

Information Transmission and the Strategic Timing of Trade Disputes

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November 13, 2010

Theoretical Motivation

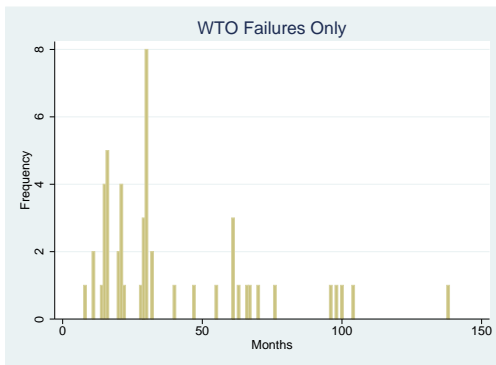
- ▶ When will member governments choose to initiate formal disputes when another government violates an agreement?

Theoretical Motivation

- ▶ When will member governments choose to initiate formal disputes when another government violates an agreement?
- ▶ Dispute settlement mechanisms often thought of as information transmission mechanisms, or “fire alarms.”
 - ▶ Dai 2002, 2007; Fang 2008; Chapman 2007; Mansfield, Milner, and Rosendorff 2002; Carrubba 2008
- ▶ A **principal** (the general public, an interest group) uses this information to determine the behavior of their **agent** (elected officials).
- ▶ The principal then determines their punishment or reward for the agent.

Empirical Motivation

- ▶ Distribution of months elapsed between U.S. trade barriers and subsequent WTO dispute



- ▶ Existing theories treat the sounding of an alarm as immediate and automatic, rather than strategic.

Information Transmission Predictions

- ▶ Foreign governments choose to sound the alarm with disputes:
 1. When the principal has the **ability** to hold the agent accountable.
 2. When the principal has the **inclination** to hold the agent accountable.
- ▶ These comparative statics arguments are derived formally in related (ongoing) work.

Hypothetical Example

- ▶ A U.S. pipe producer petitions for protection from Korean imports.
- ▶ The United States implements AD duties (tariffs) over imports of Korean pipe.
- ▶ Korea (the potential plaintiff) is considering taking the United States (the defendant) to the DSM over this trade barrier.

Hypothetical Example

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- ▶ The United States implements AD duties (tariffs) over imports of Korean pipe.
- ▶ Korea (the potential plaintiff) is considering taking the United States (the defendant) to the DSM over this trade barrier.
- ▶ If Korea wants to initiate this dispute for maximal effect on the U.S. public, they will do so when:
 1. The U.S. public has the **ability** to punish the current leaders
 - ▶ E.g. an election year. (Korea requests consultations in June 2000).
 2. The U.S. public has the **inclination** to punish the current leaders.
 - ▶ E.g. if they support free trade or oppose the import tariffs.

Alternative Predictions: Retaliation

- ▶ If the threat of retaliation is the primary motivation for compliance and disputes, then plaintiff governments should initiate disputes:
 1. When the plaintiff government imports more from the defendant.
 - ▶ The plaintiff has more leverage over the defendant.
 2. When the plaintiff government exports less to the defendant.
 - ▶ The plaintiff has less to fear from counter-retaliation.

Lifespan of a Trade Violation

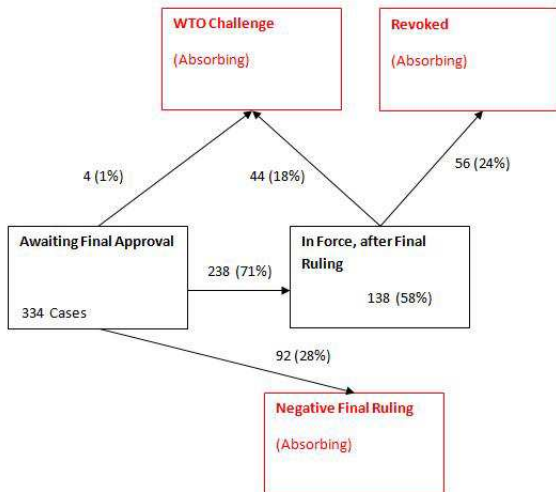
- ▶ The sample is the 334 AD and CVD petitions initiated after April 1994.
 - ▶ Extracted from Chad Bown's Global Antidumping Database.
 - ▶ U.S. firms file petitions accusing foreign firms of dumping their goods into the U.S.
 - ▶ Observation period begins after affirmative preliminary rulings.
- ▶ Observation window ends in October 2009.

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- ▶ Petitions are observed each month.
- ▶ Each month, I observe a petition's failure "status:"
 1. In force.
 2. Failure due to a foreign government initiating a WTO challenge.
 3. Failure due to the U.S. bureaucracy issuing a negative ruling.
 4. Failure due to the U.S. bureaucracy revoking the petition.

