

Sequencing Regional Trade Integration and Cooperation Agreements

**Robert Devlin, Antoni Esteveordal and Kati Suominen
Integration and Regional Programs Department
Inter-American Development Bank**

[Very preliminary draft; please do not cite without authors' permission]

*Prepared for Conference “The Sequencing of Regional Economic Integration:
Issues in the Breadth and Depth of Economic Integration in the Americas”
Notre Dame, IN
9-10 September 2005*

Sequencing Regional Trade Integration and Cooperation Agreements

Robert Devlin, Antoni Esteveordal and Kati Suominen*

[Very preliminary draft; please do not cite without authors' permission]

Introduction

Recent years have seen an impressive proliferation of trade integration schemes and other international cooperation agreements 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. Yet, particularly empirical studies have yet to fully explore the static and dynamic relationships between international agreements forged in different issue areas.

Theoretical economics literature has long viewed trade integration as evolving in sequential steps. The most common conceptualization, heavily influenced by the example of the European Union (EU), is for trade integration to move from shallow to deep forms—from a free trade agreement to a custom union and further to a common market. Besides the sequence of the various modes of trade integration, some studies have explored the expansion of the breadth—the issue coverage and/or membership—of integration schemes. However, they have generally failed to move outside the realm of trade and economic integration to explore other types of cooperation agreements.

Political scientists have focused on a wider range of issue areas of international cooperation, such as trade, security, and the environment. Neo-liberal, functionalist, and constructivist strands of international relations theory allow to expect that inter-state cooperation can generate Pareto-improving outcomes that enable states to perpetuate their cooperation—and that can also encourage them to enter into cooperation agreements in other realms. However, the theoretical understanding of the types of cooperation agreements that might both precede and propel further agreements is still relatively nascent. The few existing empirical studies tend to rely on qualitative case studies on a region and/or a handful of issue areas, rather than employing quantitative data encompassing various regions and domains of cooperation.

The purpose of this paper is to start enhancing the understanding of the sequencing of international cooperation agreements in two ways. First, we describe a new extensive dataset of trade integration agreements—here, preferential trading arrangements (PTAs)—and other international cooperation agreements reached over the past nearly 200 years around the world. Second, this paper puts forth a potential research agenda based

* The authors are grateful to Yusuke Kuwayama, Masahiro Matsumoto, and Akiko Oncken for 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.

on a stylized set of testable hypotheses about international trade integration and cooperation agreements.²

The first section of this paper reviews the literature on the types and sequencing of international cooperation agreements, and discusses the motivation for this paper in light of the existing studies. The second section turns to the sources for our dataset. The third section maps out the dataset, and employs it to explore some preliminary hypotheses about the sequencing of trade and other types of cooperation agreements. Section four concludes.

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

Economics literature has long followed Balassa's (1961) linear notion of the progression of regional trade integration—from a simple free trade agreement (FTA) to a customs union (CU) and further to a common market, and potentially also a monetary union. This traditional way of conceptualizing the sequencing of trade integration has stemmed primarily from the EU's integration experience. The earlier academic contestations on the various PTA modes centered on examining the welfare effects of FTAs and CUs.³ The static analyses were subsequently complemented by the dynamic path literature, whose main gist is to establish whether PTA formation is conducive to multilateral free trade. For instance, 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.⁴ 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.

However, while often taking Balassa's notion at face value, the theoretical and empirical literatures are thinner 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) that focus on the progression from trade integration to monetary cooperation, are among the exceptions.⁵ Pastor (2001), on the basis of an analytical synthesis of the EU's

² 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.”

³ For early works on the welfare effects of PTAs and customs unions, in particular, 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).

⁴ 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).

⁵ Frieden (1996) argues that high degrees of economic integration can lead to monetary integration because it increases the size and strength of domestic groups that have strong preferences for predictable exchange

integration experience, develops an agenda for furthering North American integration. Perroni and Whalley (1994) and Whalley (1996) examine what might be viewed as another type of sequence—the feasibility for small states to form PTAs with large partners before other states do so.

Political science has brought international politics and interactions to the analysis of trade integration in particular, and cooperation in general. Scholars in different theoretical strands have produced an extensive body of literature on the conditions under which trade integration and other types of cooperation agreements can be expected to occur and evolve. Ernst Haas's 1958 functionalist study of the then-European Economic Community argued that integration persuades states to "shift their loyalties, expectations and political activities to a new center whose institutions possess or demand jurisdiction over the pre-existing national states." As such, integration would acquire its own logic and engender "spillovers"—further cooperation and integration in other issue areas. However, Haas soon moderated his claims in the face of the problems plaguing European integration. And in the late-1970s, neo-realists provided rigorous theoretical foundations for why international cooperation is unlikely to begin with: states are reticent to enter and quick to exit cooperative relationships because interdependence makes them more vulnerable.⁶

In the 1980s, neo-liberals countered neo-realists' pessimism by establishing that repeated interactions between states can help overcome market failures and Prisoner's Dilemmas inherent to international relations.⁷ International institutions are in this line of work viewed as the key handmaidens of cooperation and sequential cooperative moves. Once established, for instance with the aid of a global hegemon,⁸ institutions help states overcome collective action problems, transaction costs, and informational asymmetries, and provide them incentives to avoid short-term temptations to renege on their commitments. The interdependence induced by cooperation increases the costs incurred by a state that breaks off relations (Mansfield 1994).⁹ Analysts invoking domestic variables argue, for example, that delegating sovereignty to an international institution

rates. Frieden invokes Mundell (1964), whose notion of "Optimum Currency Area" stipulates that separate currencies may be harmful in cases of high factor mobility between countries. Similarly, Maxfield (1997) argues that trade liberalization will lead governments to cooperate more in monetary affairs because economic liberalization leads to increased exit options for capital; monetary agreements allow governments to tie their hands and overcome domestic pressures for changes in monetary policy. For further studies on monetary integration, see, for example, Eichengreen (2004).

⁶ In this view, international agreements and institutions are epiphenomena without any meaningful influence on state preferences and behavior; rather, the structure of the international system shapes behaviors and outcomes. See Waltz (1979).

⁷ See, for example, Axelrod (1984), Keohane (1984), and Oye (1986).

⁸ A much-studied argument is that the establishment of an international institution is facilitated by the presence of a hegemon that is willing and able to pay a disproportionate share of the costs of establishing and operating the institution (i.e., providing the global public good). See, for example, Kindleberger (1973), Krasner (1976), and Lake (1988).

⁹ In contrast, for Waltz (1979), interdependence implies mutual vulnerability and hence only increase the likelihood of conflict. Stein (1990) argues that increased information can lead to both conflict and cooperation.

can create focal points around which domestic groups can mobilize to oppose their government's defection from its international commitments (Keohane et al. 2000).

Overall, the neo-liberal logic holds that small investments and experiments in institutionalized international cooperation can evolve into ever-larger institutions capable of influencing state behavior and political outcomes: states' preferences over cooperation become partially endogenous to prior cooperation. Constructivism, which departs from the rational choice-based theories altogether, goes even further. It views collective pay-offs stemming 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.¹⁰

The more recent strands of scholarship, often based on rigorous game theory, 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.¹¹ However, alongside the contestations over whether and when states cooperate has grown an important body of literature on *how* states cooperate—what designs or “dimensions” their agreements and institutions acquire. In a ground-breaking study, Lake (1999) problematizes the degree of hierarchy in international security relationships. In another important contribution, Goldstein et al. (2000) and Kahler (2000) strive to explain the extent of “legalization” of international agreements and institutions. They operationalize legalization as obligation, precision, and delegation, and also explore the interaction of these dependent variables.¹² This vein also suggests that there may be systematic variation in the degree of legalization and the issue area, or domain, of cooperation.¹³ Subsequent studies by the so-called rational-design scholars mix the ideas of the strategic choice-literature and the collective action problems stressed by neo-liberals to explain the determinants and interplay of a broader range of dimensions of international institutions, such as scope, flexibility, membership, and hierarchy.¹⁴

Table 1 provides a stylized “meta-analysis” summary of the literature on the types and sequences of international cooperation. For simplicity, we denote cooperation as C, domain (or issue area, such as trade, the environment, or human rights) of cooperation as C_i, dimension (or design or attribute) of cooperation as C_j, and cooperation over time as C_t. The common simple prediction arising from this vast range of literature is that inter-

¹⁰ See, for example, Wendt (1992). The constructivists view institutions not only as embodying rules for coordinated behavior, but also as carrying principles and norms of “acceptable” behavior. Institutions can affect state behavior in various ways, either through shaping actor preferences, discouraging “unacceptable” behavior, coordinating behavior through focal points, or re-defining state's conceptions of their interest.

¹¹ See, for example, Morrow (1992) and Fearon (1997).

¹² For example, precision—the degree to which “rules unambiguously define the conduct they require, authorize, or proscribe”—may imply authoritative interpretation that requires delegation, or, conversely, permit governments to avoid delegation by negotiating more complete contracts.

¹³ See, for example, Abbott and Snidal (2000) and Simmons (2000).

¹⁴ 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 Koremenos et al (2001). See also Pahre (2001).

state cooperation, once launched, can both enhance the odds of and condition further cooperation. In particular, scholars have established (even if they do not agree) (1) why states cooperate (with C as the dependent variable); (2) why cooperation can lead to further cooperation (C_t); and (3) that the various dimensions of cooperation can interact (C_j). There are also hypotheses that the dimensions and domains of cooperation might be systematically related (C_{ij}), and that cooperation in one economic domain may lead to cooperation in other economic domains (C_{it+1}).

However, empirical assessments of the large pool of hypotheses are still relatively limited and consist largely of qualitative case studies.¹⁵ Moreover, although there is a vast body of literature examining why cooperation occurs in a given domain,¹⁶ studies do not usually problematize the choice of the domain—make the domain a continuum. Relatively little empirical attention has also been paid on the sequencing of the various domains in inter-state relationships. Studies on the connections between trade and monetary cooperation, along with Hirst (1998), who argues that regional security cooperation in the Southern Cone is a spillover of the region's economic integration, are among exceptions.

[Table 1 here]

Overall, the theoretical and, in particular, generalizable empirical understanding of the choice of the domain cooperation (C_i), and the static and dynamic relationships between the various domains (C_{it} , C_{it+1}) rests on rather weak grounds. Whether one domain of cooperation is conducive to another remains largely limited to PTAs—how an FTA can lead to a CU or a common market, and how one PTA can prompt the formation of another PTA elsewhere. There are few analyses focused on the potential complementarity (or substitutability) of and sequences between agreements formed in different domains, such as between the domain of trade and non-economic domains. Indeed, although 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),¹⁷ less empirical attention has been paid to the endogeneity of agreements to each other. The potential relationships between the dimensions and domains of agreements have also yet to be submitted to systematic empirical scrutiny.¹⁸

¹⁵ Koremenos (2003), using a large-N study to the flexibility of agreements, is a promising exception.

¹⁶ 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).

¹⁷ 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.

¹⁸ 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.

To our knowledge, there are as yet no genuinely global mappings of the various domains and dimensions of international cooperation agreements, let alone of their sequencing. The potential causal relationships between the different domains also await econometric analysis. Yet, in light of the proliferation of PTAs and many other types of international cooperation agreements around the world over the past few decades, an examination of the types and sequencing of agreements is timely and relevant both for theoretical and policy reasons.

From the theoretical standpoint, a better understanding of how agreements are related and sequenced is crucial to capturing their political and economic outcomes. 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 author's theoretical bias.

From the policy perspective, understanding the relationships between different types of agreements can help governments sequence their international cooperation in ways that spawns further cooperation and provides higher pay-offs from cooperation. The following section describes a dataset that can be built upon to start gaining such better understanding of the optimal sequencing of different types of cooperation agreements.

II. Dataset on Trade and Cooperation Agreements

The dataset developed here encompasses 12,247 international agreements over the period 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. 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. 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 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.

Figures 1a-1c map out the three sets of data for 1800-2005. Figure 1a focuses on the formation of PTAs, while figure 1b centers on the much more recent but potent phenomenon, the bilateral investment treaties. Figure 1c aggregates all other cooperation agreements (including other trade and investment agreements obtained from the UNTS).

[Figures 1a-1c here]

Each agreement is coded by its domain and also by its various dimensions: 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]). The descriptive statistics by domain are included in table 2.¹⁹ Table 3 summarizes the categorization of the various legal definitions by obligation.²⁰

[Table 2 here]

[Table 3 here]

III. Two Hundred Years of Trade and Cooperation Agreements: Some Stylized Facts

This section draws on the dataset to present some tables and figures on global cooperation, the domains in which states cooperate, the partners that they cooperate with, and on the dimensions of cooperation agreements. We also look at some dynamics of inter-state cooperation in different domains.

1. Global Cooperation

Figure 2 explores the global dispersion of bilateral contractual relationships by states and territories in different periods of time. The black and the yellow lines mark the share of agreements by state of all agreements in 1808-2005 and in 1946-2005, respectively, while the blue and the red lines show the dispersion of cooperation agreements by state in the pre-war era and the inter-war era, respectively. The states with the highest number of

¹⁹ As of now, the set does not have data on the scope of the modern PTAs.

²⁰ 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.

agreements in the dataset are the United States (5,394), United Kingdom (4,841) Germany (4,354), the Netherlands (4,184), Denmark (4,132), and France (4,068).

[Figure 2 here]

The main message is that the post-war era has been marked by a globalization or “democratization” of global cooperation: virtually all states are today member to several agreements, and the shares of the various states of the total number of cooperation agreements are more even than they were in the pre-World War II era. For instance, the state with the highest number of agreements in the set, 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-3c look at the globalization of cooperation further. They examine the share of dyads with at least one common agreement in a dataset of all possible dyads that existed in the world in a given year. Given that the number of states varies over time, the total number of dyads in the set is 3,540 in 1815, and 47,306 in 2005. The figures reveal that 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 possible dyads is nearly 60 percent. In contrast, as the data stands for now, only about 2-3 percent of dyads entered cooperation agreements with each other in the 19th century.

[Figures 3a-3c here]

The leveling of the global cooperation playing field is indicative of the rise of multi-member multilateral agreements in the post-war era. Indeed, as shown in figure 4, the contractual relationships of particularly smaller states and territories are heavily dominated by multilateral agreements. Meanwhile, the more powerful states—such as France, Germany, and United Kingdom—have fewer than 80 percent of their respective contractual relationships in multilateral agreements; the figure descends to 55 percent in the case of the foremost global cooperator, the United States. To be sure, the data is indicative of the fact that these powers were important at the global stage already in the 19th century during the hey-day of bilateralism and before the on-set of the wave of multilateralism. Nonetheless, that the contractual relationships of smaller states are forged primarily in the context of multilateral agreements allows for hypothesizing that such states may lack the resources and needs of great powers to negotiate on several fronts at once. Meanwhile, states with greater capacities may prefer bilateral agreements given that they may be able to dominate the terms of such agreements more easily than those of a large multilateral agreement.²¹

[Figure 4 here]

²¹ To be sure, great powers operate simultaneously on several fronts around the world; as such, entering multilateral agreements could be thought to help them economize the transaction costs of negotiating several bilateral agreements.

An important message implicit in the above figures is that the latest wave of PTAs and other trade agreements is inherently embedded in a multilateral framework—the General Agreement on Tariffs and Trade (GATT) signed in 1947 and the World Trade Organization launched in 1994. Bilateral agreements in other domains—such as on non-proliferation—are often similarly signed under broader multilateral umbrellas. One empirically unexplored question is the extent to which the bilateral (and regional) agreements are complementary to the contractual obligations their members have assumed at the multilateral level.

