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Temporary Trade Barriers: When Will They End?

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Preview

The Questions

1. How long do deviations from trade agreement tariffs last?

2. What are the determinants of renewals?

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Preview

Institutional Detail

- ▶ Temporary trade barriers have potential to be renewed
  - ▶ For Anti-dumping (AD) duties, initial five year term, renewal for five years
  - ▶ For Safeguards, four then four; much rarer than AD
- ▶ Authorized by WTO
- ▶ Agreements / litigation provide a LOT of latitude
- ▶ In U.S., for AD:
  - ▶ DOC initiates, determines whether dumping would continue
  - ▶ ITC determines whether injury would recur / continue

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Preview

Preview of Results

The probability that AD duties gets renewed

- ▶ increases in lobbying effort
- ▶ decreases in the MFN tariff
- ▶ is invariant to the trading partner's tariff
- ▶ increases in the profitability of the import-competing sector
- ▶ increases in the strength of the lobby
- ▶ AD duties: complicated

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Economic and Political Structure

Timeline

Taking trade agreement tariff and anti-dumping duties as given,

1. Import-competing firms lobby DOC/ITC to renew AD duties
2. Uncertainty is resolved
3. DOC/ITC decide whether to renew duties
4. Private actors make production, consumption decisions

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Economy

Two countries: home and foreign (*)

- ▶ Symmetric and separable in X and Y (traded) and numeraire
  - ▶ Home net importer of X, net exporter of Y

Home levies τ on X, Foreign levies τ^* on Y

- ▶ $P_X = P_X^W + \tau$ and $\pi_X(P_X)$ increasing in τ

Non-tradable specific factors motivates political activity

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Economic and Political Structure

Political Structure

In Home country (foreign is passive):

- ▶ Dept. of Commerce / Int'l Trade Commission (G)
  - ▶ Can renew AD duties
  - ▶ Susceptible to influence of lobbying, perhaps both direct and indirect
  - ▶ Modeled in reduced form
- ▶ A Single Lobby
  - ▶ Represents import-competing sector, X

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The Players

"Government"

Renewal decision determined by complex process including DOC, ITC, pressure via other political bodies. Reduced form:

$$W_G = CS_X(\tau) + \gamma(e, \theta)\pi_X(\tau) + CS_Y(\tau^*) + \pi_Y(\tau^*) + TR(\tau)$$

- ▶ $CS_i(\cdot)$: consumer surplus
- ▶ $\pi_X(\tau)$: profits of import-competing industry
- ▶ $\pi_Y(\tau^*)$: profits of exporting industry
- ▶ $TR(\tau)$: tariff revenue

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The Players

"Government"

$$W_G = CS_X(\tau) + \gamma(e, \theta)\pi_X(\tau) + CS_Y(\tau^*) + \pi_Y(\tau^*) + TR(\tau)$$

- $\gamma(e, \theta)$: weight on import-competing industry profits
  - e: lobbying effort
  - θ: uncertain element in G's preferences

Assumption 1

1. $\gamma(e, \theta)$ is increasing and concave in e for all $\theta \in \Theta$.

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The Players

Lobby

Lobby chooses effort to maximize:

$$\{1 - \Pr\left[\text{AD Renewal}\right]\}\ \pi(\tau^a) + \Pr\left[\text{AD Renewal}\right]\pi(\tau^{ad}) - e$$

- ▶ τ^a: home import tariff under trade agreement
- ▶ τ^{ad}: home import tariff equivalent under anti-dumping duties

What's this uncertainty about?

- ▶ Strength of evidence
- ▶ Probability foreign will retaliate or initiate dispute (indirect)
- ▶ G's valuation of harm to industry, e.g. how politically important is industry?

Assumption 2

1. θ is uniformly distributed on some $\Theta = \left[\underline{\theta}, \overline{\theta}\right]$.

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Government

G renews AD duties if its utility is higher under AD duties than trade agreement tariff

- ▶ Preferences are ex-ante uncertain through θ
- ▶ When does G renew AD duties?

  $r(e, \tau^a, \tau^{ad})$: probability G prefers τ^{ad} to τ^a for a given effort level e

Lemma 3

The probability that G renews AD duties is increasing and concave in lobbying effort e $\left(\text{i.e. } \frac{\partial r}{\partial e} \geqslant 0, \ \frac{\partial^2 r}{\partial e^2} \leqslant 0\right)$.

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Home's Trade Agreement Tariff

Result 1

The total probability that G renews AD duties is decreasing in the home trade agreement tariff τ^a.

There's both a direct effect and an indirect effect through lobby's incentives, and both are negative:

$$\frac{\partial r}{\partial e}\frac{\partial e}{\partial \tau^a} + \frac{\partial r}{\partial \tau^a}$$

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Foreign's Trade Agreement Tariff

Assuming trading partner does not retaliate

► No difference in foreign tariff under AD duties and τ^a. So
   no effect on G's incentives (either direct or indirect)

Result 2

The total probability that G renews AD duties is unaffected by
foreign's trade agreement tariff τ^{*a}.

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Protection through AD Duties

When τ^{ad} increases, direct effect is negative: social welfare decreases, so G less likely to renew

Indirect effect is positive: higher τ^{ad} increases incentive to exert lobbying effort

Magnitudes are not directly comparable
- ▶ Work in progress: endogenize τ^{ad}

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Exogenous Shifts in $\gamma(e, \theta)$

Assume $\gamma(\cdot, \cdot)$ increases weakly for all (e, θ) pairs.

- G gives more weight to firms' benefit
- Lobbying incentives are unchanged

Result 4

The total probability that G renews AD duties increases when the weighting function shifts up exogenously.

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Profitability of Import-Competing Sector

Both lobby and G care on the margin about the difference between profits under τ^{ad} and τ^{a}

- ▶ Shifts in the profit function matter to the extent they change this difference

Result 5

The total probability that G renews AD duties increases (decreases) when there is an increase (decrease) in the gap between profits under τ^{ad} and profits under τ^{a}.

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Future Work

- ► Empirical work
- ► Comparative static on uncertainty measure
- ► Extend model to include initial decision to grant protection.
  - ► Explain variation in a lobby's incentives between original application of AD and renewal
  - ► Lobby's choice between investing in productive vs. rent-seeking behavior while protected