

Written Exam at the Department of Economics winter 2018-19

Political Economics

Final Exam

11 January 2019

(3-hour closed book exam)

Answers only in English.

This exam question consists of 5 pages in total

NB: If you fall ill during an examination at Peter Bangs Vej, you must contact an invigilator who will show you how to register and submit a blank exam paper. Then you leave the examination. When you arrive home, you must contact your GP and submit a medical report to the Faculty of Social Sciences no later than seven (7) days from the date of the exam.

Be careful not to cheat at exams!

- You cheat at an exam, if during the exam, you:
- Make use of exam aids that are not allowed
- Communicate with or otherwise receive help from other people
- Copy other people's texts without making use of quotation marks and source referencing, so that it may appear to be your own text
- Use the ideas or thoughts of others without making use of source referencing, so it may appear to be your own idea or your thoughts
- Or if you otherwise violate the rules that apply to the exam

Instructions

This exam set consists of three problems with one or more questions. Answer all problems and questions. Each question has a suggested maximum length, written in parentheses at the end the question. You may use these suggestions as a guide on how to prioritize your time; there is no penalty for writing more than indicated in the suggestions. But shorter answers may also suffice. Answer in English only.

Problem 1

The table shown on page 3 is a copy of Table 6 in the paper titled “Intergenerational Mobility and Preferences for Redistribution” by Alberto Alesina, Stefanie Stantcheva, and Eduardo Teso, American Economic Review, 2018, 108(2).

The table shows regression results from a survey experiment in which respondents from five different countries were asked about their perceptions of the level of intergenerational income mobility in their own country, as well as their views on income redistribution.

The dependent variables in the regressions are various measures of support for redistributive policies.

Survey respondents were randomly assigned to a treatment group or a control group. The explanatory variable “Treated” is a dummy for belonging to the treatment group. Respondents in this group were shown two animated films before answering the questions about income mobility and redistribution. In these animations, viewers were told that:

- i) “The chances of a poor kid staying poor as adult are extremely large. Only very few kids from poor families will ever make it and become rich.”*
- ii) “Children born in rich families are extremely likely to remain rich themselves when they grow up, like their parents. It is extremely rare for a child from a rich family to become poor later in life.”*

1a. Explain intuitively – based on material from the course - why perceptions about intergenerational income mobility might affect preferences for redistribution. Assuming that they do - and given what you know about perceptions of income mobility in different countries - can this help us understand the difference in the level of redistribution between the United States and most Western European countries? (Suggested length: No more than 250 words).

1b. How can the experiment described above help us learn about the causal effect of perceptions about intergenerational income mobility on preferences for redistribution? Why is it important that respondents were assigned randomly to treatment vs. control groups? (Suggested length: No more than 200 words).

1c. Explain what the results reported in the table on page 3 tell us about the effect of perceptions about intergenerational income mobility on preferences for redistribution. In particular, explain how the effect differs across individuals with different political leanings. Based on the material covered in the course, what do you think could explain this difference? (Suggested length: No more than 150 words).