2. *Actors*

This part strives to provide some answers to two questions: (1) which states and regions are the keenest cooperators; and (2) who cooperates with whom in international relations?

Figure 5 examines the entry of selected states into agreements over time. Figure 6 explores the formation of cooperation agreements, whether inter- or intra-regional, by states of the main world regions. The figures provide 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.²² Figure 7 focuses on the intra-regional agreements only. It reveals that Europe and the Americas also feature the longest-standing intra-regional cooperation—but also illustrates the rapid growth of intra-regionalism in the post-colonial Africa, in particular.

Figures 6 and 7 suggest that a region's total number of cooperation agreements and the share of intra-regional agreements of the total might fluctuate together; figure 8 verifies this. This may indicate the real or perceived futility of states in some regions to invest resources in forging intra-regional agreements should that come at the expense of extra-regional ties. States in some regions simply have greater incentives to seek intra-regional cooperation than states in other regions. One such incentive may be the existence of prior intra-regional cooperation agreements—which, in turn, would suggest that regionalism is to an extent path-dependent. Figure 9 surveys selected bilateral relationships, echoing the patterns emerging from the regional figures.

[Figures 5-9 here]

Table 4 lists the top 10 cooperation partners in terms of number of agreements for the 30 states with the greatest number of agreements in the dataset. It allows for hypothesizing that the main gravity model variables—GDP, distance, border, language, and other cultural affinities—play a central role in the choice of cooperation partners. It is also indicative of the prolific formation of agreements by the most powerful states in the international system—and, in particular, their formation of agreements with each other. However, when only the period 1990-2005 is examined (table 5), the partnerships seem to be less bound by the gravity parameters. This gives grounds for hypothesizing that other variables—such as international and domestic institutional factors—have to an

²² 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.

extent trumped the gravity variables in determining the choice of international partnerships.

[Tables 4-5 here]

3. *The Areas of Cooperation: Domains*

Table 6 turns to the domains of cooperation, mapping out the shares of the various domains in which the top-30 global cooperators have agreements. The data reveal marked variation in the shares of the various domains of states' agreements—but also that the shares of the various domains are similar across states.²³ Trade agreements (which here include those based on the UNTS data and PTAs formed prior to World War II) dominate the data for all top global cooperators, followed by weapons, investment, and transportation agreements. Figure 10 explores the latter pattern further for the top-six cooperators by grouping the 23 domains under seven broad categories. It by and large seconds the findings of the table.

[Table 6 here]

[Figure 10 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 data potentially also reflect some of the relatively unique properties of the domain of trade. For instance, obtaining pay-offs from expanded market access in general inherently requires international cooperation.²⁴ Furthermore, trade agreements generally follow a standard model, so that the domestic and international transaction costs of negotiating each successive agreement are often low relative to those of negotiating the first agreement.²⁵ As such, trade agreements—and bilateral trade agreements—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 of interactions between two states previously uninitiated to bilateral cooperation.

²³ 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.

²⁴ For example, even if the demand for a policy with an international element (opening a foreign market or providing exchange rate predictability) were equally intense in both trade and, say, monetary domain, governments arguably have great many purely unilateral tools at their disposal to respond to domestic demands in the monetary domain.

²⁵ What is more, 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.

4. *The Designs of Cooperation: Dimensions*

Figures 11a-11c display the dispersion of three dimensions—membership, scope, and obligation—by domain. They reveal some variations in dimensions across the domains—and could give rise to potential hypotheses. For example, that some agreements in the domain of trade are relatively loose could be indicative of the presence of a global dispute settlement mechanism in trade: the prospect of sturdy enforcement may discourage states from entering strongly binding agreements.

[Figures 11a-11c here]

Figures 12a-12c examine the three dimensions for three periods of time—pre-World War I, inter-war, and post-war eras—for the entire set of agreements. Albeit the variation over time is not too marked, the figures suggest that agreements have become increasingly multilateral, and that the scope of agreements has widened—which could hypothetically be linked to the expansion of membership. The level of obligation has also declined somewhat.²⁶

[Figures 12a-12c here]

5. *Sequencing of Cooperation*

Empirical explorations to the choice of the domain of cooperation agreements (C_i) and the sequencing of the various domains (C_{it}) remain nascent. This part strives to start developing 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 time dimension, sequencing can take various formats. Table 7 puts forth three main types—“spillover” sequencing (a series of agreements formed in one domain between states A and B, or a series of agreements formed in different domains between them); “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 type—a dyad’s entering one agreement after the other—and are particularly interested in the sequences of the dyad’s PTAs and its agreements in other domains of cooperation.

Note that none of the sequencing types necessarily implies a causal relationship. Nonetheless, the literature provides various theoretical reasons why cooperation in time t

²⁶ Simple pairwise correlations allow to hypothesize that the three dimensions could be to an extent related to each other. First, membership tends to be positively correlated with scope. This may simply suggest that large membership implies a greater set of preferences that need to be accommodated for reaching an agreement. Conversely, agreements with a large scope may attract a large group of states to join. Second, scope and obligation are inversely related. Again, this may indicate the heterogeneity of preferences: getting states to sign onto an broad agreement may require a loosening of the level of obligation.

may propel cooperation in $t+1$. There are also at least three reasons to expect that trade integration could be a particularly likely harbinger of future cooperation in other domains. First, particularly modern-day PTAs are often more multifaceted than many other types of international agreements. Covering several issue areas—such as trade, investment, and transportation—they could be hypothesized to provide states with ample opportunities for issue-linkages and log-rolling, which, in turn, could facilitate the attainment of further cooperation agreements.²⁷ 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).²⁸ And 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.²⁹ Moreover, if and when PTAs spur institutional efficiency in the member states, they can render the members increasingly attractive as future cooperation partners.

Figures 13a and 13b provide a general starting point to using the data for examining the sequencing of agreements, whether by spillover, demonstration, or expansion. They show the number of new PTAs and other cooperation agreements by year, and the cumulative log values of PTAs and cooperation agreements, respectively.³⁰ The point here is 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. One potential hypothesis arising from the look at the data is that to the extent that PTAs—and trade agreements in general—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.

²⁷ 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.

²⁸ 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 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.

²⁹ 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.

³⁰ This figure does not take into consideration the expiration of some of the PTAs signed in the pre-WWI era.

[Figures 13a-13b here]

Figure 14 takes a preliminary cut at the spillover sequencing, exploring the sequencing of PTAs and other cooperation agreements with each other. It uses the entry into force year of a pair's first PTA and first cooperation agreement as the "PTA benchmark year" and "cooperation benchmark year", respectively, and calculates the "distance" in terms of year between the first agreement and *all other* agreements between the pair. As such, the United States-Canada dyad would have a total of 133 data points, for example. The boxes show the distance of a pair's PTAs from the benchmark PTA, that is, the year in which the first PTA between the states in the dyad entered into effect (for the 4,479 dyads with at least two common PTAs); cooperation agreements (i.e., other than PTAs) from the cooperation agreement bench year (for the 124,179 dyads with at least two common cooperation agreements); cooperation agreements from the PTA bench year (for the 35,026 dyads with at least one common PTA and one common cooperation agreement); and PTAs from the cooperation agreement bench year.

[Figure 14 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 limited: on average, the gap between the sequential agreements appears relatively short once cooperation kicks off. The third box is of particular interest. It shows that the bulk of a pair'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.

Figure 15 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—datapoints immediately below the PTA bench—may have influenced the formation of the PTA.

[Figure 15 here]

The fourth box in figure 14 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.

It is the task of further iterations of this paper to identify typologies of the potential patterns of cooperation, as well as to perform an econometric analysis to establish whether agreements in some domains actually catalyze agreements in other domains. The analysis will subsequently be extended to examine the relationship between different types of cooperation agreements and the *outcomes* of cooperation, such as bilateral volumes of air traffic, educational exchanges, and trade in energy.

IV. Conclusion

This paper has sought to enhance our understanding of the progression of international cooperation. We have described a new dataset on trade integration agreements and inter-state cooperation agreements in a number of other domains, and put forth some testable hypotheses about international cooperation in general, and the dynamic relationship between PTAs and other types of inter-state agreements, in particular.

The dataset has yielded four 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 and globalization have 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. And fourth, the dimensions of agreements—membership, scope, and obligation—may to an extent be related to each other, vary over time, and also vary by domain.

We have also discussed some reasons why PTAs and other trade agreements could be catalysts for further cooperation between states; whether they are so can only be analyzed through expanding our sample and performing a rigorous econometric evaluation. Should the results indicate that trade agreements do spur further cooperation, it could be expected that today’s forceful PTA wave could be followed by an impressive tide of other cooperation agreements around the world.

Table 1 – A Synthesis of Literature on Types and Sequencing of Inter-State Cooperation

Key question	Key Dependent Variables	Sub-questions	Key Independent Variables	Some Representative Studies	Main Approach
How and when does cooperation occur?	C, Ct, Ct+1	Why does cooperation happen?	Int'l system/economy, hegemon(s)	Kindleberger (1973), Krasner (1976), Keohane (1984), Gilpin (1987), Lake (1983), Gowa (1994), Mansfield (1994)	Hegemonic stability
			Int'l system, state preferences	Waltz (1979), Grieco (1990), Mearsheimer (1994/5)	Neo-realism
		When can cooperation in general occur?	Ct, C (int'l institutions)	Axelrod (1984), Keohane (1984)	Neo-liberalism
			Ct, norms, values	Wendt (1992), Reus-Smit (1997)	Constructivism
			Domestic politics, institutions, information	Milner (1997), Cowhey (1990), Keohane et al. (2000)	Domestic politics
		Why can cooperation occur in a specific domain (such as trade)?	Inter-state strategic factors/environment (signaling, information, beliefs, learning)	Monow (1992), Fearon (1997)	Strategic choice
How do states cooperate?	Cj	Why do security relationships/degrees of hierarchy vary across inter-state relations?	Joint production economies, expected costs of opportunism, governance costs	Lake (1999)	Neo-realism, contracting theory
		What determines the form of international institutions?	Domestic politics, distributional conflicts	Martin and Simmons (1998)	Neo-liberalism
		Why does the dimension of legalization vary across inter-state contracts? How are the components of legalization—precision, obligation, delegation—inter-related? [Prelim: does the dimension of legalization vary systematically by domain of cooperation?]	Int'l and domestic politics	Goldstein et al. (2000), Kahler (2000)	Legalization
		Why do dimensions of international institutions vary? How are the dimensions inter-related?	C_j	Koremenos et al. (2001)	Rational design
		Why do dimensions of int'l institutions/agreements vary? Why do states opt for re-negotiable agreements? [Prelim: do dimensions vary systematically by domain?]	$C_j ; (Ct)$	Koremenos (2003)	
		Why do/should states choose to enter an FTA rather than a CU? (Which is better for welfare?)	Ci (endogenously determined PTAs)	Bhagwati (1993), Panagariya and Findlay (1996), Li (2000), Adams et al. (2003), Kahler (1995)	Dynamic path
		How does bilateral/regional economic integration affect multilateral integration?	Ci regional, strategic interactions between states	Oye (1992), Bhagwati (1993), Baldwin (1993), Fernández (1997), Mansfield (1998)	
How does and can cooperation evolve?	Cit, Cit+1	How and why does regional integration evolve? When do states enter into monetary unions?	C	Haas (1958)	Functionalism, sequencing
			$C_i ; t$	Balassa (1961), Maxfield (1990), Frieden (1996)	Sequencing
How do and should states sequence inter-state cooperation?	Ct	Should a small state form an FTA with a large state before other states do so?	Estimated costs of no C	Ferroni and Whalley (1994), Whalley (1996)	
	Ci, Cit, Cit+1	What determines the choice of the domain of cooperation? How are the various domains related in static and dynamic terms? [Prelim: do dimensions vary systematically by domain?]	$C_i ; t$	Devlin, Esteveadorral, Suominen (2005)	

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

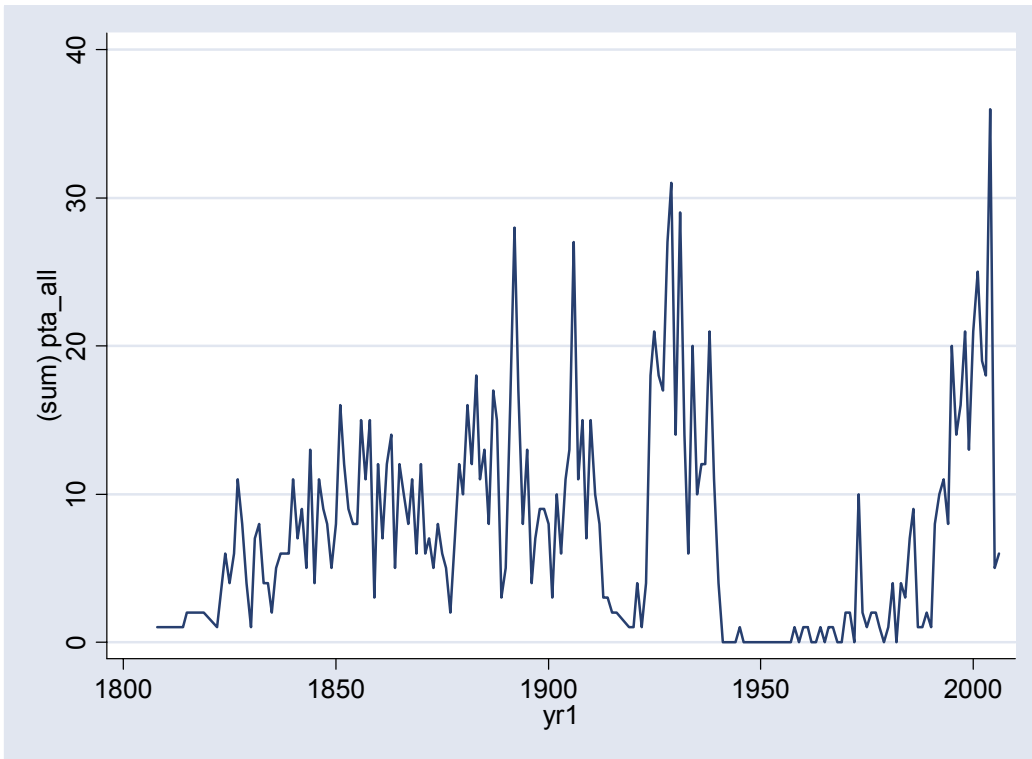


Figure 1b - Data on BITs, 1808-2005 (new agreements by year)

