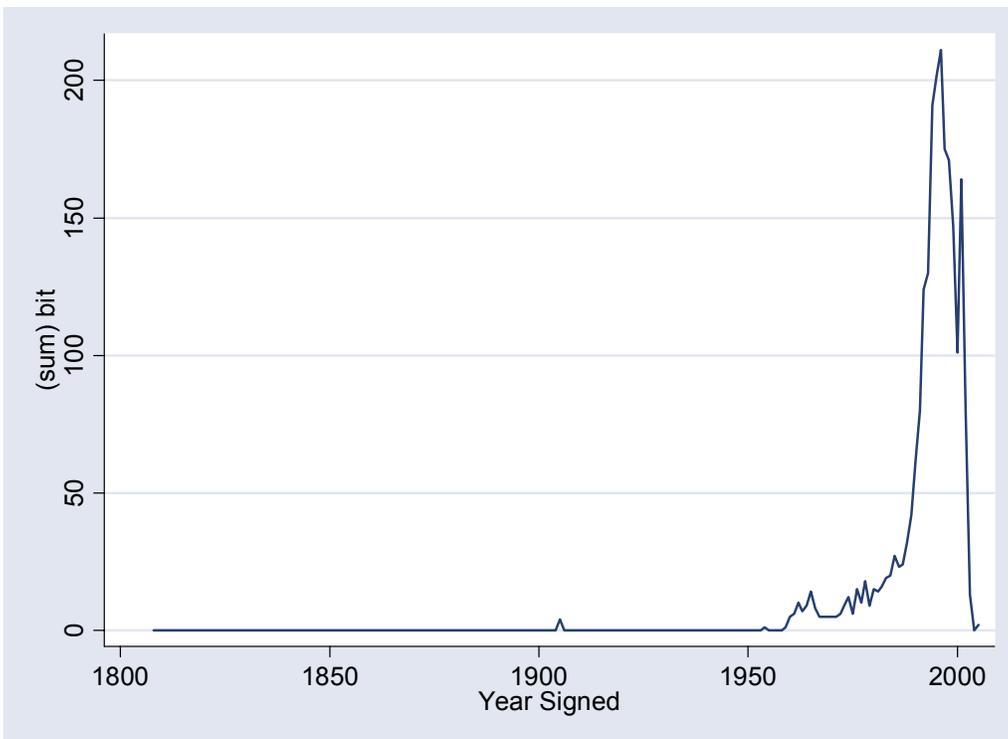
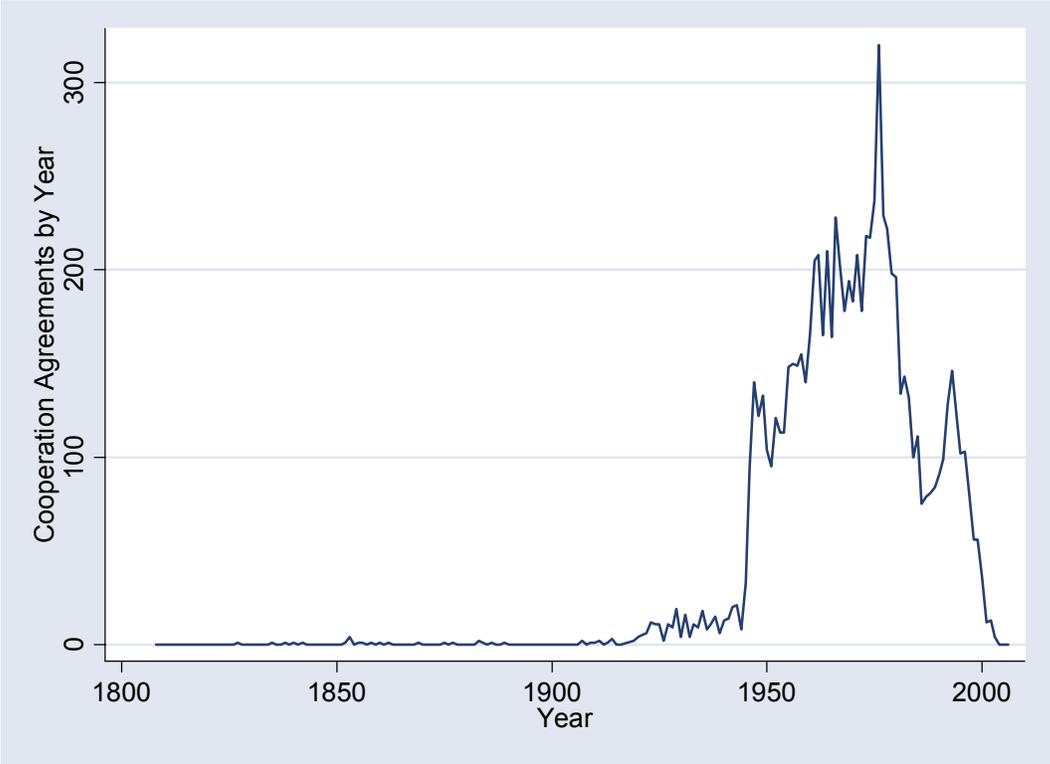


Figure 1c - Data on Cooperation Agreements, 1808-2005 (new agreements by year)



