

# *Sequencing Trade Integration and Cooperation Agreements*

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# *Motivation*

- **Trade integration agreements and other cooperation agreements have proliferated around the world**
- **The two phenomena may be path-dependent and endogenous to one another**
  - **However, little empirical understanding of the relationships between trade and other types of cooperation agreements**
  - **Few policy prescriptions as to how countries can most productively build on trade agreements to pursue further cooperation**
- **This paper: opens an empirical research agenda on sequencing international cooperation**
  - **Tool: a new, extensive dataset on trade integration and other cooperation agreements**
  - **Ultimate goal: generate “best practices” of sequencing—ordering trade and other cooperation agreements in ways that provide higher pay-offs to member countries**

# *Organization*

- I. Existing Studies: What Do We Already Know?**
- II. Dataset on Trade Integration and Other Cooperation Agreements**
- III. Avenues for Future Research**


*I*

*Literature Review:  
Identifying a Research Agenda*

# *What Have We Explored in Economics and Political Science?*

- **Economics literature on sequencing of trade integration: tends to follow Balassa's (1961) linear notion**

FTA  CU  common market

- **Dynamic path vein: PTAs can propel strategic interactions conducive to their expansion and/or to new PTAs**
  - However, few generalizable empirical studies on the sequences of trade integration
- **Political scientists have explored a wider range of domains of cooperation, such as trade, security, and the environment**
- **Various theoretical strands: cooperation in t  cooperation in t+1**
  - However, empirical studies tend to be qualitative region- or issue-specific case studies rather than employing global, quantitative data

# *Stylized Summary of Literature*

- **Overall, theoretical and empirical literature yields:**
  - **Why states cooperate**
  - **Why cooperation can produce further cooperation**
  - **Domains may be related: COOP in one econ. domain (e.g. trade) may lead to COOP in other econ. domains (e.g. monetary)**
- **Generalizable empirical understanding thinner on:**
  - **The choice of one domain of cooperation over another**
  - **The static relationship between different domains (substitutability, complementarity)**
  - **The dynamic relationships between different domains (esp. trade and non-econ. domains)**

# *Why Explore Sequencing of Cooperation?*

- For analytical reasons: crucial for understanding
  - (1) why and how states cooperate
  - (2) what the outcomes of cooperation are —  
e.g. supply of global and regional public goods
  - (3) whether trade agreements serve as particularly useful springboards for further cooperation
  
- For policy reasons: can help
  - (1) governments sequence their international cooperation in more productive ways
  - (2) donors design high-yield strategies for supporting international cooperation in general, and cross-border, regional, and global projects, in particular

## *II*

# *Dataset on Trade and Cooperation Agreements*

# *Organization*

- **Summary of Data and Sources**
- **Patterns of Global Cooperation in 1800-2005**
- **Actors & Partners: Who Cooperates, When, and with Whom?**
- **Domains: In Which Issue Areas do States Cooperate?**
- **Sequencing: Is There an Inter-Temporal Ranking of Domains of Cooperation?**

# *Summary of Data*

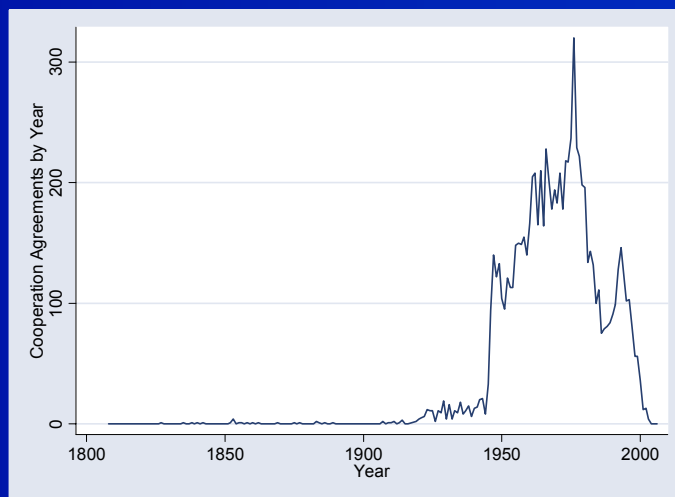
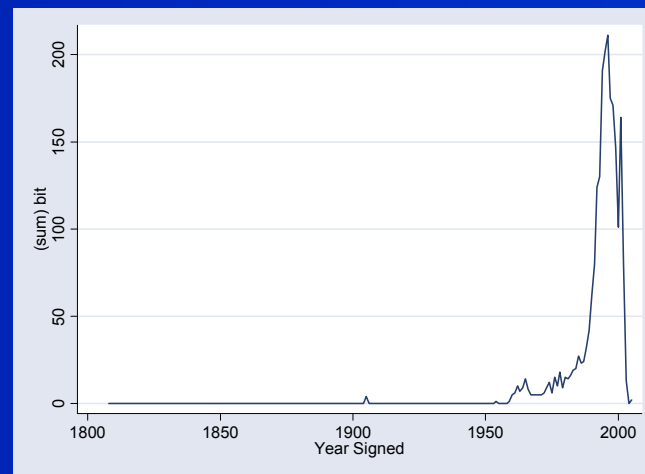
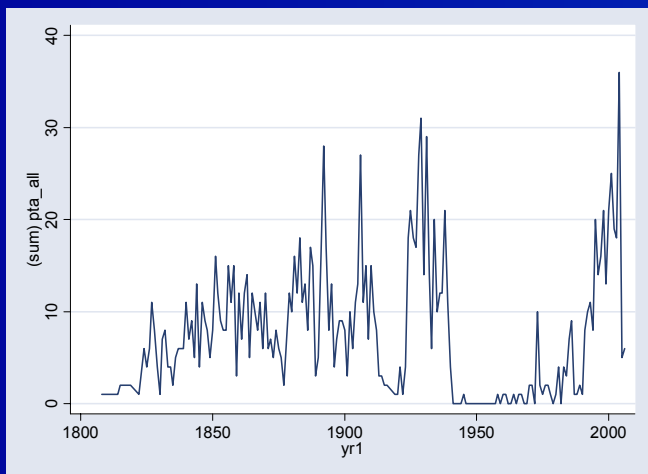
- **Sample of agreements: 12,247**
- **94% of agreements bilateral; 6% multilateral**
- **Observations (“dyad-agreements”): 128,731**
- **Total number of dyads with at least one agreement: 15,810**
- **Sample period: 1800-2005**
- **Bulk of agreements (88%) formed since 1945**
- **Sample of states and territories: a total of 241**
  - **Max per year: 219 (since 2002)**
  - **Min per year: 60 (in 1808)**
- **Number of domains: 23 (trade, investment, transport, etc.)**
- **Number of dimensions: 4 (age, membership, scope, obligation)**

