

# Free-Riding on Enforcement in the WTO

Leslie Johns (UCLA) and Krzysztof J. Pelc (McGill)

IPES 2015 — Stanford University

## Variation in WTO Enforcement

- Effective:
  - In 1998, US blocks Canadian trucks with cattle and swine
  - Canada sues **15 days later**
  
- Ineffective:
  - In 1996, US FAIR Act subsidizes corn exports
  - Canada sues **4,025 days later**

## Why the Difference?

- Effective:
  - In 1998, US blocks Canadian trucks with cattle and swine
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  - **Concentrated impact:** affects only Canada
  
- Ineffective:
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  - **Diffuse impact:** affects all corn producers

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  - Diffuse impact: affects all corn producers
  - Enforcement is a public good

# WTO: Often Public Benefits, Private Costs

- **Private costs**
  - Legal costs
  - Political costs
- **Public benefits**
  - MFN standard
  - Deterrence

## Cost of Diffuseness

- **Enforcement delayed**: states free-ride
- **“Wrong cases”**: diffuse cases must be strong, but concentrated cases can be weak legal merit

## Players and Actions

Set of  $n$  states affected by a trade policy

- $\tau_i$  is state  $i$ 's trade stake

In each period  $t = 1, 2, \dots$

- 1 Stochastic pressure on  $i$  to challenge policy:  $\alpha_{it}$
- 2 States simultaneously decide whether to file the case.
  - If no state files, go to  $t+1$
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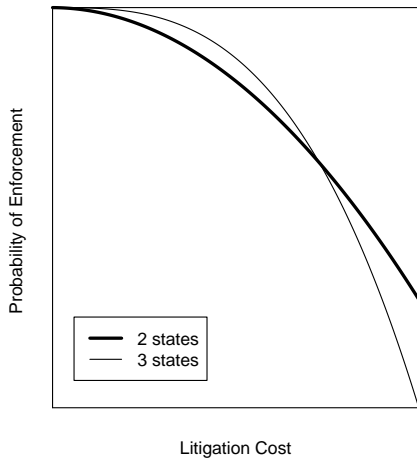
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## Summary of Results

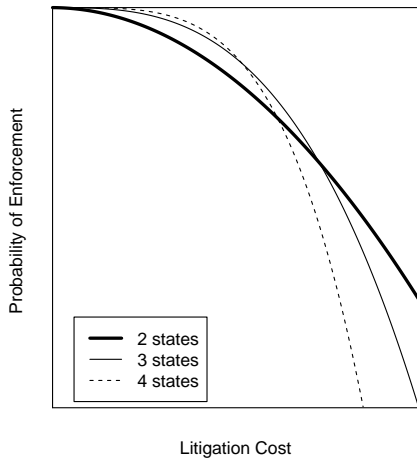
Each player is:

- more likely to file if its own trade stake increases;
- less likely to file if another state's trade stake increases;
- more likely to file if case quality increases

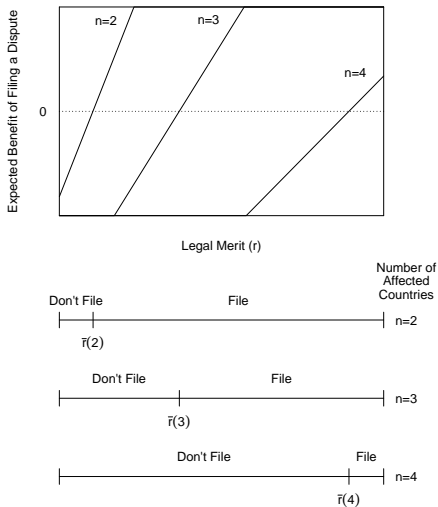
# Diffuseness and Enforcement



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# Empirical Implication: Legal Merits



## Empirical Implications

In observable WTO cases, as diffusion increases:

- H1 (delay): enforcement delay increases
- H2 (legal merits): complainant is more likely to prevail at trial

# Research Design

	Dependent Variable	Type of Analysis	Data Source
H1	Delay in filing (in days)	Survival Analysis	Bown and Reynolds (2014)
H2	Pro-complainant rulings	Heckman	New

## Explanatory Variable: Diffuseness

- 1 **Number of Countries Affected:** non-zero trade at stake
- 2 **Disputed Trade Flows HHi:** measure of concentration
- 3 **Multilateral Violation:** nature of discrimination



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# H1: Diffuse Cases are Delayed