**Figure 2 – Agreements by State, 1808-1914, 1915-1945, 1946-2005, and 1808-2005
(% of all agreements in the world)**

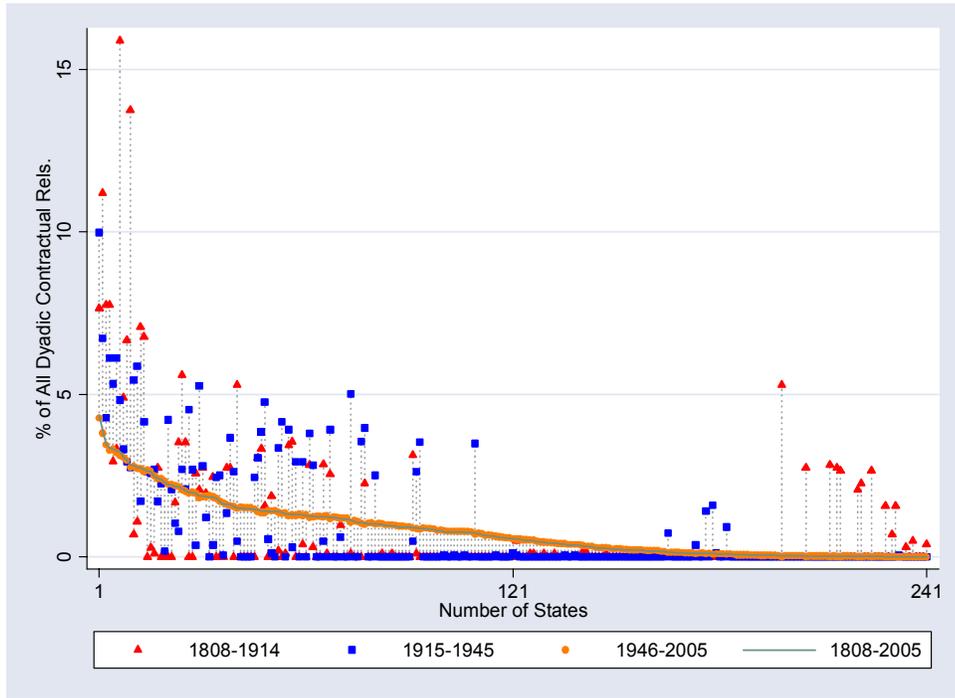


Figure 3a – Share of Pairs Entering Any Type of Cooperation Agreements of All Pairs in the World by Year, 1808-2005

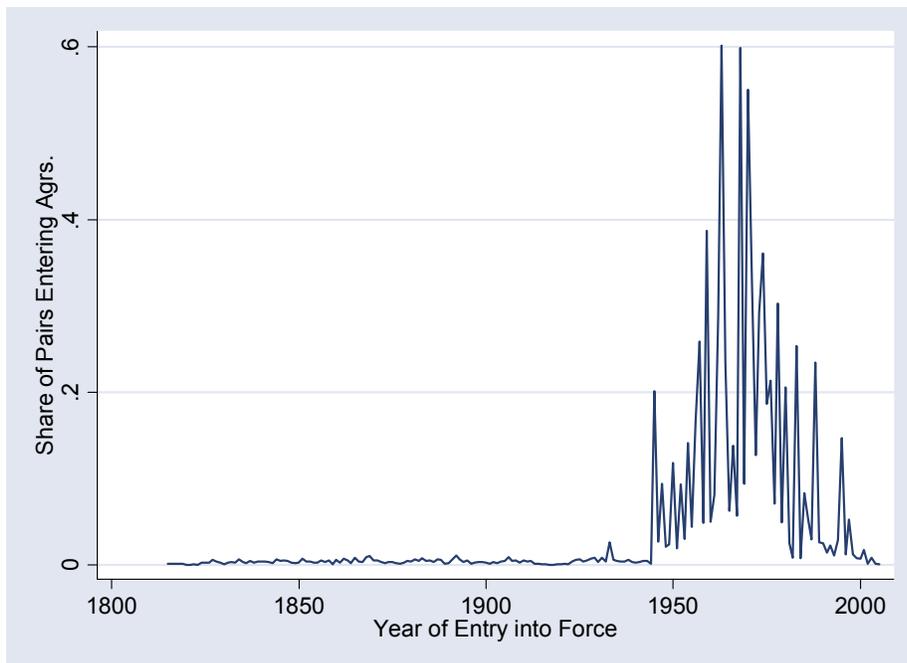


Figure 3b – Share of Pairs Entering PTAs of All Pairs in the World by Year, 1808-2005

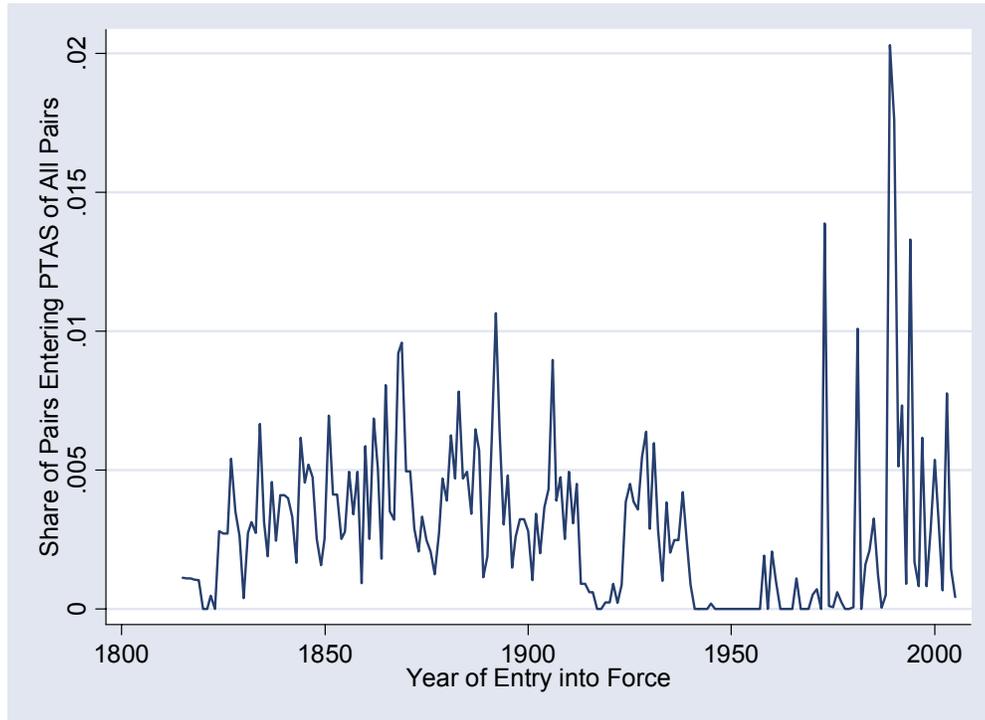


Figure 4 - Share of Multilateral Agreements of All Agreements 1808-2005, by State