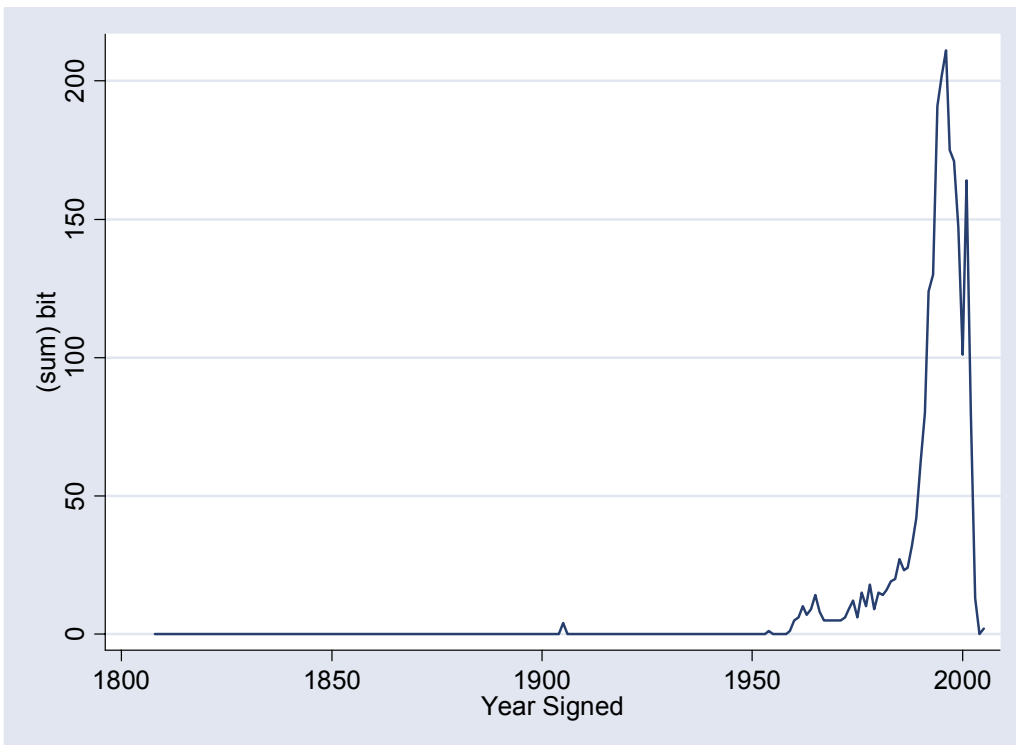


Figure 1c - Data on Cooperation Agreements, 1808-2005 (new agreements by year)

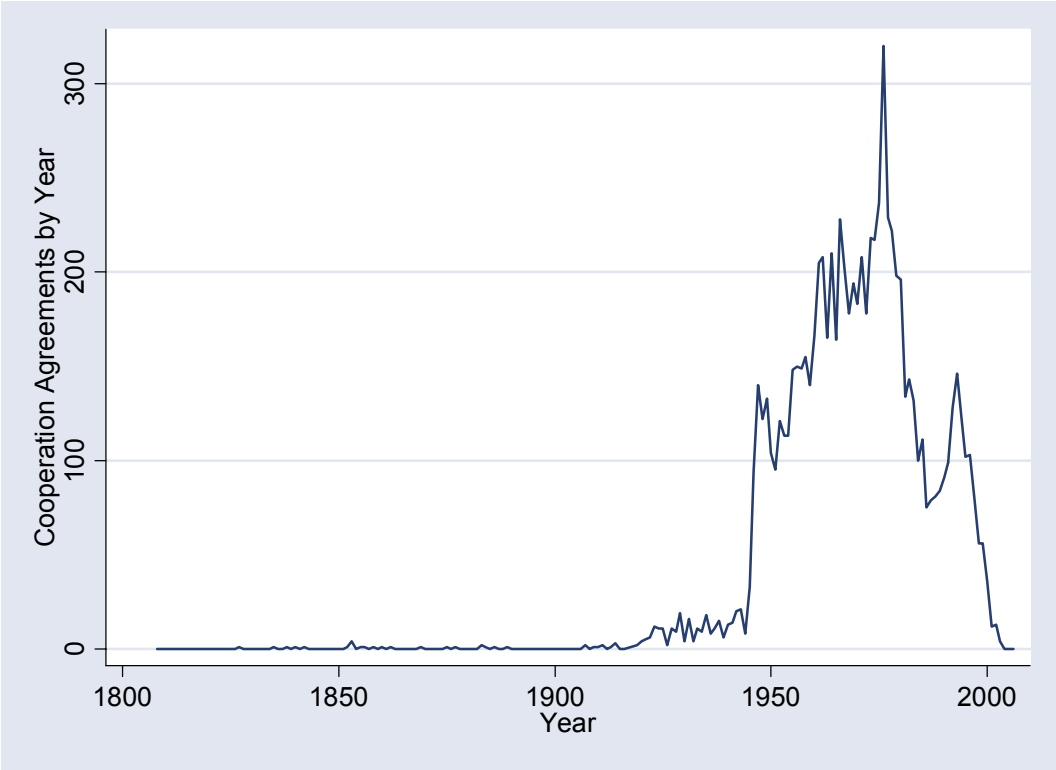


Table 2 - Descriptive Statistics by Domains and Dimensions

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 3 – 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 2 – Agreements by State, 1808-1914, 1915-1945, 1946-2005, and 1808-2005 (% of all agreements in the world)

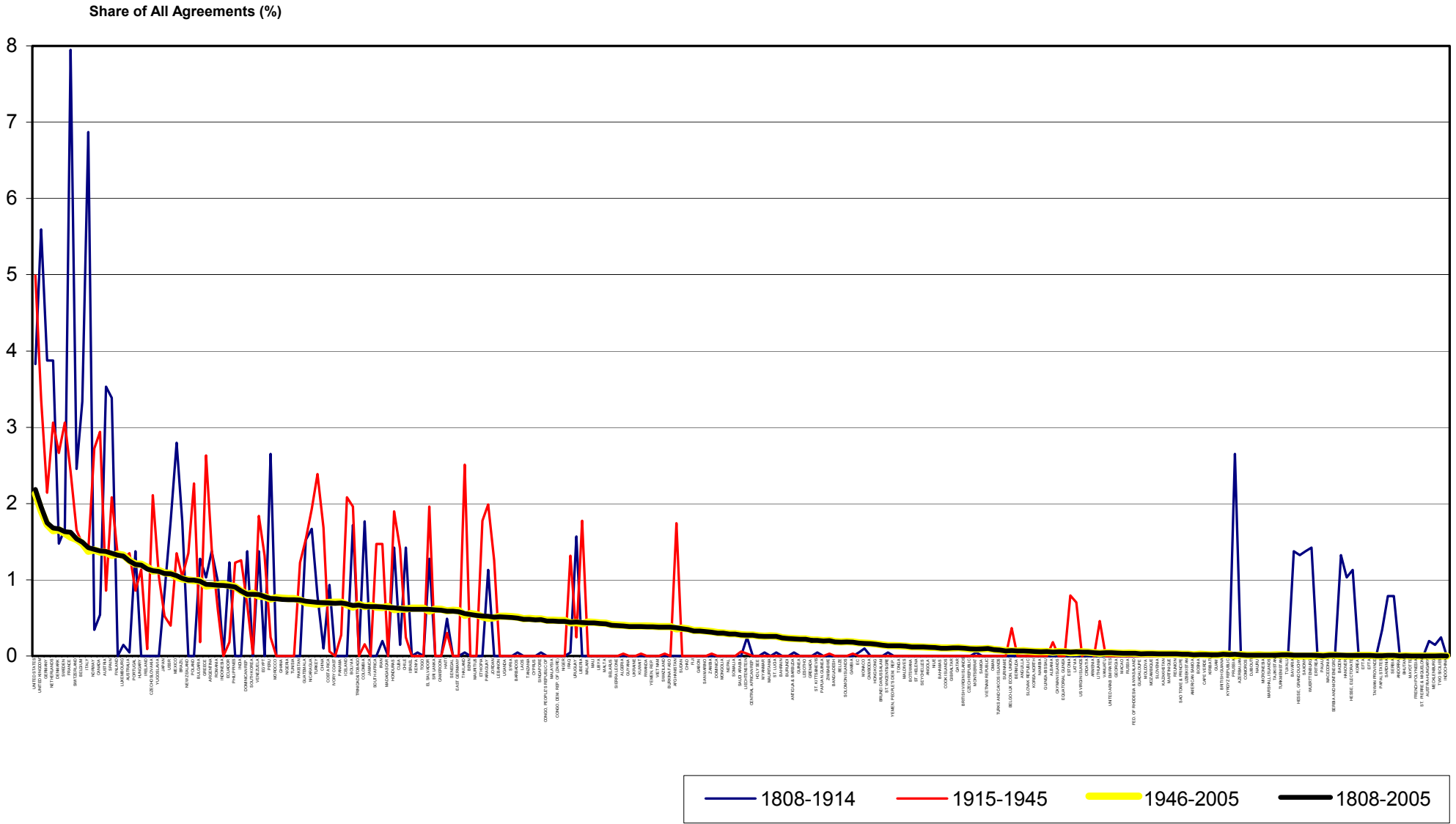


Figure 3a – Share of Pairs Entering Any Type of Cooperation Agreements of All Pairs in the World by Year, 1808-2005

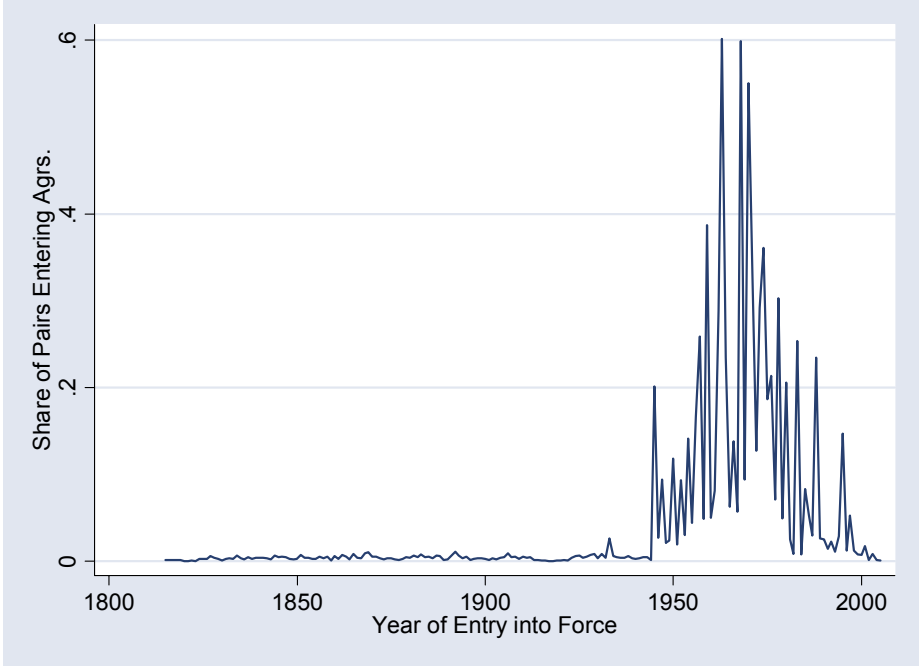


Figure 3b – Share of Pairs Entering non-PTA Cooperation Agreements of All Pairs in the World by Year, 1808-2005

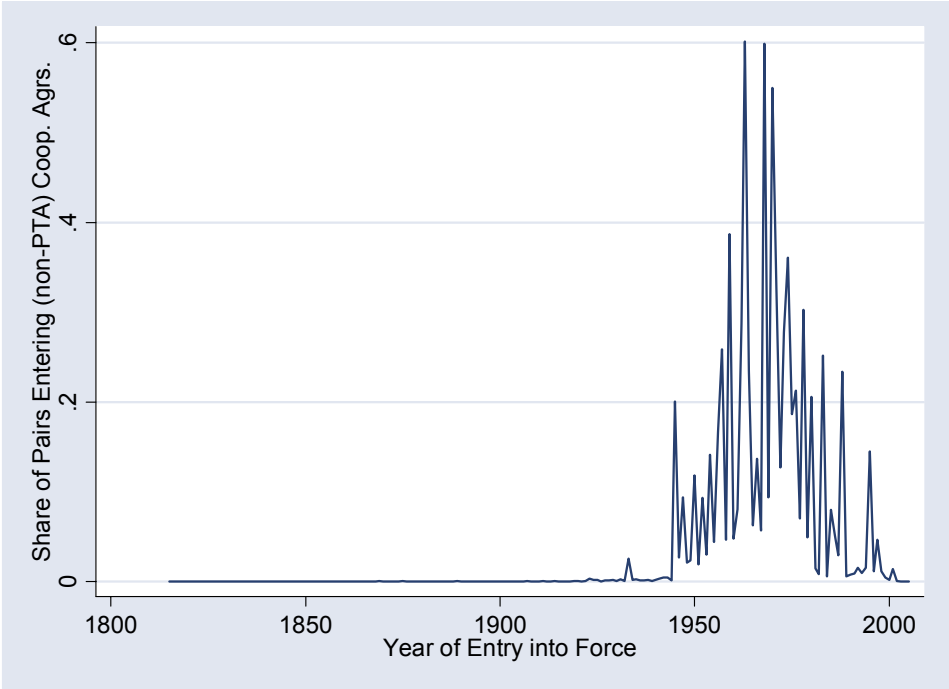


Figure 3c – Share of Pairs Entering PTAs of All Pairs in the World by Year, 1808-2005

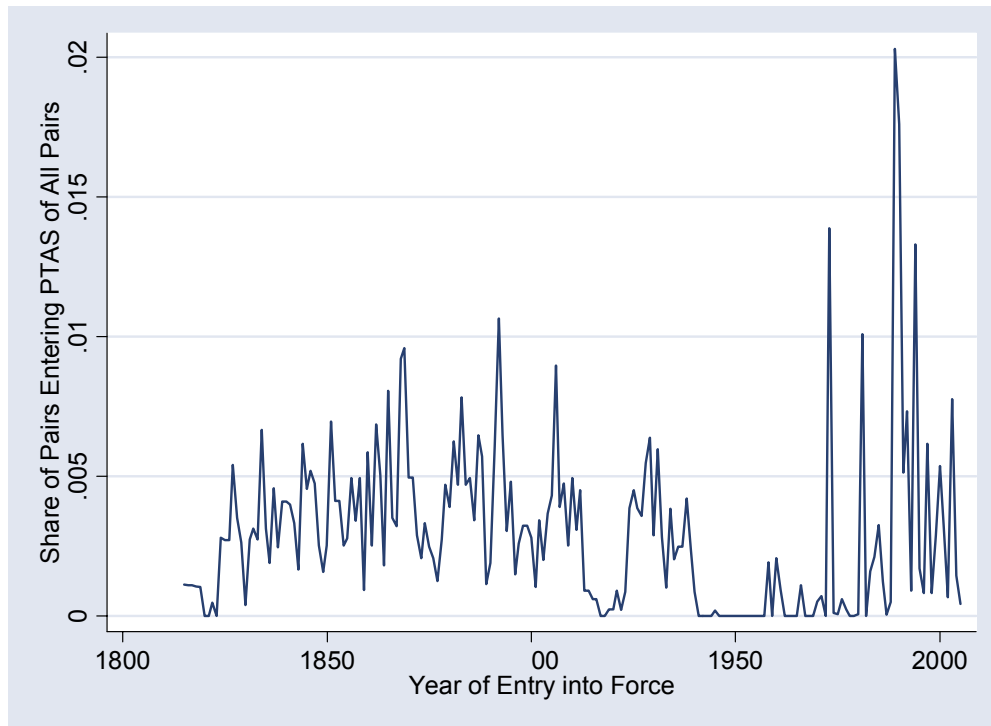


Figure 5 - Agreements by Selected Countries, 1808-2005 (log of cumulative)

