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## Do Politicians Represent Voters

Slide 1

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### INTRODUCTION

Many countries impose restriction on who can run (gender quotas, quotas for minority, etc..). Example in India: political reservation for former untouchables (SC) and tribal populations (ST).

Slide 2

Why would this be relevant??

- Downs (1957): median voter theorem:
  - If two parties have the same information about voter's preference, there should be convergence in policies
  - Assumption: Possibility of full commitment
  - Alesina (1988): Candidates have policy preferences (i.e. party ideological platform) and cannot commit to implementing a specific policy.
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- In a one shot game:
    - Voters do not believe a platform that does not correspond to the candidate's known preference
    - Therefore the candidate just announce and implement their preferred policy-No convergence.
  - In a repeated game:
    - Hope to be elected in the next period may help sustain cooperation
    - Some (or complete) convergence is possible
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Slide 3

### MODEL SET-UP

Two parties with utility functions from implementing action  $l$

$$U(l) = - \sum_{t=0}^{\infty} 0.5 * q^t (l_t - c)^2$$

$$V(l) = - \sum_{t=0}^{\infty} 0.5 * q^t (l_t)^2$$

Slide 4

Probability to be elected is  $P(x^e, y^e)$  where  $x^e$  ( $y^e$ ) is rational expectation of what party 1 (2) will do if elected.

$P_{x^e}(x^e, y^e) \leq 0$  if  $x^e \geq y^e$ , and  $P_{x^e}(x^e, y^e) > 0$  if  $x^e < y^e$   
(parties gain votes when they converge).

There is some electoral motive (utility  $k$  if elected).

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## RESULTS

Slide 5

- Efficient outcome: full convergence (concavity of the parties' utility function). The policy picked depends on each party's bargaining power, a function of the probability of being elected.
- One shot game with pre-commitment, there is convergence. The distance between policies implemented by each party is an inverse function of  $k$ .
- One shot game with no pre-commitment: equilibrium exists and is unique:  $x = c$ ,  $y = 0$ . (proposition 1). Proof is immediate.

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Infinitely repeated game: Cooperate until someone defects, and if someone defects revert to one shot game equilibrium in every election ever after.

Slide 6

- Folk theorem: if the discount factor is high enough, any point on the efficiency factor can be achieved
  - With lower discount factors, efficient outcome can be achieved if probability of winning is close to 0.5
  - For any discount factor, there exist a non- empty set of policies which Pareto improve upon the one-shot Nash. The higher the discount factor, the higher the set of policies.
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## THE CITIZEN CANDIDATE MODEL

Besley and Coate (1997), and Osborne and Sviliński (1996)

Slide 7

More insight about candidates' preference. No role for political parties. "Citizens" have different preferences, which are common knowledge. The political game has three stages:

- Citizen decides to run (cost  $\delta$ )
- Citizens choose among candidates (BC: vote strategically OS: vote sincerely).
- Elected candidate implement its preferred policy

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## SIMPLE MODEL

Policy to be chosen on a  $[0; 1]$  interval. Each citizen has a preferred policy  $\omega_i$ .  $V^i(x) = -|\omega_i - x|$ . Default  $x_o = 0$ .  $m$  is the median ideal point.

Slide 8

Proposition 6: A political equilibrium exists in which citizen  $i$  runs unopposed if and only if

- (i)  $\omega_i \geq \delta$
- (ii) There is no citizen  $k$  such that  $2m - \omega_i < \omega_k < \omega_i - \delta$  or  $\omega_i + \delta < \omega_k < 2m - \omega_i$ .

Idea of the proof: citizen  $i$  must be sufficiently close to the median voter so that no candidate would want to enter and win. For sufficiently small entry costs, the policy choice in a one candidate equilibrium is the median voter's preferred policy.

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Proposition 7: There exist a political equilibrium in which citizens  $i$  and  $j$  run again each other if and only if

- (i)  $\frac{\omega_i + \omega_j}{2} = m$   
(ii)  $|\omega_j - \omega_i| \geq 2\delta$

Slide 9

Idea of the proof: candidate must be symmetrical across the median voter (so they tie), and they must be sufficiently far apart that it is worth running with a probability half of being elected. Difference between sincere and strategy voting.