Lifespan of a Trade Violation

Paths of AD and CVD Petitions, 1994-2009



Independent Variables

Table: Summary Statistics for Independent Variables

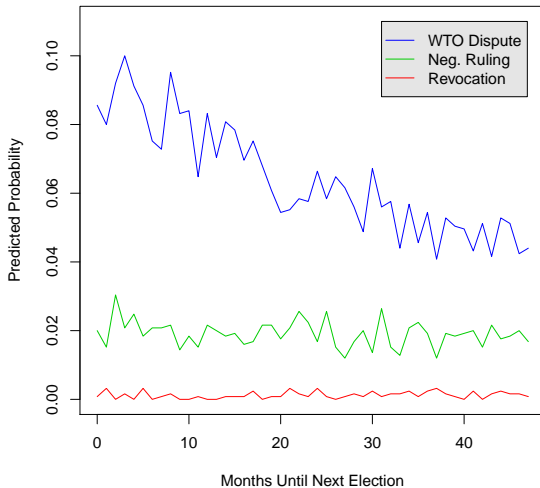
Variable	Mean	Std. Dev.
Ability to Punish		
Months Until Election	23.24	14.45
Pres. Approval	50.46	14.02
Inclination to Punish		
Unemployment	5.18	0.76
New Petitions	2.89	1.88
% Change in U.S. GDP	0.50	0.70
Controls		
% of U.S. Exports to Plaintiff (6mo)	0.03	0.04
% of U.S. Imports from Plaintiff (6mo)	0.05	0.06
Legal Sum	3.73	5.97
Observations	15457	

Model

- ▶ Competing Risks Model
- ▶ Estimate a Bayesian Multinomial Probit Model.
- ▶ Examine effects of variables on each risk separately.
 - ▶ Estimated using *MNP* in R, (Imai and Van Dyk, 2005).
- ▶ How do trade barriers go away?
- ▶ What causes trade barriers to go away in particular manner?
- ▶ Look at substantive effects of the variables on the probability of a petition exiting the dataset because of a particular failure type.

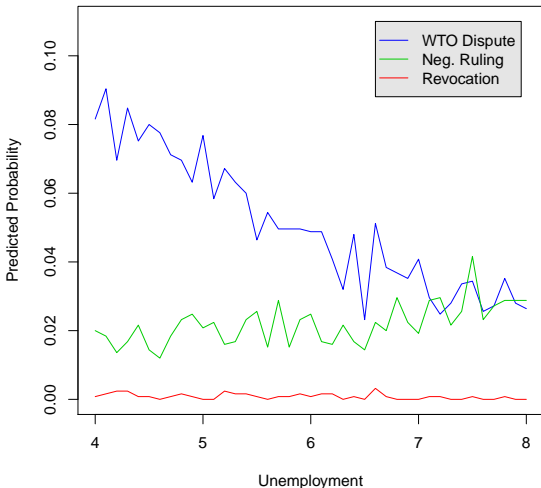
Competing Risk Results: Ability to Punish

Effects of Electoral Proximity



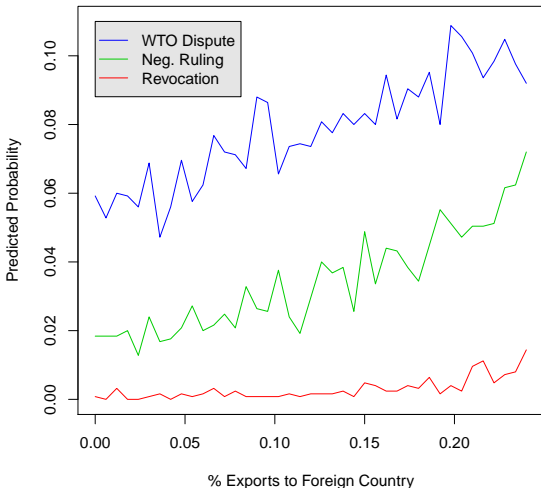
Competing Risk Results: Inclination to Punish

Effects of Unemployment



Competing Risk Results: U.S. Exports to Plaintiff

Effects of Exports



Conclusions

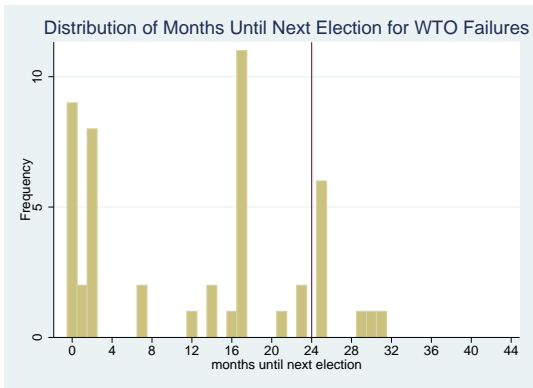
- ▶ The timing of WTO disputes is consistent with predictions that can be derived from information transmission theories.
 - ▶ Trade barriers tend to be challenged when the leaders are sensitive to punishment.
 - ▶ And when the principal/audience has the inclination to punish the leader.
- ▶ Retaliation variables explain trade barrier patterns overall.
- ▶ Information transmission variables explain dispute patterns.
- ▶ Results demonstrate the importance of testing specific compliance mechanisms with international organizations.

