

Preferential trade agreements and contingent protection (preliminary)

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From Tariffs to Standards – Assessing the role of Non-Tariff Measures*

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Introduction

A quick introduction to **antidumping**:

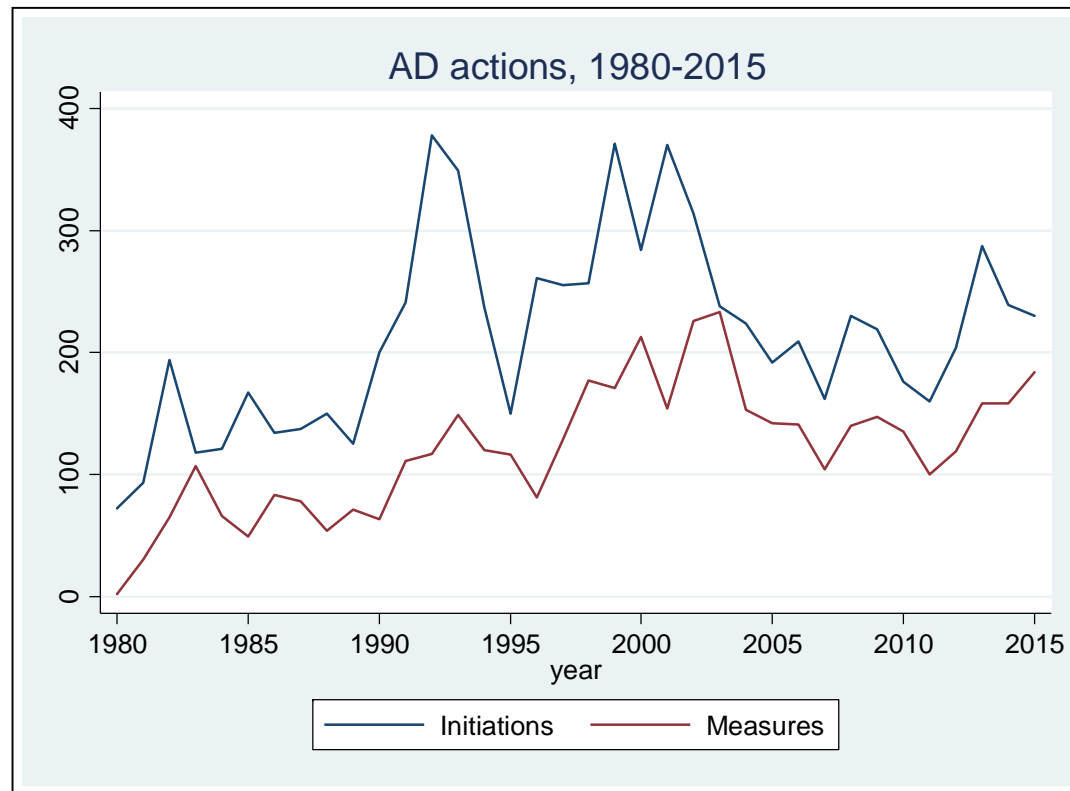
- Antidumping (AD):
Trade measures (e.g. duties) aimed at eliminating the injurious effects to the domestic industry of dumping (i.e. selling below fair value) by foreign (exporting) producers.
- *“It is simply another form of protection.”* (Blonigen and Prusa, 2003)
- It is a **pervasive** form of protection:
welfare effects, trade destruction, trade diversion, trade deflection, echoing effects, collusive effects, retaliation effects, substitute for tariffs, firm-level heterogeneous effects, etc.

