Lobbying and the Theory of Trade Agreements

Giovanni Maggi and Andres Rodriguez-Clare

Yale and Berkeley

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  - Gradual phasing-out of trade barriers in many TAs.

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  - No gains from policy ceilings.

Results

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- Optimal TA determines both t and t^*, whereas in standard model only net protection $t - t^*$ determined.

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- Trade liberalization is shallower when lobbies have less bargaining power at ex-post stage.

Related literature

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- Free-rider problem caused by future entry: Grossman and Helpman (1996), Baldwin and Robert-Nicoud (2007).

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- Assume $R_W(t^*)$ and $R_W^*(t)$ are "stable" ($|\text{slope}|<1$)

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- Lobbies' payoffs:
  $\tilde{U}^L = px - C = (p - c)x$
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  - Assume (i) SOC satisfied; (ii) $R(t^*)$ and $R^*(t)$ "stable".

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  - To shut down domestic-commitment motive for TA, assume capital exogenously moved in/out of sector (when out, capital employed in N sector).
- *Ex-ante lobbying*: assume the (perfectly enforceable) TA maximizes ex-ante joint surplus of govs and lobbies:

$$\Psi = U^G + U^{G^*} + U^L + U^{L^*} \quad (1)$$

where U^G, U^{G^*}, U^L and U^{L^*} denote second-stage payoffs of govs and lobbies as viewed from ex-ante stage.

Ex-Ante Objectives

- So we have $\Psi = U^G + U^{G^*} + U^L + U^{L^*}$, where

$$\begin{aligned} U^G &= aW + c \cdot (x_s + x_e) \\ U^{G^*} &= aW^* + c^* \cdot (x_s^* + x_e^*) \\ U^L &= (p - c)x_s + 1 \cdot x_l \\ U^{L^*} &= (p^* - c^*)x_s^* + 1 \cdot x_l^* \end{aligned}$$

hence

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- Note: in Maggi and Rodriguez-Clare (2007) we had $x_e = x_e^* = 0$. Here, future entrants will play a fundamental role.

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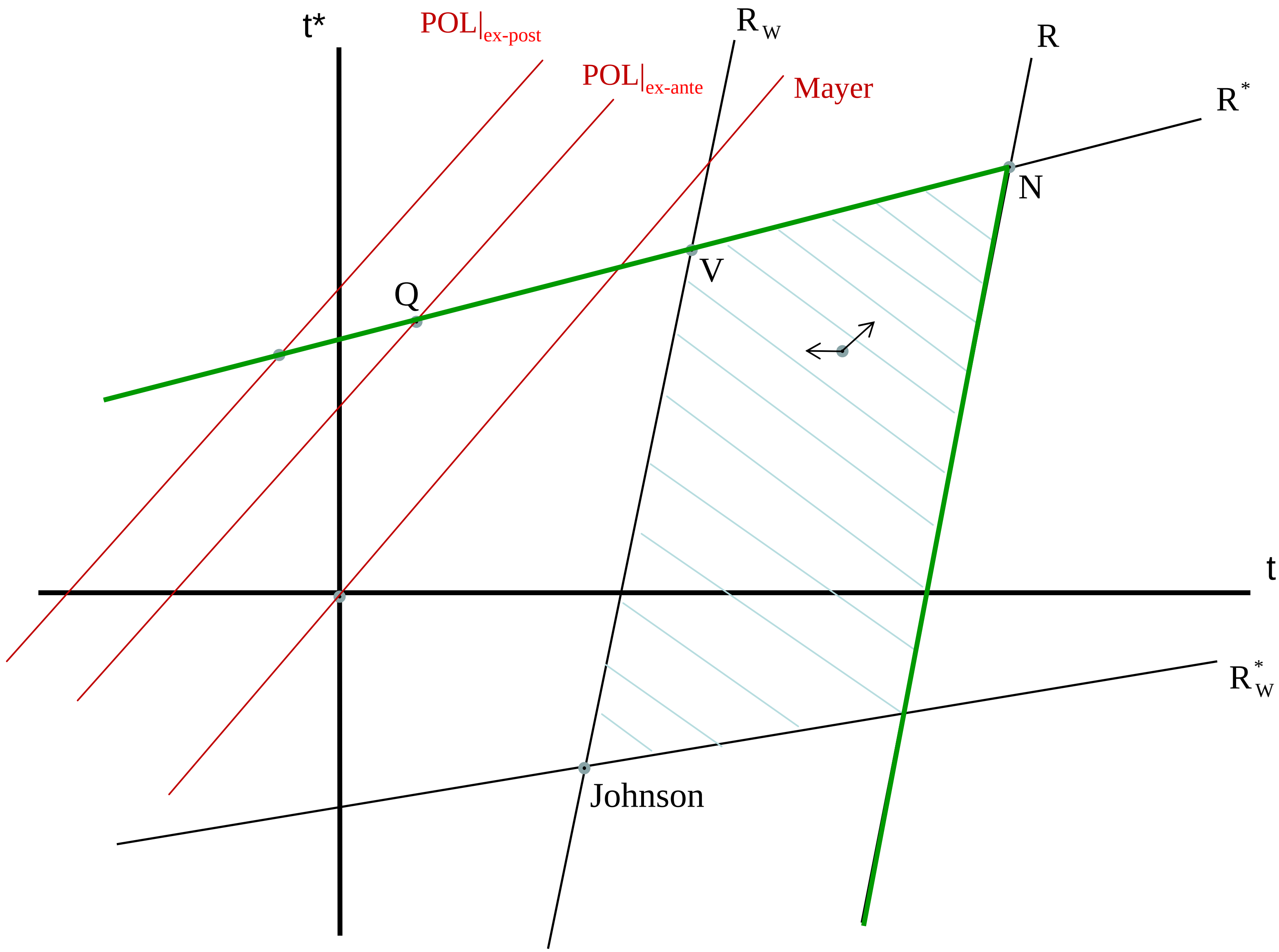
\end{aligned}
$$