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Additional Slides

- ▶ Electoral Proximity-WTO Distribution
- ▶ Distribution of Lifespans
- ▶ Posteriors Summary Statistics
- ▶ Posteriors Information Transmission Variables
- ▶ Posteriors- Control Variables
- ▶ Substantive Effects of Imports
- ▶ Interaction Plot



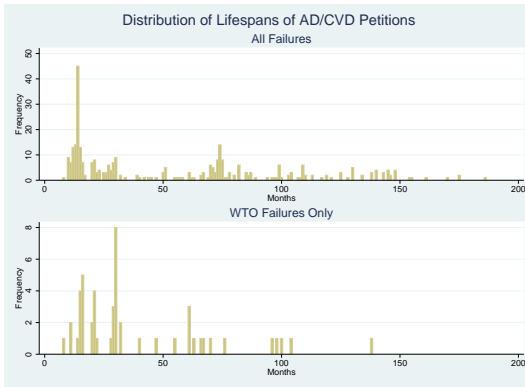
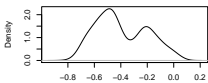


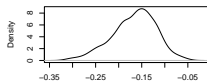
Table: Posterior Summaries for Model 1: Bayesian Multinomial Probit

Exit Via WTO Challenge				
Variable	Mean of Posterior	(Std. Dev.)	2.5%	97.5%
"Ability to Punish" Variables				
Electoral Proximity	-0.02	(0.00)	-0.03	-0.01
Presidential Approval	-0.00	(0.04)	-0.08	0.08
Presidential Approval ²	0.00	(0.00)	-0.00	0.00
"Inclination to Punish" Variables				
Unemployment	-0.39	(0.20)	-0.70	-0.01
New AD and CVD's	-0.16	(0.05)	-0.27	-0.08
Change in GDP	0.07	(0.08)	-0.10	0.22
Retaliation Variables				
U.S. Exports	2.64	(1.44)	-0.25	5.51
U.S. Imports	-1.11	(1.34)	-4.00	1.27
Other Controls				
Legal Sum	0.00	(0.0)	-0.01	0.02
Intercept	-8.73	(0.48)	-1.16	0.88

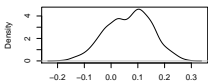
Posterior Distributions of Coefficients for Information Transmission Variables, Model 1



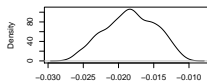
Unemployment



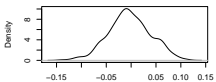
New Petitions



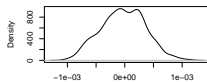
Change in GDP



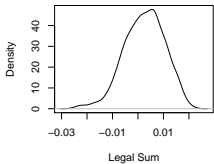
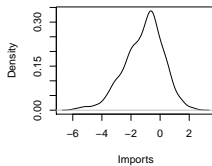
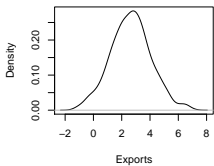
Months Until Election



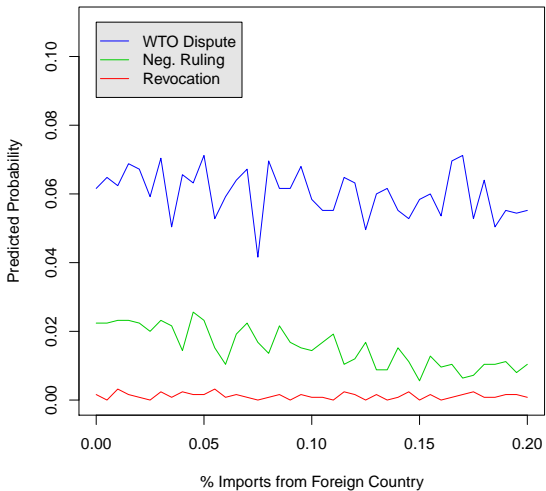
Pres. Approval



Pres. Approval Sq.

Posterior Distributions of Coefficients for Control Variables, Model 1

Effects of Imports



Effects of Electoral Proximity and Unemployment, Model 2

