

FOREIGN INFLUENCE AND WELFARE

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- Governments often take actions that affect the image and political prospects of politicians abroad
- These actions range from the subtle and covert to the obvious and open, and they also vary in intensity:
 - ① Diplomatic gestures of support or rebuke
 - ② Pressure in multilateral organizations to obtain good deals for “friendly” foreign governments (Dreher and Jensen, 2007)
 - ③ Direct political support to candidates (financial or otherwise)
 - ④ Covert action (CIA operations in various countries)
 - ⑤ Extreme: Direct military intervention
- In this paper we develop a model of foreign influence and study its effects for policy determination

Main Results

- Policy Distortion: in order to avoid foreign meddling in domestic affairs, governments will tilt their policies to partially bear in mind the interests of foreign countries (simple reduced-form)
- Welfare Consequences:
 - ① This distortion will reduce the welfare of the influenced country to the benefit of that of the influencing countries
 - ② But overall *world* welfare will tend to increase if foreign influence is moderate
 - ③ When all countries are both influenced *and* influencers, each country's welfare may be strictly higher with the possibility of foreign influence (but balance of influencing power matters)
- Intuition: Foreign influence helps alleviate externalities arising from cross-border effects of policies
 - Foreign influence is not random

Main Results (cont.)

- We apply our framework to the study of optimal import tariffs
- Optimal tariffs under foreign influence are still proportional to the inverse of the export supply elasticity, but the level is *lower* than in standard models
 - helps reconcile findings of Broda, Limao, and Weinstein (2006)
- We develop a parametric example with linear demand and supply functions
- In the example, a country's import tariff is shown to be more distorted (downwards) whenever:
 - the influenced country is small relative to the influencing one
 - natural trade barriers between the two countries are small
- We also show that imbalances of influencing power across countries may hamper the signing of a free trade agreement

Literature Review

- Standard political-economy: political game played only by domestic agents (politicians, voters, interest groups)
- International Spillovers of Policies: stresses inefficiency of equilibria are inefficient
- International Agreements Literature: relies on zero costs of negotiation and enforceability (or self-enforceability) of agreements
- Models of Foreign Lobbying: Hillman and Ursprung (1988), Gawande, Krishna and Robbins (2006)

Modeling Choices

- We develop a two-country variant a stylized probabilistic voting model of electoral competition in the tradition of Lindbeck and Weibull (1987), Baron (1994), Grossman and Helpman (1996)
- Two sets of agents in each country:
 - Impressionable and unimpressionable citizens
 - Incumbent and opposition politicians who seek (re-)election
- We abstract from domestic conflict of interest regarding policies
- We introduce *foreign influence* (as in examples above) by endowing the incumbent government in each country with the ability to take certain costly actions that (probabilistically) affect the election outcome in the other country

Plan of Talk

- 1 A Benchmark Model without Foreign Influence
- 2 Introducing Foreign Influence
- 3 Welfare Analysis
- 4 Trade Policy Application

- Each country ($j = H, F$) is populated by a unit measure of individuals that vote for the candidate that promises them a higher welfare level
- Voter preferences are defined over *pliable* policies and over *fixed* party attributes or positions
- Should party $c = I, O$ win the election in country $j = H, F$, then voter i in country j enjoys an indirect utility equal to

$$V^{i,j}(\tau_c^j, \sigma_c^{i,j}) = v^j(\tau_c^j) + \sigma_c^{i,j}.$$

- $v^j(\tau_c^j)$ is continuously differentiable with $v^{j'}(\tau_{\min}) > 0$, $v^{j''}(\tau_{\max}) < 0$ and $v^{j'''}(\tau_c^j) < 0 \forall \tau_c^j \in \Gamma = [\tau_{\min}, \tau_{\max}]$
- \exists a single policy τ that every voter i in j prefers

- Before the elections, each of these parties credibly commits to a *platform* or policy $\tau_c^j \in \Gamma$
- Politicians are partially self-interested:

$$W_c^j = \alpha^j P_c^j + (1 - \alpha^j) v^j(\tau_w^j), \quad (1)$$

where P_c^j is the probability of winning the election and $v^j(\tau_w^j)$ is the indirect utility enjoyed after the election

- The political system is such that we can associate winning the election with obtaining more than 50% of the votes

Information and Timing of Events

- Particular values $\sigma_I^{i,j}$ and $\sigma_O^{i,j}$ are unknown to politicians at the time they announce (and commit) to their platforms
- We make the standard simplifying assumption:

$$\sigma_I^{i,j} - \sigma_O^{i,j} = \sigma^j + \varepsilon^{i,j}$$

- $\varepsilon^{i,j}$ is voter i 's preference with respect to the non-pliable issues and it is assumed $U \sim [-\frac{1}{2\lambda^j}, \frac{1}{2\lambda^j}]$
- σ^j is a common pro-incumbent shock (charisma, quality of the campaign and proposals, random events)
 - we let $\sigma^j = -\beta^j + \xi^j$, where ξ^j is distributed uniformly (and independently from $\varepsilon^{i,j}$) in the interval $[-\frac{1}{2\gamma^j}, \frac{1}{2\gamma^j}]$
 - β^j is hence the *expected pro-opposition bias* in country j

