Political Uncertainty

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We agreed to focus efforts for now on finding a base model to facilitate empirical identification. Our candidates:

1. Groseclose & Snyder (1996)
    - Perhaps add, as in Sebastian's book, that legislators are constrained by voters?
    - I think this is the most promising of the three (GS1996, Dal Bo, Fox and Rothenberg), so have devoted a separate section to it below
2. Dal Bo, Bribing Voters
    - Adds uncertainty to Groseclose/Snyder. What kind?
    - Pivotal bribes allow for costless influence
        - Not clear how this could be reconciled to our data since there are almost always supermajorities; not clear how lobbies can implement pivotal bribecs
    - Assume commitment even though it's a one-shot game (footnote 11)
    - A more demanding majority rule raises the price of capture if offers are restricted, e.g. can't be fully contingent, such as on pivotality
    - Section on vote-related costs: leg. loses $\eta > 0$ if vote yet on bad project in addition to $\theta > 0$ if bad project passes
    - Extension: probability p that each member is corruptible (I think this is the uncertainty that Sebastian was talking about). Then there is updating on moral type of all members if bad project passes and voting is secret
        - For our purposes: I don't think we care that much "how corruptible" legislators are, not in a binary sense. Maybe, if we're getting really fancy, we care about how persuadable they are in a continuous sense, but I don't think we want to deal with the machinery of updating in a second stage of voting about whether to keep legislators in office or not
    - Dal Bo shows that political parties can facilitate cooperation among legislators to overcome prisoners dilemma/costless capture or at least set optimal price for capture
3. Justin Fox and Larry Rothenberg, "Influence without Bribes: A Noncontracting Model of Campaign Giving and Policymaking," Political Analysis (2011)

- This is a model where no contracting is possible [someday I'd love to write a model that isn't perfect contracting or no contracting—but that shows how this quasi-enforcement that we end up with comes about, but I think we're better off with a contracting model for now]
- Uncertainty is about the politician's policy preferences; there are two periods of policy choice with an election in between, and the interest group uses the first policy choice to learn about preferences before making campaign donation (PBE is soln. concept)
- Politician's types are private info; drawn from independent density functions f_i (incumbent) and f_c (challenger)
- Election winner chooses preferred policy in second period
- There is one interest group (they say results extend to more), and it never donates to more than one of the two politicians
- There are only two politicians with unitary decision making depending on who's in office; this contrasts with our legislative data, so I think it would be hard to adapt to our context

4. A variant of Grossman and Helpman I've been working on
    - It's based on the CJR model, so aims to fit the specification underlying the data work

Questions

1. What kinds of results do we want to produce?

Groseclose and Snyder (1996), "Buying Supermajorities," APSR

- For each legislator i, $v(i) = u_i(x) - u_i(s)$, measured in money; call this the reservation price of i
  - WLOG, label legislators so that $v(i)$ is a non-increasing function
  - Note legislators only have preferences over how they vote, not over which alternative wins
- There are two vote buyers; each prefers to minimize total bribes paid while passing his preferred policy, but each would prefer to concede the issue rather than pay more than his WTP
  - A prefers x; W_A is A's willingness to pay (WTP) for x measured in money
  - B prefers s; W_B is B's WTP for s
- Bribe offer functions: $a(i)$ and $b(i)$ are A and B's offers to i. Legislators take these bribe offers as given and then vote for the alternative that maximizes their payoff
- A moves first; $a(i)$ perfectly observable to B when he moves.
- Goal: characterize SPNE in pure strategies
  - Assume unbribed legislators who are indifferent vote for s; all bribed legislators who are indifferent vote for whoever bribed them last
- Assume continuum of legislators on $\left[-\frac{1}{2}, \frac{1}{2}\right]$
- Assume W_A large enough that x wins in equilibrium (no uncertainty case)
- $m + \frac{1}{2}$ is the fraction of legislators who vote for x, the new policy (as opposed to the status quo, s)
- Prop 1: three types of equilibria in which x wins; depend on size of W_B
- Prop 2: m^* (the optimal coalition size) is unique, and provides three cases parameterizing its size in terms of W_B, $v(-\frac{1}{2})$ and $v(m^*)$
- Prop 3/4: special case where $v(z) = \alpha - \beta v$

- I think, without uncertainty, you would estimate m^* as a function of the parameters of v and WTP
  - It's useful that m^* is unique. Not clear it would extend to case of uncertainty
- I'm pretty sure all this predicts that B should never pay anything.
  - Uncertainty should reverse this, right?
  - What is uncertainty? I think just make $v(z)$ stochastic