# *Sources*

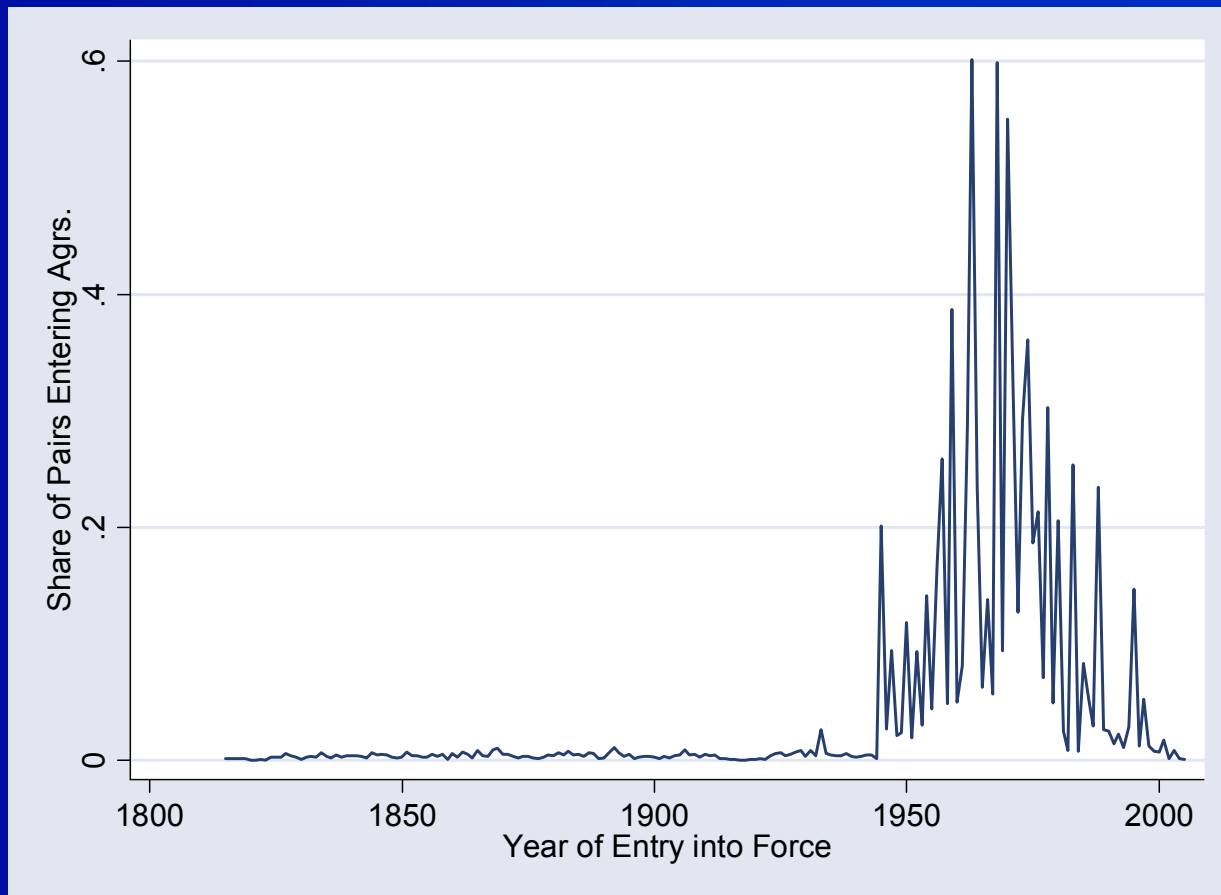
- **PTAs (1,462 agreements):**
  - **Post-war: WTO web, Arashiro et al. (2005)**
  - **Inter-war: Smith (1996), UN (1947), and US State Department web**
  - **Pre-WW I: Pahre's Trade Agreements Database**
- **BITs (2,285): UNCTAD**
- **Other cooperation agreements (8,500): UN Treaty Series Database**

# *Evolution of Global Cooperation*

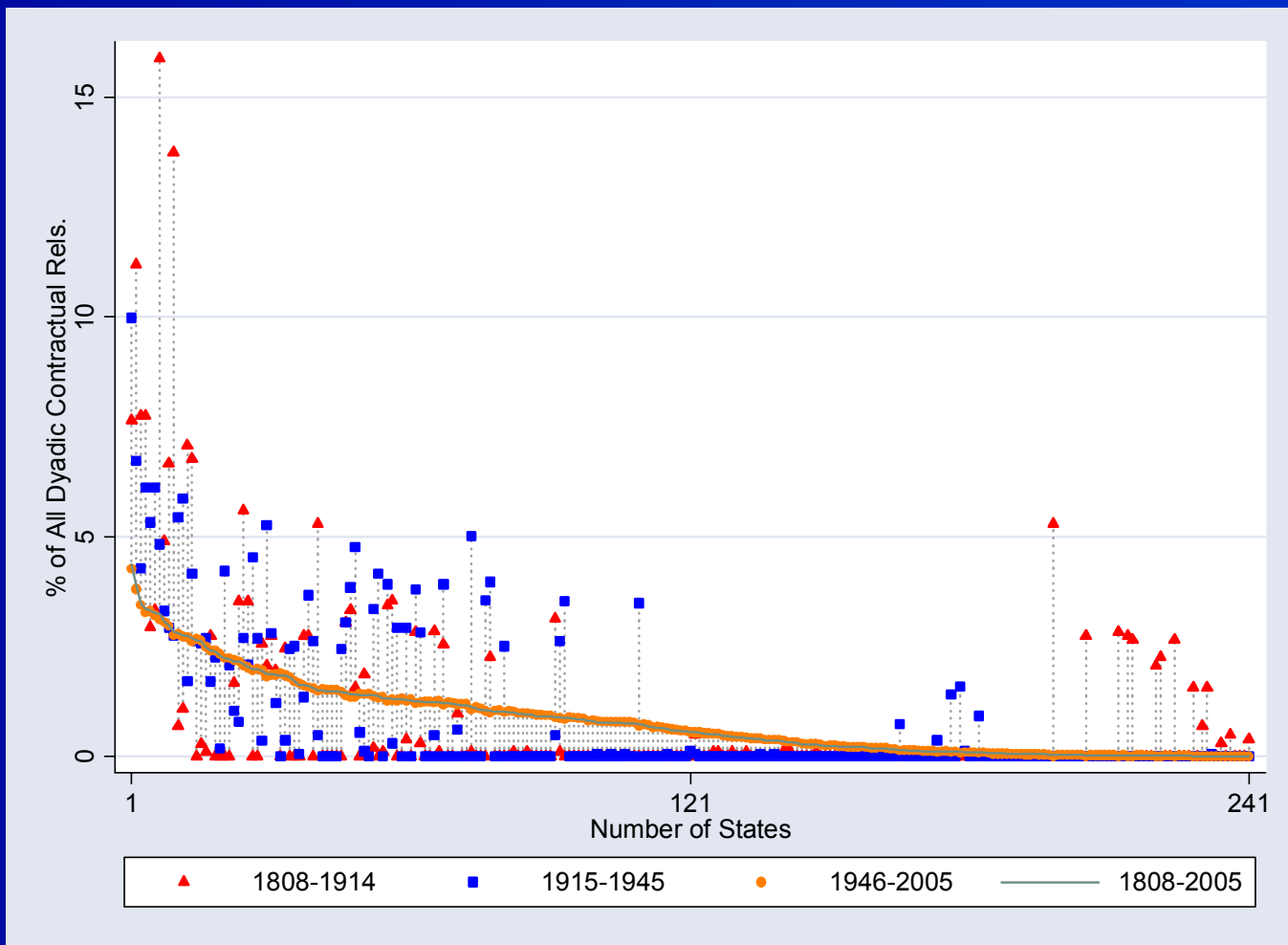
# *Waves of Global Cooperation: New PTAs, BITs, & Other Agreements by Year, 1800-2005*



