Ex-ante Lobbying

Ex-ante lobbying is lobbying before the trade agreement is signed to affect the level at which TA / applied tariff will be set

- ex-post lobbying is lobbying after the TA is signed to change the applied tariff
- lobby has to pay both times

This set up says that governments set TA so that TA will be at optimal level at the time you're going to have to implement it

- Ex-ante lobbying distorts you away from that being the optimal level for the government
- Instead makes it jointly optimal for the government and lobby (in MRC framework)
- Government's preferences are changed
- What welfare does each party get at TA stage?
  - Government might get/lose political capital from different interested parties; otherwise, it's all forward looking—what will future gains and losses be
  - Lobby just knows that this will bind its future action

Adding ex-ante lobbying in case of endogenous lobbying ONLY

- Without ex-ante lobbying, government chooses τ^A that leads to ex-post e that maximizes ex-ante joint welfare
$$W(\gamma(e), \tau^A) + W^*(\gamma^*(e), \tau^A)$$
knowing they'll set τ^N in the third stage (i.e. $\tau^N(\gamma(e)) = \frac{8\gamma(e)-5}{68-8\gamma(e)} = \tau^R_{W,e}$).
  - Set τ^A that will lead lobby to choose $e^A \Rightarrow \gamma(e^A) \Rightarrow \tau^A$. That is, τ^A is the optimal unilateral choice of the home government when the lobby is faced with the constraint of the trade agreement.
  - Lobby would max $\pi(\tau(\gamma(e))) - e$; instead sets $e = e_{W,e} \Rightarrow \tau^R_{W,e}$ (i.e. $\tau^N(\gamma(e_{W,e})) = \tau_{W,e}$)
- Given this relationship, pick τ^A that maximizes joint welfare: call it $\tau^R_{W,e}$.

  - i.e. set τ^{TA} optimally given what you expect will happen in the future: but commitment device allows you to control what happens in the future

- Another way to say it: there's a welfare level for every γ. Make the optimal γ happen / pick the γ you'd like to have
  - You'll actually end up with a lower e mapping into a lower γ to produce the associated τ according to τ^N
- With ex-post lobbying only, at ex-ante stage gov't has to take into account how ex-post lobbying will affect it; picks τ^{TA} to max joint political welfare subject to this constraint

Now, add in the ex-ante lobbying à la MRC.

- Maximize joint welfare of both governments and both lobbies (but can concentrate on just one tariff because of separability)

$$max_{\tau,e} W(\gamma(e),\tau) + W^*(\tau) + \pi(\tau) + \pi^*(\tau^*) - e - e^*$$

$$max_{\tau,e} CS_x(\tau) + (2+\gamma(e))\pi_x(\tau) + TR(\tau) + CS_x^*(\tau) + \pi_x^*(\tau) - e$$

  FOCs:

  - For τ, same as in no ex-ante lobbying case, except now $2+\gamma(e)$ weight on profits.
  - For e: $\frac{\partial \gamma}{\partial e}\pi(\tau) = 1$
    - In ex-post lobbying, e will be determined by $\frac{\partial \pi}{\partial \tau}\frac{\partial \tau}{\partial \gamma}\frac{\partial \gamma}{\partial e} = 1$
    - Do I need second term in ex-ante version?

- In MRC, there are essentially two γ's: one for ex-ante, one for ex-post
  - But that doesn't match up with BS2005 framework, where the point of the TA is to take account of future γ
  - Also leads to bizarre outcome where government will take into account lobby's profits even if $e^{\text{EA}} = 0$.
  - They can max joint welfare because they have transferrable utility
  - Something gets lost in MRC formulation about division of rents as a result of transferrable utility and this joint welfare max: they have tariff caps and strong bindings equivalent, even though these split the surplus in very different ways. There's no way to take account of this at the ex-ante stage.