Information and Timing of Events

- The timing of the events is as follows:
- ($t = 1$) The incumbent and opposition parties in each party announce a policy $\tau_c^j \in \Gamma$
- ($t = 2$) The value of ξ^j is realized
- ($t = 3$) Elections occur, policies announced at $t = 1$ are implemented and payoffs are realized

Proposition

In the political equilibrium with no foreign influence, both political parties in each country $j = H, F$ announce a common policy $\tilde{\tau}^j$ and this policy maximizes social welfare in country j , i.e.,

$$\frac{\partial v^j(\tilde{\tau}^j)}{\partial \tilde{\tau}^j} = 0. \quad (2)$$

- This is true even when $\alpha^j = 1$ (politicians only care about reelection)

Cross-Border Externalities and Foreign Influence

- When party c is in power in country j and party c' is in power in country $k \neq j$, voters in country j enjoy utility:

$$V^{i,j}(\tau_c^j, \tau_{c'}^k, \sigma_c^{i,j}) = v^j(\tau_c^j, \tau_{c'}^k) + \sigma_c^{i,j} \quad (3)$$

- Pro-opposition bias in country j is now affected by influence efforts of incumbent government in $k \neq j$:

$$\sigma_I^{i,j} - \sigma_O^{i,j} = \begin{cases} \xi^j - e^k + \varepsilon^{i,j}, & \text{if voter } i \text{ is impressionable} \\ \xi^j + \varepsilon^{i,j} & \text{if voter } i \text{ is unimpressionable} \end{cases}$$

- Each country has a proportion θ^j of impressionable voters:
 $E(\sigma^j) = \beta^j = -\theta^j e^k$ (e^k can be negative)
- Foreign influence is costly: $c^k(e^k) = (1/2)(e^k/\phi^k)^2$

Timing of Events

- ($t = 1$) The incumbent and opposition parties in each country j announce a policy τ_c^j , $c = I, O$
- ($t = 2$) Each country j 's incumbent government simultaneously decides how much effort e^j to exert with the goal of affecting the electoral outcome in country $k \neq j$
- ($t = 3$) The values of ζ^H and ζ^F are realized
- ($t = 4$) Elections occur in each country, policies announced at $t = 1$ by the winners are implemented and payoffs are realized

Representation Result

Proposition

There exists a convergent political equilibrium in which the two political parties in each country $j = H, F$ announce a common policy $\hat{\tau}^j$ and this policy maximizes a weighted sum of domestic and foreign welfare, i.e.,

$$\frac{\partial v^j(\hat{\tau}^j, \hat{\tau}^k)}{\partial \hat{\tau}^j} + \mu^{k \rightarrow j} \cdot \frac{\partial v^k(\hat{\tau}^j, \hat{\tau}^k)}{\partial \hat{\tau}^j} = 0.$$

Furthermore, the weight $\mu^{k \rightarrow j}$ on foreign welfare is given by

$$\mu^{k \rightarrow j} = \frac{\alpha^j (1 - \alpha^k) \phi^k (\gamma^j \theta^j)^2}{\alpha^j \gamma^j + \frac{1}{2} (1 - \alpha^j)}. \quad (4)$$

- Country j 's weight $\mu^{k \rightarrow j}$ on country k 's welfare is:
 - 1 increasing in the share of impressionable voters in j (θ^j) and in the significance of non-pliable issues (high γ^j): both make foreign influence more effective
 - 2 increasing in the political ambition of politicians in j (α^j): makes them more responsive to foreign influence
 - 3 decreasing in in the political ambition of politicians in k (α^k): makes them less likely to provide foreign influence
 - 4 increasing in the efficiency of influencing in country k (ϕ^k)
- Note again that $\alpha^H, \alpha^F \in (0, 1)$ is important

Reduced Form

- The reduced form of the model is quite simple:

$$\frac{\partial v^H(\tau^H, \tau^F)}{\partial \tau^H} + \mu^{F \rightarrow H} \frac{\partial v^F(\tau^H, \tau^F)}{\partial \tau^H} = 0$$
$$\frac{\partial v^F(\tau^H, \tau^F)}{\partial \tau^F} + \mu^{H \rightarrow F} \frac{\partial v^H(\tau^H, \tau^F)}{\partial \tau^F} = 0$$

- Relative to a world without foreign influence, two key sources of distortion:

① Influence Power: $\mu^{F \rightarrow H} > 0, \mu^{H \rightarrow F} > 0$

② Policy Externality Effects: size of $\left| \frac{\partial v^j(\tau^H, \tau^F)}{\partial \tau^k} \right|$

Proposition

In any stable equilibrium, an increase in $\mu^{F \rightarrow H}$ (respectively, $\mu^{H \rightarrow F}$) leads to:

- 1 a reduction in $\hat{\tau}^H$ (resp. $\hat{\tau}^F$) if and only if there are negative policy externalities and to an increase in $\hat{\tau}^H$ (resp. $\hat{\tau}^F$) if and only if there are positive policy externalities.*
- 2 no effect on $\hat{\tau}^F$ (resp. $\hat{\tau}^H$) whenever $v^j(\cdot)$ is additively separable in τ^H and τ^F for $j = H, F$;*
- 3 a shift in $\hat{\tau}^F$ (resp. $\hat{\tau}^H$) in the same direction as $\hat{\tau}^H$ (resp. $\hat{\tau}^F$) whenever $v^j(\cdot)$ is supermodular in τ^H and τ^F for $j = H, F$;*
- 4 a shift in $\hat{\tau}^F$ (resp. $\hat{\tau}^H$) in the opposite direction as $\hat{\tau}^H$ (resp. $\hat{\tau}^F$) if $v^j(\cdot)$ whenever submodular in τ^H and τ^F for $j = H, F$.*

Proposition

In any stable equilibrium, an increase in the policy externality effect of country H (resp. F) leads to a reduction in $\hat{\tau}^H$ (resp. $\hat{\tau}^F$) if and only if there are negative policy externalities and to an increase in $\hat{\tau}^H$ (resp. $\hat{\tau}^F$) if and only if there are positive policy externalities.

- Suggests that an increase in the externality effect that is not matched with an increase in influence power could be costly
- Ex: China's Opium Wars

Welfare Effects of Foreign Influence

- For simplicity, consider the case of **separable** welfare functions:

Proposition

If $v^H(\tau^H, \tau^F)$ and $v^F(\tau^H, \tau^F)$ are additively separable in τ^H and τ^F , the following is true:

- 1 *the welfare level $v^j(\tau^H, \tau^F)$ of citizens in country j is increasing in the influence power $\mu^{j \rightarrow k}$ of her country and decreasing in the influence power of the other country $k \neq j$.*
 - 2 *world welfare is increasing in the influence power of any country j whenever $\mu^{j \rightarrow k} < 1$ and is decreasing in this influence power for $\mu^{j \rightarrow k} > 1$.*
- Non-separabilities complicate the analysis, but result 2 carries over to the case in which $v^j(\tau^H, \tau^F)$ is supermodular

Graphical Illustration

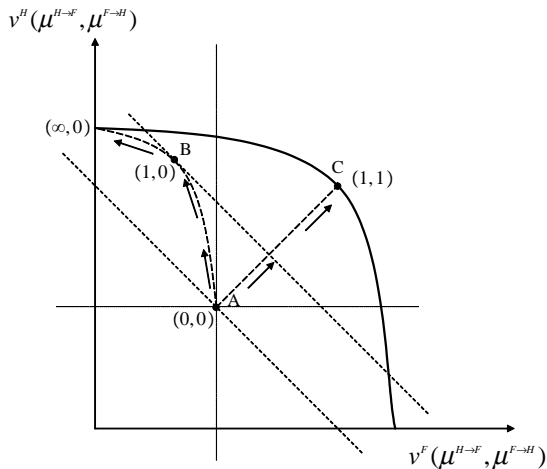


Figure: Welfare Effects of Foreign Influence

Balanced vs Unbalanced Influence Power

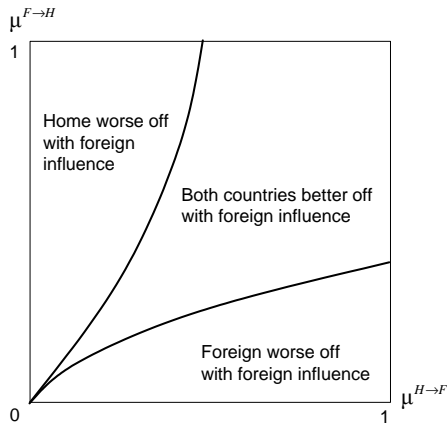


Figure: “Balanced” Foreign Influence is Pareto Improving

International Agreements

- Consider the incentives of countries to sign an agreement that sets policies at their world welfare maximizing level