TABLE 6—TREATMENT EFFECTS ON POLICY PREFERENCES

	Budget opp.	Support estate tax	Support equality opp. policies	Government interv.	Unequal opp. very serious problem	Budget safety net	Tax rate top 1	Tax rate bottom 50	Govt. tools	Redistribution index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>Panel A. Treatment effects</i>										
Treated	0.108 (0.227)	0.002 (0.010)	0.010 (0.022)	-0.020 (0.030)	0.046 (0.013)	0.225 (0.160)	0.357 (0.398)	0.155 (0.226)	-0.017 (0.013)	0.013 (0.009)
<i>Panel B. Treatment effects for left- and right-wing</i>										
Treated × left-wing	0.823 (0.398)	0.032 (0.017)	0.078 (0.039)	0.124 (0.053)	0.103 (0.022)	0.111 (0.281)	0.551 (0.686)	0.257 (0.389)	-0.008 (0.023)	0.052 (0.015)
Treated × right-wing	0.031 (0.397)	-0.001 (0.017)	-0.025 (0.039)	-0.020 (0.053)	0.018 (0.022)	0.200 (0.281)	0.661 (0.691)	-0.386 (0.392)	-0.049 (0.023)	0.006 (0.015)
Left-wing	1.159 (0.396)	0.147 (0.017)	0.352 (0.039)	0.327 (0.053)	0.110 (0.022)	1.099 (0.280)	2.514 (0.696)	-1.166 (0.395)	0.077 (0.023)	0.173 (0.015)
Right-wing	-1.834 (0.397)	-0.086 (0.017)	-0.314 (0.039)	-0.582 (0.053)	-0.054 (0.022)	-1.239 (0.281)	-2.428 (0.701)	1.343 (0.398)	-0.045 (0.023)	-0.171 (0.015)
<i>p</i> -value diff.	0.159	0.164	0.061	0.056	0.007	0.823	0.910	0.245	0.211	0.030
<i>Panel C. IV estimates</i>										
Q1 to Q1	0.011 (0.023)	0.000 (0.001)	0.001 (0.002)	-0.002 (0.003)	0.005 (0.001)	0.023 (0.017)	0.036 (0.040)	0.016 (0.023)	-0.002 (0.001)	0.001 (0.001)
<i>Panel D. IV Estimates for left- and right-wing</i>										
Q1 to Q1 × left-wing	0.082 (0.040)	0.003 (0.002)	0.008 (0.004)	0.012 (0.005)	0.011 (0.002)	0.011 (0.028)	0.052 (0.065)	0.024 (0.038)	-0.001 (0.002)	0.005 (0.001)
Q1 to Q1 × right-wing	0.003 (0.036)	-0.000 (0.002)	-0.002 (0.003)	-0.002 (0.005)	0.002 (0.002)	0.018 (0.025)	0.059 (0.062)	-0.034 (0.035)	-0.004 (0.002)	0.001 (0.001)
Left-wing	-3.910 (2.492)	-0.067 (0.105)	-0.030 (0.241)	-0.778 (0.337)	-0.214 (0.141)	2.179 (1.746)	0.017 (4.238)	0.353 (2.443)	0.126 (0.141)	-0.088 (0.093)
Right-wing	-3.953 (2.270)	-0.178 (0.095)	-0.336 (0.220)	-1.169 (0.307)	-0.027 (0.123)	-0.347 (1.591)	-4.965 (3.978)	4.889 (2.294)	0.116 (0.124)	-0.258 (0.085)
<i>p</i> -value diff.	0.143	0.149	0.056	0.053	0.004	0.848	0.938	0.257	0.276	0.022
Observations	8,585	8,584	8,585	8,585	4,281	8,585	6,851	6,851	4,281	8,585

Notes: Panels A and B report the treatment effects; panels C and D scale the effect of the treatment on the policy in each column by the first-stage effect of the treatment on the perceived probability of remaining in the first quintile, by regressing the policy listed in the column on the perceived probability of remaining in the first quintile, instrumented by a dummy for being in the treatment group. Panels B and D report these two types of effects interacted with left-wing and right-wing dummies. The dependent variable in column 10 is the unweighted average of the *z*-scores of all variables from columns 1–9, oriented so that a higher index means more support for redistribution. See the notes to Table 3. Standard errors in parentheses.

Problem 2

Imagine that you are the leader of a large political party and that you are in the process of recruiting a volunteer for an economic analyst position. The analyst's job is to provide advice for your party's future economic policy platform. In choosing who to hire, your goal is to end up with the best possible policy platform, given the state of the economy and the policy preferences of you and your party.

In the pool of applicants there is one candidate that seems to be clearly more competent than the rest. When you bring the candidate in for an interview, however, you learn that the candidate has consistently been voting for a different party in past elections.

Based on material from the course, how would the candidate's past voting history affect your willingness to choose him/her for the volunteer position? Which factors would influence your decision? Make sure your answer makes it clear what course material you are drawing on. (Suggested length: No more than 750 words).

Problem 3

The citizens in the imaginary country of Poleconia must decide on the size of their government, as summarized by the tax rate $\tau \in [0; 1]$.

Citizens are heterogeneous in their preferences for the size of government. The following indirect utility function summarizes their policy preferences:

$$W(\tau; \alpha_i) = -(\tau - \alpha_i)^2,$$

where $\alpha_i \in [0; 1]$ is a preference parameter specific to voter i . There is a continuum of citizens, and the α_i are distributed according to some cumulative distribution function with median α_M .

