Explaining Gradualism in Trade Liberalization: A Political Economy Approach

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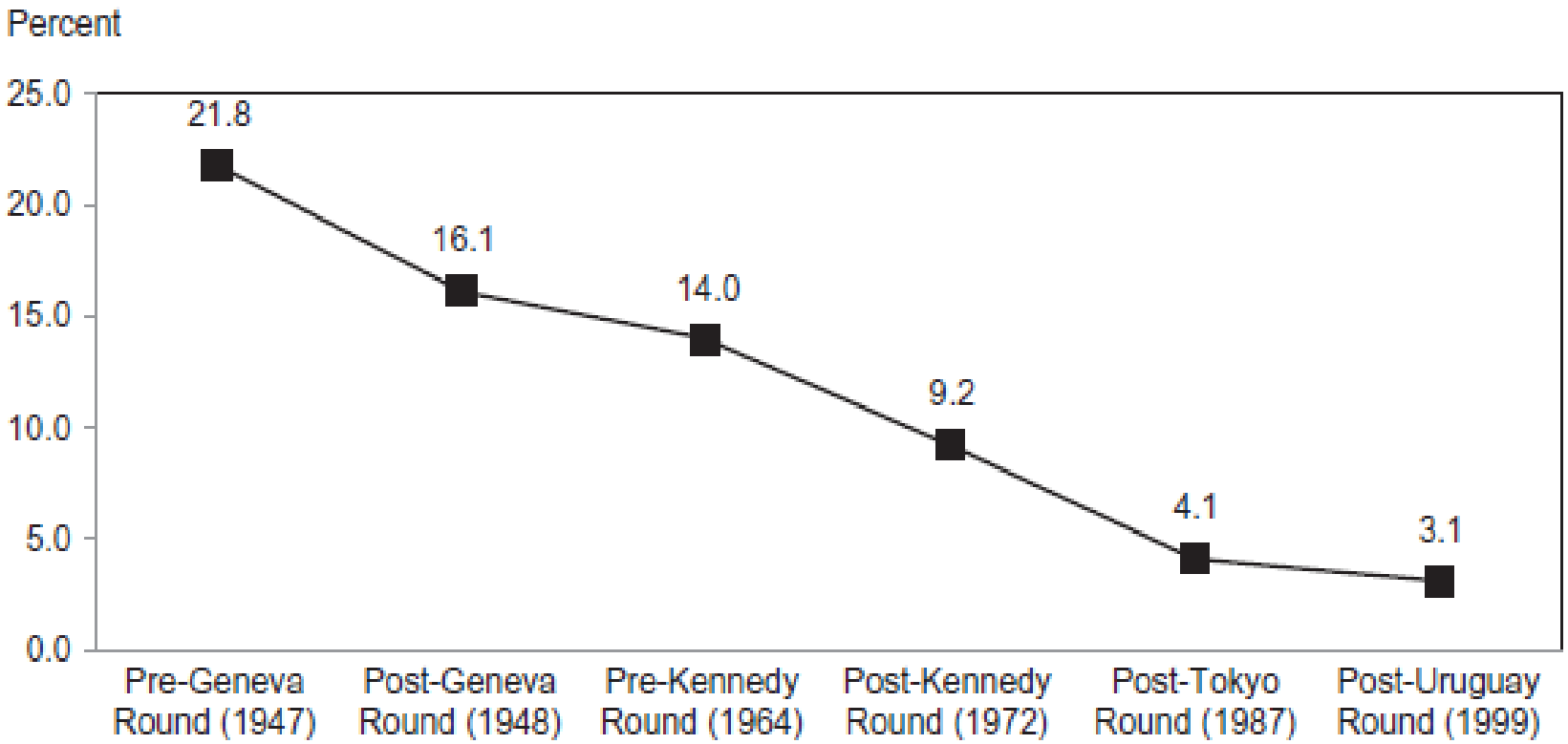
Average tariffs for U.S., Western Europe, and Japan



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

The Questions

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

Related Literature

Export sector

- Benefits of trade integration to consumers (Devereau 1997)
- Exporters increasingly depend on trade via capacity accumulation (Chisik 2003)

Import-competing sector

- Convex adjustment costs as workers leave import-competing sector (Mussa 1986); Furusawa & Lai similar for repeated game
- Gradual reductions improve welfare when there's a minimum wage (Mehlum 1998)
- Workers lose specialized skills as they leave (Staiger 1995)
- Lobbying and capital mobility (MRC 2007)

Limitation of punishments to WEC (Zissimos 2007)

Politics: Motivation

Is there a *fundamentally* political economy explanation for gradualism?

