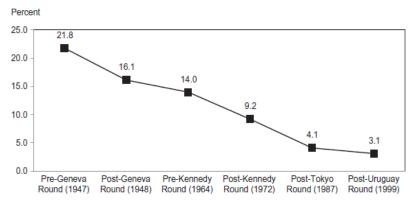
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# Average tariffs for U.S., Western Europe, and Japan



Source: Bown, C.P., Irwin, D.A., (2017) "The GATT's Starting Point: Tariff Levels circa 1947," in Assessing the World Trade Organization: Fit for Purpose?, M. Elsig, B. Hoekman, and J. Pauwelyn eds., Cambridge University Press, forthcoming, fig. 1

Overview

# The Questions

- 1. Why would liberization not be immediate? Why proceed in stages?
- 2. What are the frictions preventing free trade?

00000 Preview

Overview

## Related Literature

List various papers explaining different mechanisms

► MRC?

Protection for Sale: Grossman & Helpman (1994)

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- **►** M
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Overview

## **Politics**

Inefficient tariffs maintained through lobbying by import-competing industries

- ► BUT ability to maintain protection reduced by shocks to political support
  - ▶ a key politician losing an election or committee position
- ▶ Immediate loss of protection / rents  $can \Rightarrow$  erosion of future political power and accompanying protection
- ▶ Demonstrate with a dynamic model of political economy

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Overview

## Preview of Results

### The

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- **▶** D

## 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  $\tau$  on X, Foreign levies  $\tau^*$  on Y

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

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

The Players

## "Government"

Decision determined by complex process. Reduced form:

$$W_{\mathsf{G}} = \mathit{CS}_{\mathsf{X}}(\tau) + \gamma(e, \theta)\pi_{\mathsf{X}}(\tau) + \mathit{CS}_{\mathsf{Y}}(\tau^*) + \pi_{\mathsf{Y}}(\tau^*) + \mathit{TR}(\tau)$$

 $ightharpoonup CS_i(\cdot)$ : consumer surplus

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- $\blacktriangleright$   $\pi_X(\tau)$ : profits of import-competing industry
- $\blacktriangleright \pi_{Y}(\tau^{*})$ : profits of exporting industry
- $ightharpoonup TR(\tau)$ : tariff revenue

## "Government"

$$W_{\mathsf{G}} = \mathit{CS}_{\mathsf{X}}(\tau) + \gamma(e, \theta)\pi_{\mathsf{X}}(\tau) + \mathit{CS}_{\mathsf{Y}}(\tau^*) + \pi_{\mathsf{Y}}(\tau^*) + \mathit{TR}(\tau)$$

- $\triangleright \gamma(e,\theta)$ : weight on import-competing industry profits
  - ▶ e: lobbying effort

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θ: uncertain element in G's preferences

### Assumption 1

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

The Players

# Lobby

Lobby chooses effort to maximize:

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

- ▶ e: Lobbying effort
- $\blacktriangleright$   $\tau^{a}$ : home import tariff under trade agreement
- $ightharpoonup au^{ad}$ : 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

#### Government

▶ Renews AD duties if G prefers  $\tau^{ad}$  to  $\tau^a$ 

### Lobby

- ► Given  $(\tau^a, \tau^{*a})$  and  $\tau^{ad}$ , 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

### 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

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

- ightharpoonup Preferences are ex-ante uncertain through  $\theta$
- ▶ When does G renew AD duties?

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

#### Lemma 1

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

## Result 1

The total probability that G renews AD duties is decreasing in the home trade agreement tariff  $\tau^{\alpha}$ .

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

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

# Foreign's Trade Agreement Tariff

Assuming trading partner does not retaliate

▶ No difference in foreign tariff under AD duty and  $\tau^a$ . 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  $\tau^{\alpha}$ .

NOTE: this is not quite right, but some version of it will be Assume  $\pi(\cdot)$  shifts up uniformly for all  $\tau$ .

- ► Convexity of profits ⇒ G's marginal benefit of providing protection goes up
- ► Convexity of profits ⇒ return from lobbying increases

#### Result 3

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

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

## When $\tau^{ad}$ 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  $\tau^{ad}$  (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