Explaining Gradualism in Trade Liberalization: A Political Economy Approach

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The Questions

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Institutional Detail

Preview of Results

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Related Literature

Protection for Sale: Grossman & Helpman (1994)

- Empirics: Goldberg & Maggi (1999), Gawande & Bandyopadhyay (2000), Mitra, Thomakos, & Ulubasoglu (2002)
- Mitra, Thomakos, & Ulubasoglu (2006), Bombardini (2008)
- Trade Wars and Trade Talks: Grossman & Helpman (1995)

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
  - Can
  - Susceptible
  - Modeled
- A Single Lobby
  - Represents import-competing sector, X

"Government"

Decision determined by complex process. 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

Timeline

1. **Import-competing firms lobby ...**
2. Uncertainty is resolved
3. **Government ...**
4. Private actors make production, consumption decisions

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

- But
- But

So what's the uncertainty about?

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

Timeline

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

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
- Empirical
- Extend model