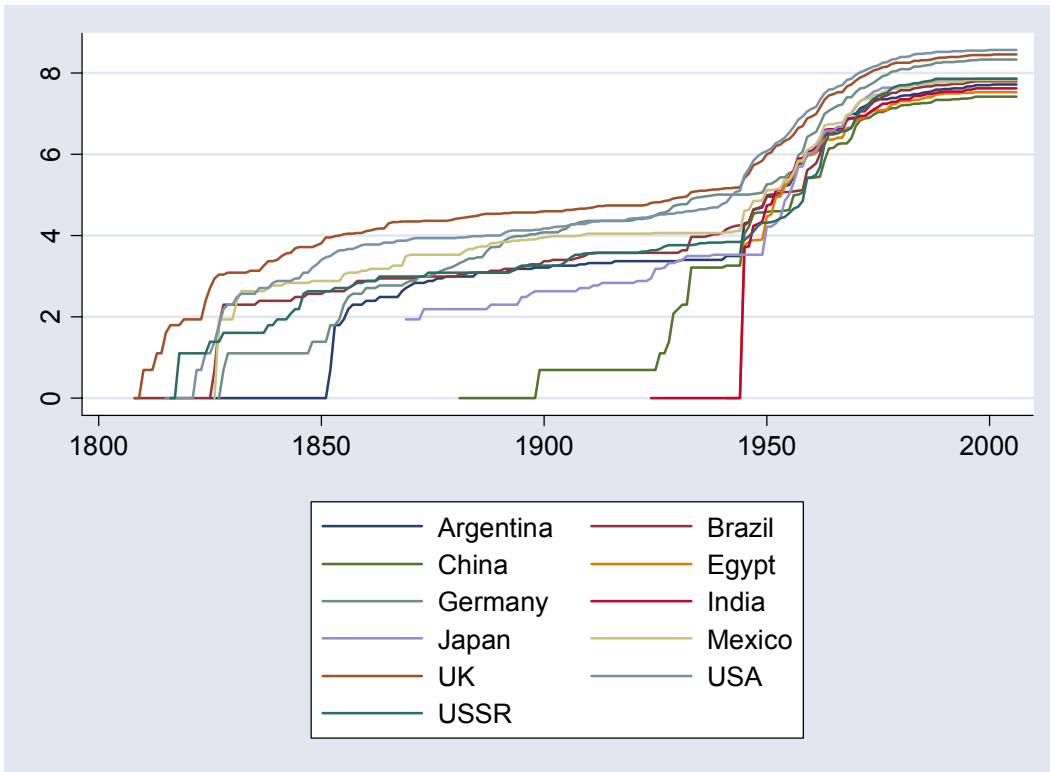
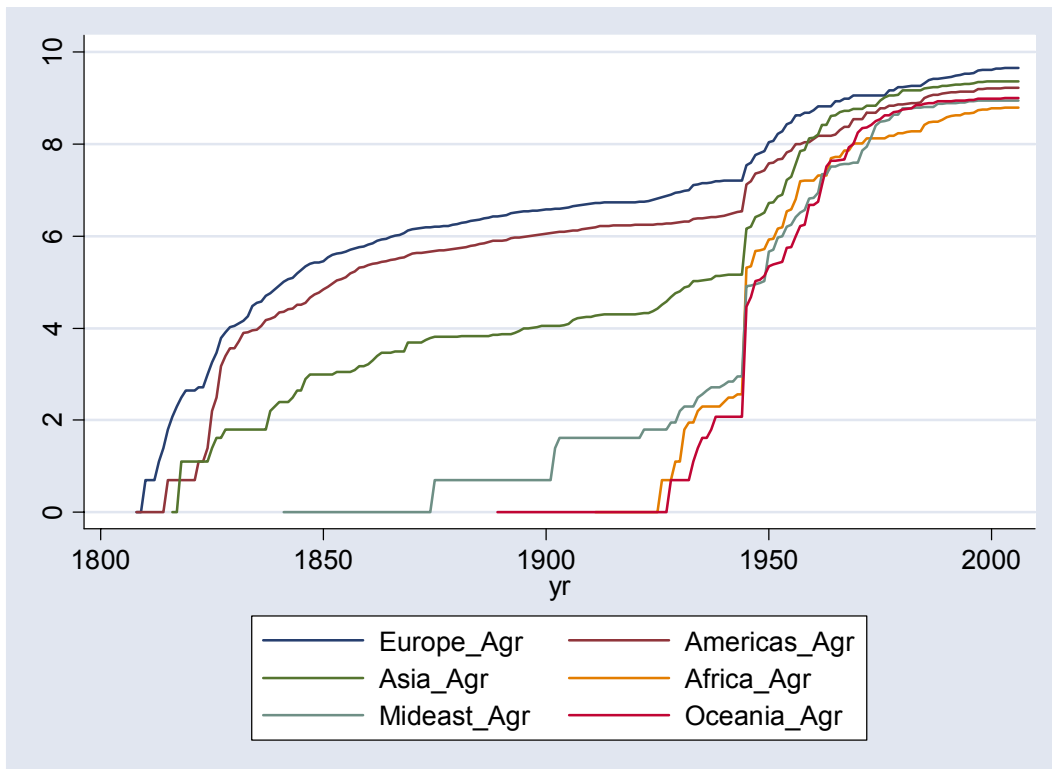


Figure 6 – All Agreements by World Regions, 1808-2005 (log of cumulative)



**Figure 7 – Intra-Regional Agreements by World Regions, 1808-2005
(log of cumulative)**

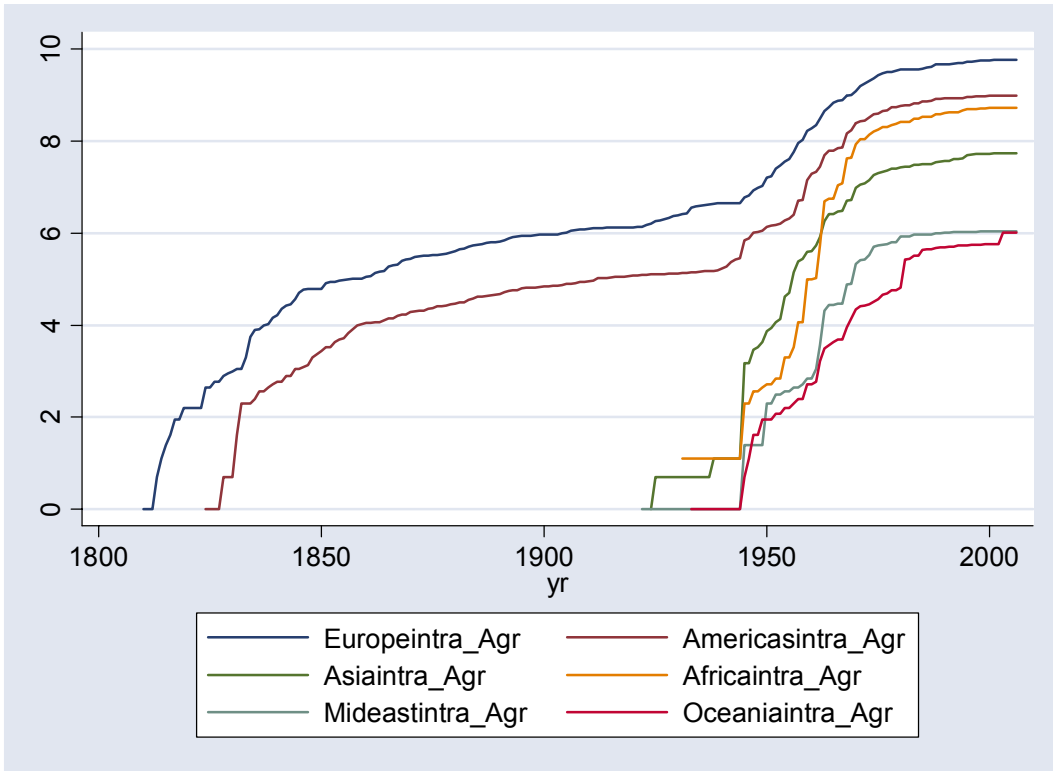


Figure 8 – All and Intra-Regional Agreements by World Regions, 1808-2005

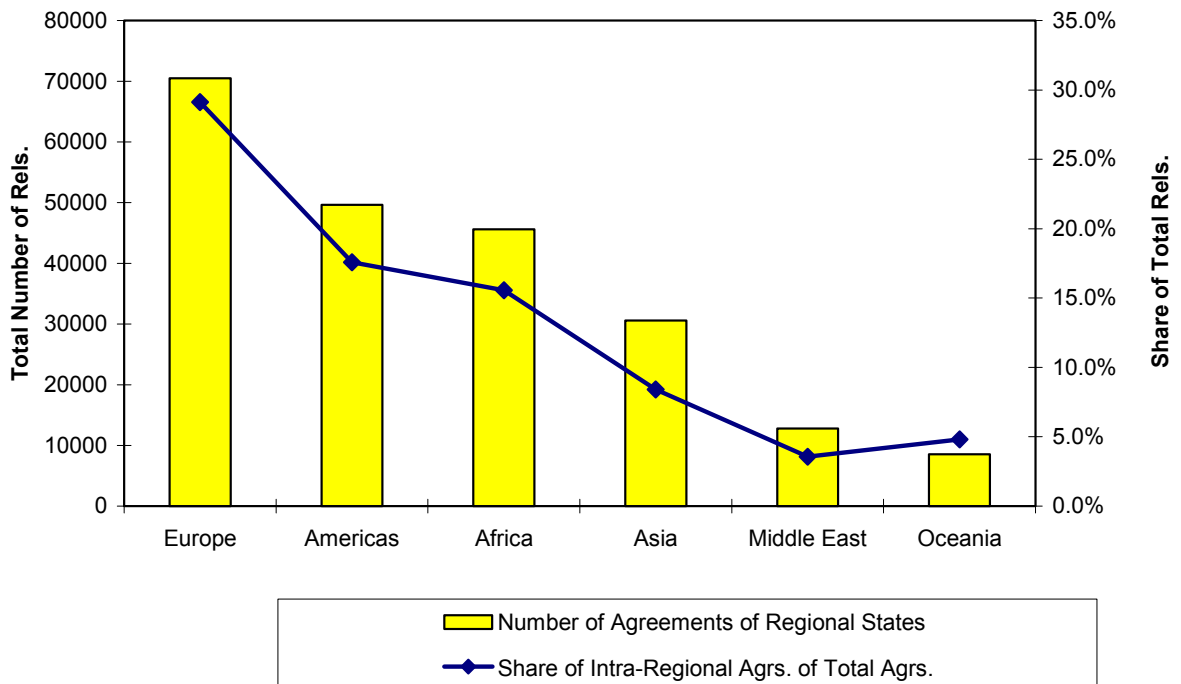


Figure 9 – Agreements by Selected Country Pairs, 1808-2005 (log of cumulative)

