Economics of Politics
Lec.2: The Role of Campaign Promises

Hideki Konishi

Graduate School of Economics, Waseda University

Spring semester, 2012

Downsian competition 1

- Two candidates (parties), $k = A, B$, compete for a single seat.
  - Uni-dimensional policy space:
    They simultaneously announce campaign promises on a single issue, $y_k \in \mathcal{Y} \subset R$, such as a consumption tax rate.
  - Commitment to campaign promises:
    Once they took office, they must implement their promises.
  - Office-motivated candidates:
    They maximize the probability of winning, not caring about policies being implemented.
- There are an infinite number of voters, with utility functions.
  - Each has single-peaked preferences over alternatives in $\mathcal{Y}$, $V_i(y)$.
  - Voter i's most-preferred policy, y_i, distributes with a CDF, $F(y)$, which denotes the share of voters with $y_i \leq y$.
  - They do not abstain and they vote sincerely.

Downsian competition 2

- The timing of events
  1. Each candidate simultaneously announces its campaign promise.
  2. Voters vote for either of the two candidates.
  3. The winner takes office. In the case of a tie, each candidate will be named as the winner with probability $1/2$.
  4. The winner implements what he promised.
- Probability of candidate A's winning

$$P_A(y_A, y_B) = \begin{cases} 1 & \text{if } V_m(y_A) > V_m(y_B) \\ 1/2 & \text{if } V_m(y_A) = V_m(y_B) \\ 0 & \text{if } V_m(y_A) < V_m(y_B), \end{cases}$$

  where $V_m(\cdot)$ is the median voter's preferences.
- R: the ego rent, which candidates can get from taking office.

Downsian competition 4

- Candidates' payoff functions, π_A and π_B

$$\pi_A(y_A, y_B) = P_A(y_A, y_B)R,\ \pi_B(y_A, y_B) = \{1 - P_A(y_A, y_B)\}R.$$

- In a Nash equilibrium, (y_1^*, y_2^*) is announced such that
  1. $y_A^* = \arg\max_{y_A \in \mathcal{Y}} \pi_A(y_A, y_B^*)$
  2. $y_B^* = \arg\max_{y_B \in \mathcal{Y}} \pi_B(y_A^*, y_A)$.
- (y_A^*, y_B^*) is unique such that

$$y_A^* = y_B^* = y^*, \text{where } F(y^*) = 1/2.$$

- In equilibrium, the Condorcet winner (i.e., the median voter's most-preferred policy) is implemented.

Criticisms to Downsian model

1. Office-motivated candidates
   - The results generally do not change if candidates have preferences over policies (See Wittman 1973)
2. Commitment to campaign promises
3. Uni-dimensional policy space
   - In general, no equilibrium exists with more than one dimensional policy space.
   - With uncertainty about voters' preferences introduced, the Downsian model can be extended to electoral competition in a multiple-dimensional policy space.
4. No voter abstention
   - Paradox of not voting: Why do people vote in spite of their negligibly small probability of being decisive?

Downsian model of effort choice 1

- We will continue the Downsian model. Here, candidate A and B promise effort levels, $e_i \geq 0$, that they will make when in office.
  - Of course, making effort e_i needs cost, $c(e_i)$, with $c' > 0$ and $c(0) = 0$.
  - Candidate i's utility is $R - c(e_i)$ when he wins and implements e_i.
  - Suppose that candidates' reservation utility is zero.
- Voters are assumed to be homogeneous.
  - The utility function, $V(e)$, satisfies $V' > 0$.
- A Pareto-efficient effort level maximizes $V(e)$ s.t. $R - c(e) \geq \overline{\pi}$.
  - The optimal level for voters is given when $\overline{\pi} = 0$.
  - Denote it by $e^0 > 0$, defined such that $R - c(e^0) = 0$.

Downsian model of effort choice 2

- Suppose that the winner must fulfill his campaign promise.
- The game proceeds with the following time line, as usual in Downsian model.
  1. Candidates decide whether or not to run for office and announce campaign promises simultaneously.
  2. Voters cast ballots for either candidate.
  3. The winner takes office and implements the promise (A tie case is resolved randomly).
- Voters will vote for the candidate who promises larger effort.
- In the Nash equilibrium, $e_A^* = e_B^* = e^0$.
  - When candidates must commit to promises, the optimal effort level for voters is chosen in the equilibrium.
- This story is in line with Chicago school's argument.
  - Electoral competition produces the optimal outcome for voters.

Downsian model of effort choice 3

- Suppose that candidates do not commit to their promises.
  - In reality, campaign promises are not legally enforceable. Politicians who reneged on campaign promises face no legal punishment.
- Then, they will make no effort after taking office.
  - Expecting politicians' such opportunistic behavior, voters are indifferent between candidates.
- No campaign promises other than $e_i = 0$ are credible.
  - Taking credibility of promises into account, $e_A^* = e_B^* = 0$ is the equilibrium effort levels credibly announced in the election.
- This story is in line with Virginia school's argument.
  - Government behaves like Hobbes's Liviathan.
  - To make sure that politicians behave for general voters, the society needs to establish constitutional constraints that limits the hands of government.

A model of retrospective voting

- To discipline opportunistic incumbents to some extent, voters can use a retrospective (or performance) voting strategy when they seek for reelection.
- Consider a subgame-perfect Nash equilibrium of the following game:
  1. Voters choose a minimum effort level, $\overline{e}$, with which to approve the incumbent reelection.
  2. The incumbent, who is in power in period 1, implements effort e_1.
  3. An election is held. Voters vote for the incumbent or a challenger, after observing e_1.
  4. The winner takes office in period 2 and implements effort e_2.
- Candidates in the election, the incumbent and the challenger, are homogeneous. They will choose $e_2 = 0$.
- Voters are indifferent about which will take office in period 2.