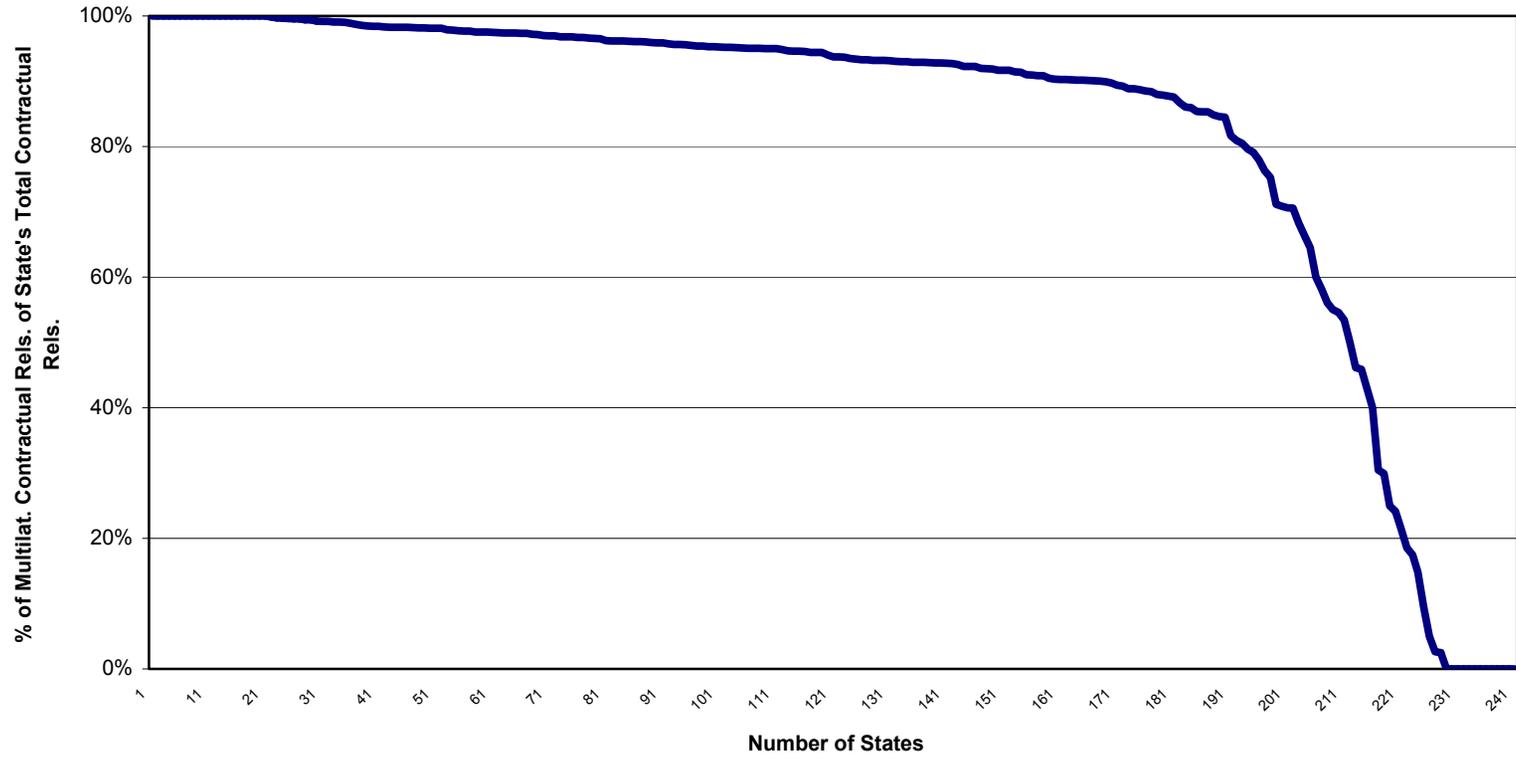


Figure 5 - All Agreements by World Regions, 1808-2005 (log of cumulative)

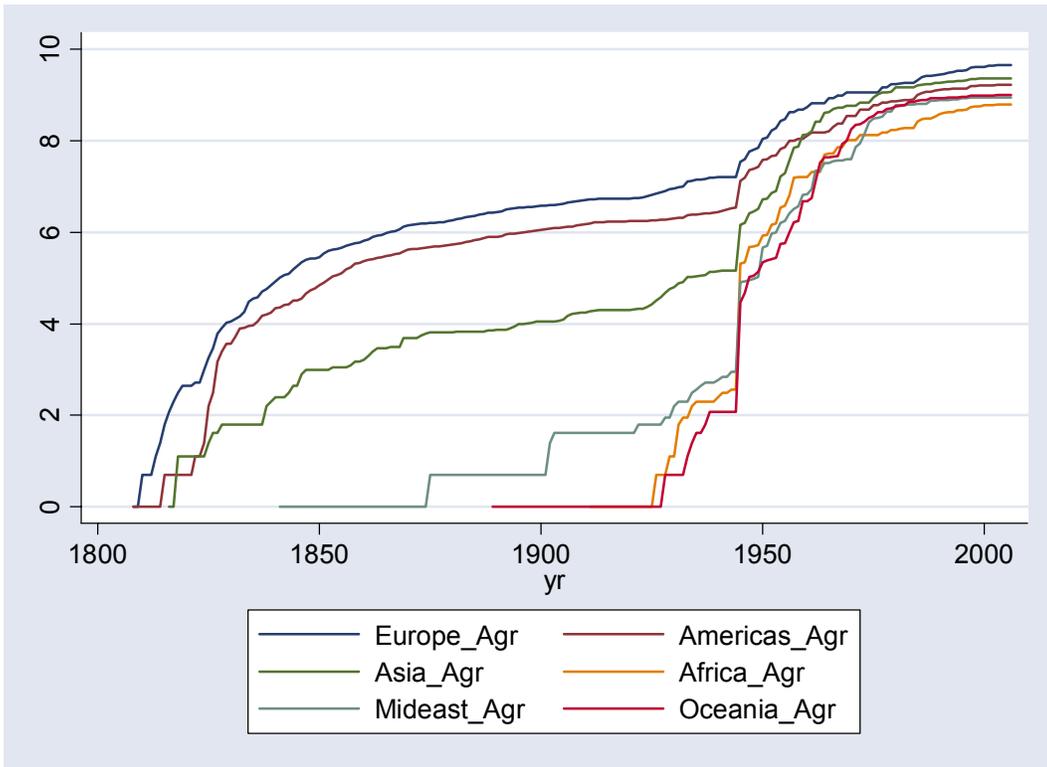


Figure 6 – Intra-Regional Agreements by World Regions, 1808-2005 (log of cumulative)