# *Globalization of Cooperation: Share of Dyads Entering an Agreement, 1800-2005*

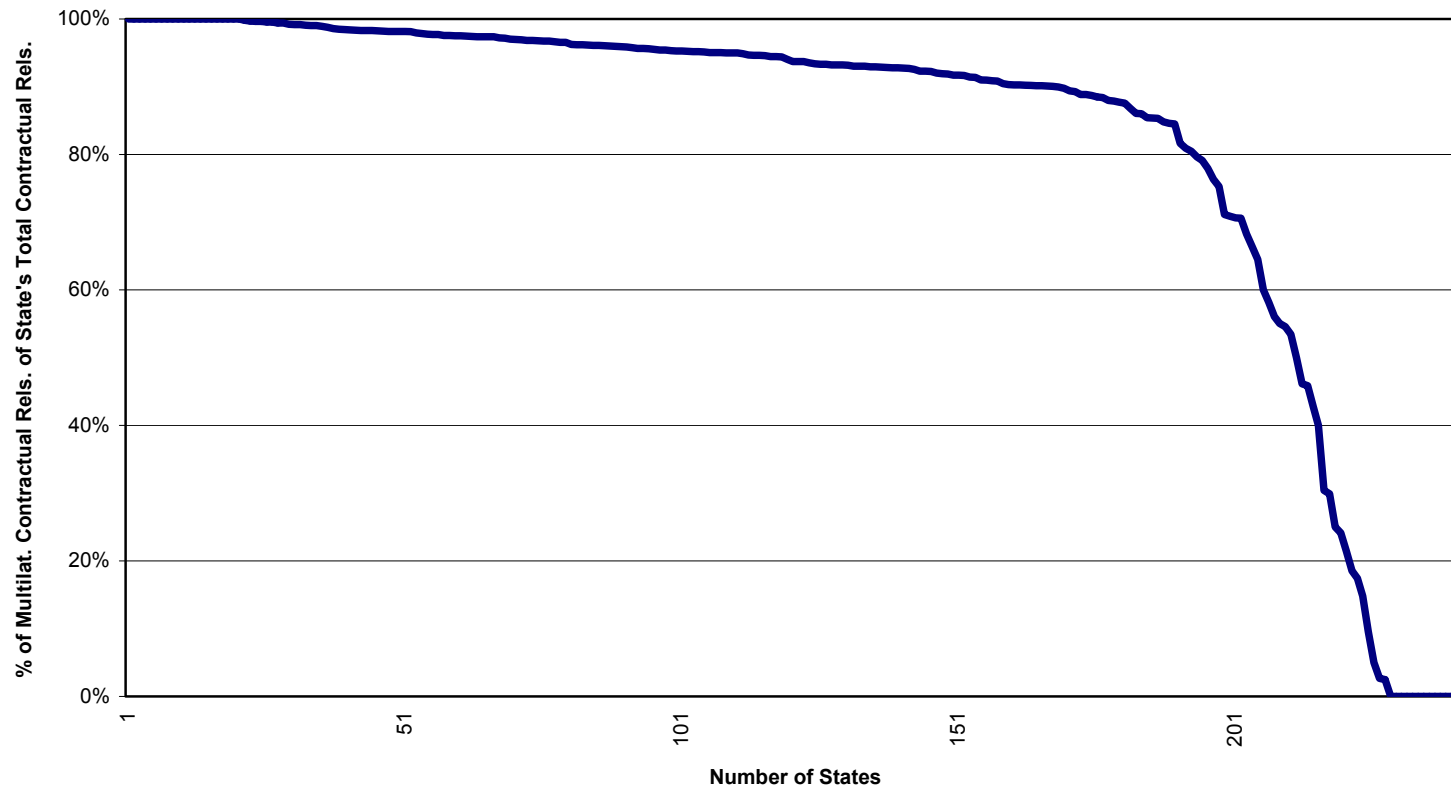


# *Leveling of Global Cooperation: % Share of all Agreements over Time, by State*



# *Multilateralism: An Enabler of Globalization of Cooperation*

Share of Multilateral Agreements of All Agreements, by State



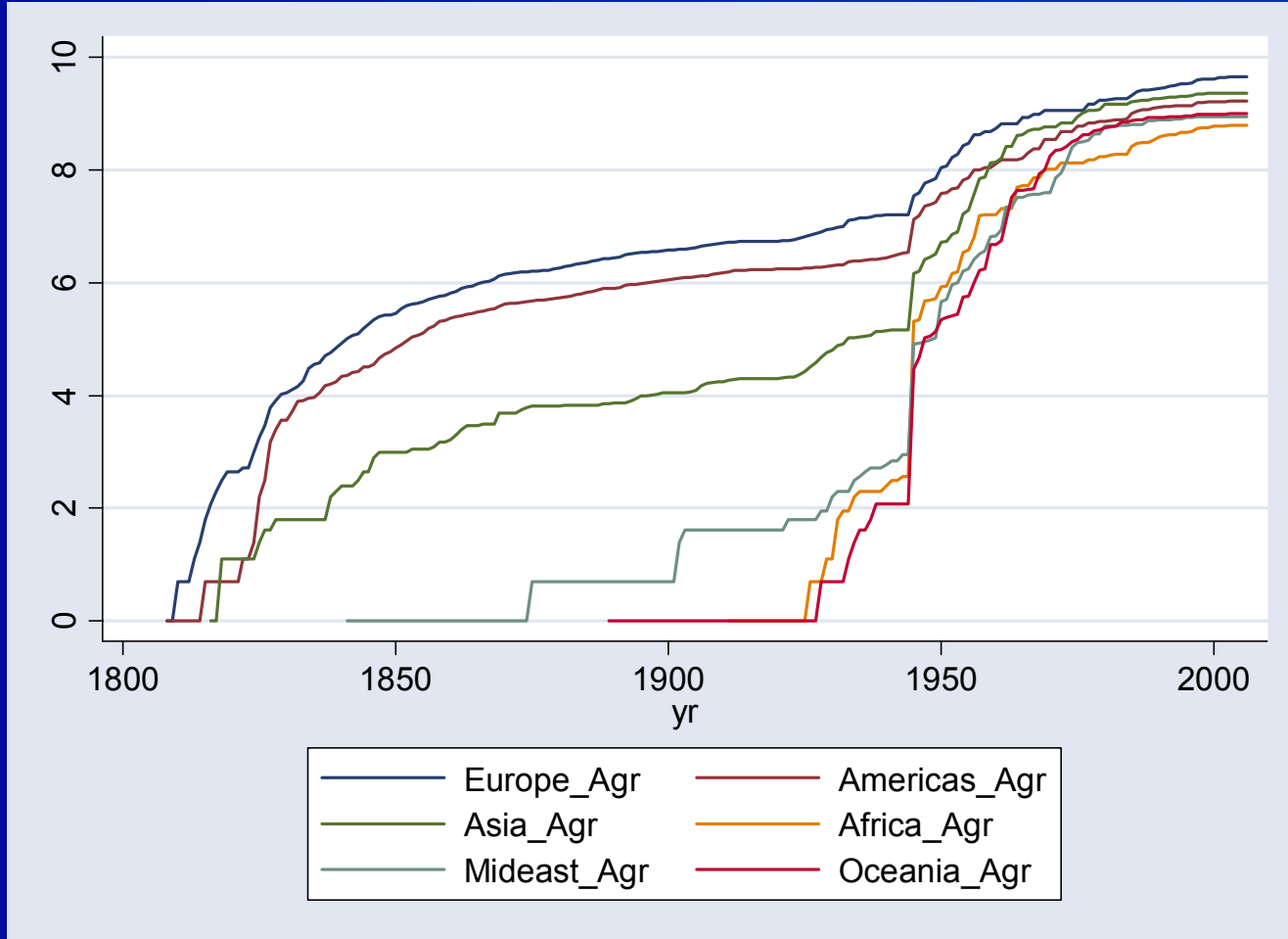
*Actors and Partnerships:  