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Introduction

AD is quantitatively important:

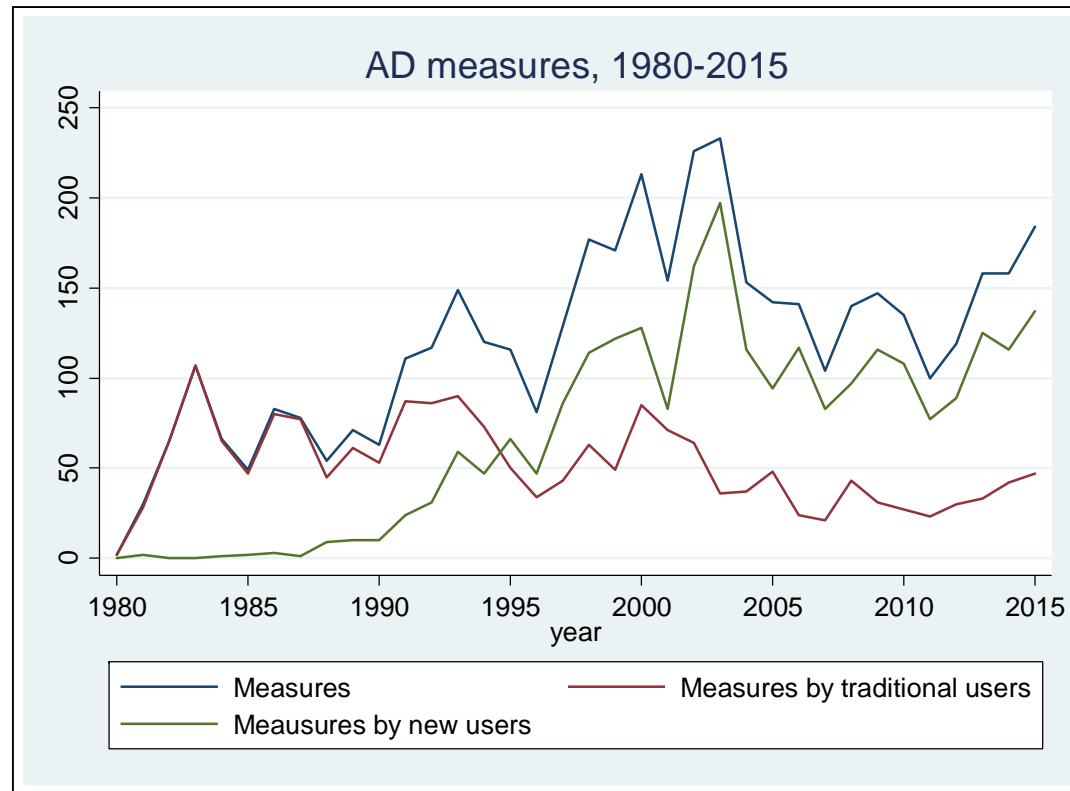


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Introduction

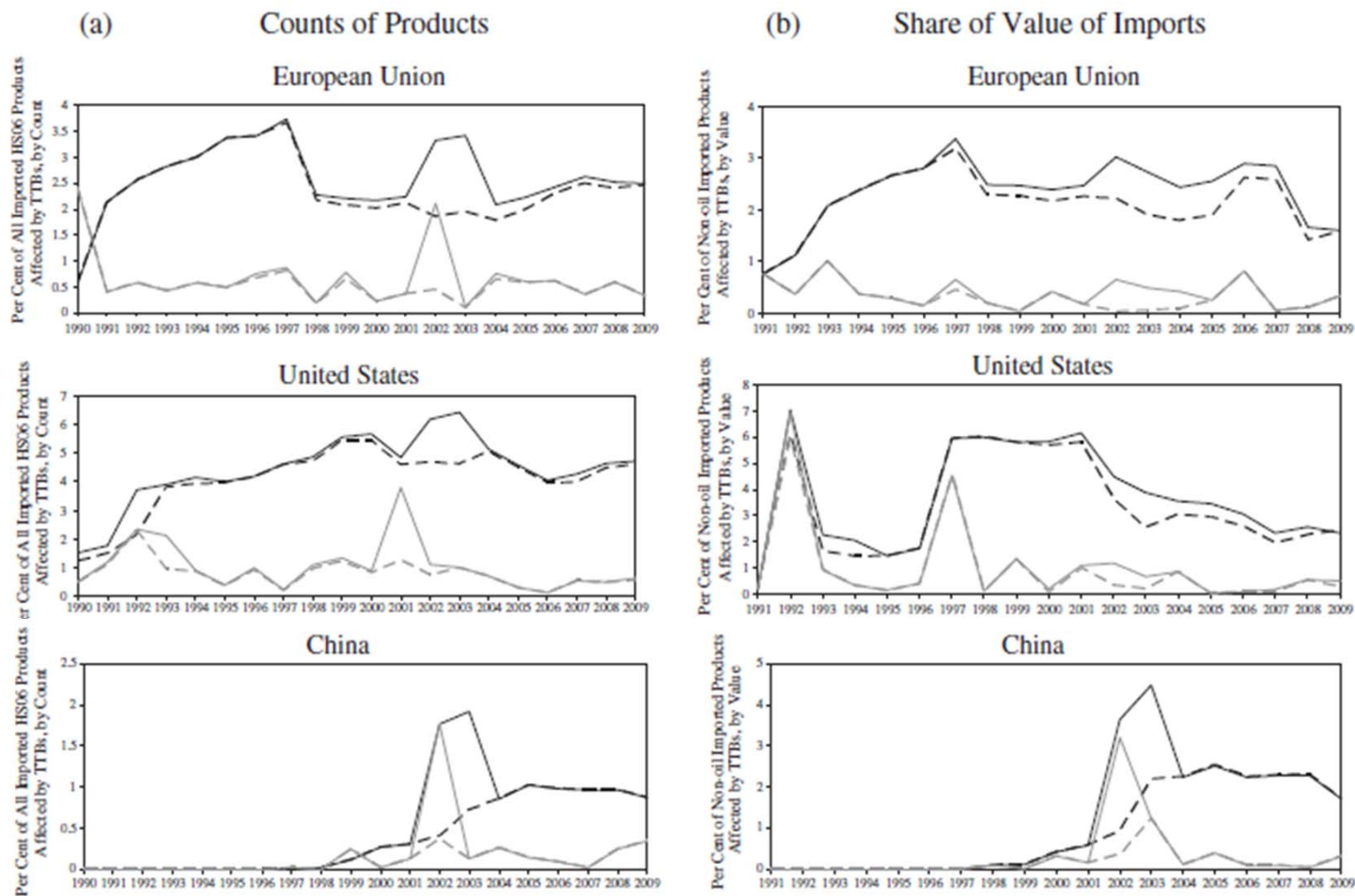
AD is quantitatively important:



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Introduction



Source: Bown (2011)

- Stock: Products Under Trade Barrier (AD, CVD, SG, CSG)
- -** Stock: Products Under Trade Barrier (AD Only)
- Flow: Products Subject to Newly Initiated Trade Barrier Investigation (AD, CVD, SG, CSG)
- -** Flow: Products Subject to Newly Initiated Trade Barrier Investigation (AD Only)



Introduction

The **literature on AD is very long** – see chapter by Blonigen and Prusa (forthcoming) in the new *Handbook of Commercial Policy* for an update of their seminal chapter!

The academic interest on AD is complemented by its **policy relevance** (e.g. current discussions about *Market Economy Status* for China).