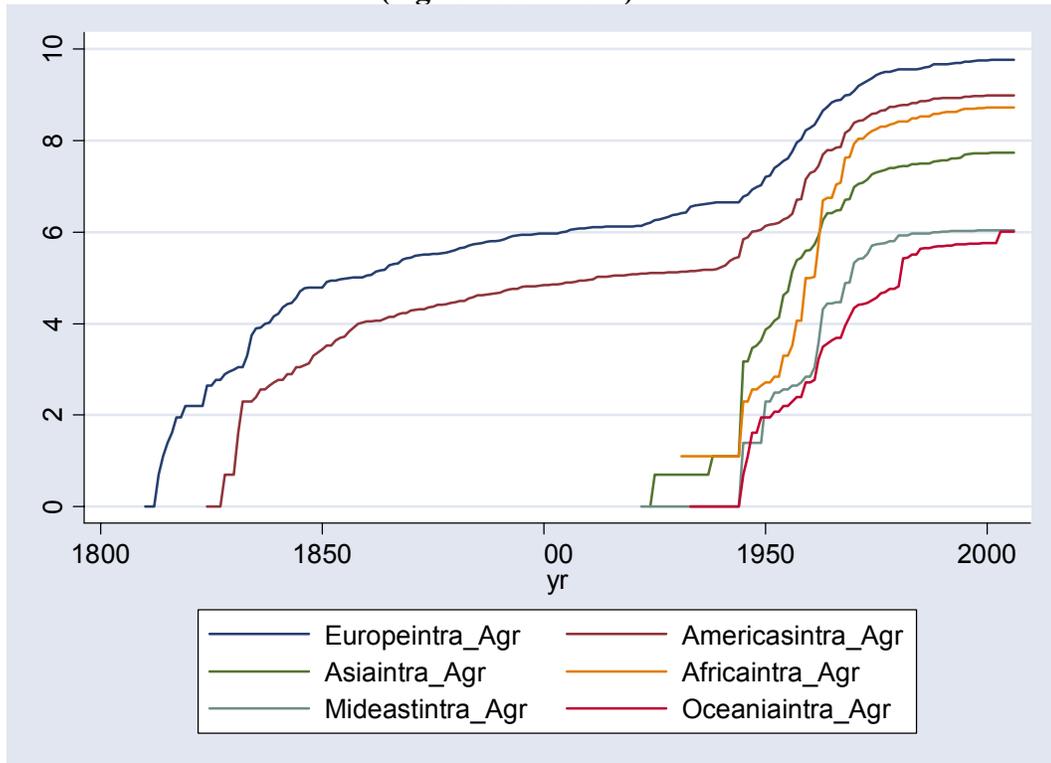


Table 3 – Top-10 Partners of the Top-30 Cooperating States, 1808-2005

Rank	State	Total Agr.	Top-10 Partners									
			1	2	3	4	5	6	7	8	9	10
1	US	5,394	Canada	UK	France	Pakistan	Japan	Mexico	Israel	Korea	India	Yugoslavia
2	UK	4,841	France	US	Netherlands	Denmark	Germany	Italy	Sweden	Switzerland	Norway	Belgium
3	Germany	4,354	France	Netherlands	Italy	UK	Belgium	Austria	Denmark	Switzerland	Sweden	Luxembourg
4	Netherlands	4,184	Belgium	Luxembourg	Germany	UK	France	Italy	Switzerland	Sweden	Denmark	US
5	Denmark	4,132	Sweden	Norway	UK	Germany	France	Switzerland	Italy	Netherlands	Austria	Belgium
6	France	4,068	Italy	UK	Germany	Belgium	Spain	Switzerland	Netherlands	Sweden	Denmark	Luxembourg
7	Sweden	4,045	Norway	Denmark	UK	Switzerland	France	Finland	Netherlands	Belgium	Germany	Austria
8	Switzerland	3,835	France	Italy	Germany	Sweden	UK	Denmark	Netherlands	Belgium	Austria	Spain
9	Belgium	3,704	Netherlands	Luxembourg	France	Germany	UK	Italy	Sweden	Switzerland	Austria	Denmark
10	Italy	3,574	Germany	UK	Switzerland	Netherlands	Austria	Belgium	Denmark	Spain	Sweden	NA
11	Norway	3,487	Denmark	UK	Finland	France	Switzerland	Germany	Netherlands	Belgium	Austria	Italy
12	Austria	3,455	Italy	UK	Denmark	France	Switzerland	Belgium	Sweden	Netherlands	Spain	NA
13	Canada	3,434	US	UK	Denmark	Netherlands	France	Australia	Sweden	Germany	Italy	Switzerland
14	Spain	3,361	France	UK	Italy	Portugal	Switzerland	Denmark	Netherlands	Austria	Sweden	Germany
15	Finland	3,332	Sweden	Norway	Denmark	Germany	Switzerland	USSR	UK	US	Belgium	Netherlands
16	Luxembourg	3,264	Belgium	Netherlands	France	Germany	UK	Italy	Switzerland	Sweden	Denmark	Austria
17	Australia	3,102	UK	US	Canada	Netherlands	Denmark	Germany	Sweden	France	Argentina	Belgium
18	Portugal	3,015	UK	Spain	France	Denmark	US	Switzerland	Sweden	Netherlands	Germany	Norway
19	Hungary	3,000	Czechoslovakia	Germany	Austria	UK	Sweden	USSR	Denmark	France	Yugoslavia	Bulgaria
20	Ireland	2,851	UK	Netherlands	Germany	Sweden	Denmark	Belgium	France	Norway	Switzerland	US
21	Czechoslovakia	2,804	Hungary	Denmark	UK	Austria	Poland	Germany	Switzerland	Yugoslavia	France	USSR
22	Yugoslavia	2,777	US	Austria	UK	Czechoslovakia	Denmark	Hungary	Netherlands	Switzerland	Italy	Sweden
23	Japan	2,723	US	UK	Netherlands	Canada	Denmark	Australia	Belgium	Sweden	Austria	Italy
24	Mexico	2,683	US	Brazil	UK	Argentina	Canada	Spain	Denmark	France	Italy	Netherlands
25	Brazil	2,609	US	Argentina	Bolivia	Mexico	UK	France	Paraguay	Peru	Venezuela	Canada
26	USSR	2,591	UK	Finland	US	Sweden	Czechoslovakia	Hungary	Austria	France	Germany	Poland
27	Poland	2,517	UK	US	Czechoslovakia	Denmark	Germany	Hungary	Netherlands	Sweden	USSR	Bulgaria
28	New Zealand	2,510	Australia	US	UK	Canada	Netherlands	Switzerland	Denmark	Sweden	Norway	Indonesia
29	Argentina	2,403	Brazil	UK	US	Mexico	Denmark	Sweden	Germany	Netherlands	Paraguay	Canada
30	Greece	2,392	UK	US	France	Germany	Denmark	Netherlands	Sweden	Italy	Norway	Belgium