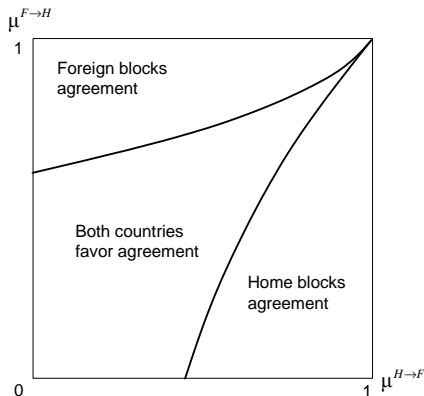
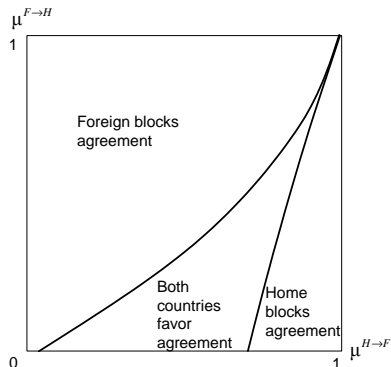
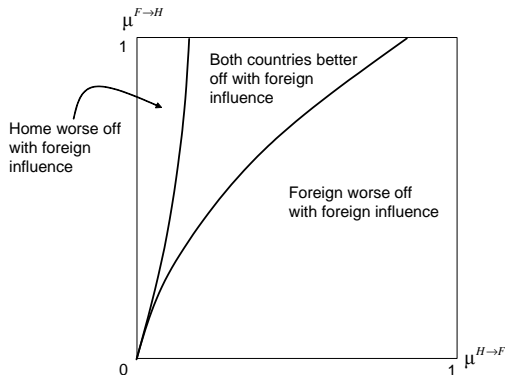


Figure: “Balanced” Foreign Influence Facilitates International Cooperation

Country Asymmetries

- It is possible that if countries are asymmetric, balanced influence power will not be appropriate

- For instance, suppose that $\left| \frac{\partial v^H(\tau^H, \tau^F)}{\partial \tau^F} \right| \gg \left| \frac{\partial v^F(\tau^H, \tau^F)}{\partial \tau^H} \right|$



Link to Foreign Lobbying Literature

- Our setup abstracts from foreign lobbying, which is an alternative channel of foreign influence
- With foreign lobbying, politicians would maximize a weighted sum of aggregate domestic welfare and the welfare of the *particular* foreign residents engaged in foreign lobbying.
- How different are these two approaches?
- Positive differences:
 - ① weight on foreign welfare may be driven by different factors
 - ② unclear why policy externalities of a country would affect distortions
- Normative differences: foreign lobbying less likely to be Pareto improving
 - distinct from results in Gawande et al. (2006)

An Application: Revisiting the Optimal Tariff

- We develop a simple trade theory of the $v^j(\tau^H, \tau^F)$ function with quasilinear preferences and an outside (untaxed) good
- In the absence of import subsidies or export taxes, we have separability of the $v^j(\tau^H, \tau^F)$ function
- Model delivers a modified version of the standard optimal tariff formula

$$\hat{\tau}^j - 1 = \left(1 - \mu^{k \rightarrow j}\right) \frac{1}{\zeta^k}$$

where $\zeta^k = \frac{X^k(p^W)}{p^W X^{k'}(p^W)}$ is country k 's export supply elasticity.

- Note that when $\mu^{k \rightarrow j} = 0$, we naturally obtain the standard expression
- Foreign influence reduces equilibrium tariffs: helps reconcile the findings of Broda et al. (2006)

An Application: Revisiting the Optimal Tariff

Parametric Example

- We develop a parametric example along the lines of Bond and Park (2002) and others, extended to allow for iceberg transportation costs
- Demand functions in each country ($i = 1, 2$)

$$c_i^H(p_i^H) = \lambda (\alpha_i^H - \beta p_i^H),$$

$$c_i^F(p_i^F) = \alpha_i^F - \beta p_i^F,$$

for $i = 1, 2$, where $\alpha_2^H = \alpha_1^F = \alpha_L > \alpha_S = \alpha_1^H = \alpha_2^F$.

- Supply functions in each country ($i = 1, 2$):

$$y_i^H(p_i^H) = \lambda (a + bp_i^H)$$

$$y_i^F(p_i^F) = a + bp_i^F,$$

- The parameter λ governs relative economic size of Home

Results of Parametric Example

- We find that a country's import tariff is more distorted (downwards) relative to the standard optimal tariff whenever
 - ① the influenced country is small relative to the influencing country (even when both countries share a common technology of influence)
 - ② natural trade barriers between the two countries are small (size of policy externalities)
- We also find that (with non-transferable utility), a move to free trade is only feasible when influencing power is balanced (for $\lambda \approx 1$) or is **negatively** correlated with size

Conclusions and Future Steps

- The possibility of foreign influence may help partially alleviate externalities arising from cross-border effects of policies
- Our model is however special in many respects:
 - for instance, we have abstracted from domestic conflict (either because of ideology or special interests)
- Historical events also suggest that multinational firms have played a crucial role in “lobbying” for foreign influence
 - next on our research agenda