

Endogenous Politics and the Design of Trade Institutions

Kristy Buzard
Syracuse University and The Wallis Institute
kbuzard@syr.edu

June 30, 2016

The Questions

1. When is endogenizing political pressure important for answering optimal design questions?
 - ▶ Exogenous vs. endogenous politics
2. Can trade agreements be used to manipulate domestic lobbying incentives?
 - ▶ Government objective function

Political Economy of Trade Institutions

With a few exceptions, TA literature has taken political economy forces to be exogenous. I:

- ▶ endogenize politics into a standard model for studying TA design questions
- ▶ carefully distinguish between dynamics induced by exogenous and endogenous politics for
 - ▶ base case with tariff caps
 - ▶ tariff caps with escape clause
- ▶ examine escape clause design when both exogenous and endogenous forces are present

Results

- ▶ Show that TAs may be used to manipulate domestic political actors (no long-run distortions)
- ▶ For both tariff caps and escape clauses, outcomes are very different with endogenous politics
- ▶ Demonstrate that (standard, theoretical) escape clause can't work in the presence of endogenous political pressure
 - ▶ Points to real-world design of WTO Agreement on Safeguards
 - ▶ May explain why escape clause has fallen out of use

Design of Trade Agreements

- ▶ **Tariff caps:** Bagwell and Staiger 2005, Horn et al 2010, Amador and Bagwell 2012; Beshkar and Bond 2012
- ▶ **Escape clause:** Bagwell and Staiger 2005, Horn et al 2010,
- ▶ **Shallow vs. deep integration:** Bagwell and Staiger 2001, DeRemer 2014
- ▶ **Dispute settlement:** Maggi 1999, Ludema 2001, Maggi and Staiger 2011/2013, Klimenko et al 2008
- ▶ **Retaliation:** Bown 2002/2004, Beshkar 2010

Role of Trade Agreements: TOT Externality

Bagwell and Staiger (2002)

- ▶ Joint social welfare maximized at free trade
- ▶ Trade war (i.e. no agreement)
 - ▶ Maximize with respect to home country welfare only
 - ▶ Terms of trade (TOT) externality \Rightarrow positive tariffs
- ▶ Trade agreements
 - ▶ Now take into account impact on foreign welfare
 - ▶ Internalize TOT externality \Rightarrow free trade

Role of Trade Agreements: TOT Externality

Grossman and Helpman (1995)

- ▶ Add endogenous politics
- ▶ Now in “Trade War”: two reasons for positive tariff
 - ▶ TOT externality + pressure from import competing lobby
- ▶ Trade agreement: only internalizes TOT externality

Role of Trade Agreements: Domestic Commitment

- ▶ Maggi and Rodriguez-Clare (1998, 2007)
 - ▶ Allow for (imperfect) capital mobility
 - ▶ Domestic investment decisions depend on level of protection
 - ▶ Inability to commit \Rightarrow investment too high b/c importers know protection will respond
 - ▶ Trade agreements provide commitment device
- ▶ Mitra (2002)
 - ▶ Here distortion is wasted resources in lobby formation

Economy

Two countries: home and foreign (*)

- ▶ Separable in two goods: X and Y
 - ▶ P_i : home price of good i
 - ▶ P_i^* : foreign price of good i
- ▶ Demand identical for both goods in both countries
 - ▶ $D(P_i) = 1 - P_i$
- ▶ Supply: $Q_X^*(P_X) > Q_X(P_X) \forall P_X$; symmetric for Y
 - ▶ $Q_X(P_X) = \frac{P_X}{2}$; $Q_Y(P_Y) = P_Y$
 - ▶ Home net importer of X , net exporter of Y

Policy and Politics

Home levies τ on X , Foreign levies τ^* on Y

- ▶ $P_X = P_X^W + \tau$ increasing in τ
- ▶ $\pi_X(P_X)$ increasing in P_X , therefore also τ

Non-tradable specific factors motivate political activity

Timeline

Each period:

1. Trade Agreement Formed

- i. Governments set trade policy in international agreement

2. Domestic Politics Played Out

- i. Exogenous shocks are realized AND/OR
- ii. Import-competing industry lobbies government for protection

3. Tariffs are Applied

- i. Given political pressure, governments choose applied tariff levels

Applied Tariff Decision

Baldwin-style government objective function:

$$W = CS_X(\tau) + \gamma(s, e)\pi_X(\tau) + CS_Y(\tau^*) + \pi_Y(\tau^*) + TR(\tau)$$

- ▶ Standard *except* weight on import-competing industry profits $\gamma(s, e)$:
 - ▶ s : exogenous shock
 - ▶ e : lobbying effort
- ▶ Optimal applied tariff is a function of $\gamma(s, e)$
 - ▶ Ignores foreign welfare
 - ▶ Takes into account trade agreement enforcement
- ▶ Assume γ, γ^* is private info of each government

Domestic Political Pressure

Two potential sources

1. Exogenous shocks

- ▶ Shock directly to γ as in Bagwell & Staiger (2005): γ, γ^* with CDF $H(\gamma)$ on support $[\underline{\gamma}, \bar{\gamma}]$; or
- ▶ Can take γ as a function of s : $\gamma(s)$

2. Endogenous effort choice of lobby, e

- ▶ Lobby chooses effort to maximize profits, $\pi(\cdot)$, net of lobbying effort, e
- ▶ Call lobby's optimal effort choice e^L

$$e^L = \max_e \pi(\tau(\gamma(e))) - e$$

Trade Agreement Negotiation

Model as Nash bargain between the two countries' governments

- ▶ Maximize joint political welfare
- ▶ Disagreement point: non-cooperative outcome

Once agreement is set, cooperation enforced by repeated-game punishments conditioned on history, history + DSB signal

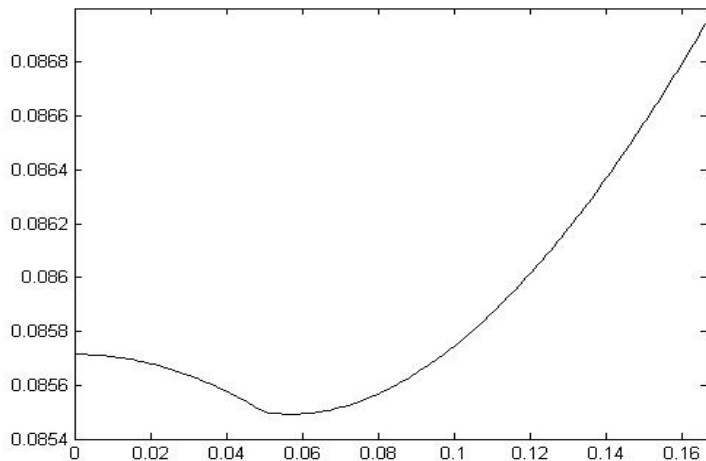
Restraining Political Pressure through TAs

- ▶ Will TA be used to discourage lobbying? Depends on how gov't welfare varies in γ
- ▶ With standard Baldwin-style objective function, welfare always increases with γ :

$$W = CS_X(\tau) + \gamma \cdot \pi_X(\tau) + CS_Y(\tau^*) + \pi_Y(\tau^*) + TR(\tau)$$

- ▶ Note 'Protection for Sale' objective function is isomorphic
- ▶ If we instead make weights sum to 1, welfare is no longer monotonic in γ

Objective Function



Tariff Caps: Exogenous vs. Endogenous γ

Must set tariff at or below specified level (aka tariff cap)

- ▶ γ exogenous (Bagwell & Staiger 2005): Negotiated weak bindings (a) are higher than those gov'ts would choose if they instead negotiated strong bindings and (b) imply that governments with low realizations of γ set their applied tariffs strictly below the bound level.
- ▶ γ endogenous: Governments will not set applied tariffs strictly below the bound level. They may use the weak tariff binding either to encourage and/or restrain endogenous political pressure.

