

Written Exam at the Department of Economics winter 2016-17

Political Economics

Final Exam

17. februar 2017

(3-hour closed book exam)

Please note that the language used in your exam paper must correspond to the language for which you registered during exam registration.

This exam question consists of 7 pages in total

NB: If you fall ill during the actual examination at Peter Bangsvej, you must contact an invigilator in order to be registered as having fallen ill. Then you submit a blank exam paper and 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.

Problem 1

"Calculus of voting" models capture the relative importance of various factors influencing an elector to vote or not. The paper that we saw in class by Gerber et al., "Social Pressure and Voter Turnout: Evidence from a Large-Scale Field Experiment," contained one of these models. The main equation in this model is:

$$pB + D > c$$

Explain each of the variables in the equation. Then, for each of the following papers, discuss how the paper relates to the equation above, and explain which of the variables in the equation it focuses on:

- Gerber et al. "Social Pressure and Voter Turnout: Evidence from a Large-Scale Field Experiment"
- Braconnier et al. "Voter Registration Costs and Disenfranchisement: Experimental Evidence from France"
- Bursztyn et al. "Identifying Ideology: Experimental Evidence on Anti-Americanism in Pakistan"

Problem 2

The figure below is from the paper by Dal Bo et al. "Who Becomes a Politician?" It shows the distribution of elected politicians and their fathers across the percentiles of population income in Sweden. The figures were constructed as follows: For the years 1979 and 2011, the authors use the full population data for Swedish individuals above 18 years of age to compute percentiles of the annual-earnings distribution within each gender and birth year. They then compute the proportion of fathers (in 1979) and politicians (in 2011) with incomes within each percentile range. They do so for politicians from each of the three largest parties in the municipal councils in Sweden: the Social Democrats, the Conservatives and the Center party. Note that, in Sweden, being elected to a municipal council is seen as a spare-time activity complementing one's work in the regular labor market. Thus, the income used to construct the figures is mostly income from the main occupation of these politicians.

Explain what each picture shows. Discuss also the implications in terms of representation of society by political parties and meritocracy in politics.