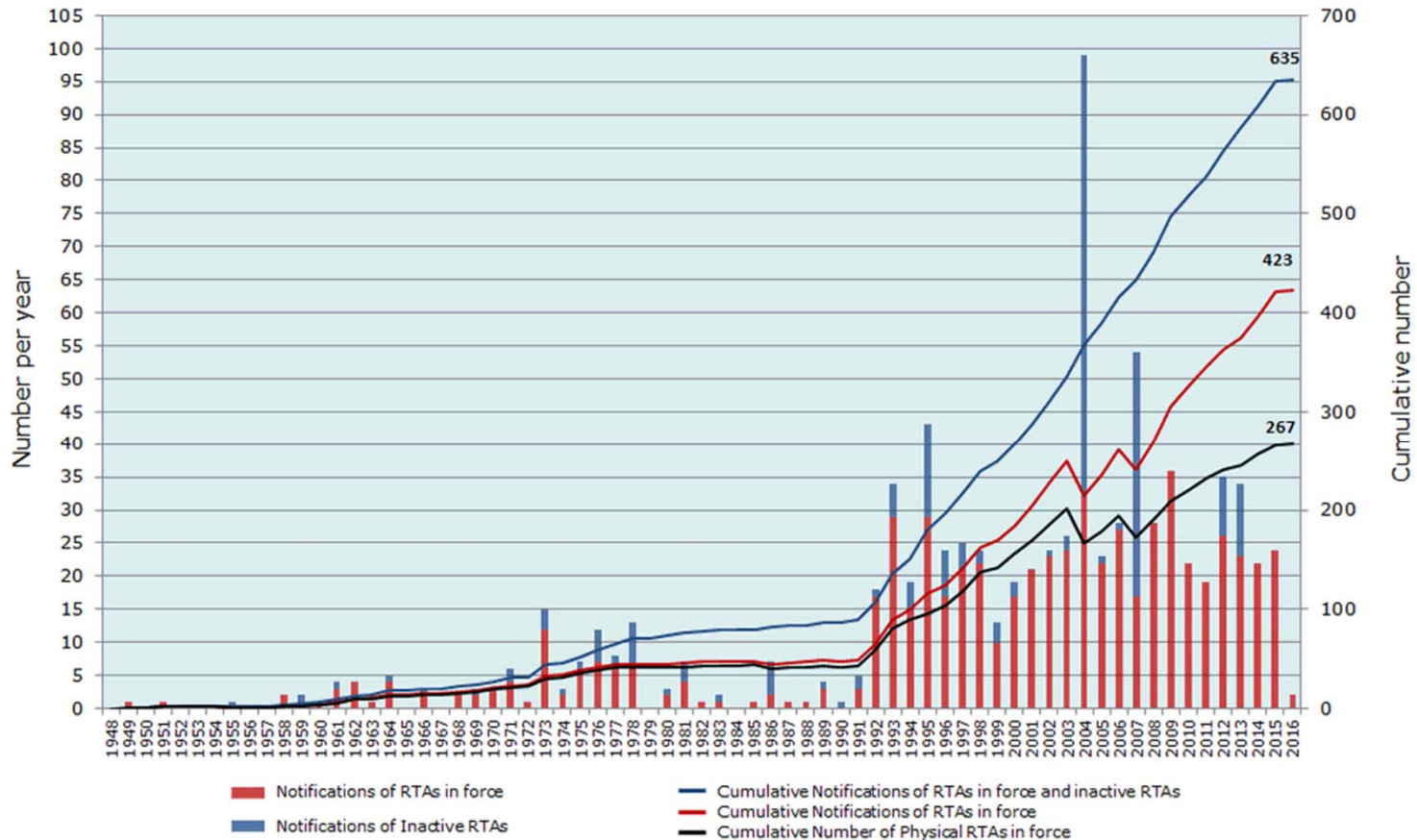
In this empirical paper, we look at AD in conjunction with another important trade policy dimension: the **formation of preferential trade agreements (PTAs)**, which have grown dramatically in number and relevance. And they also prompt a lively **policy debate!**

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Introduction

Evolution of Regional Trade Agreements in the world, 1948-2016



Note: Notifications of RTAs: goods, services & accessions to an RTA are counted separately. Physical RTAs: goods, services & accessions to an RTA are counted together. The cumulative lines show the number of notifications/physical RTAs that were in force for a given year. Source: WTO Secretariat.

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This paper

The main objective of this paper is to assess the **implications of PTAs on AD patterns**.

Building on the **theoretical models** by Tabakis (2010, 2015), we empirically examine the impact of negotiation and implementation of PTAs on 'external' AD actions. The focus, and **novelty** compared to the existing literature, is three-fold:

- Effect of major PTAs on AD patterns between members and non-members of a PTA;
- Differential effects during negotiation phase and after implementation of a PTA;
- Differential effects between FTAs and CUs.

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Brief literature review

Various empirical papers have considered the effects of PTAs on AD:

- Blonigen (2005), Prusa and Teh (2010), Anh and Shin (2011), Silberberger and Stender (2016)

Although with various differences (e.g. econometric methodology, sample period and countries), they mostly focus on **the effects for the countries being part of the PTAs**, they do not distinguish between the **negotiation and implementation phases** of PTAs, and they don't differentiate by **type of PTA**.