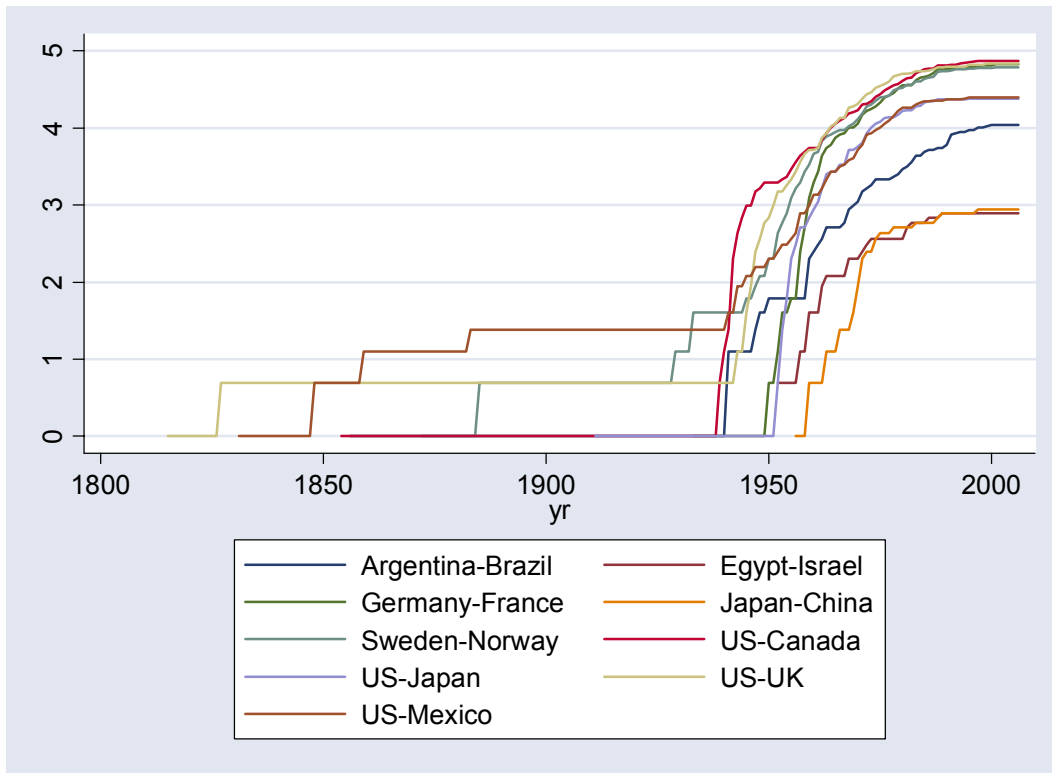


Table 4 – Top-10 Partners of the Top-30 Cooperating States, 1808-2005

State	Rank in Set (Total No. Agrs.)	Total No. Agr.	Top 10 Partners													
			Partner Rank	1	2	3	4	5	6	7	8	9	10			
United States	1	5394	Partner Rank	Canada	UK	France	Pakistan	Japan	Mexico	Israel	Korea	India	Yugoslavia	Dom. Rep.	Netherlands	
			No. Agrs.	133	128	87	85	82	82	70	79	75	75	75	75	
			% of State's Agrs.	2.47	2.37	1.61	1.58	1.52	1.52	1.48	1.46	1.41	1.39	1.39	1.39	1.39
United Kingdom	2	4841	Partner Rank	France	US	Netherlands	Denmark	Germany	Italy	Sweden	Switzerland	Norway	Belgium			
			No. Agrs.	132	128	109	102	99	98	95	92	90	90	90		
			% of State's Agrs.	2.73	2.64	2.25	2.11	2.05	2.02	1.96	1.90	1.86	1.86			
Germany	3	4354	Partner Rank	France	Netherlands	Italy	UK	Belgium	Austria	Denmark	Switzerland	Sweden	Luxembourg			
			No. Agrs.	129	112	101	99	98	97	92	92	92	81	78		
			% of State's Agrs.	2.96	2.57	2.32	2.27	2.25	2.23	2.11	2.11	2.11	1.86	1.79		
Netherlands	4	4184	Partner Rank	Belgium	Luxembourg	Germany	UK	France	Italy	Switzerland	Sweden	Denmark	US			
			No. Agrs.	156	152	112	109	100	90	87	85	84	75	75		
			% of State's Agrs.	3.73	3.15	2.68	2.61	2.29	2.15	2.05	2.03	2.01	1.79			
Denmark	5	4132	Partner Rank	Sweden	Norway	UK	Germany	France	Switzerland	Italy	Netherlands	Austria	Belgium			
			No. Agrs.	112	103	102	92	90	87	84	84	84	81	78		
			% of State's Agrs.	2.71	2.49	2.47	2.23	2.18	2.11	2.03	2.03	1.96	1.89			
France	6	4068	Partner Rank	Italy	UK	Germany	Belgium	Spain	Switzerland	Netherlands	Sweden	Denmark	Luxembourg			
			No. Agrs.	132	132	129	118	110	106	100	91	90	89	89		
			% of State's Agrs.	3.24	3.24	3.17	2.90	2.70	2.61	2.46	2.24	2.21	2.19			
Sweden	7	4045	Partner Rank	Norway	Denmark	UK	Switzerland	France	Belgium	Netherlands	Germany	Austria	Italy			
			No. Agrs.	123	112	95	92	91	88	85	81	81	81	76		
			% of State's Agrs.	3.04	2.77	2.35	2.27	2.25	2.18	2.10	2.00	2.00	1.88			
Switzerland	8	3835	Partner Rank	France	Italy	Germany	Sweden	UK	Denmark	Netherlands	Belgium	Austria	Spain			
			No. Agrs.	106	94	92	92	87	87	81	80	74	74	74		
			% of State's Agrs.	2.76	2.45	2.40	2.40	2.40	2.27	2.27	2.11	2.09	1.93			
Belgium	9	3704	Partner Rank	Netherlands	Luxembourg	France	Germany	UK	Italy	Sweden	Switzerland	Austria	Denmark			
			No. Agrs.	156	135	118	98	90	89	81	81	78	78	78		
			% of State's Agrs.	4.21	3.64	3.19	2.65	2.45	2.40	2.19	2.19	2.11	2.11	2.11		
Italy	10	3574	Partner Rank	Germany	UK	Switzerland	Netherlands	Austria	Belgium	Denmark	Spain	Sweden				
			No. Agrs.	101	98	94	90	89	89	84	74	73	73			
			% of State's Agrs.	2.83	2.74	2.63	2.52	2.49	2.49	2.35	2.07	2.04				
Norway	11	3487	Partner Rank	Denmark	UK	Finland	France	Switzerland	Germany	Netherlands	Belgium	Austria	Italy			
			No. Agrs.	103	90	82	75	75	74	73	68	64	64	64		
			% of State's Agrs.	2.95	2.58	2.35	2.15	2.15	2.12	2.09	1.95	1.84	1.84			
Austria	12	3455	Partner Rank	Italy	UK	Denmark	France	Switzerland	Belgium	Sweden	Netherlands	Spain				
			No. Agrs.	89	85	81	80	80	78	76	74	70	70			
			% of State's Agrs.	2.58	2.46	2.34	2.32	2.32	2.26	2.20	2.14	2.03				
Canada	13	3434	Partner Rank	US	UK	Denmark	Netherlands	France	Australia	Sweden	Germany	Italy	Switzerland			
			No. Agrs.	133	72	61	59	58	53	51	51	48	48	44		
			% of State's Agrs.	3.87	2.10	1.72	1.72	1.69	1.54	1.51	1.49	1.49	1.40			
Spain	14	3361	Partner Rank	France	UK	Italy	Portugal	Switzerland	Denmark	Netherlands	Austria	Sweden	Germany			
			No. Agrs.	110	82	74	74	74	73	73	70	70	68	68		
			% of State's Agrs.	3.27	2.44	2.20	2.20	2.20	2.17	2.17	2.08	2.08	2.02	2.02		
Finland	15	3332	Partner Rank	Sweden	Norway	Denmark	Germany	Switzerland	USSR	UK	US	Belgium	Netherlands			
			No. Agrs.	88	82	77	65	65	65	62	60	57	57	57		
			% of State's Agrs.	2.64	2.46	2.31	1.95	1.95	1.95	1.86	1.80	1.71	1.71			
Luxembourg	16	3264	Partner Rank	Belgium	Netherlands	France	Germany	UK	Italy	Switzerland	Sweden	Denmark	Austria			
			No. Agrs.	135	132	89	78	74	72	71	70	67	67	65		
			% of State's Agrs.	4.14	4.04	2.73	2.39	2.27	2.21	2.18	2.14	2.05	1.99			
Australia	17	3102	Partner Rank	UK	US	Canada	Netherlands	Denmark	Germany	Sweden	France	Argentina	Belgium	Switzerland		
			No. Agrs.	68	63	5	53	50	48	48	45	44	44	44		
			% of State's Agrs.	2.19	2.03	0.16	1.68	1.61	1.55	1.55	1.45	1.42	1.42	1.42		
Portugal	18	3015	Partner Rank	UK	Spain	France	Denmark	US	Switzerland	Sweden	Netherlands	Germany	Norway			
			No. Agrs.	84	74	69	68	67	63	62	61	60	58	58		
			% of State's Agrs.	2.79	2.45	2.29	2.26	2.22	2.09	2.06	2.02	1.99	1.92			
Hungary	19	3000	Partner Rank	Czechoslovakia	Germany	Austria	UK	Sweden	USSR	Denmark	France	Yugoslavia	Bulgaria	Netherlands	Spain	
			No. Agrs.	66	64	63	59	58	54	53	53	51	51	51	51	
			% of State's Agrs.	2.20	2.13	2.10	1.97	1.95	1.80	1.77	1.77	1.77	1.77	1.77	1.70	1.70
Ireland	20	2851	Partner Rank	UK	Netherlands	Germany	Sweden	Denmark	Belgium	France	Italy	Switzerland	US			
			No. Agrs.	72	59	58	56	55	54	53	51	50	50	50		
			% of State's Agrs.	2.53	2.07	2.03	1.96	1.93	1.89	1.86	1.79	1.75	1.75			
Czechoslovakia	21	2804	Partner Rank	Hungary	Denmark	UK	Austria	Poland	Germany	Switzerland	Yugoslavia	France	USSR			
			No. Agrs.	66	62	61	57	57	56	55	55	54	54	54		
			% of State's Agrs.	2.35	2.21	2.18	2.03	2.03	2.00	1.96	1.96	1.93	1.93			
Yugoslavia	22	2777	Partner Rank	US	Austria	UK	Czechoslovakia	Denmark	Hungary	Netherlands	Switzerland	Italy	Sweden			
			No. Agrs.	75	66	59	55	54	53	53	53	52	50	50		
			% of State's Agrs.	2.70	2.38	2.12	1.98	1.94	1.91	1.91	1.91	1.91	1.87	1.80		
Japan	23	2723	Partner Rank	US	UK	Netherlands	Canada	Denmark	Australia	Belgium	Sweden	Austria	Italy			
			No. Agrs.	82	52	47	46	45	41	41	41	40	39	39		
			% of State's Agrs.	3.01	1.91	1.73	1.69	1.65	1.51	1.51	1.51	1.47	1.47	1.47		
Mexico	24	2683	Partner Rank	US	Brazil	UK	Argentina	Canada	Spain	Denmark	France	Italy	Netherlands	Sweden		
			No. Agrs.	82	47	47	41	41	41	40	40	40	40	40	40	
			% of State's Agrs.	3.06	1.75	1.75	1.53	1.53	1.53	1.49	1.49	1.49	1.49	1.49	1.49	
Brazil	25	2609	Partner Rank	US	Argentina	Bolivia	Mexico	UK	France	Paraguay	Peru	Venezuela	Canada			
			No. Agrs.	72	60	55	47	47	43	40	40	40	39	39		
			% of State's Agrs.	2.76	2.30	2.11	1.80	1.80	1.65	1.53	1.53	1.53	1.53	1.49		
USSR	26	2591	Partner Rank	UK	Finland	US	Sweden	Czechoslovakia	Germany	Austria	France	Germany	Poland			
			No. Agrs.	67	65	61	57	56	54	50	47	47	47	46		
			% of State's Agrs.	2.59	2.51	2.35	2.16	2.08	2.08	1.93	1.81	1.81	1.81	1.78		
Poland	27	2517	Partner Rank	UK	US	Czechoslovakia	Denmark	Germany	Hungary	Netherlands	Sweden	USSR	Bulgaria	Yugoslavia		
			No. Agrs.	58	58	57	53	51	46	46	47	46	44	44		
			% of State's Agrs.	2.30	2.30	2.26	2.11	2.05	1.95	1.91	1.87	1.83	1.75	1.75		
New Zealand	28	2510	Partner Rank	Australia	US	UK	Canada	Netherlands	Switzerland	Denmark	Sweden	Norway	Indonesia			
			No. Agrs.	56	56	47	38	38	37	35	35	33	32	32		
			% of State's Agrs.	2.23	2.23	1.87	1.51	1.51	1.47	1.39	1.39	1.31	1.31			
Argentina	29	2403	Partner Rank	Brazil	UK	US	Mexico	Denmark	Sweden	Germany	Netherlands	Paraguay	Canada	France	Spain	Switzerland
			No. Agrs.	60	54	49	41	37	36	35	35	35	34	34	34	34
			% of State's Agrs.	2.50	2.25	2.04	1.71	1.54	1.50	1.46	1.46	1.46	1.41	1.41	1.41	1.41
Greece	30	2392	Partner Rank	UK	US	France	Germany	Denmark	Netherlands	Sweden	Italy	Norway	Belgium			
			No. Agrs.	55	55	53	51	49	49	46	44	43	42	42		
			% of State's Agrs.	2.30	2.30	2.22	2.13	2.05	2.05	1.92	1.84	1.80	1.76			
Egypt	42	1672	Partner Rank	US	UK	Netherlands	Sweden	Switzerland	Germany	Denmark	Austria	Norway				
			No. Agrs.	65	38	35	34	34	33	31	29	29	29			
			% of State's Agrs.	3.9	2.3	2.1	2.0	2.0	2.0	1.9	1.7	1.7	1.7			
China	50	1865	Partner Rank	US	UK	Denmark	Sweden	Australia	Canada	France	Netherlands	Brazil	Hungary			
			No. Agrs.	67	33	32	30	27	27	27	25	24	23	23		
			% of State's Agrs.	3.6	1.8	1.7	1.6	1.4	1.4	1.4	1.3	1.3	1.3	1.2		

Table 5 – Top-10 Partners of the Top-10 Cooperators in 1990-2005

State	Rank in Set (Total No. Agrs.)	Total No. Agr.		Top 10 Partners													
				Partner Rank	Partner Rank	Partner Rank	Partner Rank	Partner Rank	Partner Rank	Partner Rank	Partner Rank	Partner Rank	Partner Rank	Partner Rank	Partner Rank	Partner Rank	
United States	1	195	Partner Rank	Canada	Australia	New Zealand	United Kingdom	Netherlands	Argentina	Estonia	Finland	Germany	Mexico	Senegal	Spain		
			Rank	1	2	2	2	5	6	6	6	6	6	6	6		
			No. Agrs.	7	6	6	6	5	4	4	4	4	4	4	4		
			% of State's Agrs.	3.6	3.1	3.1	3.1	2.6	2.1	2.1	2.1	2.1	2.1	2.1	2.1		
United Kingdom	2	349	Partner Rank	France	Norway	Argentina	Bolivia	Costa Rica	Germany	Indonesia	United States	Ireland	Mali	Morocco	Romania	Tanzania	
			Rank	1	1	3	3	3	3	9	9	9	9	9	9		
			No. Agrs.	11	11	6	6	6	6	6	5	5	5	5	5		
			% of State's Agrs.	3.2	3.2	1.7	1.7	1.7	1.7	1.7	1.7	1.4	1.4	1.4	1.4		
Germany	3	315	Partner Rank	Czech Republic	Poland	France	Hungary	Netherlands	United Kingdom	Argentina	Austria	Belgium	Finland	Zimbabwe			
			Rank	1	2	3	3	3	6	7	7	7	7				
			No. Agrs.	14	8	7	7	7	6	5	5	5	5				
			% of State's Agrs.	4.4	2.5	2.2	2.2	2.2	1.9	1.6	1.6	1.6	1.6				
Netherlands	4	188	Partner Rank	Belgium	Germany	Venezuela	Norway	Sweden	United Kingdom	United States							
			Rank	1	1	3	4	4	4	4							
			No. Agrs.	7	7	6	4	4	4	4							
			% of State's Agrs.	3.7	3.7	3.2	2.1	2.1	2.1	2.1							
Denmark	5	216	Partner Rank	Argentina	Bulgaria	Finland	Norway	Estonia	France	Germany	Greece	Hungary	Iceland	Ireland	Romania	Sweden	
			Rank	1	1	1	1	5	5	5	5	5	5	5	5		
			No. Agrs.	5	5	5	5	4	4	4	4	4	4	4	4		
			% of State's Agrs.	2.3	2.3	2.3	2.3	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9		
France	6	311	Partner Rank	Spain	United Kingdom	Germany	Chile	Norway	Switzerland	Argentina	Bulgaria	Croatia	Hungary	Italy			
			Rank	1	2	3	4	4	7	7	7	7	7				
			No. Agrs.	13	11	7	6	6	6	5	5	5	5				
			% of State's Agrs.	4.2	3.5	2.3	1.9	1.9	1.9	1.6	1.6	1.6	1.6				
Sweden	7	184	Partner Rank	Finland	Latvia	Estonia	France	Norway	Denmark	Lithuania	Netherlands	Romania	United Kingdom				
			Rank	1	1	3	3	3	6	6	6	6					
			No. Agrs.	8	8	6	6	6	4	4	4	4					
			% of State's Agrs.	4.3	4.3	3.3	3.3	3.3	2.2	2.2	2.2	2.2					
Switzerland	8	105	Partner Rank	France	United Kingdom	Denmark	Estonia	Finland	Germany	Latvia	Lithuania	Netherlands					
			Rank	1	2	3	3	3	3	3	3						
			No. Agrs.	6	4	3	3	3	3	3	3						
			% of State's Agrs.	5.7	3.8	2.9	2.9	2.9	2.9	2.9	2.9						
Belgium	9	157	Partner Rank	Netherlands	Germany	Luxembourg	Finland	France	Norway	United Kingdom							
			Rank	1	2	2	4	4	4	4							
			No. Agrs.	7	5	5	4	4	4	4							
			% of State's Agrs.	4.5	3.2	3.2	2.5	2.5	2.5	2.5							
Italy	10	188	Partner Rank	Austria	France	Finland	Bangladesh	Belgium	Bulgaria	Canada	Chile	Denmark	Germany	Greece	Hungary	Iceland	
			Rank	1	2	3	4	4	4	4	4	4	4	4	4		
			No. Agrs.	7	5	4	3	3	3	3	3	3	3	3	3		
			% of State's Agrs.	3.7	2.7	2.1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6		

Table 6 – Percentage Shares of Different Domains of All Agreements in 1808-2005, by Top-30 Cooperator States

