Shining Light on Regulatory Policies: The Impact of WTO Disputes on Notification Patterns

Christina Davis, Jialu Li,[1]

[1]Harvard University

October 28, 2022

How Effective is WTO Dispute Settlement?

- Previous research demonstrates legal complaint improves outcomes in the specific case

- Does adjudication prevent future disputes?

Overview

- Research question: What is the impact of enforcement action on systemic-level compliance?

- Analysis of WTO disputes and regulatory transparency
  - Notifications of SPS and TBT policy changes from 1995 to 2022
  - Empirical strategy: DiD with matching

- Main Findings:
  - Exposure to WTO dispute cases leads to around 45% increase in notification filings

The Broader Impact of Legal Disputes

- Law establishes norms for appropriate behavior

- Adjudication as a response to violations

- Building jurisprudence supports stronger legal system
  - Spillover to improve behavior beyond the specific actors and policies of each dispute

Systemic Role of Dispute Cases

- Deterrence:
  - Plaintiff activity increases the credibility of enforcement by demonstrating that states will monitor and challenge violations

- Precedent:
  - Jurisprudence serves to interpret and clarify rules
  - Past cases set expectations

- Motivating example:
  - US - Subsidies on Upland Cotton (DS267 complaint by Brazil)
  - Widely read beyond those participating in the dispute
  - Market spillover across products (Kucik and Pelc, 2016)
  - Demonstrates *no policy* off limits for enforcement

Conflict Prevention

- Mechanism for WTO disputes to support conflict prevention:

    - Direct effect on participants to remove inconsistent policies
        - Reputation, obligation, retaliation pathway

    - Indirect effect on third party participants
        - Learning and salience of policy
        - Enhanced credibility of rules-based order

We evaluate systemic role of WTO disputes in a hard test that examines regulatory cooperation

WTO Deterrence of Regulatory Protectionism

- *Analyze impact of WTO disputes on notification of TBT and SPS policies*

- WTO enforcement
  - Complaints filed with claims related to TBT and SPS agreements
  - Third party participation in a case as the explanatory variable

- Regulatory reform
  - Number of notifications to TBT/SPS committees in a year

Measuring Legal Exposure

- Why third parties?
  - Self-selection for trade and systemic interest but no legal obligation
  - Spillover through exposure to case

- First time participation
  - Examine how behavior changes after initial third party participation (year and following)

- Alternative: Annual participation
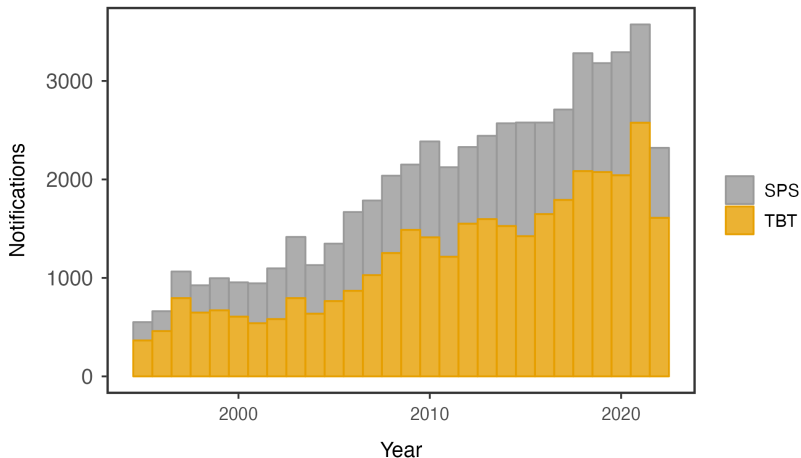 - Examine how behavior changes during the year of third party participation

WTO Rules on Regulatory Policies

- Rules uphold national autonomy and non-discrimination
    - Process: encourage international standards and risk analysis
    - Impact: allow policy with minimal trade distortion
    - Transparency: require notification of policy changes