Table 4 – Top-10 Partners of the Top-10 Cooperators in 1990-2005

Rank	State	Total Agr.	<i>Top-10 Partners</i>									
			1	2	3	4	5	6	7	8	9	10
1	US	195	Canada	Australia	New Zeal.	UK	Netherlands	Argentina	Estonia	Finland	Germany	Mexico
2	UK	349	France	Norway	Argentina	Bolivia	Costa Rica	Germany	Indonesia	US	Ireland	Mali
3	Germany	315	Czech Republic	Poland	France	Hungary	Netherlands	UK	Argentina	Austria	Belgium	Finland
4	Netherlands	188	Belgium	Germany	Venezuela	Norway	Sweden	UK	US	NA	NA	NA
5	Denmark	216	Argentina	Bulgaria	Finland	Norway	Estonia	France	Germany	Greece	Hungary	Iceland
6	France	311	Spain	UK	Germany	Chile	Norway	Switzerland	Argentina	Bulgaria	Croatia	Hungary
7	Sweden	184	Finland	Latvia	Estonia	France	Norway	Denmark	Lithuania	Netherlands	Romania	UK
8	Switzerl.	105	France	UK	Denmark	Estonia	Finland	Germany	Latvia	Lithuania	Netherlands	NA
9	Belgium	157	Netherlands	Germany	Luxembourg	Finland	France	Norway	UK	NA	NA	NA
10	Italy	188	Austria	France	Finland	Bangladech	Belgium	Bulgaria	Canada	Chile	Denmark	Germany

Figure 7 - Shares of the Main Domains of All Agreements in 1808-2005, by Selected States

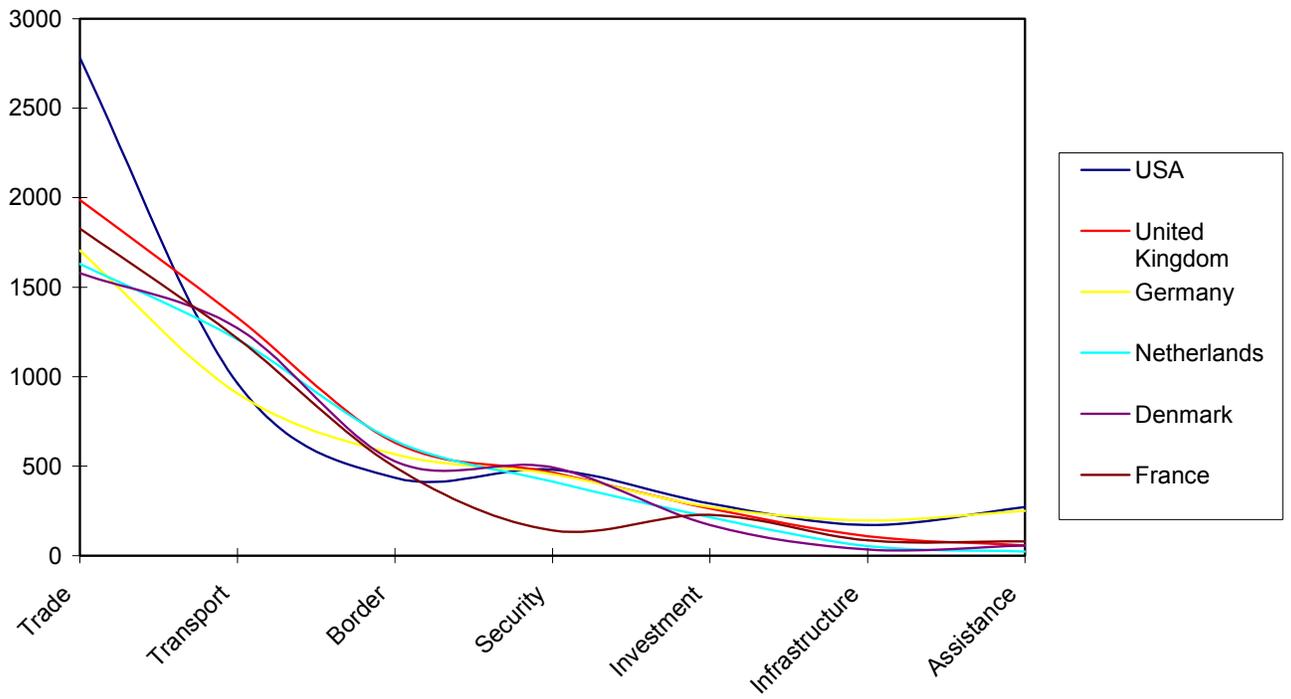


Table 5 – Types of Sequencing of Cooperation Agreements

Round 1		Round 2		Type of Sequencing
Partner States	Domain in t	Partner States	Domain in t+1	
A,B	1	A,B	1	Deepening
A,B	1	A,B	2	Spillover
A,B	1	C,D	1	Demonstration
A,B	1	A,C	1	Expansion

Figure 8 – Sequence of PTAs and Other Cooperation Agreements around the World, 1808-2005 (log of cumulative)

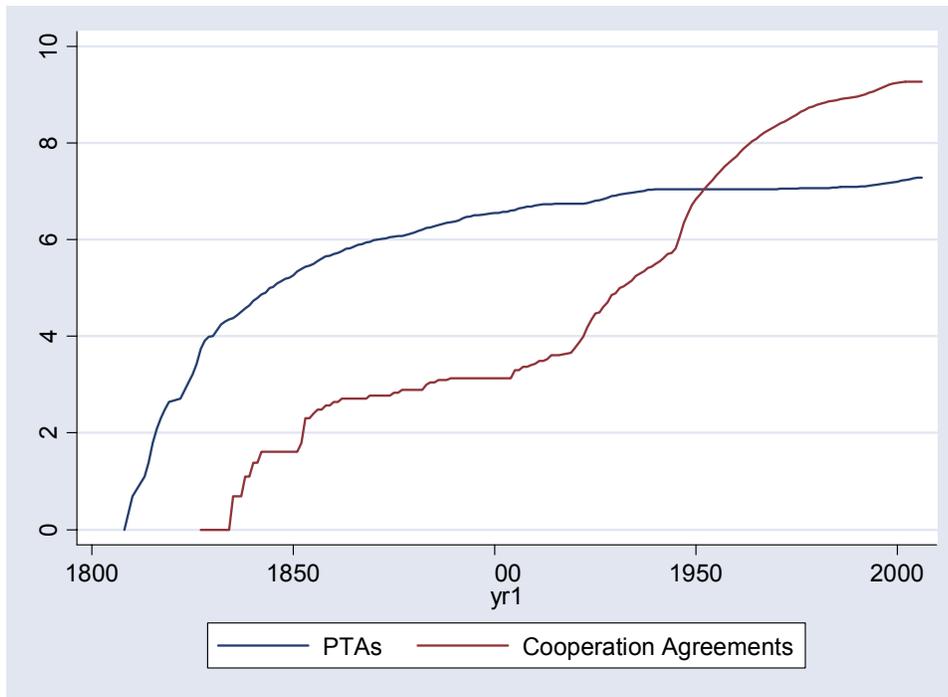


Figure 9 – Distance of PTAs and Cooperation Agreements from Each Other in 1808-2005, by Dyad