In general, they find evidence of a decrease in intra-PTA AD activities.

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Theoretical background – a sketch

Tabakis (2010, 2015) builds on the ‘Managed Trade’ framework of Bagwell and Staiger (1990) to determine the level of cooperative tariff (i.e. AD) that is sustainable during the various phases of a PTA: pre-PTA, negotiation, implementation.

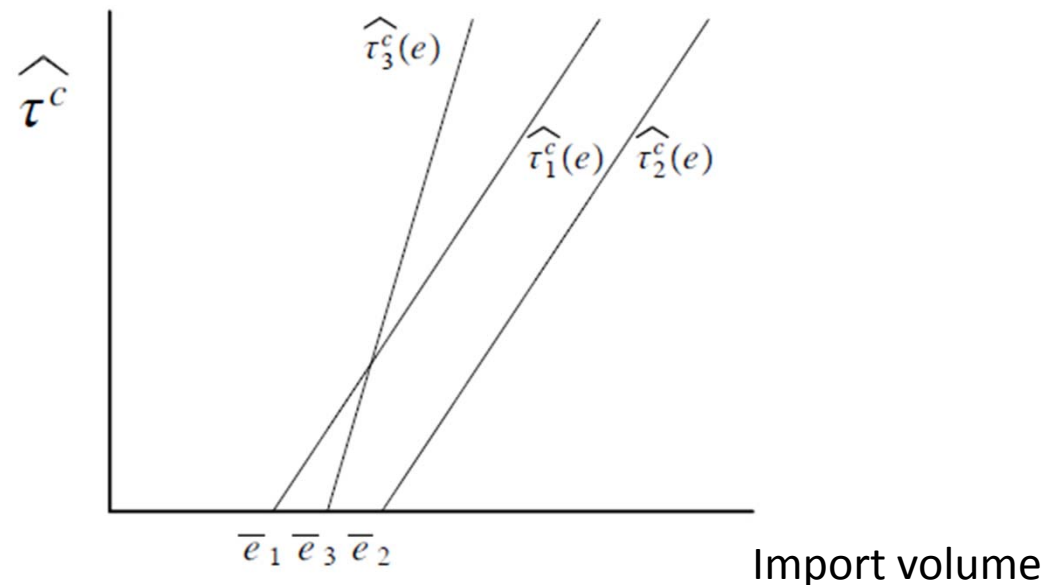
Considering the case of a CU, during the negotiation phase the static incentive of its members to defect does not change but the expected value of cooperation increases (due to harsher punishment when the CU is implemented). **Thus, compared to the pre-PTA phase, a more liberal multilateral system should prevail (i.e. less AD).**

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Theoretical background – a sketch

Once the CU is implemented, the static incentive to defect also increases because of a market power effect: now that tariffs are jointly set, the larger union exploits its market power. In particular, Tabakis (2010) shows that the use of AD will be more severe for high import volumes but less frequent overall.



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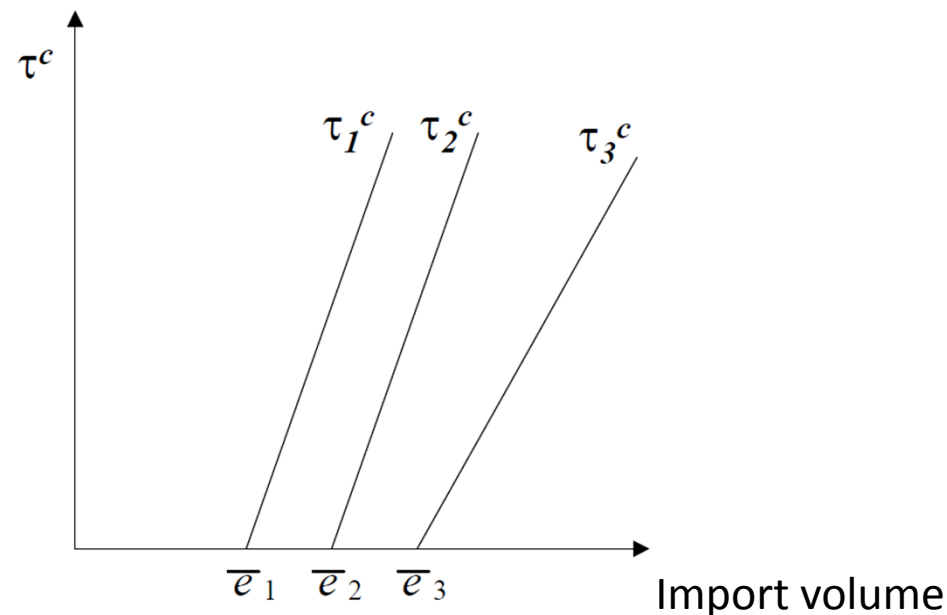