Who Cooperates—and with Whom?*

# *Most Prolific Cooperators: The Global Top-10, 1800-2005*

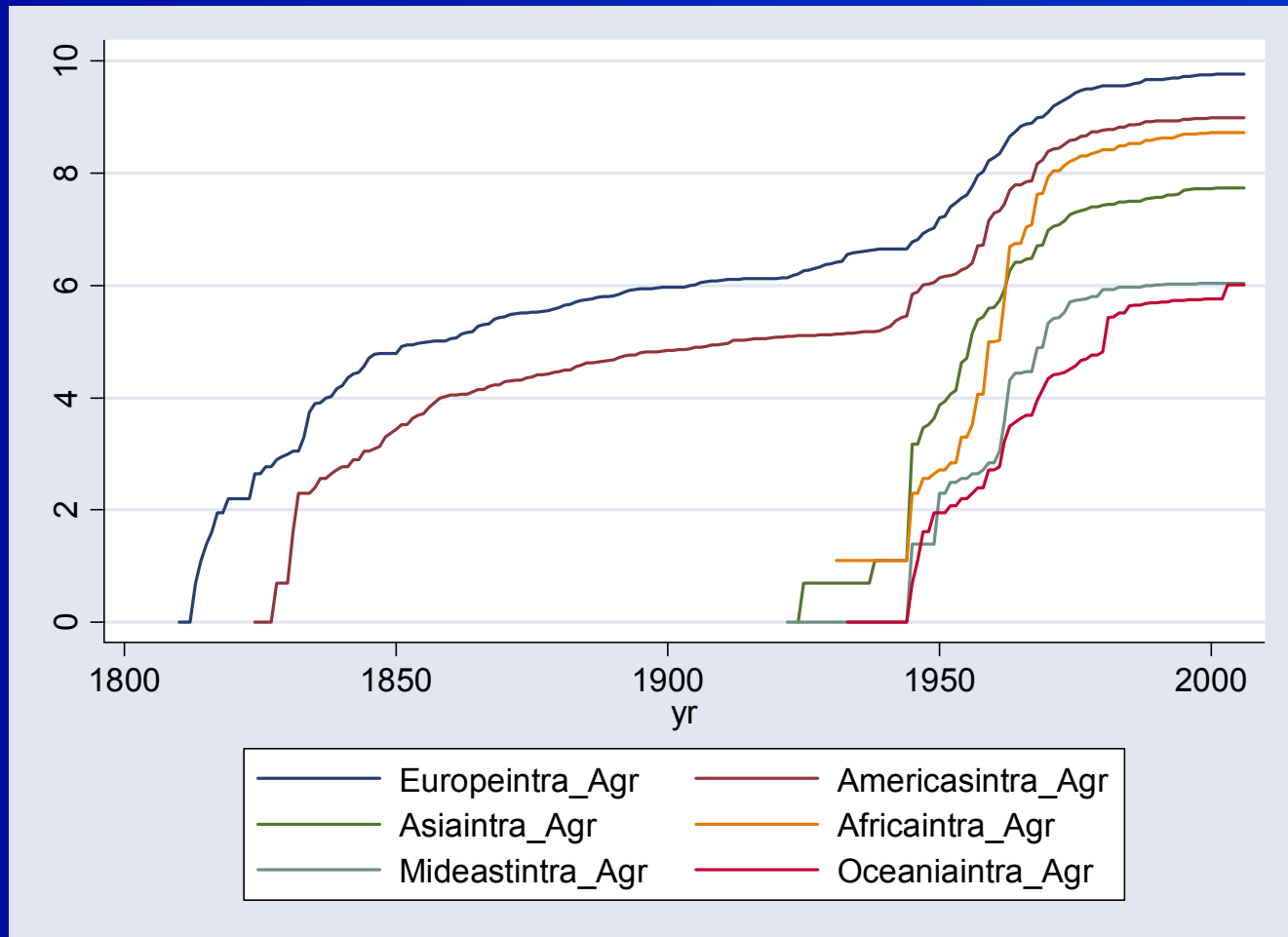
- 1. United States (5,394 agreements)**
- 2. United Kingdom (4,841)**
- 3. Germany (4,354)**
- 4. Netherlands (4,184)**
- 5. Denmark (4,132)**
- 6. France (4,068)**
- 7. Sweden (4,045)**
- 8. Switzerland (3,835)**
- 9. Belgium (3,704)**
- 10. Italy (3,574)**