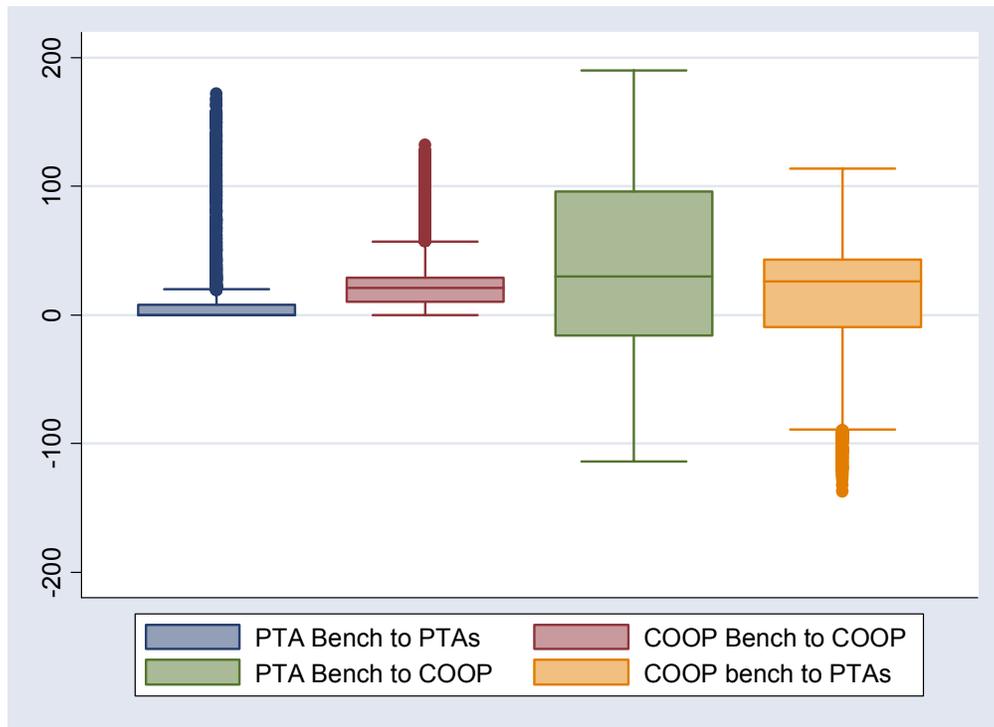
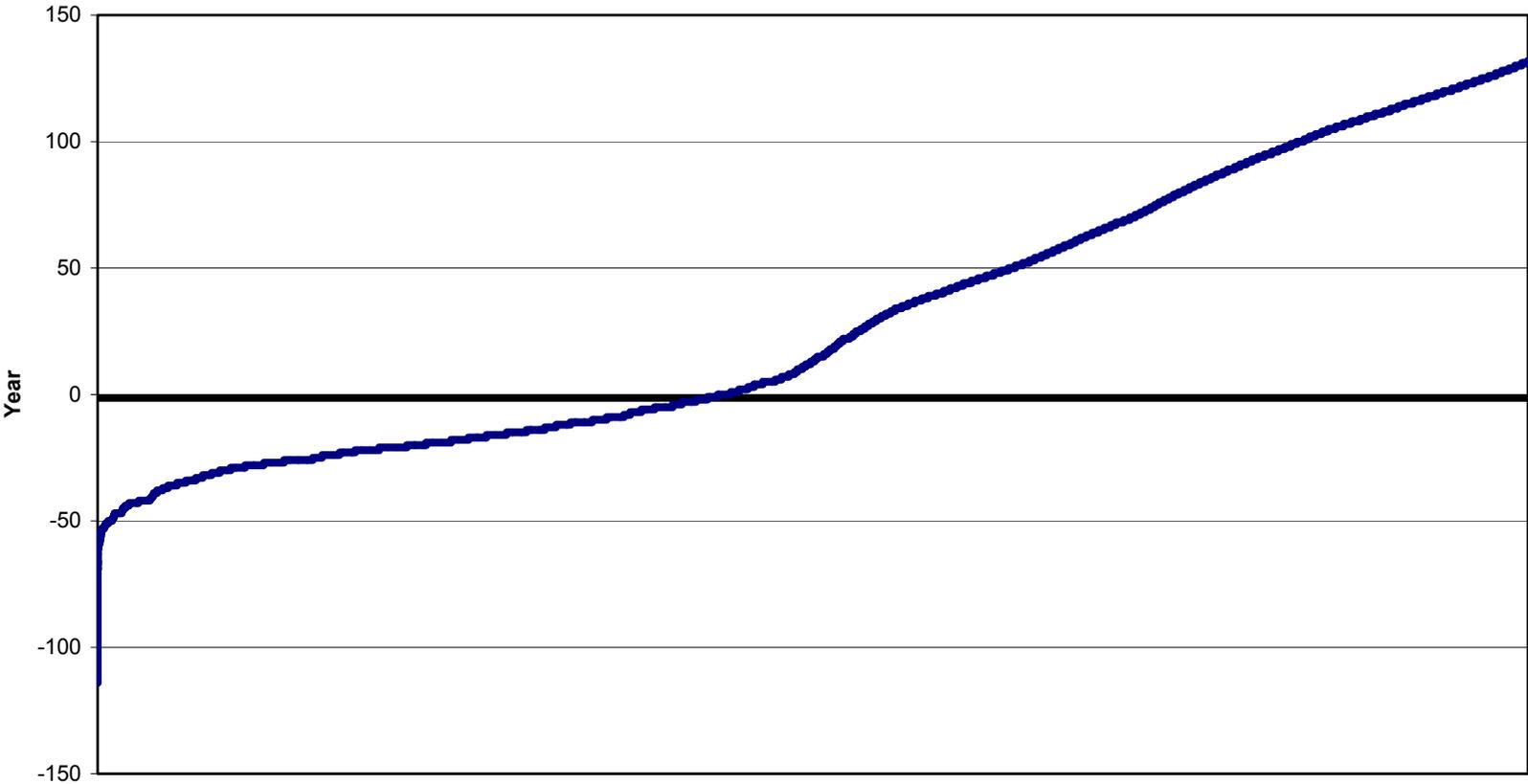


Figure 10 – Age of Cooperation Agreements from the First PTA in 1808-2005, by Bilateral Relationship