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#### SIMPLE MODEL-EQUILIBRIA WITH MORE CANDIDATES?

Proposition 8: No equilibria with 3 or more candidates who tie if "no-clumping" assumption is satisfied.

Slide 10

(No clumping assumption: If one third of the citizen are within an interval, any interval of larger length must contain the ideal point at least one citizen)

Proposition 9: If citizen who are indifferent between all candidates abstain, there are no 3 candidates equilibrium where one or two wins

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Idea of the proof: (1) Suppose you have an equilibrium with 2 candidates who loose and one who wins. Winner would be in the mid point. Each loosing extremist anticipates that the centrist candidate would loose in a 2 way-race. This is inconsistent with voting equilibrium.

Slide 11

(2) Suppose you have an equilibrium with 2 candidates who tie and one who looses. The median voter must be indifferent between the two winners and vote for the loser. So the median voter would abstain if the candidate dropped out, and his presence does not affect the race. Therefore he should not run.

In this set up, one cannot run equilibria with more than 3 candidates.

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#### APPLICATIONS

- Benefits of holding office, sincere voting (Osborne Svillinski)
- Heterogenous abilities : representative democracy may lead to inefficient selection (Besley Coate)
- Lobbying (Besley and Coate RESstud, Felli)
- Dynamic evolution of this game (Besley and Coate REstud)
- Heterogenous costs of being a candidate (Chattopadhyay Duflo)

Slide 12

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### EMPIRICAL EVIDENCE (FROM THE US): LEVITT (1996)

How to test the model, and ascertain the influence of various factors, since you cannot observe the candidate ideology, voters' preferences, etc ?

Possible factors weighing in senators' vote:

Slide 13

- Median voter
- Split constituency
- National Party
- Own ideology

Objective of the paper: place just enough structure to identify the weight given to each factor.

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### MODEL

$$U_{it} = -[\alpha(V_{it}-S_{it})^2 + \beta(V_{it}-C_{it})^2 + \gamma(V_{it}-P_{it})^2 + (1-\alpha-\beta-\gamma)(V_{it}-Z_i)^2]$$

Slide 14

$$V^*_{it} = \alpha S_{it} + \beta C_{it} + \gamma P_{it} + (1-\alpha-\beta-\gamma)Z_i$$

Bliss points are not observed.

- Use proxies for state, voters, party preferences
  - Include a senator fixed effect. → All parameters can be estimated.
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### DATA

-For Voting record, using ADA rating: annual rating of "democrativeness" of a record based on about 20 roll-call votes per year (100: most liberal).

Slide 15

- For State preferences: mean ADA record for the state delegation at the house in the same year (noisy, and potentially not-representative: overall bias can be positive or negative).
  - For State constituency: mean ADA record for party member in the house in the same year
  - For party line: mean ADA of party member in the house (potentially instrumented with lagged values).
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### RESULTS

Slide 16

- Voters preferences in state get only a weigh of 10% to 13%.
  - Preferences of Voters in the same party adds another 13% to 17%.
  - Effect of party ideology is th least stable
  - Own ideology get a weight of 59% to 69%.
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### EMPIRICAL EVIDENCE (FROM INDIA): PANDE

India: Political reservation for SC and ST in State legislative election.

Does the proportion of reserved seats affect the policies that is being implemented (and in particular: does it affect it in a way that reflect the interests of those minorities).

Slide 17

Specification:

$$Y_{st} = \alpha_s + \beta_t + \gamma R_{st} + \epsilon_{st}$$

where  $R_{st}$  are share of seats reserved to SC and ST. Potential problem: Share of seats reflects population share. One would expect a direct effect. Identification strategy: reservation is based on census population share. It is only revised in the election after the census. One can thus control for census share of SC (ST) , and actual share of SC (ST).

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