**(Note the relatively low Gini = globalization of cooperation)**

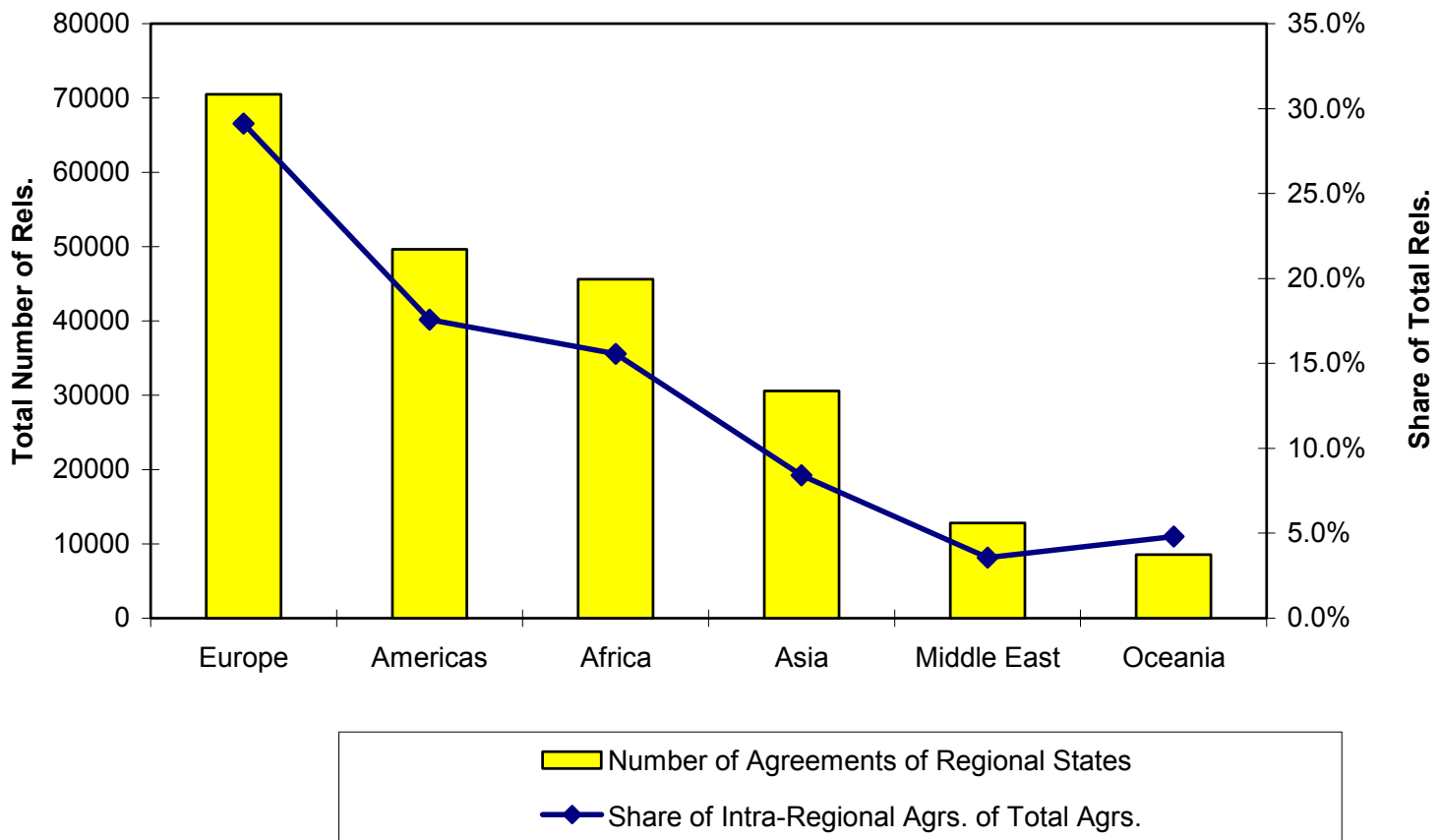
# *Earliest Cooperators: Europe and the Americas*



# *Rise of Intra-Regional Cooperation*



*The More Agreements, the More Intra-Regional Agreements*  
*Might cooperation be particularly path-dependent within regions?*



# *Global Club of Cooperators?*

## *Top-10 Partners of Top-10 Cooperators, 1800-2005*

State		Top-10 Partners									
US	Partner	Canada	UK	France	Pakistan	Japan	Mexico	Israel	Korea	India	Yugoslavia
	Rank	1	2	3	4	5	6	7	8	9	10
	No. Agrs.	133	128	87	85	82	82	80	79	76	75
	% of State's Agrs.	2.5	2.4	1.6	1.6	1.5	1.5	1.5	1.5	1.4	1.4
UK	Partner	France	US	Netherl.	Denmark	Germany	Italy	Sweden	Switzerl.	Norway	Belgium
	Rank	1	2	3	4	5	6	7	8	10	10
	No. Agrs.	132	128	109	102	99	98	95	92	90	90
	% of State's Agrs.	2.7	2.6	2.3	2.1	2.0	2.0	2.0	1.9	1.9	1.9
Germany	Partner	France	Netherl.	Italy	UK	Belgium	Austria	Denmark	Switzerl.	Sweden	Luxembourg
	Rank	1	2	3	4	5	6	7	7	9	10
	No. Agrs.	129	112	101	99	98	97	92	92	81	78
	% of State's Agrs.	3.0	2.6	2.3	2.3	2.3	2.2	2.1	2.1	1.9	1.8
Netherlands	Partner	Belgium	Luxembourg	Germany	UK	France	Italy	Switzerl.	Sweden	Denmark	US
	Rank	1	2	3	4	5	6	7	8	9	10
	No. Agrs.	156	132	112	109	100	90	87	85	84	75
	% of State's Agrs.	3.7	3.2	2.7	2.6	2.4	2.2	2.1	2.0	2.0	1.8
Denmark	Partner	Sweden	Norway	UK	Germany	France	Switzerl.	Italy	Netherl.	Austria	Belgium
	Rank	1	2	3	4	5	6	7	7	9	10
	No. Agrs.	112	103	102	92	90	87	84	84	81	78
	% of State's Agrs.	2.7	2.5	2.5	2.2	2.2	2.1	2.0	2.0	2.0	1.9
France	Partner	Italy	UK	Germany	Belgium	Spain	Switzerl.	Netherl.	Sweden	Denmark	Luxembourg
	Rank	1	1	3	4	5	6	7	8	9	10
	No. Agrs.	132	132	129	118	110	106	100	91	90	89
	% of State's Agrs.	3.2	3.2	3.2	2.9	2.7	2.6	2.5	2.2	2.2	2.2
Sweden	Partner	Norway	Denmark	UK	Switzerl.	France	Finland	Netherl.	Belgium	Germany	Austria
	Rank	1	2	3	4	5	6	7	8	8	10
	No. Agrs.	123	112	95	92	91	88	85	81	81	76
	% of State's Agrs.	3.0	2.8	2.3	2.3	2.2	2.2	2.1	2.0	2.0	1.9
Switzerl.	Partner	France	Italy	Germany	Sweden	UK	Denmark	Netherl.	Belgium	Austria	Spain
	Rank	1	2	3	3	3	6	6	8	9	10
	No. Agrs.	106	94	92	92	92	87	87	81	80	74
	% of State's Agrs.	2.8	2.5	2.4	2.4	2.4	2.3	2.3	2.1	2.1	1.9
Belgium	Partner	Netherl.	Luxembourg	France	Germany	UK	Italy	Sweden	Switzerl.	Austria	Denmark
	Rank	1	2	3	4	5	6	7	7	9	10
	No. Agrs.	156	135	118	98	90	89	81	81	78	78
	% of State's Agrs.	4.2	3.6	3.2	2.6	2.4	2.4	2.2	2.2	2.1	2.1
Italy	Partner	Germany	UK	Switzerl.	Netherl.	Austria	Belgium	Denmark	Spain	Sweden	
	Rank	2	3	4	5	6	6	8	9	10	
	No. Agrs.	101	98	94	90	89	89	84	74	73	
	% of State's Agrs.	2.8	2.7	2.6	2.5	2.5	2.5	2.4	2.1	2.0	



