Political Contestation and Firm Behavior in Response to WTO Disputes
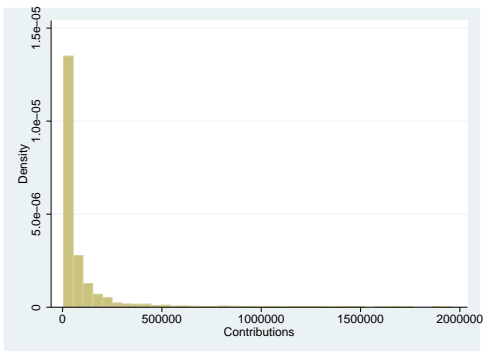
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Motivation

- ▶ What explains how much firms lobby over trade policy?
  - ▶ The *intensive* margin of lobbying.

- ▶ How do firms interact strategically?
  - ▶ Emphasize how shocks affect one firm directly.
  - ▶ ... which indirectly affects other firms.

- ▶ This talk:

  1. Show a general modelling framework.

  2. Show beginnings of empirical test.

Intensive Margin of Lobbying I
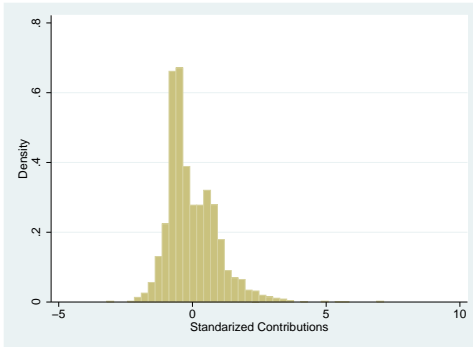
Figure : Distribution of PAC Expenditures

PAC Data 1997-1999. Contributions between 5K and 2M.

- ▸ High variation in intensive margin.
- ▸ Intensive margin speaks directly to welfare.

Intensive Margin of Lobbying II

Figure : Distribution of Standardized PAC Expenditures

PAC Data from 1997-1999. Mean-standardized contributions.

Existing IPE Explanations

- "Describe whether the firm supports or opposes protection"
  - According to an underlying economic model.
  - Old, New, New NEW!, ... $New^{newestest}$ trade theory.

- "+ Grossman and Helpman."
  - Deriving contribution schedules complete pain.

Lobbying Contests

- Lobbying as contestation between firms with opposing preferences.

- Two or more actors can exert costly effort to win a prize.

- Value added:

  - Accommodates the effects of many "shocks."

  - Smooth comparative statics about "own-firm" and "cross-firm" effects.

Model Basics

- Two firms: Free trade F and Pro-protection P

- Value to prize: V_F and V_P
- Cost of effort: c_F and c_P

- Contest: $\phi_F(e_F, e_P) = \frac{e_F}{e_F + e_P}$

- Objective: $\Pi_i = \phi_i(e_i, e_j) V_i - e_i c_i$

Timeout

- Timeout: Recharacterize objective function
  - $\Pi_i = \phi_i(e_i, e_j) V_i - e_i c_i$
  - $\Pi_i = \phi_i(e_i, e_j) - e_i d_i$

    - Where $d_i \equiv \frac{c_i}{V_i}$.

- Easier to map real-world stories about c_i and V_i to the model's predictions.

Equilibrium

- Unique, pure strategy NE:

    - $e_i^* = \frac{d_j}{(d_i + d_j)^2}$
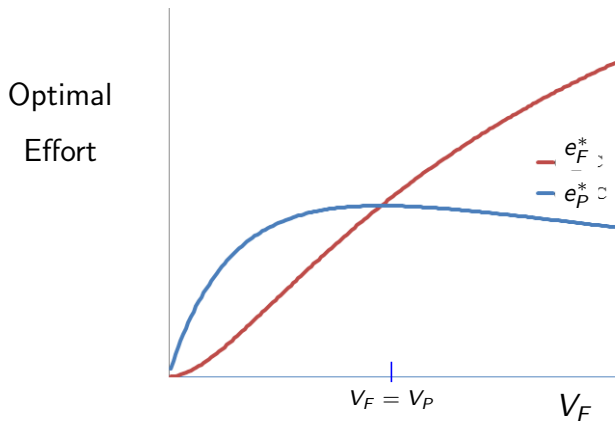
- Clean comparative statics:

Own-firm Effects

$\frac{\partial e_i^*}{\partial d_i} = \frac{-2d_j}{(d_i + d_j)^3}$

Cross-firm Effects

$\frac{\partial e_i^*}{\partial d_j} = \frac{d_i - d_j}{(d_i + d_j)^3}$

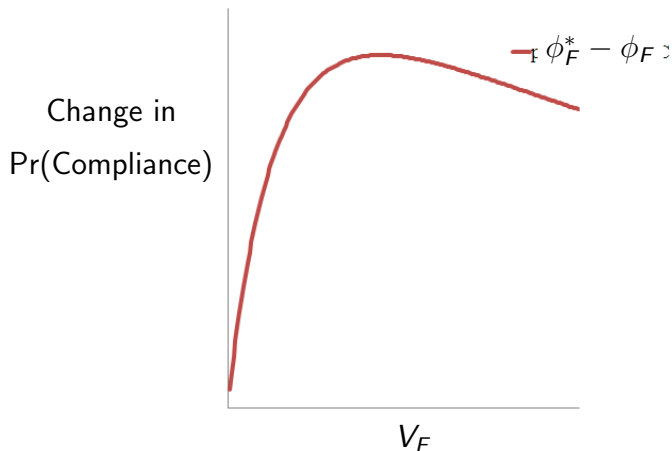# Optimal Effort

Equilibrium Effort Levels as V_F Varies

WTO Disputes

- Increase the value of compliance to one side.
  - Information provision.
  - New groups who will suffer from retaliation.
  - Moral, suasion.

- Lower costs of lobbying.
  - Focal point for collective action.
  - Political cover for politicians.

- Can also accommodate changes in lobbying technology.
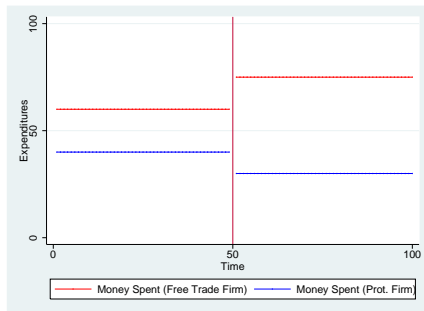
Effect of Shock on Contest Outcome
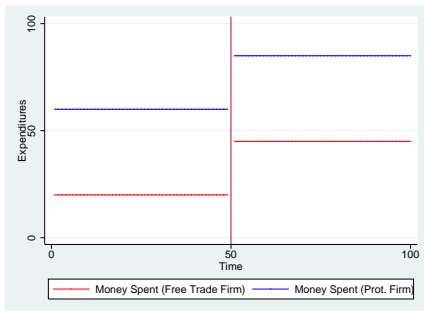
Empirics

- ▶ Challenge 1: Identify pro-protection firms.

    - ▶ Take petitioning firms from Bown's Temporary Trade Barriers dataset.

- ▶ Challenge 2: Identify anti-protection firms.
    - ▶ Downstream firms harmed by the petition.

    1. Identify product-exporters in TTB.
    2. Identify U.S. firms who import that product from that country.
        - ▶ Bill of Lading Data

Bill of Lading Data

BILL OF LADING		
Manufacturer / Shipper	**Consignee**	BILL OF LADING
EAST COAST FIBREGLASS SUPPLIES	SURVITEC SURVIVAL PRODUCTS INC	ARRIVAL DATE
WEST WALPOLE STREET SOUTH SHIELDS	11070 CABOT COMMERCE CIR STE 100	WEIGHT (LB)
NE33 5BY GB	JACKSONVILLE FL 32226 US	WEIGHT (KG)
Notify Party	**Marks and Numbers**	UNITS
-NOT AVAILABLE	SURVITEC SURVIVAL PRODUCTS INC.	QUANTITY
Master Bill of Lading Number	**Container Number**	CONTAINER COUNT
SUDU14M089140178	SUDU5902650	CBM
Product Description		VOYAGE NO.
SURVIVAL EQUIPMENT		PORT OF LOADING

Field	Value
BILL OF LADING	FTNVMAS000001430
ARRIVAL DATE	2014-11-06
WEIGHT (LB)	4,004
WEIGHT (KG)	1,820
UNITS	X
QUANTITY	13 BOX
CONTAINER COUNT	1
CBM	11
VOYAGE NO.	444W
PORT OF LOADING	SOUTHHAMPTON
PORT OF DISCHARGE	CHARLESTON, SOUTH CAROLINA
VESSEL NAME	YORKTOWN EXPRESS
CARRIER CODE	FTNV
COUNTRY OF ORIGIN	UNITED KINGDOM
PLACE OF RECEIPT	GB

Predictions

- A positive shock to the red firm's value to the prize.
    - Left: When red is relatively weak.
    - Right: When red is relatively strong.

Conclusions

- We should care about the intensive margin of lobbying.

  - Inherently important for welfare.

  - Reveals strategic interaction among firms.

- Contestation is a useful framework.

  - Accommodates many real world stories.

- Data collection to test using expenditures.