- The Technical Barriers to Trade Agreement (TBT)
    - Technical regulations and standards for safety and environment

- The Sanitary and Phytosanitary Measures Agreement (SPS)
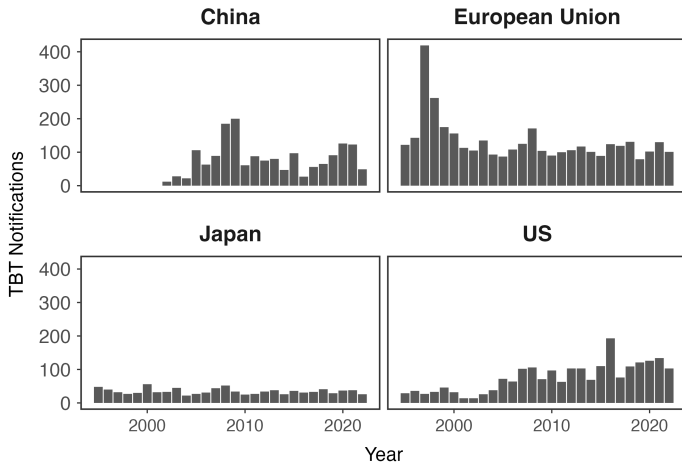   - Food safety and disease prevention

Regulatory Notification Data

- Inform members of new or revised regulations or sanitary and phytosanitary requirements that may have an effect on trade

- Scope
    - 135 WTO members, 1995 to 2022
    - Omit countries that have never filed a WTO notification

- Source
    - WTO SPS and TBT Committees
    - Submitted by different ministries
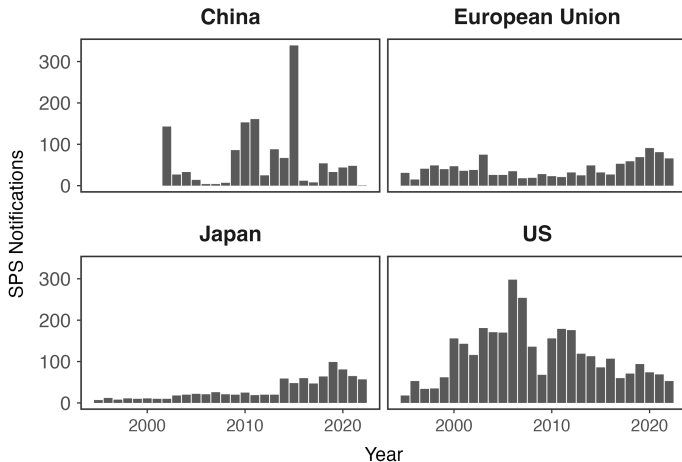   - National enquiry point office collects information

Growing Transparency For Regulatory Policies

Cross-National Variation: TBT Notifications by Year

Shining Light on Regulatory Policies

Cross-National Variation: SPS Notifications by Year
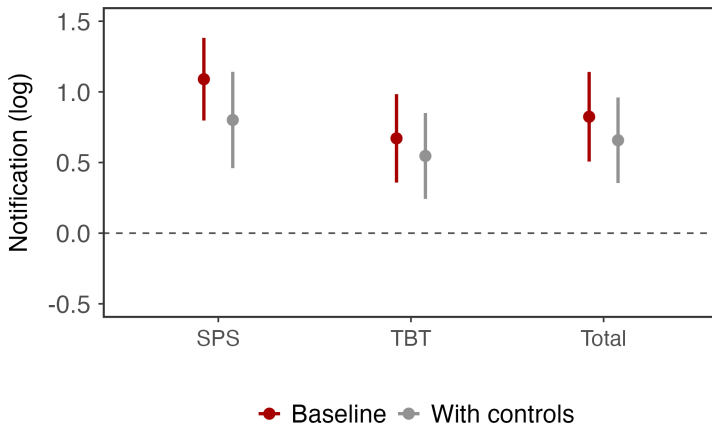
Empirical Strategy