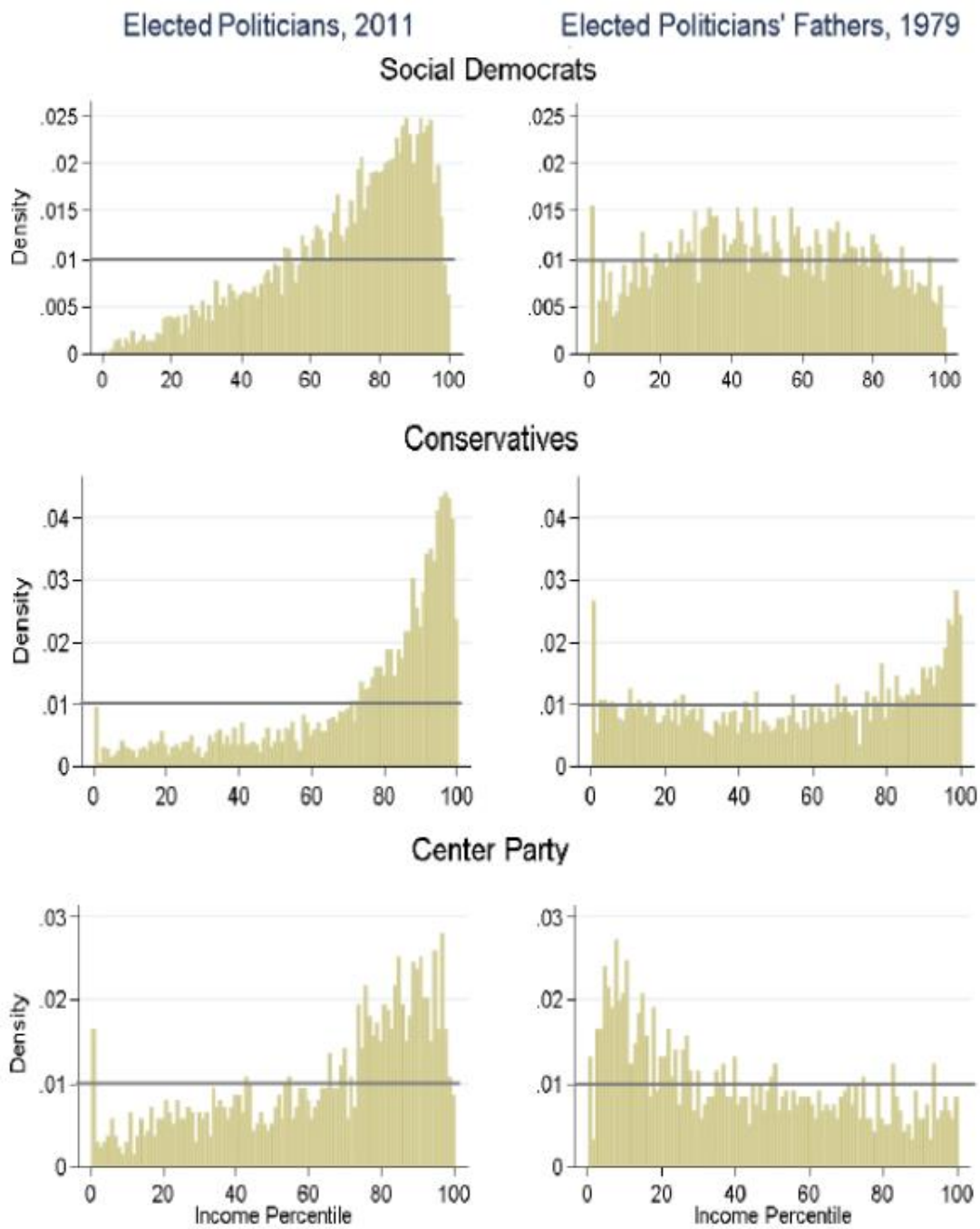


Figure 6: Distribution of elected politicians and their fathers across the percentiles of population income

Problem 3

Suppose you are working as a political consultant. A new client arrives with an interesting proposal: she is an advisor to the president of Gaditania, a country that is debating to restrict the time that presidents can be in office to two terms only. Currently, there is no term limit in place. She wants you to guide her regarding the effect that term limits would have on Gaditania's bond spreads. Note that Gaditania's bond spreads are defined as the difference between the yield of Gaditania's bonds and those of Germany, considered the reference bond. The riskier an investment in Gaditania's bonds is, the higher is the spread, and, as a consequence of that, the higher is the interest rate that Gaditania's government must pay on each issued bond. Excited about having to work on such an interesting problem, you tell her how you would proceed:

- i) You would gather data on bond spreads for other countries that enacted term limits in the past.
- ii) You would implement an event study to measure the change in the spread.

Convinced that you will be able to do the job, she hires you. Then, you are faced with the following questions:

- a. Explain how you would implement an event study for such a problem. Describe what time line you would use, and write down the main equations of the model. What is the main assumption behind event studies?
- b. Suppose you find that enacting term limits increases the risk spread. Describe and use the arguments and results in Besley and Case "Does Electoral Accountability Affect Economic Policy Choices? Evidence from Gubernatorial Term Limits" to explain your results?

Problem 4

The tables below are from the paper by Kuziemko et al., "How Elastic Are Preferences for Redistribution? Evidence from Randomized Survey Experiments". The tables show output from regressions of various outcome variables on a treatment dummy, indicating whether a particular subject received customized information about the level of and development in income inequality in the United States, and some control variables.

Explain what these tables suggest about the effect of knowledge about inequality on the attitudes towards i) whether income inequality is a serious problem, and ii) policies that can potentially reduce income inequality. Are the answers to these two questions qualitatively different? If so, what may explain the difference? Do not write more than 20 lines of text.

TABLE 4—EFFECT OF OMNIBUS TREATMENT ON OPINIONS ABOUT INEQUALITY
(“First-Stage” outcomes)

	Inequality very serious		Inequality increased		Rich deserving	
	(1)	(2)	(3)	(4)	(5)	(6)
Treated	0.102*** [0.0154]	0.104*** [0.0144]	0.119*** [0.0130]	0.120*** [0.0128]	-0.0500*** [0.0119]	-0.0526*** [0.0114]
Control mean	0.285	0.285	0.738	0.738	0.180	0.180
Scaled effect	0.357	0.365	0.539	0.540	0.173	0.182
Covariates?	No	Yes	No	Yes	No	Yes
Observations	3,703	3,703	3,704	3,704	3,690	3,690

Notes: The three outcome variables are binary indicator variables, coded as one if the respondent says that “inequality is a very serious problem,” “inequality has increased,” and “the rich are deserving of their income,” respectively. All regressions have round fixed effects, even those labeled as including “no” covariates. Controls for covariates further include all variables in the randomization table (Table 3), plus state-of-residence fixed effects. “Scaled effect” is the coefficient on *Treated* divided by the difference between control group liberals and conservatives. The row “Control mean” reports the mean of the outcome variable for the entire control group.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

TABLE 5—EFFECT OF OMNIBUS TREATMENT ON POLICY PREFERENCES

	Top rate	\$1M tax	Estate	Petition	Min. wage	Trust	Scope	Dem 2012
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treated	0.931* [0.549]	0.0502** [0.0126]	0.357*** [0.0140]	0.0648*** [0.0156]	0.0325** [0.0141]	-0.0292** [0.0115]	0.132*** [0.0339]	0.0152 [0.0125]
Control mean	30.21	0.740	0.171	0.234	0.690	0.158	3.076	0.529
Scaled effect	0.0914	0.111	2.043	0.394	0.0995	1.250	0.110	0.0246
Observations	3,741	3,704	3,673	3,060	3,690	3,702	3,704	3,703