- To take ex-ante out of MRC, just take $x \cdot p$ out of maximand at ex-ante stage (they do it on page 1391)
  - They don't treat case of immobile capital in 1998 paper, so can't compare there. But they show that there would be free trade in their model with no ex-ante bargaining (because of bargaining power assumption–lobbies have it all)
  - I'm still not crystal clear on what purpose ex-ante lobbying serves in a world of fixed capital where gov't political welfare increases everywhere in γ—here, gov't gives lobby whatever it wants ex-post
    * Could e^{EA} increase τ^{TA} in this world?
    * Since TA internalized TOT externality, I think it's possible that ex-ante lobbying undoes some of that–not directly, but raises tariff above the level that is applied when TOT completely internalized. I'm not convinced though.
- Bargaining power
  - It's important in MRC's story: they show how results change if they change bargaining power, and it's dramatic b/c they take an extreme view that lobbies have all the power
  - I view bargaining power in this environment as an artificial construct—what's going on isn't really bargaining; bargaining is used as a reduced form. But it's a much more complex process
    * But bargaining power can be approximated by who gets what share of the rents
    * What are the "rents"?
      · How does "surplus" change from situation with no lobbying?
      · In my model, with $e = 0$, gov't maximizes social welfare
      · If W is unweighted and no trade agreement, then there is definitely surplus from lobbying:

$$W(\gamma(e), \tau) + \pi(\tau) > W(\gamma(0), \tau = optimaltariff), \pi(optimaltariff)$$

      · Same with TA with lobbying ex-post: gov't won't choose $\tau > 0$ unless it improves political welfare.
      · It's not clear in ex-ante case; I'd have to do more work. It's not clear whether it's possible for gov't welfare to be strictly reduced by ex-ante lobbying (this should be relative to no lobbying? no trade agreement? Could lobbying incentives be such that lobby puts forth so much effort that when W is concave in γ, gov't falls below original level at $\tau = 0$? or $\tau =$ optimal unilateral tariff (depending on counterfactual)
      · But in first two, there is some intermediate split of surplus

December 15, 2014

- (Dec 18) I'm now thinking of ex-ante-lobbying changing e^{EP} to $\max\left\{e^{EA}, e^{EP}\right\}$
- BS2005 appraoch is that TA is meant to optimally anticipate future pressure
- BUT when it is entirely endogenous, can use trade-agreement-as-commitment device to control what e^{EP} will be
  - i.e. e^{EP} is a function of τ^{TA}
  - Government DOESN'T have to be controlled by backward inducting, seeing whatever lobby will choose as optimal for itself
  - So government can choose τ^{TA^*} that optimizes $\mathbb{E}\left[W(\gamma) + W^*\right]$
  - TA is used to arrange for the gov'ts' joint optimal ex-post level of γ
  - $\tau^{TA^*} = \frac{4(\gamma(e)-1)}{25-4\gamma(e)}$
- Government loses some measure of control when there is ex-ante lobbying.
  - If $e^{EA} < e^{EP}$, ex-ante lobbying has no impact
  - If $e^{EA} > e^{EP}$, $\tau^{TA} > \tau^{TA^*}$
  - Govts lose some measure of control: if $e^{EA} = \max\left\{e^{EA}, e^{EP}\right\}$, then it determines τ^{TA}
    - Gov't still chooses "optimal" TA, but it's constrained optimal. Constrained by current pressure.
- BUT ex-ante lobbying is more expensive: have to do it twice to get more protection than in ex-post only case
  - This will be too expensive for some, so they won't lobby ex-ante
  - This is part of what trade agreements do: relative to no agreement at all, raises price of protection. If only ex-post lobbying is rational, government gets control
- Have to figure out what correct comparisons are:
  1. TA relative to no TA?
     - If gov't wants more pressure, it should avoid TA. But then loses TOT internalization
     - If gov't wants less pressure, TA doubly good
       - Presumes gov't is free to choose which sectors are part of TA, but this is part of a more complicated game; should be able to get payments to leave them out, then payments for unconstrained protection. But GATT rules...

2. TA with ex-ante relative to TA with ex-post only?
3. Cross industry? It's possible that W has same shape in γ for all industries (i), but that the shape of γ differs by i
   - Remember what γ is: reduced form for how political pressure translates into weight put on profits in policy-making process

Real question: why does the government set non-zero τ^{TA}?

- Because $\gamma(e^{TA})$ together with τ^{TA} provides higher welfare than $\gamma(0)$ together with $\tau = 0$
- With ex-ante lobbying, e^{EP} will still equal e^{TA}
  - Instead of purely looking ahead and getting to manipulate, gov't welfare fcn gets highjacked
  - I think I need to show several interesting possibilities and leave it at that. What are they?