We exploit state-level variations in the timing of exposure to WTO cases and examine how it affects states' notification patterns.

$$Y_{it} = \beta T_{it} + \zeta^\top \mathbf{X}_{it} + \alpha_i + \gamma_t + \epsilon_{it}$$

- Y_{it} is the number of notifications(logged)
- T_{it} represents the treatment status(third-party participation)
- α_i and γ_t denote state and year effects
- **X** indicates a set of time-varying control variables:
    - GDP per capita
    - annual imports and exports
    - applied tariff rate for all products weighted by trade volumes
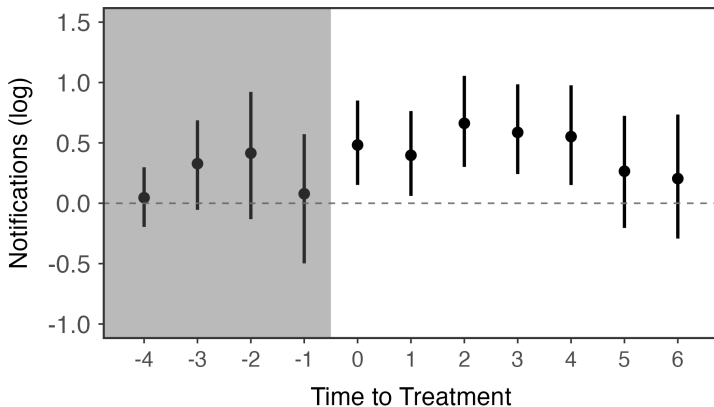   - UN general assembly voting
    - V-dem scores

Effects of Legal Exposure on Notification Patterns

Third party participation in a SPS (TBT) dispute leads to 80.1% (54.7%) increase of SPS (TBT) notifications

Baseline ● With controls

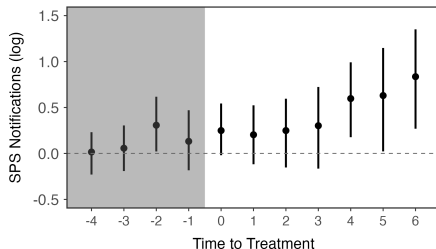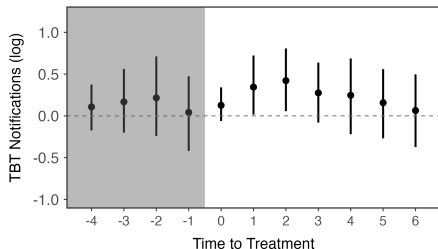# Effects of Legal Exposure on Notification Patterns

Third party participation corresponds to annual average of 45% increase of notifications over 7 year period

Panel matching difference-in-differences estimator (Imai et al., 2021)

Effects of Legal Exposure on TBT Notification Patterns

Takeaway: serving as a TBT(SPS) third party leads to 23.3%(43.8%) increases of notifications in the next 7 years
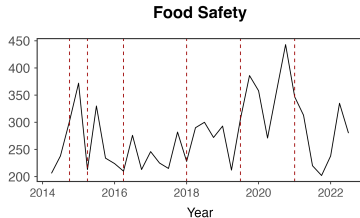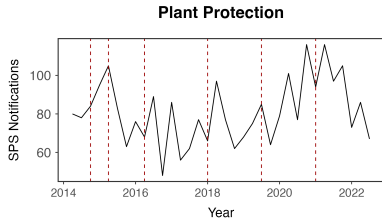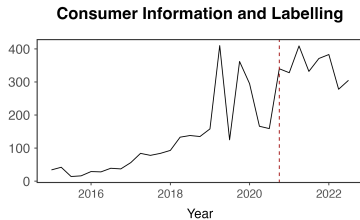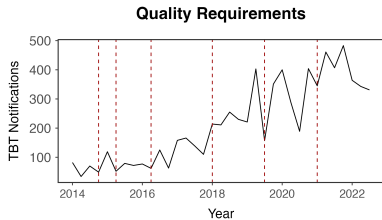
Sensitive Regulatory Cases

Do notifications on similar policies shift in reaction to prominent cases?