  - This defines a locus in (t, t^*) space. See figure ($\mathrm{POL}_{ex-ante}$).

<u>Figure 1</u>



Complete and Incomplete TAs

- We will consider two types of TA: (1) exact policy commitments (complete TA); (2) policy ceilings (incomplete TA).
  - Key difference: a complete TA leaves no discretion and hence forecloses ex-post lobbying, whereas an incomplete TA leaves the door open to ex-post lobbying (and ex-post contributions).
- Optimal complete TA maximizes $a(W + W^*) + (px_s + p^* x_s^*)$, yielding

$$\begin{aligned} t - t^* &= \frac{1}{a \cdot |\eta(\cdot)| \cdot \frac{m(\cdot)}{x_s}} - \frac{1}{a \cdot \eta^*(\cdot) \cdot \frac{|m^*(\cdot)|}{x_s^*}} \\ &= \frac{1}{a \cdot m(\cdot)} \left(\frac{x_s}{|\eta(\cdot)|} - \frac{x_s^*}{\eta^*(\cdot)} \right) \end{aligned}$$

  - This defines a locus in (t, t^*) space. See figure ($\text{POL}_{ex-ante}$).
  - If $\frac{x_s^*}{\eta^*} > \frac{x_s}{|\eta|}$, then $t - t^* < 0$. Will focus on this case.

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- Define standard TOT model as one where (complete) TA negotiated ex-post, given capital levels $x_s + x_e$ and $x_s^* + x_e^*$.

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- Interpretation: With complete TA, there is no ex-post lobbying, and future entrants free-ride on the pre-TA lobby. But with ceilings, future entrants will pay for protection, so ceilings help solve the free rider problem associated with future entry.

Gains from policy caps (cont'd)

- To get intuition from different perspective, let

$$\rho \equiv \frac{x_e}{x_s + x_e}, \rho^* \equiv \frac{x_e^*}{x_s^* + x_e^*},$$

and suppose for simplicity $\rho = \rho^*$.

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and suppose for simplicity $\rho = \rho^*$.