Lobby faces different incentives ex-ante and ex-post

- Ex-post, pays according to τ^N
- Ex-ante, pays according to τ^E

Therefore it's possible to have $e^{EP} < e^L$ even with $e^{EA} > 0$

- I believe a necessary condition is that government welfare is concave in $\gamma(e)$ and $\gamma^* < \gamma^L$
- Investigate: It seems as if it must be the case that $\tau^{EA} < \tau^{EP}$. Should be easy to show.
  - If this is true, even though ex-ante lobbying takes something away, as long as government *wants* to restrain lobbying, trade agreement will even with ex-ante (relative to trade war level)
  - Need to be up front about which assumptions (especially on γ) this requires

Exact tariff commitment result

- We know $e^{EP} = 0$ and $\tau^{EP} = \tau^{TA}$ when no possibility of ex-ante lobbying
- What does lobby's problem look like?
  - At ex-post stage, e^{EA} sunk. So ex-post problem looks the same.
  - In principle, at ex-ante stage, e^{EA} will have impact on e^{EP}. But not in exact tariff case: $e^{EP} = 0 \; \forall e^{EP}$.
  - So this collapses to a simple problem of maximizing joint gov't welfare with only $e = e^{EA}$
    - Looks like a problem with no ex-post lobbying, but where there is perfect enforcement of the tariff commitment
    - Essentially, there is no future for the government to control

Tariff cap result

- Here, e^{EP} will also work as in body of paper. The earlier stage is sunk, and applied level will match whatever effort lobby puts forth
  - It's just that cap could be higher due to ex-ante lobbying
- Since e at ex-ante stage is $\max\left\{e^{EA}, e^{EP}\right\}$, government sets cap for anticipated e^{EP} or for e^{EA}, whichever is higher.
- Lobby has to decide optimal e^{EA}
  - Use calculus condition
    $$\pi(\tau^E(e^{EA})) - e^{EA} - e^{EP}(e^{EA})$$
    When this FOC is operative, government decides tariff cap according to joint decision problem with e^{EA}, but then lobby still has to exert effort up to that cap; e^{EP} is the amount the lobby pays according to τ^N to achieve $\tau^E(e^{EA})$
    - FOC
      $$\frac{\partial \pi}{\partial \tau}\frac{\partial \tau}{\partial \gamma}\frac{\partial \gamma}{\partial e^{EA}} = 1 + \frac{\partial e^{EP}}{\partial e^{EA}}$$
  - Then, set to zero if either $e^{EA} < e^{EP}$ or
    $$\pi(\tau(e^{EA})) - e^{EA} - e^{EP} < \pi(\tau(e^{EP})) - e^{EP}$$
    where τ is set according to τ^E (have to be super careful about how to define these e's).

- Intuition: If lobby's incentives to exert pressure ex-ante are strong enough, they overpower the government's ability to use the TA to directly manipulate lobbying incentives ex-post
    - Lobby can force government to set cap higher than the level that would optimize its welfare when there is no ex-ante lobbying
    - BUT the TA itself mutes ex-ante lobbying incentives (through a couple channels, I think)
- If government would set τ^{TA} such that lobby can achieve e^L (that is, this level is optimal for gov't), then there is no incentive to lobby ex-ante
    - If gov't sets τ^{TA} lower than this level, I think it's true that lobby will NOT get e^L due to differing incentives ex-ante (lobbying more expensive.
    - Could be higher, but not all the way to level that would achieve e^L? Or could optimal ex-ante lead to this because ex-post lobbying can achieve more for less?

- It's possible that $e^{EP} < e^L$ with $e^{EA} > 0$
    - Not sure if W concave in γ is necessary, but it seems like it
    - W concave in γ implies W increases as π_x is weighted more heavily (as in standard W), but eventually W decreases in γ
        - Giving them more weight doesn't give gov't proportionally higher welfare
        - Something like Bill Ethier's 2012 GJE (Political Economy Approach) paper where there are diminishing returns to lobbying as τ increases
        - I can interpret this as γ being a concave function of τ, but not sure that gets me what I need
        - diminishing returns to lobbying in τ for lobbyists vs. diminishing returns to awarding higher τ for gov't