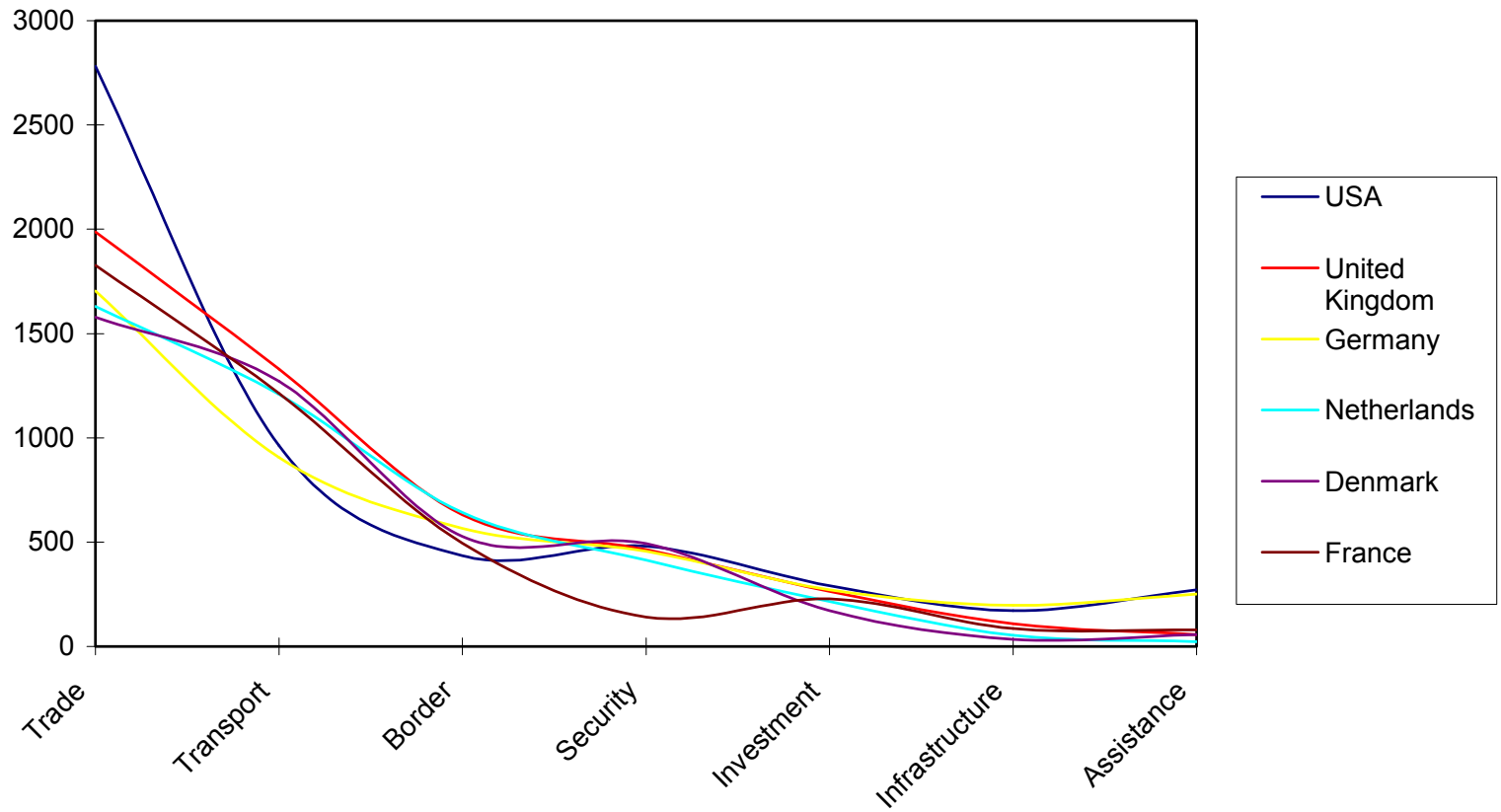
*Domains of Cooperation:*

*In Which Issue Areas Do States Cooperate?*

# *Domains in Dataset*

- ✓ PTAs
- ✓ Other Trade
- ✓ BITs
- ✓ Other Investment
- ✓ Customs
- ✓ Energy
- ✓ Frontiers
- ✓ Immigration
- ✓ Visas
- ✓ Infrastructure
- ✓ Arms
- ✓ Non-Proliferation
- ✓ Weapons
- ✓ Air, Merchandise, Road, Rail, and Passenger Transportation
- ✓ Technical, Financial, and Economic Assistance
- ✓ Industrial and Educational Cooperation

