Taxability and Trade

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Trade and Fiscal Capacity

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- Does it make protection more likely? Who benefits and who loses?

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- This broad pattern is well observed in the literature (Besley and Persson 2011, Dincecco and Prado 2012, etc.) but doesn't tell the whole story.

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- See paper for more details.

Conclusions

- Relative taxability of groups matters.
- Greater fiscal capacity can make tariffs more or less likely depending on the sources of that increased fiscal capacity.
  - Greater ability to tax losers of free trade makes protectionism more likely.
  - Greater ability to tax winners of free trade makes free trade more likely.

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- Firm cleavages?
  - Freer trade, especially intraindustry trade, tends to lead to market consolidation around a smaller number of large firms.
  - If larger firms are more/less taxable (Hanlon, Mills, and Slemrod suggests less taxable, as they appear to engage in more avoidance) trade policy may be biased towards larger/smaller firms.

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- Shouldn't compensating the losers be Pareto-improving?
- This paper argues: only if the winners are taxable.
- The conditions under which government spending can be used to build broader coalitions in support of freer trade (see: embedded liberalism) are thus more tightly circumscribed.

Model Appendix

- $\tau \in \{0,1\}$, $t_1, t_2 \in (0,1)$, $\alpha \in (0,1)$, $\theta_1, \theta_2 \in (0,1)$, $y_1, y_2, v_1, v_2 \in \mathbb{R}^+$
- Specify gov't objective function: $G(t_1, t_2, \tau) = \alpha ln[(1-t_1)(y_1 + \tau v_1) + \theta_2 t_2(y_2 + (1-\tau)v_2)] + ln[(1-t_2)(y_2 + (1-\tau)v_2) + \theta_1 t_1(y_1 + \tau v_1)]$
- Need to show that $\tau^*(\theta_1)$ is monotonically increasing.
- We want to compare cases where $\tau = 0$ and $\tau = 1$, so:

$$G(t_1, t_2|\tau = 0) = \alpha ln[(1-t_1)(y_1)+\theta_2 t_2(y_2+v_2)]+ln[(1-t_2)(y_2+v_2)+\theta_1 t_1(y_1)]$$

$$G(t_1, t_2|\tau = 1) = \alpha ln[(1-t_1)(y_1+v_1)+\theta_2 t_2 y_2]+ln[(1-t_2)(y_2)+\theta_1 t_1(y_1+v_1)]$$

Model Appendix Part 2

- Want to take derivatives to find a monotone comparative static, applying Milgrom and Shannon (1994). So get:

$$\frac{\partial G(\tau = 0)}{\partial \theta_1} = \frac{t_1 y_1}{(1 - t_2)(y_2 + v_2) + \theta_1 t_1 y_1} \tag{1}$$

$$\frac{\partial G(\tau = 1)}{\partial \theta_1} = \frac{t_1 (y_1 + v_1)}{(1 - t_2) y_2 + \theta_1 t_1 (y_1 + v_1)} \tag{2}$$

- Note that either t_1 or t_2 will be at a corner solution in each case, given that taxation is costly (destroys value). If $t_1 = 0$ in both, these derivatives are equal: in fact, it makes sense that θ_1 will have no effect on tariff policy if you won't tax group 1 in any case. If $t_1 = 0$ only when $\tau = 0$, then clearly $(2) > (1)$. If $t_1 \neq 0$ in either case, implying $t_2 = 0$ in both cases, then we can compare:

$$(1) = \frac{t_1 y_1}{y_2 + \theta_1 t_1 y_1 + v_2}, \ (2) \frac{t_1 (y_1 + v_1)}{y_2 + \theta_1 t_1 y_1 + \theta_1 t_1 v_1}$$

Where some algebra can demonstrate that $(2) > (1)$.

Model Appendix Part 3

- Combining the results gives us $\frac{\partial G(\tau=0)}{\partial \theta_1} < \frac{\partial G(\tau=1)}{\partial \theta_1}$, which is a statement of increasing differences. Thus we have that $\tau^*(\theta_1)$ is monotonically nondecreasing.
- Other results follow similarly.