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

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How Effective is WTO Dispute Settlement?

- Previous research demonstrates legal complaint improves outcomes in the specific case
- Does adjudication prevent future disputes?
Introduction

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
Empirical Analysis

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

The graph shows the increase in notifications over the years from 2000 to 2020. The data is categorized into SPS (bars in grey) and TBT (bars in yellow), illustrating the rising trend in regulatory policies.
Cross-National Variation: TBT Notifications by Year

- China
- European Union
- Japan
- US

Year

TBT Notifications
Cross-National Variation: SPS Notifications by Year

China

European Union

Japan

US

Year

SPS Notifications

SPS Notifications
Empirical Strategy

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

\[ Y_{it} = \beta T_{it} + \zeta^\top X_{it} + \alpha_i + \gamma_t + \epsilon_{it} \]

- \( Y_{it} \) is the number of notifications (logged)
- \( T_{it} \) represents the treatment status (third-party participation)
- \( \alpha_i \) and \( \gamma_t \) 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
Third party participation in a SPS (TBT) dispute leads to 80.1% (54.7%) increase of SPS (TBT) notifications.
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

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<th>Unique (#)</th>
<th>Missing (%)</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Median</th>
<th>Max</th>
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<td>0.0</td>
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Legal Exposure: Initial Third Party Participation (SPS)

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

- Canada
- European Union
- Hong Kong, China
- India
- Norway
- United States of America
- Australia
- New Zealand
- Brazil
- Colombia
- Chile
- China
- Chinese Taipei
- Thailand
- Argentina
- Mexico
- Peru
- Philippines
- Japan
- Korea, Republic of
- Viet Nam
- Qatar
- Russian Federation
- South Africa
- Saudi Arabia, Kingdom of
- Singapore
- United Kingdom
- Czech Republic
- Egypt
- Indonesia
- Israel
- Kazakhstan
- Kuwait, the State of
- Malaysia
- Nigeria
- Slovak Republic
- Switzerland
- Ukraine
- United Arab Emirates
- Venezuela, Bolivarian Republic of

Year

- 1995
- 1996
- 1997
- 1998
- 1999
- 2000
- 2001
- 2002
- 2003
- 2004
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014
- 2015
- 2016
- 2017
- 2018
- 2019
- 2020
- 2021
- 2022

Under Control  Under Treatment
Legal Exposure: Annual Participation (SPS)

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

Country
- United States of America
- European Union
- India
- Norway
- Canada
- Hong Kong, China
- Australia
- New Zealand
- Brazil
- Colombia
- Chinese Taipei
- China
- Chile
- Thailand
- Argentina
- Mexico
- Peru
- Philippines
- Japan
- Korea, Republic of
- Viet Nam
- Russian Federation
- Qatar
- South Africa
- Singapore
- Saudi Arabia, Kingdom of
- United Kingdom
- Czech Republic
- Egypt
- Indonesia
- Israel
- Kazakhstan
- Kuwait, the State of
- Malaysia
- Nigeria
- Slovak Republic
- Switzerland
- Ukraine
- United Arab Emirates
- Venezuela, Bolivarian Republic of

Year

Under Control
Under Treatment
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