# *Agreements by Domain:* *Similar Patterns across Main Cooperators*



# *Why Do Trade Agreements Dominate?*

- **One possibility: trade domain may have properties conducive to (1) multiple agreements among a dyad; and (2) cooperation *per se***
  - **Obtaining market access inherently requires international cooperation (compare to monetary or health domains, for example)**
  - **Trade may be more “divisible” than other domains (consider sectoral agreements on steel, textiles, etc.; and agreements by topic such as standards)**
  - **Trade can be made a club good through tariffs and rules of origin**
    - ➔ **greater incentives to provide**
  - **Trade agreements (esp. PTAs) tend to follow a blueprint**
    - ➔ **domestic and international transaction costs reduced after the first agreement**
- **If trade does have unique properties, might trade agreements be a particularly likely first C among states uninitiated to bilateral C?**

*Sequencing of Cooperation:  
Toward a Research Agenda*

# *What is Sequencing?*

## *Various Potential Answers!*

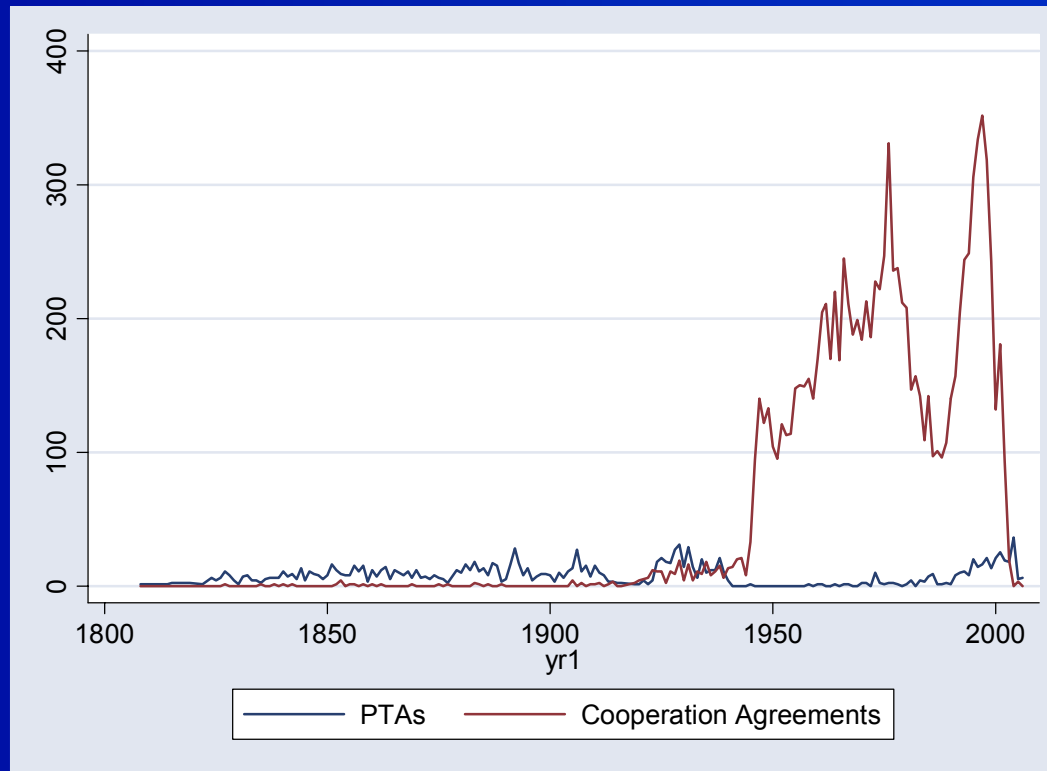
Round 1		Round 2		Type of Sequencing
Partner States	Domain in t	Partner States	Domain in t+1	
A,B	1	A,B	1	Deepening
A,B	1	A,B	2	Spillover
A,B	1	C,D	1	Demonstration
A,B	1	A,C	1	Expansion

# *Thinking of Spillover Sequencing: Do PTAs Catalyze Cooperation Agreements?*

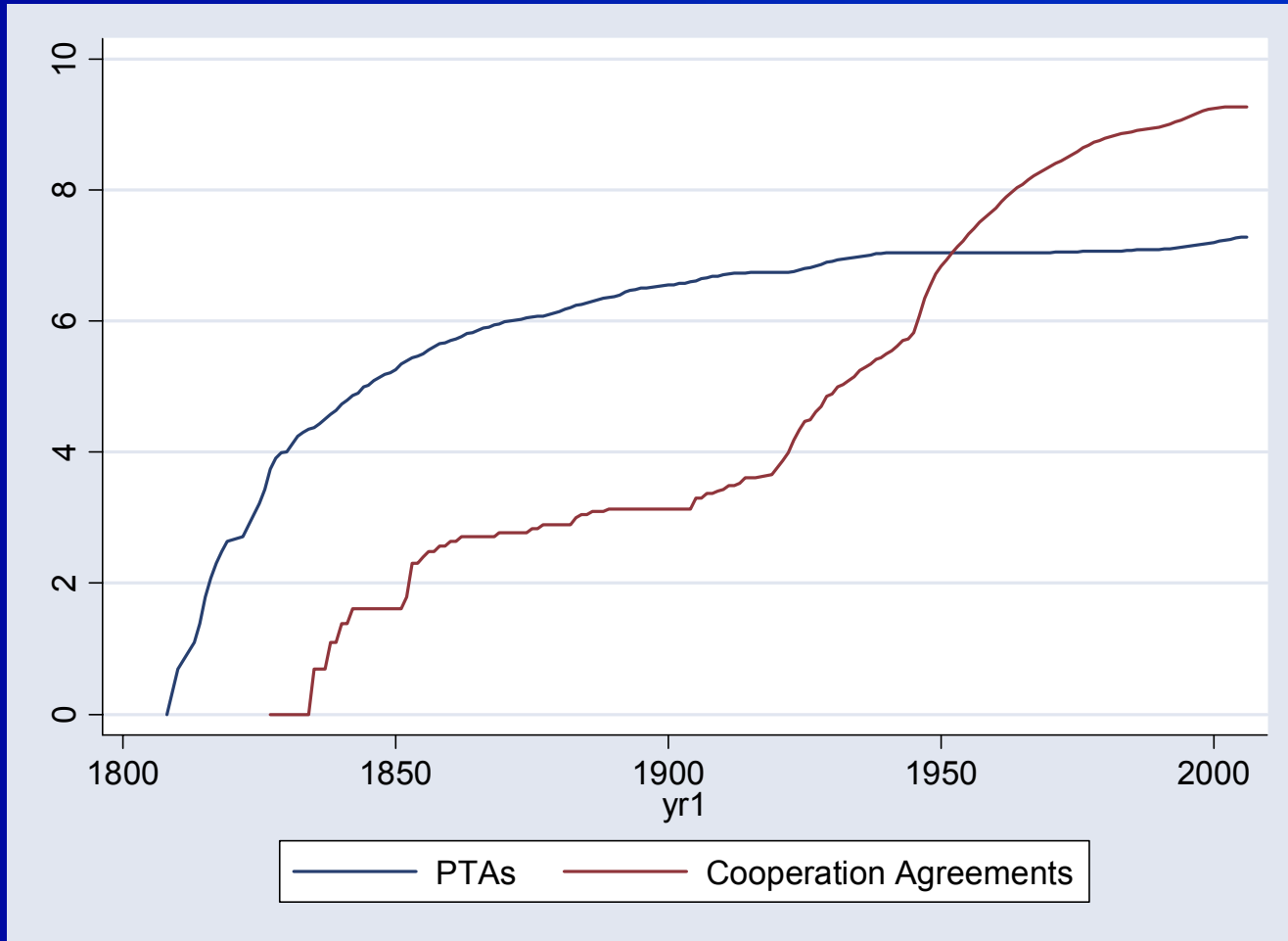
- Today's PTAs are multidisciplinary
  - Provide for issue-linkages and log-rolling, which can facilitate further cooperation
- PTAs can spawn negative externalities (border congestion, air pollution)
  - Generate demands for cooperation to reduce externalities (agreements on transportation networks, environmental protection, etc.)
- PTAs can produce positive externalities (increased trade and investment, larger markets)
  - Can awaken latent interests to demand further regional rules and regulations (trade facilitation, etc.)
  - Can spur institutional efficiency in a member state, making it an increasingly attractive partner