References

- Abbott, K. and D. Snidal (2000), 'Hard and Soft Law in International Governance', *International Organization*, 54, 3, 549-71.
- Adams, R. , P. Dee, J. Gali, and G. McGuire (2003), 'The Trade and Investment Effects of Preferential Training Arrangements—Old and New Evidence', Productivity Commission Staff Working Paper, Canberra, Australia.
- Arashiro, Z., C. Marin, and A. Chacoff (2005), *Challenges to Multilateralism: The Explosion of PTA's* (Sao Paulo: Institute for International Trade Negotiations).
- Axelrod, R. (1984), *The Evolution of Cooperation* (New York: Basic Books).
- Bagwell, K. and R. W. Staiger (1998), 'Will Preferential Agreements Undermine the Multilateral Trading System?', *Economic Journal*, 108, 449, 1162-82.
- Balassa, B. (1961), 'Towards a Theory of Economic Integration', *Kyklos*, 16, 1-17.
- Baldwin, R. (1993), 'A Domino Theory of Regionalism', NBER Working Paper No. W4465, Cambridge, Mass.
- Bhagwati, J. (1993), 'Regionalism and Multilateralism: An Overview', in J. de Melo and A. Panagariya (eds.), *New Dimensions in Regional Integration* (New York: Cambridge University Press).
- Bhagwati, J. and A. Panagariya (1996), 'Preferential Trading Areas and Multilateralism—Strangers, Friends, or Foes?', in J. Bhagwati and A. Panagariya (eds.), *The Economics of Preferential Trade Agreements* (Washington, D.C.: AEI Press).
- Bond, E. W. and C. Syropoulos (1996), 'The Size of Trading Blocs: Market Power and World Welfare Effects', *Journal of International Economics*, 40, 3-4, 411-438.
- Bond, E. W., and C. Syropoulos, and L. A. Winters (2001), 'Deepening of Regional Integration and Multilateral Trade Agreements', *Journal of International Economics*, 53, 2, 335-361.
- Corden, W. M. (1972), 'Economies of Scale and Customs Union Theory', *Journal of Political Economy*, 80, 3, 465-75.
- Cowhey, P. (1990), 'States and Politics in American Foreign Economic Policy', in J. Odell and T. Willett (eds.), *Blending Economic and Political Theories* (Ann Arbor: University of Michigan Press).
- Deardorff, A. and R. Stern (1994), 'Multilateral Trade Negotiations and Preferential Trading Arrangements', in A. Deardorff and R. Stern (eds.), *Analytical and Negotiating Issues in the Global Trading System* (Ann Arbor: University of Michigan Press).
- Devlin, R. and A. Estevadeordal (2004), 'Trade and Cooperation: A Regional Public Goods Approach', in A. Estevadeordal, B. Frantz, and T. R. Nguyen (eds.), *Regional Public Goods: From Theory to Practice* (Washington, DC: Inter-American Development Bank).
- Eichengreen, B. (2004), 'The Political Economy of European Integration'. Paper prepared for the *Oxford Handbook of Political Economy*.
- Estevadeordal, A., B. Frantz, and T. R. Nguyen (2004), *Regional Public Goods: From Theory to Practice* (Washington, DC: Inter-American Development Bank).

- Ethier, W. J. (1998), 'Regionalism in a Multilateral World', *Journal of Political Economy*, 106, 6, 1214-1245.
- Fearon, J. D. (1997), 'Signaling Foreign Policy Interests: Tying Hands Versus Sinking Costs', *Journal of Conflict Resolution*, 41, 1, 68-90.
- Frankel, J. A. and S. Wei (1995), *European Integration and the Regionalization of World Trade and Currencies: the Economics and the Politics* (Berkeley: University of California at Berkeley).
- Frankel, J. A., E. Stein and S. Wei (1997), *Regional Trading Blocs in the World Economic System* (Washington, D.C.: Institute for International Economics).
- Frieden, J. (1996), 'The Impact of Goods and Capital Market Integration on European Monetary Politics', *Comparative Political Studies*, 29, 2.
- Gilpin, R. (1987), *The Political Economy of International Relations* (Princeton, N.J.: Princeton University Press).
- Goldstein, J. L., M. Kahler, R. O. Keohane and A. Slaughter (2000), 'Introduction: Legalization and World Politics', *International Organization*, 54, 3, 385-99.
- Gowa, J. (1994), *Allies, Adversaries, and International Trade* (Princeton: Princeton University Press).
- Gowa, J. and E. D. Mansfield (1993), 'Power Politics and International Trade', *American Political Science Review*, 87, 2, 408-20.
- Grieco, J. M. (1988), 'Anarchy and the Limits of Cooperation: A Realist Critique of the Newest Liberal Institutionalism', *International Organization*, 42, 3, 486-507.
- Haas, E. B. (1958), *The Uniting of Europe: Political, Social, and Economic Forces, 1950-57* (Stanford, CA: Stanford University Press).
- Haftel, Y. Z. (2004), 'Variation in Regional Integration Arrangements and Intramural Violent Conflict'. Paper prepared for the 100th Annual Meeting of the American Political Science Association, Chicago, September 2-5.
- Irwin, D. A. (1993), 'Multilateral and Bilateral Trade Policies in the World Trading System: An Historical Perspective', in J. de Melo and A. Panagariya (eds.), *New Dimensions in Regional Integration* (New York: Cambridge University Press).
- Johnson, H. (1965), 'An Economic Theory of Protectionism, Tariff Bargaining, and the Formation of Customs Unions', *Journal of Political Economy*, 73, 256-283.
- Kahler, M. (1995), *International Institutions and the Political Economy of Integration* (Washington, D.C.: Brookings Institution).
- Kahler, M. (2000), 'Conclusion: The Causes and Consequences of Legalization', *International Organization*, 54, 3, 549-71.
- Kemp, M. C. and H. Y. Wan Jr. (1976), 'An Elementary Proposition Concerning the Formation of Customs Unions', *Journal of International Economics*, 6, 95-98.
- Keohane, R. O. (1984), *After Hegemony: Cooperation and Discord in the World Political Economy* (Princeton: Princeton University Press).