State	Total No. Agrs.	Trade (general)	Transport Air	Weapons	Investment (general)	Frontiers	Immigration	Infrastructure	Economic Coop.	Non-Proliferation	Visas	Educational Coop.	PTA Modern	BIT	Energy	Technical Assistance	Customs	Transport Road	Arms	Financial Assistance	Industrial Coop.	Transport Merchandise	Transport Passengers	Transport Rail
USA	5,394	50.1	17.1	6.5	4.5	3.0	2.4	2.3	2.2	2.0	1.8	1.5	1.4	0.9	0.9	0.9	0.8	0.8	0.4	0.3	0.1	0.0	0.0	0.0
United Kingdom	4,841	40.9	19.2	6.7	2.9	3.7	2.9	1.3	0.1	2.7	1.4	0.4	0.1	2.6	0.9	0.2	5.1	4.8	0.1	0.3	0.2	1.7	1.5	0.4
Germany	4,354	39.0	13.4	7.4	3.2	3.5	3.2	3.1	0.1	3.0	0.8	0.1	0.1	3.0	1.4	0.2	5.5	4.4	0.1	5.0	0.3	1.7	1.4	0.0
Netherlands	4,184	38.8	21.2	6.7	2.9	4.0	3.4	0.6	0.0	3.1	2.6	0.1	0.1	2.2	0.6	0.0	5.4	3.5	0.0	0.1	0.3	1.6	1.7	0.8
Denmark	4,132	38.0	22.1	8.8	3.0	3.9	3.1	0.8	0.0	3.2	0.5	0.1	0.2	1.2	0.0	0.1	5.2	4.7	0.0	0.3	0.8	1.5	1.8	0.6
France	4,068	44.7	19.8	2.7	3.1	3.4	1.2	1.7	0.1	0.6	1.4	0.8	0.2	2.5	0.4	0.5	6.1	5.2	0.1	0.0	0.6	2.0	1.8	1.0
Sweden	4,045	39.2	23.4	7.6	2.9	1.8	3.4	0.8	0.0	3.2	0.6	0.0	0.2	1.4	0.2	0.1	5.8	5.3	0.0	0.0	0.5	1.3	1.4	1.0
Switzerland	3,835	35.0	24.8	6.9	1.8	4.2	3.1	0.3	0.0	3.4	0.5	0.0	0.2	2.8	0.3	0.0	5.6	6.3	0.1	0.2	0.0	1.6	1.8	1.0
Belgium	3,704	39.1	21.8	8.6	1.4	2.1	3.5	0.6	0.0	2.9	3.4	0.1	0.1	0.0	0.1	0.0	6.1	5.2	0.1	0.0	0.1	2.0	2.0	0.9
Italy	3,574	46.3	14.7	8.9	3.4	2.0	3.9	0.6	0.1	3.0	0.6	0.2	0.1	2.3	0.3	0.0	5.9	4.6	0.1	0.0	0.1	1.1	0.7	1.0
Norway	3,487	37.0	25.6	9.2	1.3	2.0	3.8	0.7	0.0	3.8	0.9	0.0	0.2	0.5	0.3	0.0	5.1	4.8	0.0	0.0	0.2	1.5	2.2	1.0
Austria	3,455	42.0	17.5	8.8	1.4	3.4	3.6	0.4	0.0	3.1	1.7	0.2	0.2	1.6	0.1	0.0	6.5	6.6	0.1	0.0	0.1	1.0	0.8	0.8
Canada	3,434	41.6	25.5	10.5	3.0	4.0	3.2	0.7	0.0	3.9	0.9	0.0	0.7	0.7	1.0	0.0	3.8	0.2	0.0	0.0	0.2	0.0	0.0	0.0
Spain	3,361	43.5	22.9	4.8	2.2	1.8	4.2	1.3	0.1	0.7	2.1	0.5	0.0	1.5	0.0	0.2	5.8	3.5	0.0	0.0	0.4	1.5	2.2	0.6
Finland	3,332	35.5	22.1	10.4	2.4	4.9	4.1	0.7	0.0	3.9	1.6	0.1	0.0	1.7	0.1	0.0	4.6	4.4	0.0	0.0	0.9	1.0	1.5	0.2
Luxembourg	3,264	38.6	21.6	8.5	1.5	2.0	3.7	0.2	0.0	3.3	2.4	0.2	0.2	0.0	0.0	0.0	6.0	6.9	0.0	0.0	0.0	1.8	2.2	1.0
Australia	3,102	43.4	25.7	10.1	0.0	3.4	3.9	0.4	0.0	3.5	0.8	0.0	0.6	0.7	0.6	0.0	4.8	0.3	0.0	0.0	0.0	0.8	0.8	0.0
Portugal	3,015	45.3	19.9	5.8	2.4	4.7	4.4	0.5	0.1	0.0	0.6	0.0	0.2	1.3	0.0	0.0	6.6	3.0	0.0	0.1	0.0	1.9	2.4	0.9
Hungary	3,000	34.6	20.7	11.5	2.6	3.5	4.4	0.1	0.3	4.4	0.8	0.2	0.5	1.8	0.3	0.0	4.2	5.2	0.0	0.0	0.4	2.0	1.7	0.7
Ireland	2,851	32.8	26.0	12.1	4.1	4.9	4.1	0.5	0.0	4.6	0.9	0.0	0.0	0.0	0.0	0.0	6.8	0.7	0.0	0.0	0.1	1.2	0.9	0.0
Czechoslovakia	2,804	30.1	27.9	10.3	0.5	5.0	2.3	0.2	0.2	3.5	0.9	0.2	0.0	0.7	0.3	0.0	5.3	7.0	0.0	0.0	0.2	2.1	2.5	0.7
Yugoslavia	2,777	30.8	23.8	9.5	0.4	3.7	4.2	0.4	0.4	3.9	1.0	0.2	2.1	0.0	0.0	0.1	5.5	8.7	0.0	0.0	0.2	1.8	2.6	0.7
Japan	2,723	50.9	20.4	12.7	4.4	0.1	0.1	0.1	0.2	3.9	1.0	0.0	0.1	0.5	0.7	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mexico	2,683	45.9	24.4	10.6	0.7	0.6	0.0	0.1	0.0	4.0	1.3	0.3	3.5	0.6	0.1	0.2	3.6	3.2	0.0	0.0	0.5	0.0	0.0	0.0
Brazil	2,609	51.1	24.8	6.4	0.7	1.3	0.6	1.0	0.0	0.0	1.7	0.4	3.6	0.5	0.4	0.2	2.9	3.3	0.0	0.0	0.6	0.1	0.0	0.0
USSR	2,591	38.2	19.3	12.0	0.2	6.8	4.6	0.7	0.3	4.1	0.7	0.8	0.0	0.0	0.3	0.0	3.9	6.6	0.2	0.0	0.6	0.4	0.1	0.0
Poland	2,517	28.8	23.9	12.2	0.5	4.6	4.6	0.4	0.3	5.2	0.6	0.1	0.5	2.5	0.2	0.0	3.0	6.0	0.0	0.0	0.6	2.3	2.8	0.8
New Zealand	2,510	37.1	28.2	12.5	0.0	4.0	4.7	0.1	0.0	4.3	1.3	0.0	0.7	0.2	0.4	0.0	4.4	2.0	0.0	0.1	0.1	0.0	0.0	0.0
Argentina	2,403	47.4	23.7	9.1	1.0	5.2	0.1	0.5	0.0	1.0	0.7	0.0	3.2	2.3	0.2	0.1	4.0	0.8	0.0	0.1	0.1	0.0	0.0	0.0

Figure 10 - Shares of Main Domains of All Agreements in 1808-2005, by Selected States