Tariff Caps with Self Enforcement

- ▶ γ exogenous (Bagwell & Staiger 2005): if governments patient enough (δ high enough), optimal externally-enforced weak binding can be self-enforced
- ▶ γ endogenous: not necessarily true
 - ▶ Problem: lobby is an additional repeated-game player
 - ▶ Lobby's incentive constraint is harder to satisfy as δ increases

Repeated Game Intuition

Legislature: break agreement if punishment not strong enough

- ▶ i.e. if one period of gain from cheater's payoff is greater than T -periods of loss from trade-war

Lobby: solve for lowest effort (\bar{e}_b) that breaks this constraint

- ▶ pay \bar{e}_b if it's less than gain from T periods of trade-war profits

Executives: set lowest τ^a that makes paying \bar{e}_b unprofitable *and* satisfies legislature's condition

$\Rightarrow e_b = 0$, agreement remains in force

- ▶ High tariffs, no lobbying, no trade disruptions

Escape Clause with Exogenous Politics

When γ is *only* exogenous (Bagwell & Staiger 2005):

- ▶ Simple escape clause: add a second (higher) negotiated weak binding
 - ▶ Escape clause is designed to allow higher applied tariff when realization of γ is high
- ▶ Improves political efficiency
- ▶ Can improve self-enforcement
- ▶ Incentive compatibility becomes an issue

Incentive compatibility

Escape clause is meant to allow higher applied tariff when realized γ is high

- ▶ γ is private information
- ▶ We want truthful revelation, but truth-telling must be in the best interest of each gov't
- ▶ Gov't can exploit TOT externality by reporting high γ even when γ is low
 - ▶ Only way to prevent this is with some cost of using escape clause

Escape Clause with Endogenous Politics

When γ is *only* endogenous:

- ▶ Benefit of escape clause from exogenous case is gone
- ▶ Assuming lower binding is set to maximize political welfare, escape clause encourages inefficiently high lobbying effort / protection
- ▶ Incentive compatibility still an issue, but often not the central one
 - ▶ If lobby's preferred tariff \geq escape clause binding, gov't experiences high γ , no need to lie

If γ is only endogenous, escape clause causes problems, provides no benefits

When the world is more complicated...

Now suppose political pressure is a result of both endogenous and exogenous forces (i.e. $\gamma(s, e)$):

- ▶ Want escape clause to deal with exogenous shock
- ▶ But endogenous part \Rightarrow lobbying incentives make it hard to implement escape clause

Ineffectiveness of Political Criterion for Escape Clause

Assume $\gamma(s, e) = \gamma(s) + \gamma(e)$. If an escape clause conditions on $\gamma(s, e)$ and $\gamma(s^L) < \gamma(s^H) < \gamma(e^L)$, the lower “normal” tariff binding will never be applied.

When the world is more complicated... (2)

- ▶ To make escape clause work, can't use γ
 - ▶ Need signal of shock that is not influenced by endogenous pressure
- ▶ Can condition directly on s
 - ▶ This seems to be what the WTO actually *does*

An Escape Clause for Endogenous Politics

Assume a WTO-like set up: gov't can choose between τ^a , 'escape' tariff $\tau(s)$, or politically-optimal τ matched to $\gamma(s, e)$

- ▶ Assume s verifiable, so no punishment for $\tau(s)$
- ▶ Punishment for $\tau(\gamma(s, e)) > \tau(s)$

Optimal τ^a may lead to government applying $\tau(\gamma(s, e))$

- ▶ When this happens, it leads to dispute, not valid escape
- ▶ Otherwise, no extra rent-seeking is encouraged

May explain why escape clause has fallen out of use

Future Work

- ▶ Application of framework to other design questions
- ▶ Interactions between $\gamma(s)$ and $\gamma(e)$
- ▶ Choice between protective measures over time

Conclusion

Taking into account endogenous political forces alongside exogenous ones...

- ▶ provides additional general explanation for tariff caps
- ▶ demonstrates that TAs can be used to discourage lobbying activity in general
- ▶ helps explain the structure and enforcement of the WTO Safeguards measure