Temporary Trade Barriers: When Will They End?

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The Questions

1. How long do deviations from trade agreement tariffs last?
2. What are the determinants of renewals?
    - They don't happen for *no* reason at all

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
- Very little in the agreements to guide the process
  - WTO litigation gives gov'ts a LOT of latitude
- In U.S., for AD:
  - DOC initiates, determines whether dumping would continue
  - ITC determines whether injury would recur / continue

Preview of Results

The probability that an AD duty 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
- May be concave in the AD duty

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

Economy

- Two countries: home and foreign (*)
- Separable in three goods: X and Y (traded) and numeraire
- Demand identical for both goods in both countries
- Supply: $Q_X^*(P_X) > Q_X(P_X)\ \forall P_X$; symmetric for Y
  - 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

Political Structure

In Home country (foreign is passive):

- Dept. of Commerce / Int'l Trade Commission
  - 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

"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

"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 $\theta \in \Theta$.

Lobby

Lobby chooses effort to maximize:

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

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

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Why uncertainty?

Government

- Renews AD duties if G prefers τ^{ad} to τ^{a}

Lobby

- Given (τ^{a}, τ^{*a}) and τ^{ad}, lobby knows what e is required to induce renewal
- Lobby pays this e if: $\pi(\tau^{ad}) - e > \pi(\tau^{a})$

In Equilibrium

- Firms only put forth effort when they know renewal will be granted

What's this uncertainty about?

Lobby must be able to trigger the original AD duty

- *Can* think of non-adherence to MFN as eqm path dispute
- It could be justified, not motivated by politics/rent-seeking
- But still, firms lobby for duties they don't get

So what's the 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?

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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?

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

Lemma 1

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

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:

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

Foreign's Trade Agreement Tariff

Assuming trading partner does not retaliate

- No difference in foreign tariff under AD duty 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.

Profitability of Import-Competing Sector

NOTE: this is not quite right, but some version of it will be

Assume $\pi(\cdot)$ shifts up uniformly for all τ.

- Convexity of profits $\Rightarrow$ G's marginal benefit of providing protection goes up
- Convexity of profits $\Rightarrow$ return from lobbying increases

Result 3

The total probability that G renews AD duties is increasing in the profitability of the import-competing sector.

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

Assume $\gamma(\cdot, \cdot)$ shifts up uniformly for all (e, θ) pairs.

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

Result 3

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

Protection from AD Duties

When τ^{ad} increases, two effects on G's incentives:

- Social welfare decreases, pushes for decrease in renewal probability
- (Over-weighted) import-competing profits increase, pushes for increase in renewal probability

Indirect effect is of same sign as direct effect

- When τ^{ad} (i.e. close to social optimum), second effect dominates $\Rightarrow$ increase in renewal probability
- Effect may be concave

Future Work

- Comparative static on uncertainty measure
- Empirical work
- 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

Feedback, Comments from InsTED presentation

- Could leverage 5-year renewal cycle vs. 4-year re-election cycle (Sarah Danzman, Indiana U)
- Look for Kara Reynold's "Political Economy of Antidumping Reviews (Shushanik)
- Need to have first stage (Jee-Hyeong, Gary Lyn)
  - Look at Park and Blonigen (Jee-Hyeong)
  - Cost differential for firms to get initial duty vs. renewal?
  - Some firms choose not to pursue renewal when DOC contacts them 30-days before (Sasha)
- Lobbying effort may be endogenous: if prob. of success is lower, maybe it's not worth providing effort (Mostafa)
- Uncertainty could be, in part, about how mobile labor is (Kishore)