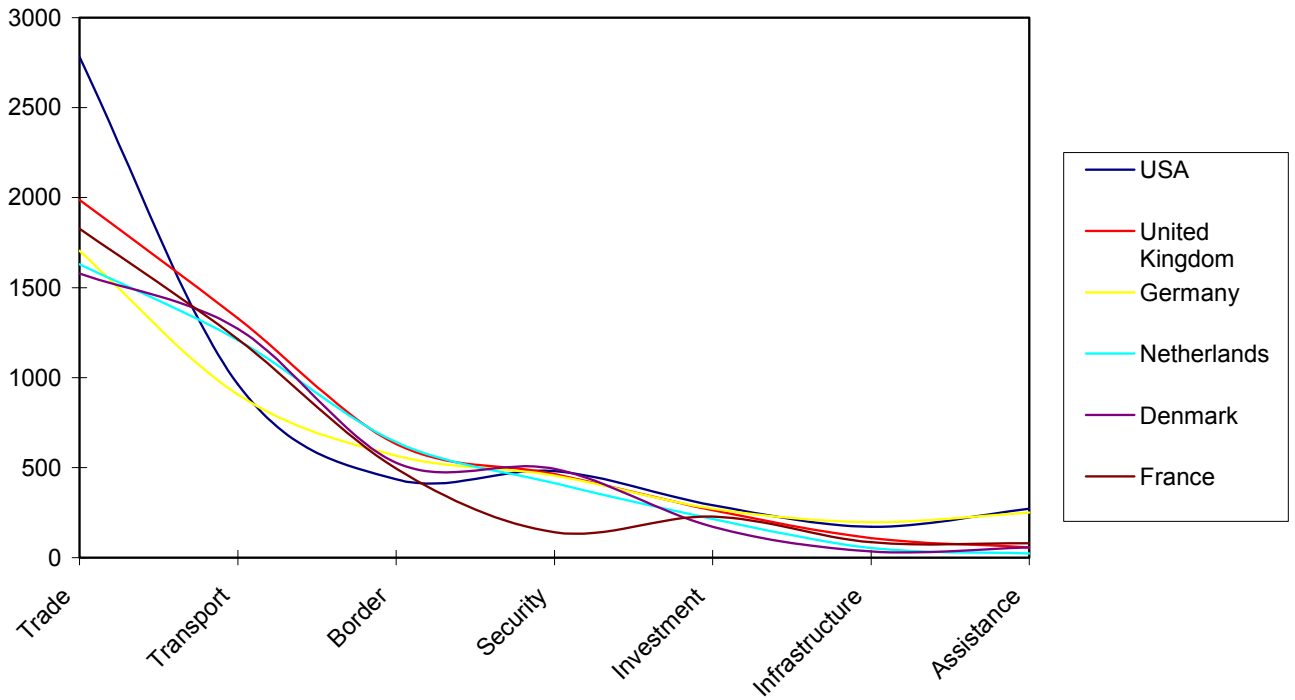


Figure 11a - Membership by Domain, 1808-2005

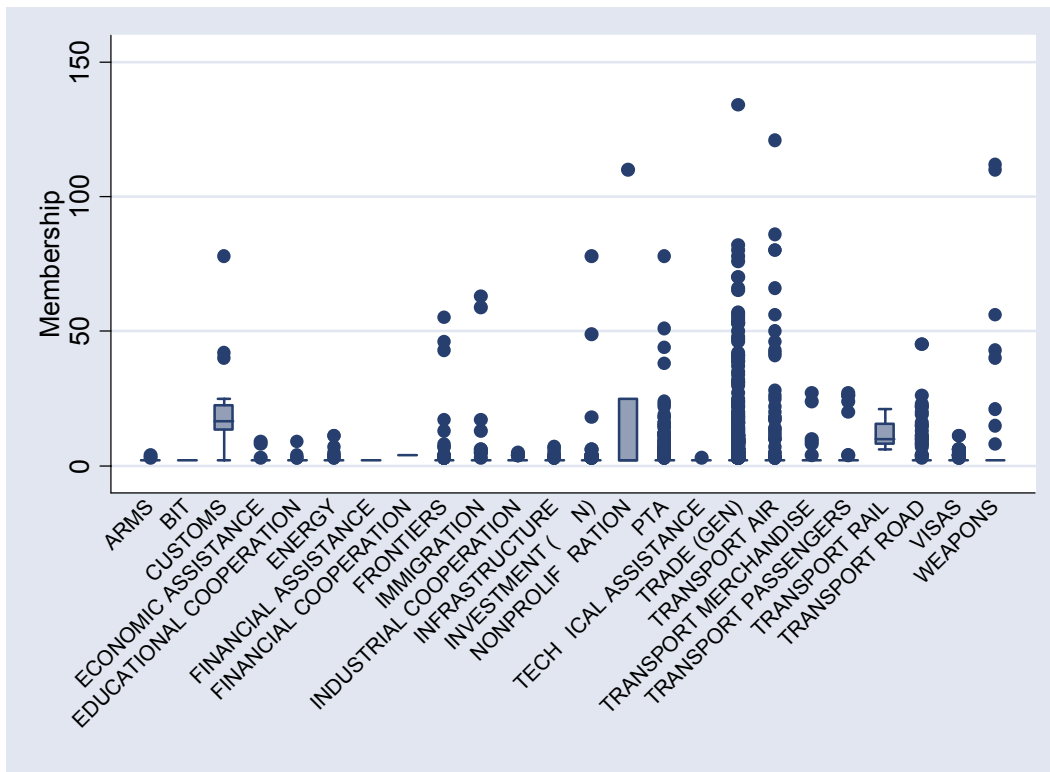


Figure 11b – Scope by Domain, 1808-2005

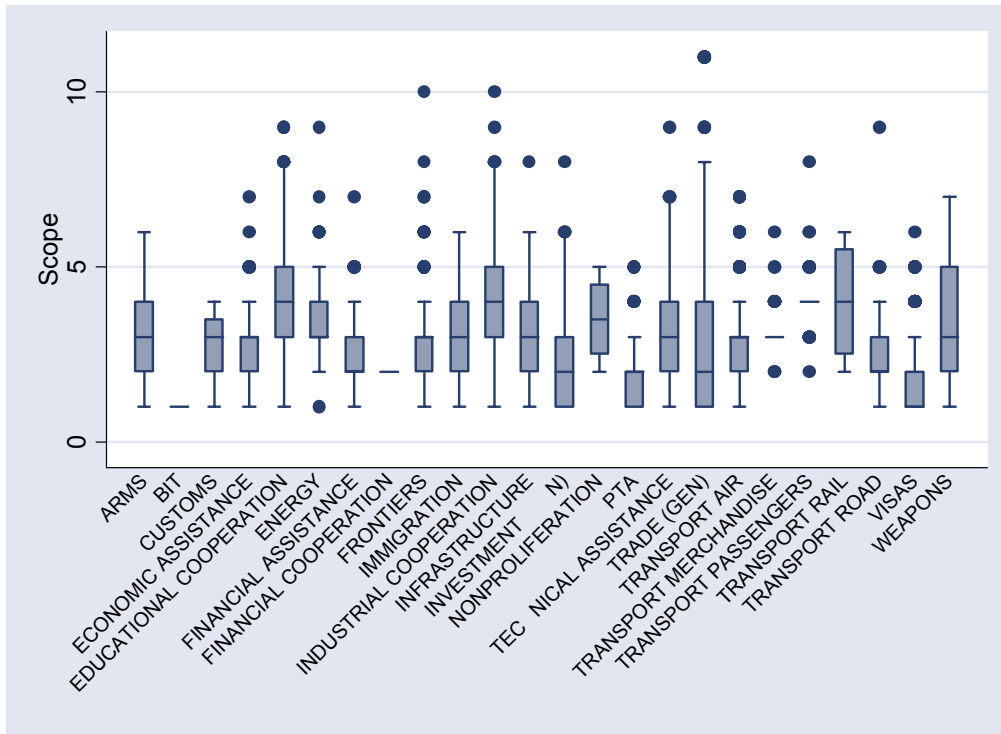


Figure 11c – Obligation by Domain, 1808-2005

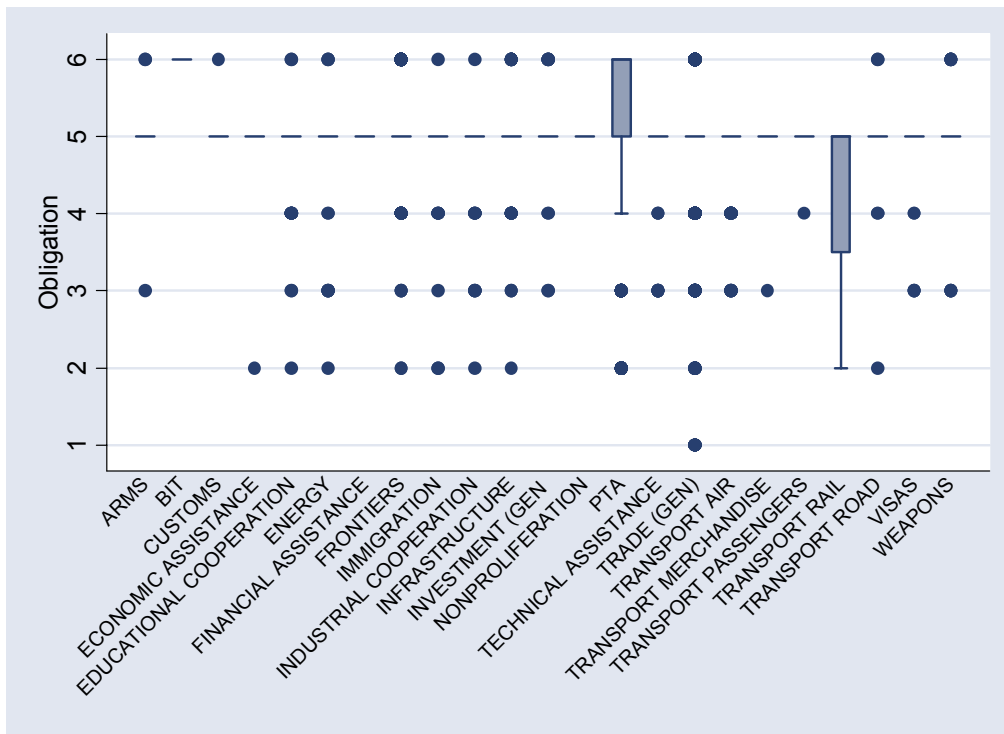


Figure 12a – Membership in Three Eras, 1808-2005

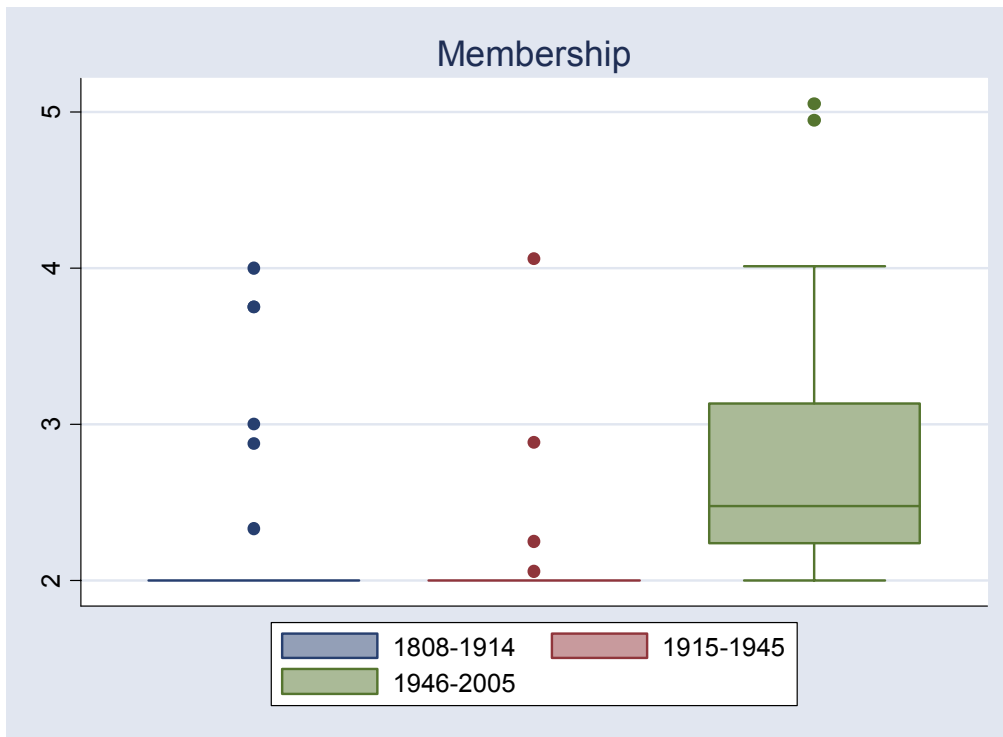


Figure 12b – Scope in Three Eras, 1808-2005

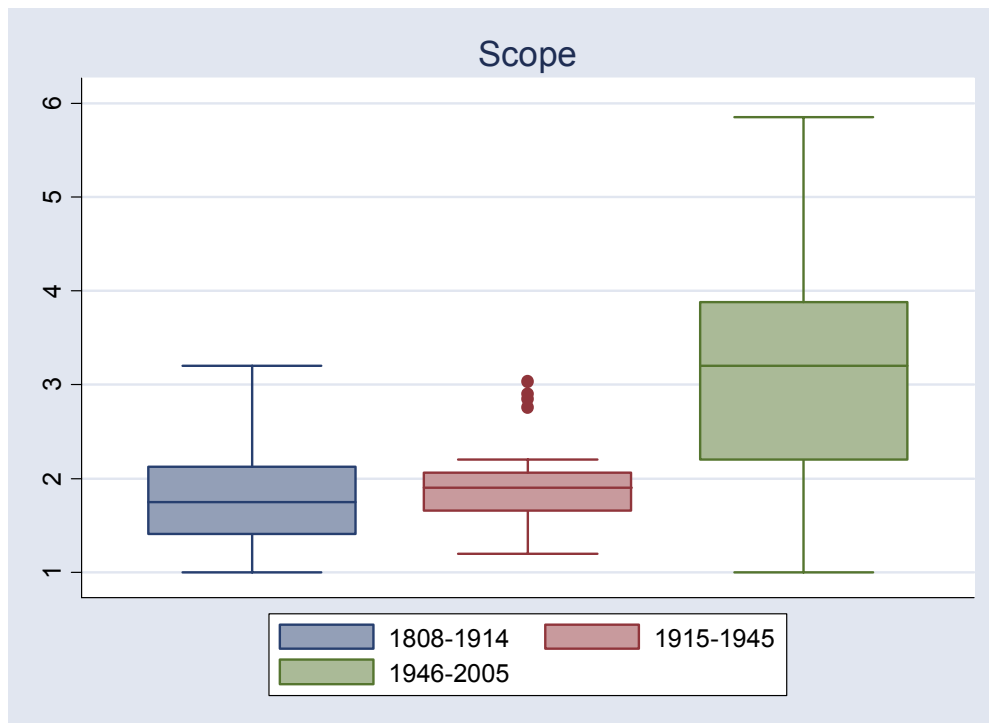


Figure 12 c – Obligation in Three Eras, 1808-2005

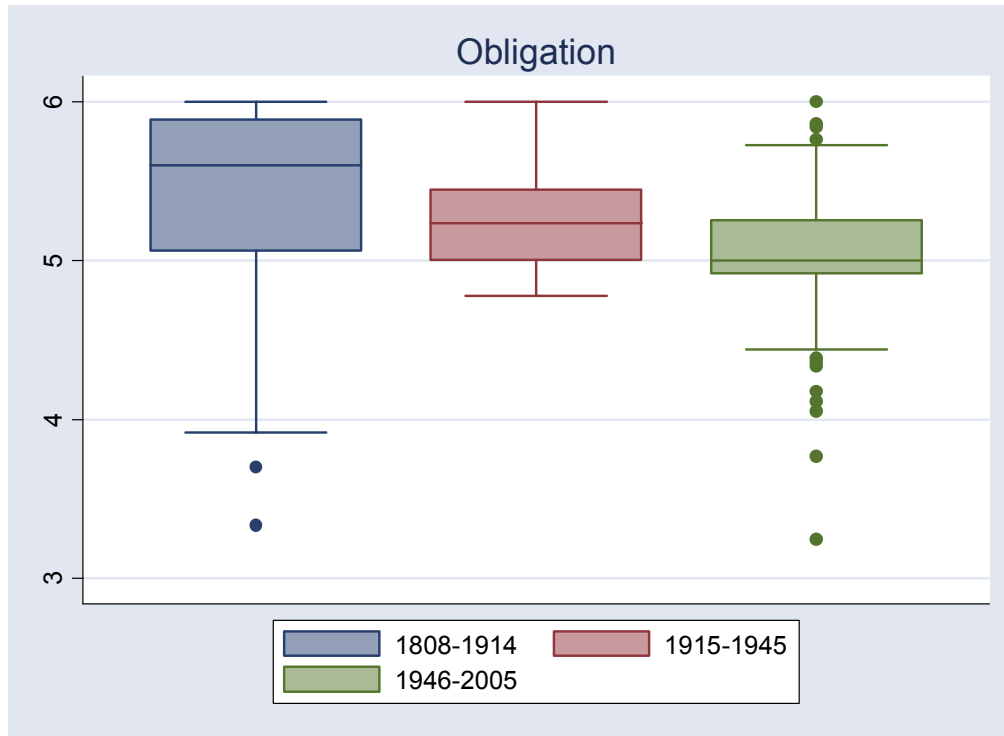


Table 7 – Types of Sequencing of Cooperation Agreements

Round 1		Round 2		Type of Sequencing
Partner States	Domain in t	Partner States	Domain in t+1	
A,B	Ci1	A,B	Ci1	Spillover
A,B	Ci1	A,B	Ci2	Spillover
A,B	Ci1	C,D	Ci1	Demonstration
A,B	Ci1	A,C	Ci1	Expansion

Figure 13a – Sequence of PTAs and Other Cooperation Agreements around the World, 1808-2005 (new agreements by year)

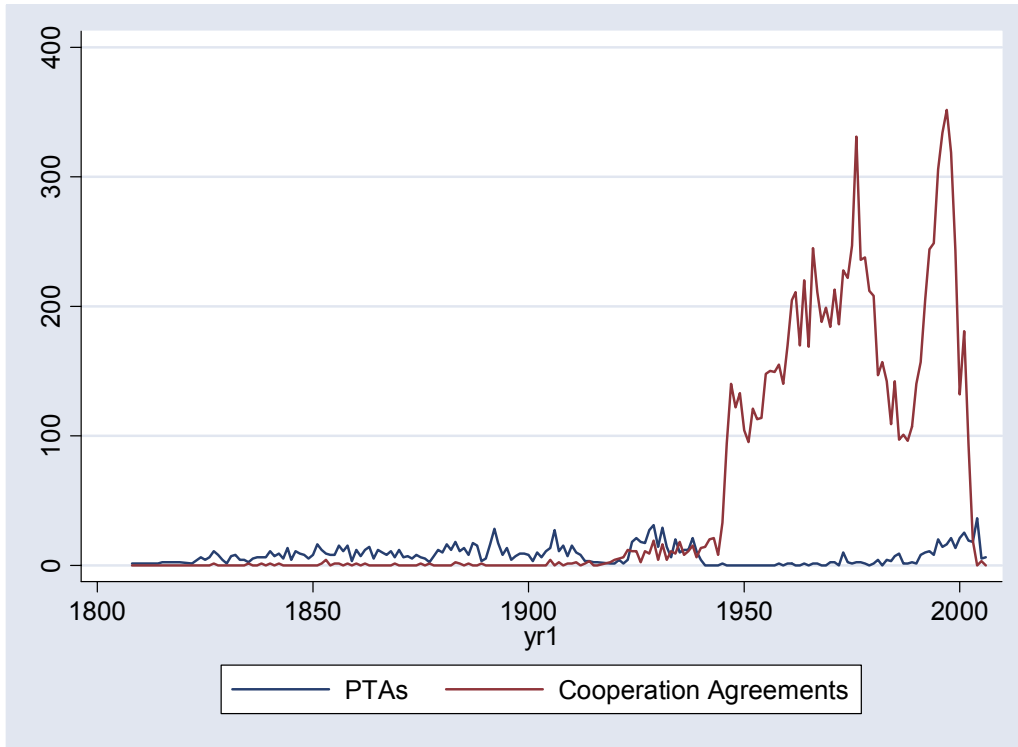


Figure 13b – Sequence of PTAs and Other Cooperation Agreements around the World, 1808-2005 (log of cumulative)

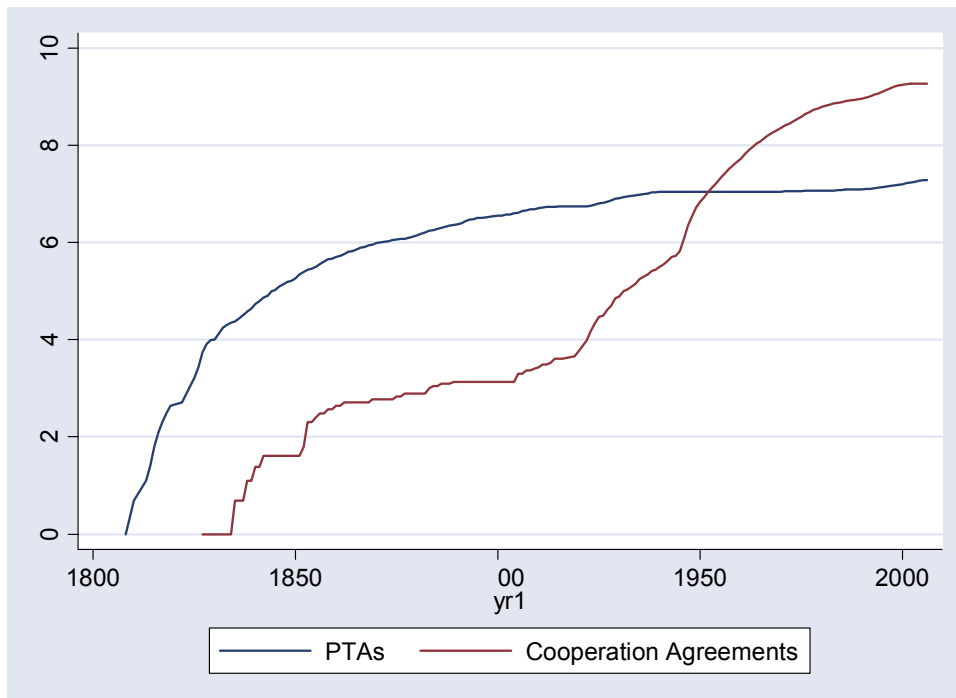


Figure 14 – Distance of PTAs and Cooperation Agreements from Each Other in 1808-2005, by Dyad