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Theoretical background – a sletch

When considering an FTA, Tabakis (2015) demonstrates that it leads to a gradual but permanent easing of trade tensions (less AD) as negotiations progress to implementation. This different conclusion is due to the fact that trade diversion is the only force at play (i.e. market power is absent).



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From theory to empirics

These theoretical contributions lead to the following **testable predictions**:

- 1) AD measures between members and non-members should decrease during negotiation and implementation of an FTA;
- 2) AD measures between members and non-members should decrease during negotiation of a CU;
- 3) AD measures between members and non-members should increase during the implementation of a CU when facing high import volumes.

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Empirical analysis

The objective is to verify whether negotiation/implementation of PTAs affect the number of AD measures between a country 'i' involved in the PTA and **non-member countries**.

The unit of analysis is the number of AD measures between importing country 'i' and exporting country 'j' at time 't' while 'i' is negotiating or has implemented a PTA with country 'z'.

Key **regressors of interest are the variables** related to the timing of the PTA between 'i' and 'z', with the possibility that multiple PTAs are simultaneously being negotiated or in force.

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Empirical analysis

Thus, the basic specification we estimate is:

$$AD_{i,j,t} = \alpha + \beta_1 PTAnegotiation_{i,z,t} + \beta_2 PTAIMplemented_{i,z,t} + \beta_3 X_{i,j,t-s} + \varepsilon_{i,j,t}$$

where

- $AD_{i,j,t}$ is a non-negative integer \rightarrow negative binomial regressions;
- $PTAnegotiation_{i,z,t}$ and $PTAIMplemented_{i,z,t}$ are non-negative integers;
- we control for import growth and macro controls (i.e. $X_{i,j,t-s}$);
- we include year fixed effects;
- we want to control for unobserved heterogeneity (i.e. importer, exporter or dyad fixed effects).

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Dataset

AD data come from the **Global Antidumping Dataset** (GAD by Bown) and Moore and Zanardi (2009).

Trade and macro controls come from standard sources.

Dates of negotiation and implementation of PTAs have been **collected by hand!**

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Dataset

The **sample period** varies by country (e.g. data availability, use of AD law) but it spans the years 1980-2015.

The focus is on importing countries that are major users of AD:

- **Traditional users:** Australia, Canada, EU, New Zealand, US;
- **New users:** Argentina, Brazil, China, India, Indonesia, Mexico, Peru, South Africa, South Korea, Taiwan, Turkey.

PTAs are included if they involve a **relevant share of import values** (i.e. different thresholds, at least 10% in results shown next), else we would not expect any effect.

Notice that we **exclude** dyads of implemented PTAs.