- Keohane, R. O., A. Moravcsik and A. Slaughter (2000), 'Legalized Dispute Resolution: Interstate and Transnational', *International Organization*, 54, 3, 457-88.
- Koremenos B., C. Lipson and D. Snidal (2001), 'The Rational Design of International Institutions', *International Organization*, 55, 4, 761-99.
- Koremenos B. (2003), 'International Law for an Uncertain Environment'. Paper presented at UCSD Project on International Affairs Seminar, December 3.
- Krasner, S. D. (1976), 'State Power and the Structure of International Trade', *World Politics*, 28, 3, 317-47.
- Krishna, P. (1998), 'Regionalism and Multilateralism: A Political Economy Approach', *Quarterly Journal of Economics*, 113, 1, 227-251.
- Krueger, A. O. (1997), 'Problems with Overlapping Free Trade Areas', in T. Ito and A. O. Krueger (eds.), *Regionalism versus Multilateral Trade Arrangements* (Chicago: University of Chicago Press).
- Lake D. A. (1988), *Power, Protection, and Free Trade: International Sources of U.S. Commercial Strategy, 1887-1939* (Ithaca: Cornell University Press).
- Lake D. A. (1999), *Entangling Relations: American Foreign Policy in Its Century* (Princeton: Princeton University Press).
- Lake D. A. and A. O'Mahony (2004), 'The Incredible Shrinking State: Explaining the Territorial Size of Countries', *Journal of Conflict Resolution*, 48, 5, 699-722.
- Levy, P. I. (1997), 'A Political-Economic Analysis of Free-Trade Agreements', *American Economic Review*, 87, 4, 506-519.
- Li, Q. (2000), 'Institutional Rules of Regional Trade Blocs and Their Impact on International Trade', in R. Switky and B. Kerremans (eds.), *The Political Consequences of Regional Trade Blocks* (London: Ashgate).
- Lipson, C. (1984), 'International Cooperation in Economic and Security Affairs', *World Politics*, 37, 1-23.
- Lipsey, R. G. (1960), 'The Theory of Customs Unions: A General Survey', *The Economic Journal*, 70, 498-513.
- Mansfield, E. and H. V. Milner (1999), 'The New Wave of Regionalism', *International Organization*, 53, 3, 589-627.
- Mansfield, E. and B. P. Rosendorff (2000), 'Free to Trade: Democracies, Autocracies, and International Trade', *American Political Science Review*, 94, 2, 305-321.
- Mansfield, E., and J. C. Pevehouse (2000), 'Trade Blocs, Trade Flows, and International Conflict', *International Organization*, 54, 4, 775-808.
- Martin, L., and B. A. Simmons (1998), 'Theories and Empirical Studies of International Institutions', *International Organization*, 52, 4, 729-57.
- Mattli, W. (1999), *The Logic of Regional Integration: Europe and Beyond* (Cambridge, UK: Cambridge University Press).
- Maxfield, S. (1990), *Governing Capital: International Finance and Mexican Politics* (Ithaca: Cornell University Press).

- McLaren, J. (1997), 'Size, Sunk Costs, and Judge Bowker's Objection to Free Trade', *American Economic Review*, 87, 3, 400-20.
- Meade, J. (1955), *The Theory of Customs Unions* (Amsterdam: North Holland Co).
- Mearsheimer, J. (1994/95), 'The False Promise of International Institutions', *International Security*, 19, 3, 5-49.
- Milner, H. (1997), 'Industries, Governments, and the Creation of Regional Trade Blocs', in E. D. Mansfield and H. V. Milner (eds.), *The Political Economy of Regionalism* (New York: Columbia University Press).
- Milner, H. (1997b), *Interests, Institutions, and Information: Domestic Politics and International Relations* (Princeton: Princeton University Press).
- Morrow, J. D. (1992), 'Signaling Difficulties with Linkage in Crisis Bargaining', *International Studies Quarterly*, 36, 2, 153-172.
- Mundell, R. A. (1964), 'Tariff Preferences and the Terms of Trade', *Manchester School of Economic and Social Studies*, 32, 1-13.
- Oye, K. (1992), *Economic Discrimination and Political Exchange: World Political Economy in the 1930s and 1980s* (Princeton, N.J.: Princeton University Press).
- Oye, K. (1986), 'Explaining Cooperation Under Anarchy: Hypotheses and Strategies', in K. Oye (ed.), *Cooperation under Anarchy* (Princeton, NJ: Princeton University Press).
- Pahre, R. (2000), 'Most-Favored-Nation Clauses and Clustered Negotiations', *International Organization*, 55, 4, 859-890.
- Pahre, R. (2005), Trade Agreements Database (TAD). <https://netfiles.uiuc.edu/pahre/www/tad.html>
- Pastor, R. (2001), *Toward a North American Community: Lessons from the Old World for the New* (Washington, DC: Institute for International Economics).
- Panagariya, A. and R. Findlay (1996), 'A Political-Economy Analysis of Free-Trade Areas and Customs Unions', *The Political Economy of Trade Reform: Essays in Honor of Jagdish Bhagwati* (Cambridge, MA: MIT Press).
- Perroni, C. and J. Whalley (1994), 'The New Regionalism: Trade Liberalization or Insurance?', NBER Working Paper No. 4626, Cambridge, Mass.
- Pollard, S. (1974), *European Economic Integration 1815-1970* (London: Thames and Hudson).
- Reus-Smit, C. (1997), 'The Constitutional Structure of International Society and the Nature of Fundamental Institutions', *International Organization*, 51, 4, 555-589.
- Richardson, M. (1994), 'Why a Free Trade Area? The Tariff Also Rises', *Economics and Politics*, 6, 1, 79-96.
- Simmons, B. (2000), 'The Legalization of International Monetary Affairs', *International Organization*, 54, 3, 573-602.
- Smith, P. (1996), *Talons of the Eagle: Dynamics of U.S.-Latin American Relations* (New York: Oxford University Press).
- United Nations (1947), *Customs Unions* (UN: New York).

Viner, J. (1950), *The Customs Union Issue* (New York: Carnegie Endowment for International Peace).

Waltz, K. (1979), *Theory of International Politics* (New York: McGraw-Hill Inc).

Wendt, A. (1992), 'Anarchy Is What States Make out of It: The Social Construction of Power Politics', *International Organization*, 46, 2, 391-425.

Whalley, J. (1996), 'Why Do Countries Seek Regional Trade Agreements?', NBER Working Paper No. W5552, Cambridge, Mass.

Wonnacott, P. (1996), 'Beyond NAFTA—The Design of a Free Trade Agreement of the Americas', in Bhagwati J. and A. Panagariya (eds.), *The Economics of Preferential Trading Agreements* (Washington, D.C.: AEI Press).

Yarbrough, B. V., and R. M. Yarbrough (1992), *Cooperation and Governance in International Trade: The Strategic Organizational Approach* (Princeton, N.J.: Princeton University Press).

Appendix I

Figure I-1 – States and Territories by Year, 1808-2005

