

# Political Economics II

Final exam: March 18, 2015

## I. Short Answers

No more than 2 pages per question. Choose 5 out of 6. Worth 10 points each.

### **1. Outcomes of electoral competition**

Under which conditions on the dimensionality of policy, on the preferences and behavior of voters, and on the motivation and commitment capacity of politicians does electoral competition between two parties produce an equilibrium where the policy outcome coincides with the bliss point of a median voter? Explain briefly!

### **2. Agenda-setting power**

A key prediction of the legislative bargaining model is that the agenda setter should receive more benefits. Discuss the empirical evidence supporting this prediction. Discuss how to identify a causal effect of agenda-setting power on policy even though agenda-setting power is endogenous.

### **3. Interest groups and campaign contributions**

“The relatively small contributions by interest groups to politicians in the U.S. Congress, given the benefits at stake in the policy process, show that lobbying cannot be a very important phenomenon empirically” (approximate quote from G. Tullock, 1988). Is this a valid conclusion? Motivate!

### **4. Voter turnout and policy**

Explain why a regression of government spending on voter turnout is likely to provide a biased measure of the effect of voter turnout on government spending. Explain how papers in the literature have attempted to solve this problem, and discuss their key results.

### **5. Female politicians**

A common perception is that female politicians conduct policy differently than male politicians. Discuss empirical evidence suggesting that this is correct, and the empirical strategies used to identify the causal effect of politician gender on policy.

### **6. Environmental policy and the form of government**

Which forms of government would you predict to generate less ambitious nationwide environmental policies, everything else equal? Explain briefly the analytical intuition behind your suggested prediction!

## II. Problems

Choose 1 out of 2. Worth 25 points.

### 7. Public capital and rents in a probabilistic-voting model

Consider a model with a continuum of citizens. The government budget is fixed at  $B$ , which is used to finance public capital  $k$ . Any slack in the budget is captured by the ruling politician, as (endogenous) rents  $r$ , which must be non-negative:

$$k + r = B, \quad r \geq 0.$$

Every citizen has the same income, which depends positively on public capital, such that private consumption is  $c = F(k)$ , where  $F$  is a concave function. Individuals have concave utility  $u = U(c)$ .

Two candidates,  $C = A, B$  each maximize the expected value of rents from office, namely

$$p_C(r + R),$$

where  $p_C$  is the probability of winning for candidate  $C$  and  $R$  is (exogenous) ego-rents from office. The candidates simultaneously commit themselves to a level of public capital  $k_C$  in their electoral platforms. The candidate with the most votes gets to implement its platform after the election. The two candidates also have other attributes, which the voters value. Specifically, voters cast their ballot for party  $A$  if

$$U(F(k_A)) > U(F(k_B)) + \delta,$$

where  $\delta \stackrel{\geq}{\leq} 0$  is an (aggregate) ideological shock, which is revealed before the election but after the choice of platforms. Assume that  $\delta$  is uniformly distributed with density  $\psi$  on  $[-\frac{1}{2\psi}, \frac{1}{2\psi}]$ .

a) Show how the probability of winning for party  $A$ ,  $p_A$ , depends on the platforms announced by the candidates,  $k_A, k_B$ , when each voter casts her ballot optimally.

b) Characterize the equilibrium candidates set their policy platforms optimally. Derive a sufficient condition for rents  $r$  to be strictly positive. Explain the result intuitively!

### 8. Legislative bargaining over a fixed budget

A legislature with three parties,  $J = 1, 2, 3$  – each of which represents a specific group in the population – bargains over a fixed budget. Assume that the groups are equally large: the population shares satisfy  $\alpha^J = 1/3$ , all  $J$ . The budget has size 5, such that the budget constraint is  $\sum_J f^J = 5$ , where  $f^J$  is per-capita spending on group  $J$ . Each party's payoff is linear in the per-capita spending level for the group it represents:  $w^J = f^J$ .

**a)** First, consider a game of closed-rule, one-round bargaining. Specifically, nature draws an agenda setter among the three parties, where each party has an equal probability of being recognized:  $p_1 = p_2 = p_3 = \frac{1}{3}$ . The chosen setter makes a take-it-or-leave-it offer of an allocation  $\{f^J\}$ . If a majority (at least one more party) approves, the proposal is implemented. If not, a default allocation of per-capita spending  $\{d^J\}$  is realized with  $d^1 = 1$ ,  $d^2 = 2$ , and  $d^3 = 3$ .

Solve for the bargaining outcome when each of the three parties is chosen to set the agenda! Then, calculate the value of the game for each party/group, i.e., calculate the expected utilities for group members  $E(w^J)$  before the identity of the agenda setter is drawn. Which of the groups are the best and the worst off? Explain!

**b)** Next, assume that the game is still closed-rule, but has two rounds. That is, the game starts in the same way as in **a)** with the same recognition probabilities. However, if the proposal of the first-round agenda setter is not approved by a majority, the game does not stop with default payoffs, but goes on to a second round with recognition probabilities and default allocations equal to those in **a)** (i.e., a defeated second-round proposal induces the default per-capita payoffs  $d^1 = 1$ ,  $d^2 = 2$ , and  $d^3 = 3$ ).

Characterize the bargaining outcomes in the two-round game, and the expected utilities of the parties! Which groups are now the best and the worst off? Explain!

### III. Essays

Choose 1 of 2. Worth 25 points.

#### **9. Government policy and voter characteristics**

The median voter and probabilistic voting model identify a number of characteristics of voters, which are associated with more political influence. What are these characteristics? Discuss the empirical evidence discussed in class on the effects of each such characteristic on policy.

#### **10. Preferences of voters vs. politicians**

In the standard median voter framework, policy is entirely dictated by voter preferences. In other models, the preferences of the politicians also matter for policy to varying degree. How can we, empirically, determine the degree to which policy follows voters or politicians' preferences? Discuss some empirical strategies designed to estimate this, and describe the results from studies employing these strategies.

The maximum score is 100 (50+25+25) points and a pass requires 50 points.  
Good luck!