## Micro II Problem Set 3 QUESTIONS

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May 3, 2025

## A simple model of probabilistic voting and ideological bias

There is a mass 1 of voters. Assume that three factors affect voter i's voting strategy: (1) the economic policy implemented q, (2) her individual ideological bias  $\sigma^i$  toward candidate B, and (3) the popularity  $\delta$  of politician B. We assume that  $\sigma^i$  is uniformly distributed on  $[-\frac{1}{2\phi}, \frac{1}{2\phi}]$ . Moreover,  $\delta$  is the same for all voters and is drawn from the uniform distribution on  $[-\frac{1}{2\psi}, \frac{1}{2\psi}]$ . The distributions are common knowledge, but only agent i observes her own parameter  $\sigma^i$ . Then, i's preferences over the policy implemented by A are summarized by  $W(q^A; \alpha^i)$ , whereas the preferences over the policy implemented by politician B take the final form

$$W(q^B, \alpha^i) + \sigma^i + \delta \tag{1}$$

The timing is as follows: first, each voter observes  $\sigma^i$ , and politicians simultaneously and noncooperatively announce platforms  $q^A$  and  $q^B$ . Second,  $\delta$  is realized. Third, elections take place, and last, the announced policy is implemented.

- a) Give an interpretation of  $\sigma^i$ . Characterize the agent who is indifferent between voting for politician A and voting for politician B for given policies  $q^A$  and  $q^B$ . Suppose that  $\alpha^i = \alpha$ . Compute candidate A's vote share as well as her probability of winning.
- b) Which platforms do the politicians select? Which one is implemented? Discuss.
- c) Suppose that agents are heterogeneous. What does this imply for the equilibrium?
- d) Discuss your results and compare them with the results obtained under Downsian competition.
- e) What alternative assumptions could make the equilibrium platform differ from the social optimum?
- f) What alternative assumption could lead to divergence of the platforms of the two parties?
- g) How realistic is the probabilistic voting setting? Are there other aspects of real-world politics that are ignored in this framework?