

Temporary Trade Barriers: When Will They End?

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Preview

P

In

- ▶ r
- ▶ g
- ▶ a

Preview of Results

- ▶ H
 - ▶ R
- ▶ E
 - ▶ P
 - ▶ R
 - ▶ T
- ▶ T

Outline of Talk

1. B
2. E
3. R
4. F
5. Conclusion

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

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

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

Timeline

1. Import-competing firms lobby DOC/ITC to renew AD duties
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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 (i.e. $\frac{\partial b}{\partial e} \geq 0$, $\frac{\partial^2 b}{\partial e^2} \leq 0$).

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

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.

Future Work

- ▶ C
- ▶ E
- ▶ P
- ▶ A

Conclusion

- ▶ S
- ▶ E
- ▶ F