

RIE R&R of SOP, 2nd Round  
February 22, 2016

19. Your assumption that the identity of the median voter is not known a priori is standard in probability voting models, so you may want to stress the analogy between your setting and such models.
28. Writing that lobbying expenditures are equal to 0.0007 is meaningless absent units. Are these cents? Trillions of dollars? It would be much more informative if these were expressed as a fraction of equilibrium profits.
25. I feel uneasy about Assumption 3. I would rather have it as an outcome and, if it is not the only possibly one, a discussion of the conditions under which this arises.
18. Your model is static, so claiming that it rationalizes the four-year delay and eventual ratification of the US-SK FTA is a stretch. In particular, the interactions with automakers suggests a that a bargaining game under incomplete information would be more appropriate.
21. Change timing if I can do it in under 1 day
14. Section 2.4 either belongs to section 1.1 or should move as section 1.2.
15. Section 2.4 is far too long.
12. Avoid changes of notation as you go along. This is totally unhelpful to the reader. Please pick one and stick to it throughout the paper.
16. You recall stuff far too often. Not all readers suffer from memory losses.
13. Avoid digressions, lengthy discussions, and overreach: you stretch your model far too much. Stick to the main story. The paper still degenerates far too often into a series of discussions that bring little additional insight.
11. What I would like you to do is write a much more focused, crispier version of the paper. The idea is sufficiently straightforward that it does not need 28 pages of exposition. Please reduce the length of the paper by half.

21. I dont see how the move of Nature (which determines the probabilities  $o$  and  $o^*$  is consistent with the idea that there is uncertainty about who is the median voter (which was part of your motivation). Assuming that  $o$  and  $o^*$  are mutually exclusive is not great. It would be better to assume some timing (rather than have a simultaneous choice). Since the game is symmetric, assuming that Homes legislature moves before Foreigns would be without further loss of generality.

- From the point of view of existence of the executives' problem, I think this is feasible. The objective function changes in the following way:
  - (a) Home (first mover) gets a break in one of two ways: getting its home legislature to break, or getting the foreign to do so:  $Br + (1 - Br) \cdot Br^* = Br + Br^* - Br \cdot Br^*$
  - (b) There is no break when  $(1 - Br)(1 - Br^*) = 1 - Br - Br^* + Br \cdot Br^*$
- Only difference in proof of existence is addition of  $-Br \cdot Br^*$  term. Looks like I just distribute it out into the two earlier terms and have  $(1 - Br)$  times the derivative, for example, which doesn't change the sign.
- Current results should hold for second mover (foreign, WLOG). Either gets a chance to move, or is agreement is already broken and does nothing. But if it moves, decisions aren't conditioned on choice variables of home lobby (only legislature through break decision)
- Results need to be modified for first mover (home)
  - Legislature (equations 7 and 8 in the draft):

$$W_{ML}(\tau^n, \gamma(e_b, \varepsilon_b)) > W_{ML}(\tau^a, \gamma(e_b, \varepsilon_b)) \quad (1)$$

becomes

$$W_{ML}(\tau^n, \gamma(e_b, \varepsilon_b)) > b^* W_{ML}(\tau^n, \gamma(e_b, \varepsilon_b)) + (1 - b^*) W_{ML}(\tau^a, \gamma(e_b, \varepsilon_b))$$

This can be arranged as

$$W_{ML}(\tau^n, \gamma(e_b, \varepsilon_b)) - W_{ML}(\tau^a, \gamma(e_b, \varepsilon_b)) > b^* [W_{ML}(\tau^n, \gamma(e_b, \varepsilon_b)) - W_{ML}(\tau^a, \gamma(e_b, \varepsilon_b))]$$

This has the interesting structure that it is always true when (1) is true, and is false whenever (1) is false. So all the same results go through after modifying the objective function for the legislature

- Lobby: objective function was

$$\max_{e_b} b(e_b, \tau^a) [\pi(\tau^n) - e_n] + [1 - b(e_b, \tau^a)] \pi(\tau^a) - e_b$$

Now it's

$$\max_{e_b} \{b(e_b, \tau^a) + b^*(1 - b(e_b, \tau^a))\} [\pi(\tau^n) - e_n] + [1 - b(e_b, \tau^a) - b^* + b(e_b, \tau^a)b^*]\pi(\tau^a) - e_b$$

So the first order condition becomes

$$\frac{\partial b(e_b, \tau^a)}{\partial e_b} [1 - b^*(e_b^*, \tau^a)] [\pi(\tau^n) - e_n - \pi(\tau^a)] = 1 \quad (2)$$

I believe that only Result 2 is in peril. A new term is added in the numerator (the denominator just gets a  $(1 - b^*)$ ; by the product rule, there are two terms after differentiating. The first is negative, the second is positive but can be combined with the pre-existing second term which just becomes less negative now. Should write all this up.

- As long as there is a move of nature that occurs *after* the trade agreement tariffs are set that determines which country's legislature moves first, at a first pass the results seem to go through with little additional complication for the sequential model you suggest.

The current results would apply for the second mover and a new set of results would need to be added for the actors in the country that is the first mover since their objective functions are altered by the future chance that the second moving legislature will break the agreement if the first moving legislature does not. This adds a nice new result that was only mentioned in passing in the previous draft about the first-mover lobby free-riding on the potential effort of the second-mover lobby. This is also why preserving the current results would require that the executives are behind a veil of ignorance about which country's legislature moves first: if they knew, they would like to exploit this information to reduce the tariff in the country where the lobby will suffer from the free-riding incentive. While there are probably some countries in which an executive can control the timing of a vote, it's probably fairly realistic to think that executives do know for sure in which of their countries a vote will first take place. I can handle the case of asymmetric tariffs, but some of the propositions rely on the symmetry in tariffs for simplicity and I believe an extra condition would have to be invoked in several cases to bound magnitudes. I would like to avoid this especially if complicating the model further.

I think that this modification of the model adds something beneficial, but the tradeoff is both in terms of complexity and, necessarily, length. Thus I write to ask your opinion given your request to cut the length of the paper in half. I am working toward this end, but I do not see that this is possible if I were to add this complication and new results that go along with it.

Done

17. Assuming that lobbies represent only import-competing interests is a strong assumption and it requires theoretical and/or empirical justification.
20. You claim that trade agreements act as a domestic political commitment device. To make this point formally, it would be nice to establish conditions under which, in equilibrium, fast track authority dominates cherry picking ex ante (in a version of your model with several import competing sectors).
22. the uncertainty about the median legislators identity is resolved. What is this uncertainty really about?
23. The equilibrium selection criterion requires justification and motivation.
24. Assumption 2 does not formalize any intuition: it is just a labelling.
26. The full separability of sectors implies very minimal interactions already. Assuming a fully symmetric model is then highly restrictive. How difficult would it be to relax the latter assumption?
27. Expression 6 establishes that the necessary second order condition holds by assumption 1, does not it?
29. The last paragraph of section 4 is quite a stretch; is there any evidence in the political science literature that the separation of power is correlated with trade openness among democracies?