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Results

First set of results without distinguishing between FTAs and CUs:

	Using $\ln(1 + \text{negotiation})$, $\ln(1 + \text{implemented})$					
	(1)	(2)	(3)	(4)	(5)	(6)
PTANegotiation _{i,z,t}	-0.074 ^{***} (0.016)	-0.051 ^{***} (0.012)	-0.074 ^{***} (0.018)	-0.270 ^{***} (0.060)	-0.173 ^{***} (0.044)	-0.261 ^{***} (0.061)
PTAImplemented _{i,z,t}	-0.116 ^{***} (0.022)	-0.089 ^{***} (0.013)	-0.111 ^{***} (0.026)	-0.656 ^{***} (0.109)	-0.505 ^{***} (0.058)	-0.623 ^{***} (0.121)
Imp. Growth _{i,j,t/t-1}	-0.010 (0.014)	-0.008 (0.010)	-0.008 (0.014)	-0.011 (0.014)	-0.009 (0.010)	-0.009 (0.014)
Importer GDP growth _{i,j,t/t-3}	0.670 (0.492)	0.016 (0.395)	0.684 (0.501)	0.668 (0.486)	-0.046 (0.399)	0.691 (0.494)
Exporter GDP growth _{i,j,t/t-3}	-0.282 (0.355)	-0.067 (0.276)	-0.060 (0.374)	-0.280 (0.349)	-0.093 (0.275)	-0.027 (0.370)
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Importer fixed effects	Yes	No	No	Yes	No	No
Exporter fixed effects	Yes	No	No	Yes	No	No
Dyad fixed effects	No	Conditioned	Yes	No	Conditioned	Yes
Observations	33,348	13,532	13,532	33,348	13,532	13,532

Standard errors clustered by dyad in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

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Results

Distinguishing between FTAs and CUs:

	Using ln(1 + negotiation), ln(1 + implemented)					
	(1)	(2)	(3)	(4)	(5)	(6)
FTANegotiation _{i,z,t}	-0.018 (0.020)	0.030* (0.018)	0.017 (0.022)	0.000 (0.069)	0.198*** (0.063)	0.140* (0.074)
CUNegotiation _{i,z,t}	-0.105*** (0.025)	-0.083*** (0.018)	-0.113*** (0.026)	-0.392*** (0.094)	-0.320*** (0.065)	-0.418*** (0.095)
FTAImplemented _{i,z,t}	-0.128*** (0.048)	-0.029 (0.022)	-0.053 (0.042)	-0.609*** (0.144)	-0.208*** (0.076)	-0.342** (0.173)
CUImplemented _{i,z,t}	-0.078*** (0.022)	-0.056*** (0.013)	-0.079*** (0.027)	-0.234** (0.107)	-0.170*** (0.058)	-0.231* (0.132)
Imp. Growth _{i,j,t/t-1}	-0.035 (0.041)	-0.023 (0.023)	-0.028 (0.038)	-0.033 (0.041)	-0.020 (0.022)	-0.024 (0.036)
FTAImplemented _{i,z,t} x Imp. growth _{i,j,t/t-1}	-0.136** (0.068)	-0.115* (0.063)	-0.119* (0.069)	-0.344** (0.170)	-0.258* (0.152)	-0.307* (0.168)
CUImplemented _{i,z,t} x Imp. growth _{i,j,t/t-1}	0.014 (0.014)	0.008 (0.008)	0.010 (0.014)	0.029 (0.030)	0.015 (0.018)	0.018 (0.028)
Importer GDP growth _{i,j,t/t-3}	0.951* (0.492)	0.315 (0.395)	1.083** (0.498)	1.087** (0.503)	0.400 (0.398)	1.222** (0.510)
Exporter GDP growth _{i,j,t/t-3}	-0.321 (0.348)	-0.035 (0.277)	-0.069 (0.370)	-0.381 (0.345)	-0.057 (0.277)	-0.151 (0.366)
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Importer fixed effects	Yes	No	No	Yes	No	No
Exporter fixed effects	Yes	No	No	Yes	No	No
Dyad fixed effects	No	Conditioned	Yes	No	Conditioned	Yes
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Robustness checks

These results are robust to:

- Using different thresholds of import values to define PTAs to be included (and significance changes accordingly);
- Using OLS on $\ln(1 + \text{measures})$.

Still to do:

- Plenty!

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Conclusions

The empirical analysis provides **robust support** to the theoretical model of how PTA negotiations and implementations interact with the **use of AD against non-member countries**.

As a result, the paper contributes to the debate on whether PTAs are **building blocs or stumbling blocs** for multilateral trade cooperation: PTAs leads to fewer AD actions against non-members.

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