Notes: “Top rate” is continuous (respondents’ preferred average tax rate (in percent) on the richest 1 percent). “Scope” is also continuous (a 1–5 variable, increasing in the preferred scope of government activities). All other variables are binary. “\$1M tax” and “Estate” indicate the respondent wants income taxes on millionaires and the estate tax to increase, respectively. “Petition” indicates she would write her Senator to increase the estate tax. “Min. wage” indicates support for increasing the minimum wage. “Trust” indicates trust in government and “Dem 2012” indicates the respondent plans to vote for the Democrat (Obama) in the 2012 presidential election. “Covariates” and “scaled effects” are as specified in the notes to Table 4. The row “Control mean” reports the mean of the outcome variable in the control group. All regressions in this and subsequent tables include control variables as defined in Table 4.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

Problem 5

Consider an economy in which a large number of citizens must decide how much to invest in “clean” technologies that can reduce emissions of greenhouse gases. Investment in these technologies is financed over the government budget. The government is also responsible for providing national security to its citizens, which requires military spending. For simplicity, the size of the government budget is assumed to be fixed and normalized to 1. Thus, the government budget constraint is

$$m + c = 1$$

where m and c denote military spending and clean-tech spending, respectively.

There are three equal-sized groups of citizens in the economy, denoted 1, 2 and 3. Within each group j , all voters share the same preferences over government spending. These preferences can be represented by the following utility function

$$w_j(m, c) = m - a_j \left(\frac{3}{2} - c \right)^2, \quad j = 1, 2, 3$$

where a_j is a group-specific preference-parameter. Assume for concreteness that $a_1 = \frac{1}{3}$, $a_2 = \frac{2}{3}$, and $a_3 = 1$.

- a. Find the indirect utility function $W_j(c)$ for each group of citizens and derive the preferred level of clean-tech spending, c_j^* , for each group.
- b. Assume first that the allocation of the government budget is determined via direct democracy: Citizens vote directly about how much to spend on clean-tech investment. Anyone is free to make a proposal, and all proposals are then pitted against each other in pairwise comparisons, until a clear winner is found. Assume that citizens vote sincerely. What is the unique equilibrium outcome in this case?

Assume now instead that voters elect a politician to administer the government budget. There are two candidates, A and B, who choose policy platforms c^A and c^B , respectively. The two candidates are similar in the sense that each of them cares only about winning the election, not about what policy they implement. The candidates have different personal traits, however, and voters differ in their evaluations of these traits. Thus, a citizen i belonging to group j gets utility $W_j(c^A)$ if candidate A wins the election and implements policy c^A , but gets utility

$$W_j(c^B) + \gamma_{ij} + \lambda$$

if candidate B wins and implements policy c^B . As indicated by the subscripts, γ_{ij} is specific to citizen i in group j . Each of the γ_{ij} is stochastic and uniformly distributed on the interval $\left[-\frac{1}{2\kappa_j}; \frac{1}{2\kappa_j} \right]$ where κ_j is a parameter specific to group j . The variable λ is common to all citizens across all groups. Candidates do not

know the exact value of λ , but they know that it is uniformly distributed on the interval $\left[X - \frac{1}{2\eta}; X + \frac{1}{2\eta}\right]$, where X is some constant.

The timing is as follows: 1) Politicians simultaneously announce their policy platforms c^A and c^B ; 2) Elections are held: Voters, observing the values of γ_{ij} and λ , vote for their preferred candidate; 3) The winner of the election implements the announced policy.

c. Give an interpretation of the variables γ_{ij} and λ . What does it mean if the sum of γ_{ij} and λ is positive? How does an increase in X affect the expected value of $\gamma_{ij} + \lambda$? In light of your answer to this question, how would you interpret X ?

d. For each $j = 1, 2, 3$ and for given policy proposals c^A and c^B , find the value of γ_{ij} that makes citizen i in group j indifferent between voting for candidate A and voting for candidate B. Use this to find candidate A's vote share in each group, given c^A , c^B and λ .

e. Derive the probability of winning for candidate A, given c^A and c^B . How does it depend on the value of X ? Assume that candidate A chooses c^A so as to maximize the probability of winning, given c^B . Find the first-order condition for this maximization problem. Then do the same for candidate B. How do these first-order conditions depend on the value of X ? Explain.

f. Citizens in group 1 feel very strongly about how government spending should be distributed across military spending and clean-tech spending, and they pay close attention to decisions about this. At the other extreme, citizens in group 3 do not care very strongly about the composition of government spending and are much less informed about it. Instead, they attach a large weight to their evaluations of the candidates' personal traits. What does this information suggest about the size-ranking of κ_1 , κ_2 , and κ_3 ? Make sure to explain your answer (rankings with no explanation will be considered a blank answer).

g. Assume that $\kappa_1 = 3$, $\kappa_2 = 2$, and $\kappa_3 = 1$. What is the equilibrium value of clean-tech spending in this case? Compare the answer to the one in question b and discuss the difference. Explain in words what would happen if the size-ranking of κ_1 , κ_2 , and κ_3 were reversed, so that $\kappa_1 < \kappa_2 < \kappa_3$ (no calculations are necessary).