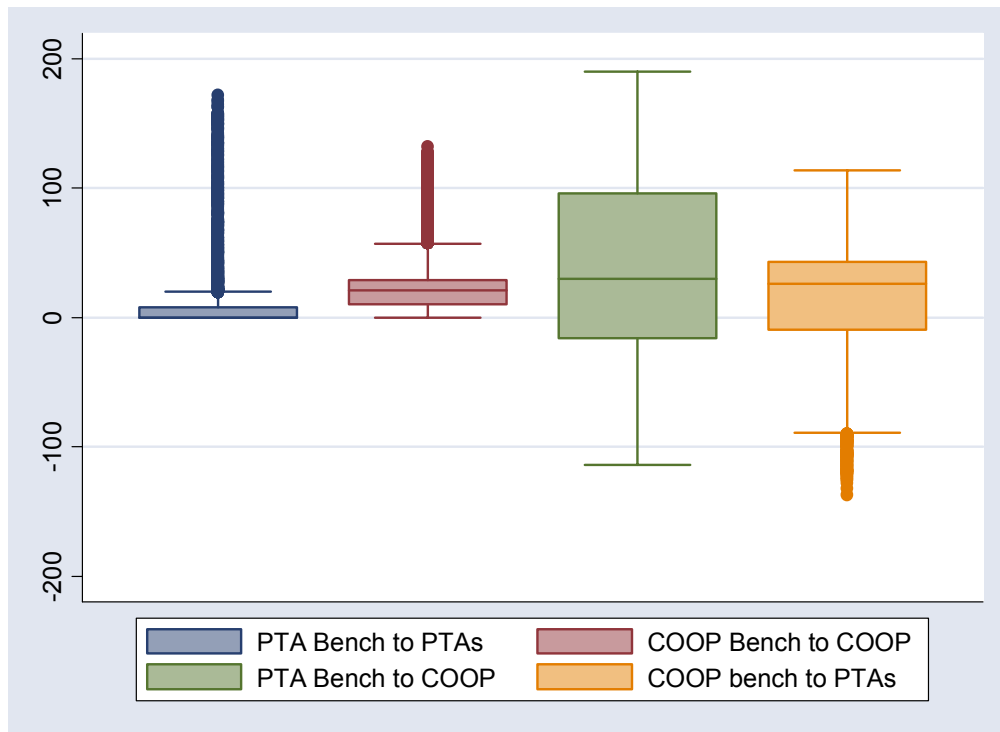
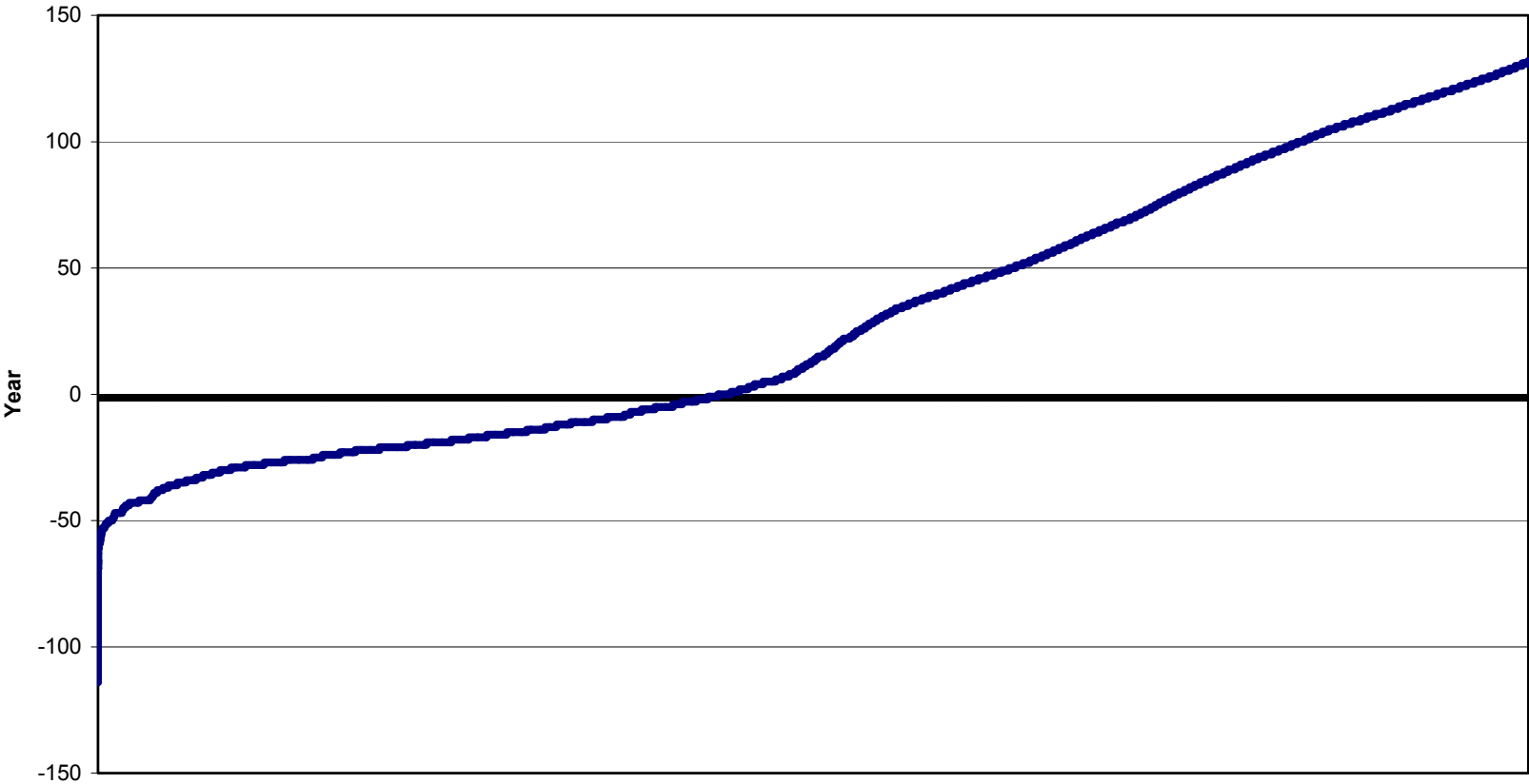


Figure 15 – Age of Cooperation Agreements from the First PTA in 1808-2005, by Bilateral Relationship



References

- Abbott, Kenneth and Duncan Snidal. 2000. "Hard and Soft Law in International Governance." *International Organization* 54, 3: 549-71.
- Adams, Richard, Philippa Dee, Jyothi Gali, and Greg McGuire. 2003. "The Trade and Investment Effects of Preferential Training Arrangements—Old and New Evidence. Productivity Commission Staff Working Paper, Canberra, Australia.
- Arashiro, Zuleika, Cynthia Marin, and Alejandro Chacoff. 2005. "Challenges to Multilateralism: The Explosion of PTAs." Sao Paulo: Institute for International Trade Negotiations.
- Axelrod, Robert. 1984. *The Evolution of Cooperation*. New York: Basic Books.
- Bagwell, Kyle and Robert W. Staiger. 1998. "Will Preferential Agreements Undermine the Multilateral Trading System?" *Economic Journal* 108 (July): 1-21.
- Balassa, Bela. 1961. "Towards a Theory of Economic Integration." *Kyklos* 16.
- Baldwin, Richard. 1993. "A Domino Theory of Regionalism." NBER Working Paper No. W4465. Cambridge, Mass.: NBER (September).
- Bhagwati, Jagdish. 1993. "Regionalism and Multilateralism: An Overview." In Jaime de Melo and Arvind Panagariya, eds., *New Dimensions in Regional Integration*. New York: Cambridge University Press.
- _____ and Arvind Panagariya. 1996. "Preferential Trading Areas and Multilateralism—Strangers, Friends, or Foes?" In Jagdish Bhagwati and Arvind Panagariya, eds. *The Economics of Preferential Trade Agreements*. Washington, D.C.: AEI Press.
- Bond, Eric W. and Constantinos Syropoulos. 1996. "The Size of Trading Blocs: Market Power and World Welfare Effects." *Journal of International Economics* 40 (May): 411-438.
- Bond, Eric W., and Constantinos Syropoulos, and L. Alan Winters. 2001. "Deepening of Regional Integration and Multilateral Trade Agreements." *Journal of International Economics* 53, 2 (April): 335-361.
- Corden, W. Max. 1972. "Economies of Scale and Customs Union Theory." *Journal of Political Economy* 80: 465-75.
- Cowhey, Peter. 1990. "States and Politics in American Foreign Economic Policy." in John Odell and Thomas Willett, eds., *Blending Economic and Political Theories*. Ann Arbor: University of Michigan Press.
- Deardorff, Alan and Robert Stern. 1994. "Multilateral Trade Negotiations and Preferential Trading Arrangements." In Alan Deardorff and Robert Stern, eds. *Analytical and Negotiating Issues in the Global Trading System*. Ann Arbor: University of Michigan Press.
- Devlin, Robert and Antoni Esteveordal. 2004. "Trade and Cooperation: A Regional Public Goods Approach." In Antoni Esteveordal, Brian Frantz, and Tam Robert Nguyen, eds. *Regional Public Goods: From Theory to Practice*. Washington, DC: Inter-American Development Bank.
- Eichengreen, Barry. 2004. "The Political Economy of European Integration." Paper prepared for the *Oxford Handbook of Political Economy*.
- Esteveordal, Antoni, Brian Frantz, and Tam Robert Nguyen. 2004. *Regional Public Goods: From Theory to Practice*. Washington, DC: Inter-American Development Bank.

- Ethier, Wilfred J. Ethier, 1998. "Regionalism in a Multilateral World." *Journal of Political Economy* 106, 6: 1214-1245.
- Fearon, James D. 1997. "Signaling Foreign Policy Interests: Tying Hands Versus Sinking Costs." *Journal of Conflict Resolution* 41, 1: 68-90.
- Frankel, Jeffrey A. and Shang-Jin Wei. 1995. *European Integration and the Regionalization of World Trade and Currencies: the Economics and the Politics*. Berkeley: University of California at Berkeley.
- Frankel, Jeffrey A., Ernesto Stein and Shang-Jin Wei. 1997. *Regional Trading Blocs in the World Economic System*. Washington, D.C.: Institute for International Economics.
- Frieden, Jeffrey. 1996. "The Impact of Goods and Capital Market Integration on European Monetary Politics." *Comparative Political Studies* 29, 2 (April).
- Gilpin, Robert. 1987. *The Political Economy of International Relations*. Princeton, N.J.: Princeton University Press.
- Goldstein, Judith L., Miles Kahler, Robert O. Keohane and Anne-Marie Slaughter. "Introduction: Legalization and World Politics." *International Organization* 54, 3.
- Gowa, Joanne. 1994. *Allies, Adversaries, and International Trade*. Princeton: Princeton University Press.
- _____ and Edward D. Mansfield. 1993. "Power Politics and International Trade." *American Political Science Review* 87, 2: 408-20.
- Grieco, Joseph M. 1988. "Anarchy and the Limits of Cooperation: A Realist Critique of the Newest Liberal Institutionalism." *International Organization*, 42, 3 (Summer): 486-507.
- Haas, Ernst B. 1958. *The Uniting of Europe: Political, Social, and Economic Forces, 1950-57*. Stanford, CA: Stanford University Press.
- Haftel, Yoram Z. "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, 2004.
- Lake, David A. *Entangling Relations: American Foreign Policy in Its Century*. Princeton: Princeton University Press, 1999.
- Li, Quan. 2000. "Institutional Rules of Regional Trade Blocs and Their Impact on International Trade." In Switky, R. and B. Kerremans, eds. *The Political Consequences of Regional Trade Blocs*. London: Ashgate.
- Johnson, Harry. 1965. "An Economic Theory of Protectionism, Tariff Bargaining, and the Formation of Customs Unions." *Journal of Political Economy* 73 (June): 256-283.
- Kahler, Miles. 1995. *International Institutions and the Political Economy of Integration*. Washington, D.C.: Brookings Institution.
- _____. 2000. "Conclusion: The Causes and Consequences of Legalization." *International Organization* 54, 3: 549-71
- Kemp, Murray C. and Henry Y. Wan Jr. 1976. "An Elementary Proposition Concerning the Formation of Customs Unions." *Journal of International Economics* 6 (February): 95-98.

Keohane, Robert O. 1984. *After Hegemony: Cooperation and Discord in the World Political Economy*. Princeton: Princeton University Press.

_____, Andrew Moravcsik and Anne-Marie Slaughter. 2000. "Legalized Dispute Resolution: Interstate and Transnational." *International Organization* (Summer)

Koremenos Barbara, Charles Lipson and Duncan Snidal. 2001. "The Rational Design of International Institutions." *International Organization* 55, 4.

_____. 2003. "International Law for an Uncertain Environment" Paper presented at UCSD Project on International Affairs Seminar (3 December).

Krasner, Stephen D. 1976. "State Power and the Structure of International Trade." *World Politics* 28 (April): 317-47.

Krishna, Pravin. 1998. "Regionalism and Multilateralism: A Political Economy Approach." *Quarterly Journal of Economics* 113 (February): 227-251.

Krueger, Anne O. 1997. "Problems with Overlapping Free Trade Areas." In Takatoshi Ito and Anne O. Krueger, eds., *Regionalism versus Multilateral Trade Arrangements*. Chicago: University of Chicago Press.

Lake David A. 1988. *Power, Protection, and Free Trade: International Sources of U.S. Commercial Strategy, 1887-1939*. Ithaca: Cornell University Press.

_____. 1999. *Entangling Relations: American Foreign Policy in Its Century*. Princeton: Princeton University Press.

_____ and Angela O'Mahony. "The Incredible Shrinking State: Explaining the Territorial Size of Countries." *Journal of Conflict Resolution* 48, 5 (October): 699-722.

Levy, Philip I. 1997. "A Political-Economic Analysis of Free-Trade Agreements." *American Economic Review* 87, 4 (September): 506-519.

Lipson, Charles. 1984. "International Cooperation in Economic and Security Affairs." *World Politics* 37: 1-23.

Lipsey, Richard G. 1960. "The Theory of Customs Unions: A General Survey." *The Economic Journal* 70: 498-513.

Mansfield, Edward and Helen V. Milner. 1999. "The New Wave of Regionalism." *International Organization* 53, 3.

_____ and B. Peter Rosendorff. 2000. "Free to Trade: Democracies, Autocracies, and International Trade." *American Political Science Review* 94, 2 (June).

Mansfield, Edward D., and Jon C. Pevehouse. 2000. "Trade Blocs, Trade Flows, and International Conflict." *International Organization* 54 (4): 775-808.

Martin, Lisa L., and Beth A. Simmons. 1998. "Theories and Empirical Studies of International Institutions." *International Organization* 52 (4): 729-57.

Mattli, Walter. 1999. *The Logic of Regional Integration: Europe and Beyond*. Cambridge, UK: Cambridge University Press.

Maxfield, Sylvia. 1990. *Governing Capital: International Finance and Mexican Politics*. Ithaca: Cornell University Press.

McLaren, John. 1997. "Size, Sunk Costs, and Judge Bowker's Objection to Free Trade." *American Economic Review* 87, 3 (June): 400-20.

Meade, James. 1955. *The Theory of Customs Unions*. Amsterdam: North Holland Co.

Mearsheimer, John J. 1994/95. "The False Promise of International Institutions." *International Security* 19, 3 (Winter): 5-49.

Milner, Helen. 1997. "Industries, Governments, and the Creation of Regional Trade Blocs." In Edward D. Mansfield and Helen V. Milner, eds., *The Political Economy of Regionalism*. New York: Columbia University Press.

_____. 1997b. *Interests, Institutions, and Information: Domestic Politics and International Relations*. Princeton: Princeton University Press.

Morrow, James D. 1992. "Signaling Difficulties with Linkage in Crisis Bargaining." *International Studies Quarterly* 36, 2: 153-172.

Mundell, Robert A. 1964. "Tariff Preferences and the Terms of Trade." *Manchester School of Economic and Social Studies* 32: 1-13.

Pahre, Robert. 2000. "Most-Favored-Nation Clauses and Clustered Negotiations." *International Organization* 55, 4.

_____. 2005. Trade Agreements Database (TAD). <https://netfiles.uiuc.edu/pahre/www/tad.html>

Pastor, Robert. 2001. *Toward a North American Community: Lessons from the Old World for the New*. Washington, DC: Institute for International Economics.

Perroni, Carlo and John Whalley. 1994. "The New Regionalism: Trade Liberalization or Insurance?" NBER Working Paper No. 4626. Cambridge, MA: NBER (January).

Oye, Kenneth A. 1992. *Economic Discrimination and Political Exchange: World Political Economy in the 1930s and 1980s*. Princeton, N.J.: Princeton University Press.

Oye, Kenneth. 1986. "Explaining Cooperation Under Anarchy: Hypotheses and Strategies." in Kenneth A. Oye, ed., *Cooperation under Anarchy* (Princeton, NJ: Princeton University Press).

Panagariya, Arvind and Ronald Findlay. 1996. "A Political-Economy Analysis of Free-Trade Areas and Customs Unions." In *The Political Economy of Trade Reform: Essays in Honor of Jagdish Bhagwati*. Cambridge, MA: MIT Press: 265-287.

Perroni, Carlo and John Whalley. 1994. "The New Regionalism: Trade Liberalization or Insurance?" NBER Working Paper No. 4626. Cambridge, MA: NBER (January).

Reus-Smit, Christian 1997. "The Constitutional Structure of International Society and the Nature of Fundamental Institutions." *International Organization* 51, 4: 555-589.

Richardson, Martin. 1994. "Why a Free Trade Area? The Tariff Also Rises." *Economics and Politics* 6, 1 (March): 79-96.

Simmons, Beth. 2000. "The Legalization of International Monetary Affairs." *International Organization* 54 (3): 573-602.

Smith, Peter. 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, Jacob. 1950. *The Customs Union Issue*. New York: Carnegie Endowment for International Peace.

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

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

Whalley, John. 1996. "Why Do Countries Seek Regional Trade Agreements?" NBER Working Paper No. W5552. Cambridge, Mass.: NBER (May).

Wonnacott, Paul. 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.: the AEI Press, pp. 79-107.

Yarbrough, Beth V., and Robert 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