# *The First Look: All Types of Sequencing*

## *PTAs and Cooperation Agreements over Time*

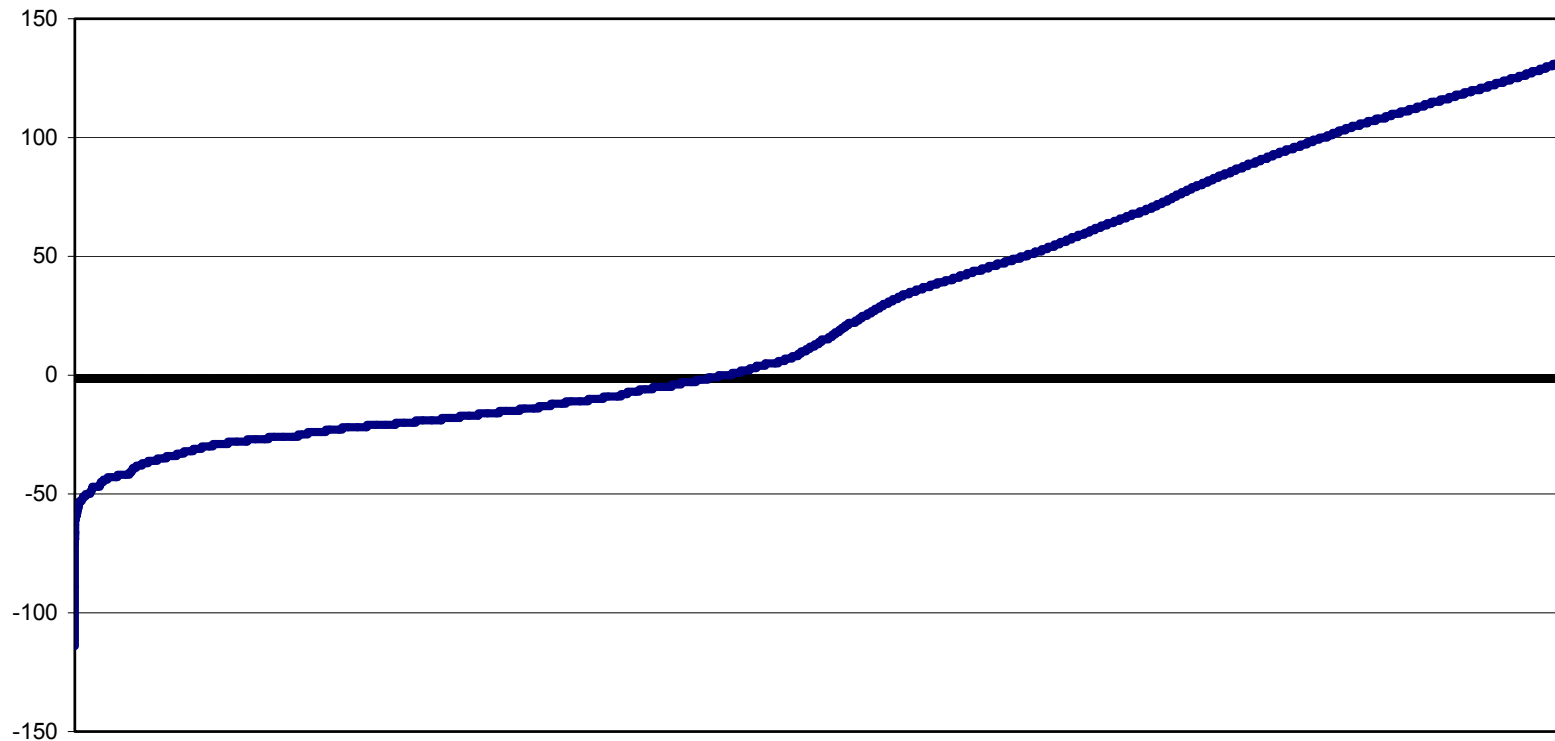


# *Same in Logs of Cumulative*



*Preliminary Zoom at Spillover Sequencing:  
Do Pairs Enter First into PTA and Then into COOP—  
or vice versa?*

Age of Cooperation Agreements vis-a-vis First PTA, by Dyad



# *Summary of Findings*

# *Four Preliminary Hypotheses*

1. *Global cooperation has leveled: today, all states are member to an agreement of some kind, and states' "shares of memberships" in agreements are more equal*
  - Are gravity variables trumped for new (institutional/political?) variables? If so, might we expect trade agreements between unlikely partners (think: US-Oman FTA!)?
2. *The number of inter- and intra-regional agreements appear to correlate*
  - Is path-dependent sequencing of cooperation particularly likely within regions? If so, might regional trade integration be THE catalyst for further intra-regional COOP?
3. *Trade is the predominant domain of cooperation*
  - Does trade have unique properties particularly conducive to cooperation *per se*, and to forming multiple agreements?
4. *PTAs and cooperation agreements may interact*
  - Might the latest (big!) PTA wave generate a tidal wave of spillover COOP?

# *Four Next Steps*

- **Expand and complement the dataset**
- **Econometric test on choice of domain**
- **Econometric test on sequencing of different domains**
- **Expanding the agenda: do agreements matter? Testing the impact of agreements on development outputs (GPGs and RPGs, such as trade, investment, labor mobility, transport networks, transnational parks)**

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