The tax rate is chosen by representative democracy. There are two candidates, called A and B, running for office. The timing is as follows:

1. The two candidates simultaneously announce policy platforms, τ_A and τ_B .
2. Elections are held: Each citizen votes for his/her preferred candidate. If they are indifferent between the two candidates, they flip a coin.
3. The candidate who received the most votes is elected for office and implements the policy platform announced in stage 1. In other words, we assume that candidates are able to commit to their promises made before the election.

Candidates care about policy like all other citizens. Their preference parameters are α_A and α_B , respectively, and we assume that $\alpha_A < \alpha_M < \alpha_B$. In addition, candidates also derive some utility $R \geq 0$ from holding office. Mathematically, the indirect utility function for candidate A is:

$$U_A(\tau) = \begin{cases} W(\tau; \alpha_A) + R & \text{if A wins} \\ W(\tau; \alpha_A) & \text{if B wins} \end{cases}$$

and similarly for candidate B. When announcing policy platforms, candidates seek to maximize their expected utilities. Let p_j denote the probability that candidate j wins the election, $j = A, B$. The expected utility for candidate A can then be written as

$$E[U_A(\tau)] = p_A(W(\tau_A; \alpha_A) + R) + (1 - p_A)W(\tau_B; \alpha_A)$$

3a. What is the bliss point for a citizen with preference parameter α_i ? Is there a Condorcet winner in the policy space $\tau \in [0; 1]$. If yes, what is it? If no, why not? (Suggested length: No more than 100 words).

3b. Write up an expression for p_A , the probability that candidate A wins the election, as a function of the policy platforms τ_A and τ_B and model parameters. Make sure to explain the logic behind this expression. (Suggested length: No more than 200 words).

3c. What is the unique Nash equilibrium in this model? Explain which policy platforms the two candidates will announce in this equilibrium and describe the intuition behind this (a formal proof is not required). Does it matter for the policy outcome who wins the election? And how does the value of R (the exogenous value of holding office) matter for the answer to this question? (Suggested length: No more than 400 words).

Assume now that citizens care not only about a candidate's policy proposal, but also about his or her personality. For simplicity, assume that all citizens share the same perceptions of the two candidates' personalities. More concretely, assume that citizen i votes for candidate A if

$$W(\tau_A; \alpha_i) > W(\tau_B; \alpha_i) + \delta$$

where the parameter δ captures the effect of the difference in citizens' perceptions of personality between the two candidates. The exact value of δ is unknown to both candidates, but they both know that it is drawn from a uniform distribution on the interval $[-\frac{1}{2\psi}; \frac{1}{2\psi}]$.

For concreteness, assume that $\alpha_A = 0$, $\alpha_M = \frac{1}{2}$, $\alpha_B = 1$, and $R = 0$.

3d. Derive an expression for the probability that candidate A wins the election under these new assumptions. (*Hint: Argue that candidate A wins when $W(\tau_A; \alpha_M) > W(\tau_B; \alpha_M) + \delta$. Then write up the probability that this is the case.*) How does this probability depend on the policy platform that candidate A announces? Comment briefly on the difference compared to the answer in 3b. (Suggested length: No more than 200 words).

3e. Is full convergence to the median voter's bliss point an equilibrium outcome in this version of the model? (*Hint: Assume that candidate B announces the median voter's preferred policy. Then analyze whether doing the same thing is a best response for candidate A by taking the derivative of $E[U_A]$ wrt. τ_A and evaluating it at the relevant values of τ_A and τ_B .*) Explain the intuition behind this result and compare it to the answer in 3c. (Suggested length: No more than 250 words).

3f. Explain in words what you think the equilibrium in this model looks like (no derivations are necessary, verbal arguments are sufficient). Then explain intuitively how the equilibrium outcome must depend on the value of the parameter ψ . In light of your answer to this question, what do you think the model would predict about the effect of some exogenous shock that improves candidates' knowledge about how voters perceive their personalities, such as the introduction of a new and more precise method for opinion polling? (Suggested length: No more than 250 words).