Temporary Trade Barriers: When Will They End?

Kristy Buzard
Syracuse University
kbuzard@syr.edu

November 18, 2017

The Questions

1. How long do deviations from trade agreement tariffs last?
2. What are the determinants of renewals?

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
- In U.S., for AD:
  - DOC initiates, determines whether dumping would continue
  - ITC determines whether injury would recur / continue
- Authorized by WTO
  - Agreements / litigation provide a LOT of latitude

Preview of Results

The probability that AD duties gets renewed

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

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 (*)

- 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

Political Structure

In Home country (foreign is passive):

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

"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

Assumptions

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

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. The pdf of the induced distribution on $\gamma(e, \theta)$ is weakly increasing in e.

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

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

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:

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

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}.

Protection through AD Duties

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

Indirect effect is ambiguous: higher τ^{ad} can increase or decrease incentive to exert lobbying effort

The total probability that G renews AD duties only increases if indirect effect is positive / large enough to outweigh direct effect.

- Work in progress: endogenize τ^{ad}

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 muted

Result 4

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

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}.

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