- i.e. a story that doesn't hinge on specific nature of trade
- The hope: lessons could be applied to other issue areas

Politics: Mechanism

Inefficient tariffs maintained through the lobbying of 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

Timeline

Within each period t, taking initial wealth as given

1. Election occurs (reduced form based on e_{t-1})
2. Lobby/firm chooses l_t and makes investments in technology μ_t and politics e_t
3. Government chooses tariff (τ_t)
4. Production takes place, workers are paid (profits realized)
5. Tariff revenue is distributed and consumption takes place (not explicitly modeled)

Economy

- Small country ('home') and Rest of World (ROW, *)
- Separable in three goods: 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 factor (F) motivates political activity
- Demand identical for both goods in both countries
- $F_X(m_t, l_t) = A(m_t) F_t^{\alpha} l_t^{1-\alpha}$

Political Structure

In Home country (foreign is passive):

- Non-unitary government
  - Members re-elected each period
  - Composition impacted by lobby's investment
  - Sets tariff by majority rule
- A Single Lobby
  - Represents import-competing sector, X

"Government"

Decision determined by complex process. Reduced form:

$$W_{G,t} = CS_X(\tau) + \gamma_t \pi_X(\tau) + CS_Y(\tau^*) + \pi_Y(\tau^*) + TR(\tau)$$

- $CS_i(\cdot)$: consumer surplus
- $\pi_X(\tau)$: profits of import-competing industry
- $\pi_Y(\tau^*)$: profits of exporting industry
- $TR(\tau)$: tariff revenue
- $\gamma_t = \gamma(e_{t-1}, \theta_{t-1})$

"Government"

$$W_{G,t} = CS_X(\tau) + \gamma_t \pi_X(\tau) + CS_Y(\tau^*) + \pi_Y(\tau^*) + TR(\tau)$$

- γ_t: weight on import-competing industry profits. Determined via election, influenced by
  - e_{t-1}: lobbying effort
  - θ_{t-1}: uncertain element in electoral process

Assumption 1

$\gamma(e_{t-1}, \theta_{t-1})$ is increasing and concave in e_{t-1} for all $\theta_{t-1} \in \Theta$.

Lobby

$$\max_{e_t, m_t, l_t} \sum_{t=1}^{\infty} \left\{ A(m_t) \cdot F^{\alpha} \cdot l_t^{1-\alpha} \left[P^W + \tau(\gamma(e_{t-1})) \right] - l_t - \mu_t - e_t \right\}$$

$$\text{s.t.} \quad m_t = m_{t-1} + \mu_t$$

where

- μ_t: Investment in productivity
  - Assume $A(\cdot)$ increasing and concave in m_t
- l_t: Labor
- e_t: Lobbying effort
- τ_t: home tariff on good X

Two-Period Model

Given γ_0

$$\max_{l_1,e_1,\mu_1,l_2,\mu_2} \left\{A(m_0+\mu_1)\cdot F^{\alpha}\cdot l_1^{1-\alpha}\left[P^W+\tau(\gamma_0)\right]-l_1-\mu_1-e_1\right\}$$
$$\left\{A(m_1+\mu_1)\cdot F^{\alpha}\cdot l_2^{1-\alpha}\left[P^W+\tau(\gamma(e_1))\right]-l_2-\mu_2\right\}$$

What happens when γ_0 decreases? Two cases:

1. $\mu_1\uparrow$ and $l_1\uparrow$
2. $\mu_1\downarrow$ and $l_1\downarrow$

Two-Period Model

$\mu_1 \downarrow$ and $l_1 \downarrow$: reduce investment in productivity

- investment in politics $(e_1) \uparrow$
- $l_2 \downarrow$

$\mu_1 \uparrow$ and $l_1 \uparrow$: increase investment in productivity

- investment in politics $(e_1) \downarrow$
- $l_2 \uparrow$

This is gradualism!

Next Steps

- Determine what separates cases of $\mu_1 \uparrow$ from $\mu_1 \downarrow$?
- Add wealth constraint
- Fully dynamic model
- Comparative statics on $A(m_t)$
- CRS production