Table 1: Diffuseness of Protectionist Policies and Enforcement Delay

	(1)	(2)	(3)	(4)	(5)	(6)
<b>Number of Countries Affected</b> (logged)		<b>-0.76***</b> (0.12)	<b>-0.65***</b> (0.13)	<b>-0.88***</b> (0.11)		
Disputed Trade Flows HHI		0.80* (0.42)	1.25*** (0.43)		1.52*** (0.45)	
<b>Multilateral Policy</b>	<b>-0.38**</b> (0.17)	<b>-0.21</b> (0.16)	<b>-0.36**</b> (0.17)			<b>-0.36**</b> (0.18)
Own Trade Stake (logged)		0.47*** (0.04)	0.48*** (0.03)	0.48*** (0.04)	0.44*** (0.03)	0.50*** (0.04)
ROW Trade Stake (logged)		-0.29*** (0.04)	-0.29*** (0.04)	-0.29*** (0.04)	-0.35*** (0.03)	-0.41*** (0.04)
Initiation Year		-0.09*** (0.02)	-0.10*** (0.02)	-0.09*** (0.02)	-0.07*** (0.02)	-0.07*** (0.02)
N	26501	26165	26165	26165	26254	26254
Number of Disputes	360	267	267	267	267	267

Duration measured as the number of days elapsed between the implementation of a protectionist policy and its eventual challenge. Columns (1)–(2) and (4)–(6) show Cox regression estimates with robust standard errors in parenthesis clustered on common dispute. Column (3) shows Cox Frailty Model estimates adjusted for shared frailty of a given respondent. \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

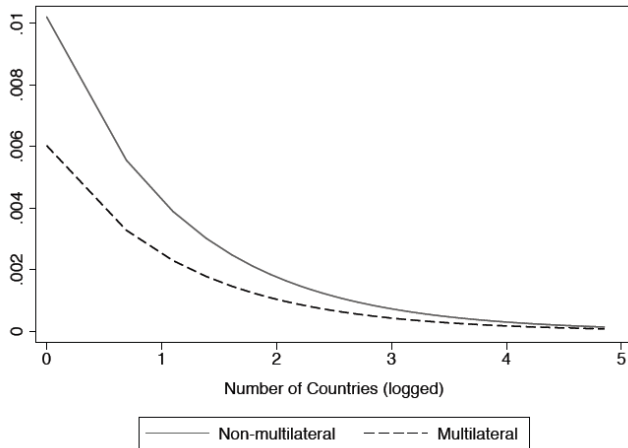
# H1: Concentrated Cases are Filed More Swiftly

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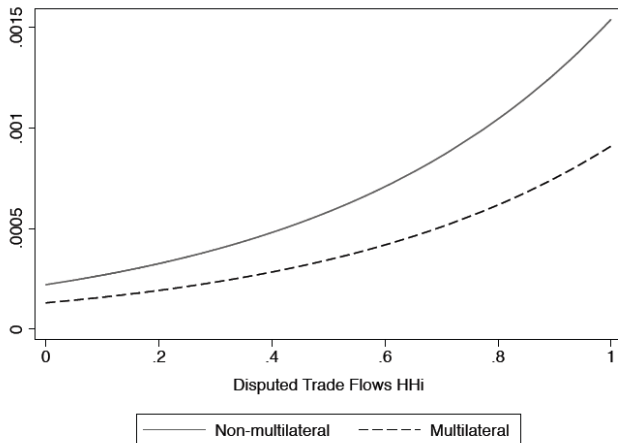
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# Diffusion Reduces the Hazard Rate



## Concentration Increases the Hazard Rate



# H2: Diffuse Cases are Better Cases

Table 2: Diffuseness of Policies and Pro-complainant Rulings

	(1)	(2)
CLAIMS WON NET OF APPEAL (2nd Stage eq.)	Binary	Percent
<b>Number of Countries Affected (logged)</b>	<b>0.09**</b> (0.04)	<b>0.06***</b> (0.02)
Disputed Trade Flows HHi	-0.70** (0.31)	-0.24* (0.13)
<b>Multilateral Policy</b>	<b>0.38**</b> (0.18)	<b>0.04</b> (0.07)
Total Trade at Stake (logged)	0.04*** (0.01)	0.00 (0.01)
Defendant GDP (logged)	-0.04 (0.06)	-0.01 (0.02)
Complainant GDP (logged)	0.03 (0.05)	0.01 (0.01)
Dispute Year	-0.01 (0.02)	-0.00 (0.01)
DISPUTE GOES TO RULING (1st Stage eq.)		
<b>Number of Third Parties</b>	0.22*** (0.03)	0.24*** (0.05)
Total Trade at Stake (logged)	0.04*** (0.00)	0.04** (0.02)
Defendant GDP (logged)	0.05 (0.04)	0.06 (0.05)
Complainant GDP (logged)	0.05 (0.04)	0.05 (0.05)
N	329	329

Heckman probit selection model (Column 1) and Heckman selection model (Column 2) with maximum likelihood (ML) estimates. First stage estimates likelihood of a ruling. Second stage estimates likelihood of a pro-complainant ruling (Column 1) and percentage of claims ruled in favor of complainant (Column 2). Robust standard errors clustered on the common dispute. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

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## H2: Substantive Effects on Legal Merits

- Avg case, **concentrated** policy: complainant wins **45%**
- Avg case, **diffuse** policy: complainant wins **73%**
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