- EC – Measures Affecting Asbestos (DS135)
  - Ruling against Canada's TBT claim upholds EC right to discriminate between like products based on toxicity

- Japan – Measures Restricting Importation of Apples (DS245)
  - Ruling supports SPS claim by US that Japanese fireblight quarantine procedures overly trade restrictive

- US – Tuna case (DS381)
  - Ruling upholds labeling for environmental protection against TBT claim by Mexico that dolphin-safe labeling for tuna is discriminatory

Policy Similarity of Dispute and Notifications

Specific WTO complaints (vertical lines) mapped on related policy notification trend
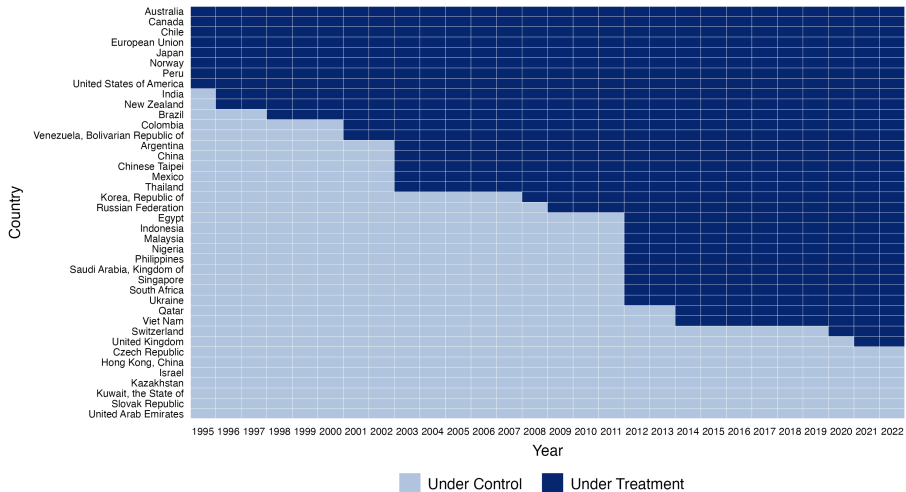
Summary of Findings

- Participation in WTO disputes promotes cooperation with SPS/TBT Committees
- Long term impact to increase notifications
- Compliance through transparency
- Lower trade barriers or just more visible?

Summary Table

	Unique (#)	Missing (%)	Mean	SD	Min	Median	Max	
year	26	0	2008.5	6.9	1995.0	2009.0	2020.0	
SPS third party	2	0	0.2	0.4	0.0	0.0	1.0	
TBT third party	2	0	0.3	0.4	0.0	0.0	1.0	
Combined third party	2	0	0.3	0.5	0.0	0.0	1.0	
export log	2465	3	8.9	2.6	1.5	8.7	15.6	
import log	2477	3	9.2	2.2	4.1	9.0	15.6	
UN ideal point	2475	3	−0.2	0.8	−2.0	−0.4	3.2	
applied tariff weighted	1271	0	7.2	5.6	0.0	6.2	91.3	
GDP per capita	2535	0	8.3	1.5	4.6	8.3	11.5	
V-Dem score	753	8	0.4	0.2	0.0	0.4	0.9	

Legal Exposure: Initial Third Party Participation (TBT)

TBT Treatment History (Countries with Top 30% Trade Volume)

Legal Exposure: Initial Third Party Participation (SPS)

SPS Treatment History (Countries with Top 30% Trade Volume)

Legal Exposure: Annual Participation (SPS)

SPS Treatment History (Countries with Top 30% Trade Volume)

Effects of Annual Legal Exposure on Notification Patterns

Takeaway: serving as a TBT (SPS) the third party leads to 18.4% (40.7%) increases of TBT (SPS) notifications

Baseline — With controls