A model of retrospective voting 2

- Because of indifference, voters can credibly commit to a retrospective voting strategy, in which they will reelect the incumbent if and only if $e_1 \geq \overline{e}$, in advance to his decision.
- Given voters' strategy, the incumbent's probability of reelection depends on e_1 and $\overline{e}$ as follows:

$$P(e_1, \overline{e}) = \begin{cases} 1 & \text{if } e_1 \geq \overline{e} \\ 0 & \text{otherwise,} \end{cases}$$

and his discounted payoff is

$$\pi(e_1, \overline{e}) = R - c(e_1) + \delta P(e_1, \overline{e}) R,$$

where $\delta \in (0, 1)$ is the discount factor.

- In the subgame-perfect Nash equilibrium, the incumbent chooses

$$e_1 = \begin{cases} \overline{e} & \text{if } \pi(\overline{e}, \overline{e}) \geq R \\ 0 & \text{otherwise.} \end{cases}$$

A model of retrospective voting 3

- By committing to the retrospective voting strategy, voters can make the incumbent implement any effort level such that $\pi(\overline{e}, \overline{e}) \geq R$, or

  $$c(\overline{e}) \leq \delta R.$$

- If we let $\overline{e}^*$ defined as $c(\overline{e}^*) = \delta R$, then the voters' optimal strategy, which achieves the maximum effort level in period 1, is to reelect the incumbent if and only if $e_1 \geq \overline{e}^*$.
  - Retrospective voting can discipline opportunistic politicians to some extent because $\overline{e}^* > 0$.
- However, any retrospective voting strategy requiring effort less than or equal to $\overline{e}^*$ produces an equilibrium with the incumbent choosing it.
  - If all voters choose $\overline{e} < \overline{e}^*$, then anyone's deviation cannot induce the incumbent to choose effort levels other than $\overline{e}$.

Pros and cons of retrospective voting

1. When politicians seek for reelection, retrospective voting induces them to make more effort than they will do when not seeking for reelection, but the effort level falls short to the one realized when campaign promises are enforceable.
2. Retrospective voting cannot affect the decisions of the lame duck incumbents.
3. The smaller discount factor the incumbents have (and also the smaller ego rents they will receive from reelection), the smaller effort they will make in period 1.
4. There are multiple equilibria. To achieve the best outcome for voters (i.e., $\overline{e}^*$), they need to coordinate their voting strategies. But how can they do so without explicit communication?

The role of unenforceable campaign promises 1

- Few papers discuss this issue.
  1. Harrington, 1993: campaign promises as a signal of candidates' private information.
  2. Austin-Smith and Banks, 1989: campaign promises enable voters to make politicians work harder.
  3. This lecture: campaign promises facilitate voters to coordinate to take the optimal retrospective voting strategy.
- The time line of the game
  1. Two candidates, A and B, announces their campaign promises, e_A and e_B, respectively.
  2. Voters vote for either A or B.
  3. The winner takes office in period 1 and implement e_1.
  4. An election is held. Voters vote for the incumbent or a challenger.
  5. The winner takes office in period 2 and implement e_2.

The role of unenforceable campaign promises 2

- Consider a subgame-perfect Nash equilibrium. Since $e_2 = 0$, voters are indifferent between the incumbent and the challenger in the election at the beginning of period 2.
- Suppose that voters commit to a retrospective voting strategy in which they reelect the incumbent if and only if he fulfilled his promise made in the election at the beginning of period 1.
  - Because of indifference, this strategy is credible (sequentially rational).
- The incumbent having promised e_I and implemented e_1 faces a reelection probability,

$$P(e_1, e_I) = \begin{cases} 1 & \text{if } e_1 \geq e_I \\ 0 & \text{otherwise.} \end{cases}$$

  - Voters can coordinate their retrospective voting strategies by sharing the information of campaign promises.

The role of unenforceable campaign promises 3

- Then, similar to the previous model, the incumbent chooses

$$e_1 = \begin{cases} e_I & \text{if } \pi(e_I, e_I) \geq R \\ 0 & \text{otherwise,} \end{cases}$$

  where $\pi(e_I, e_I) = R - c(e_I) + \delta R$.
- Thus, if $e_I \leq \overline{e}^*$, the incumbent will fulfill the promise, and otherwise he will renege and make no effort.
- Consider the election in period 1. Voters rationally expect candidates' opportunistic behavior described above.
- Voters vote for the candidate whose promise is closer to $\overline{e}^*$ but do not exceed it, expecting that promises bigger than $\overline{e}^*$ are reneged.
- In the subgame-perfect Nash equilibrium, $e_A = e_B = \overline{e}^*$ is realized as in the previous model.

Weak points of the argument

- What if voters possibly prefer the challenger to the incumbent?
  - For example, suppose that the incumbent is a male and voters tend to favor a female candidate. During period 1, the incumbent does not know whether a male or female challenger will run.
  - Then, the retrospective voting strategy is not credible to the incumbent.
- Valence reduces the credibility of voters' commitment to performance voting strategies.
  - Valence factors refer to the characteristics of a candidate that are not related to policy issues and cannot be changed for elections, such as career, ability, sex, figure, looks, ideology, etc.
  - Candidates may be uncertain about voters' preferences over valence factors, which makes candidates face stochastic voting decisions (cf. probabilistic voting theory).