- Then Ψ can be written as:

$$\Psi(\bar{t}, \bar{t}^*) = \rho \left[aW_T(\bar{t}, \bar{t}^*) + aW_T^*(\bar{t}, \bar{t}^*) \right] + (1 - \rho) P(\bar{t}, \bar{t}^*) + (\cdot)$$

where $aW_T(\bar{t}, \bar{t}^*)$ and $aW_T^*(\bar{t}, \bar{t}^*)$ are govs' threat payoffs, and

$$P(\bar{t}, \bar{t}^*) \equiv a[W(\bar{t}, \bar{t}^*) + W^*(\bar{t}, \bar{t}^*)] + p \cdot (x_s + x_e) + p^* \cdot (x_s^* + x_e^*)$$

is the political joint payoff.

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  so each gov gets its "cheating" payoff. This is at expense of ex-post lobby (hence partially paid for by entrants), not the other gov.

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    so each gov gets its "cheating" payoff. This is at expense of ex-post lobby (hence partially paid for by entrants), not the other gov.
- Note: (1) Govs have no bargaining power, so preserving discretion does not generate ex-post rents; (2) No domestic distortions that ceilings can mitigate. Ceilings are preferable for different reason than in Maggi and Rodriguez-Clare (2007).

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  - **Lemma 2:** Ψ increases moving West from a point on $R \Longrightarrow$ optimal ceilings cannot be on R.

Optimal policy caps (cont'd)

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- To understand from different perspective, suppose $\rho = \rho^*$. Recall $\Psi(\bar{t}, \bar{t}^*) = \rho a \left[W_T(\bar{t}, \bar{t}^*) + W_T^*(\bar{t}, \bar{t}^*) \right] + (1 - \rho) P(\bar{t}, \bar{t}^*) + (\cdot)$.

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    - so the effect on W is $m\left(R_W(\bar{t}^*) - \bar{t}^*\right) > m(\bar{t} - \bar{t}^*)$ and the effect on W^* is $-m\left(\bar{t} - R_W^*(\bar{t})\right) > -m(\bar{t} - \bar{t}^*)$.

Optimal policy caps (cont'd)

- To understand Lemma 2, consider a point inside Romboid:

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- Argument can be extended outside Romboid.

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- **Remark 2:** Allowing for policy ceilings pins down both t and t^*, while if TA restricted to be complete, only $t - t^*$ determined.
- **Remark 3**: If $x_e = x_e^* = 0$, our model collapses to standard model (no gains from ceilings, only $t - t^*$ determined, optimum on $POL_{ex-ante} = POL_{ex-post}$). But with small entry, indifference broken in favor of caps, and optimal TA pins down t and t^* (at intersection between $POL_{ex-ante}$ and R^*).

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- Thus, by ignoring entry, standard model tends to "overpredict" extent of trade liberalization.

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- Condition in Prop. 3 not guaranteed in general, but satisfied for example if demand is linear or η^* is constant.

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- What if $R^{*'}$ not close to one? Let us impose more structure.

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- Suggests optimal TA more likely to be empty when (i) more entry after TA; and (ii) politics more important.

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- Given convexity, no interior optimum in Romboid. Also, outside Romboid only point Q can be optimal ($\bar{t} = R^*(\bar{t})$) $\Longrightarrow$ optimum is either N or Q.
- By submodularity, as $a \nearrow$ optimum can only switch from N to Q. If $a \rightarrow \infty$ optimum is Q, and if a small it is N $\Longrightarrow$ bang-bang.

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  - Two effects of a decline in a that go in same direction: (a) optimal complete TA reduces $(t - t^*)$ by less ($t_N - t_N^* \searrow$ while optimal $t - t^*$ unchanged); (b) moving to optimal incomplete TA may wipe out all trade liberalization.

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  - Higher σ implies larger marginal benefit from increasing discretion by raising caps, hence trade liberalization is shallower.

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  - Once this is recognized, and incomplete TAs (policy caps) are allowed for, the predictions of the standard TOT theory change in important ways, provided there is any entry into politically-organized sectors following the TA.
- Extensions on the burner: endogenous capital movements, multi-sector general-equilibrium model, more general incomplete TAs.