

Written Exam at the Department of Economics winter 2016-17

Political Economics

Final Exam

17 January 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.

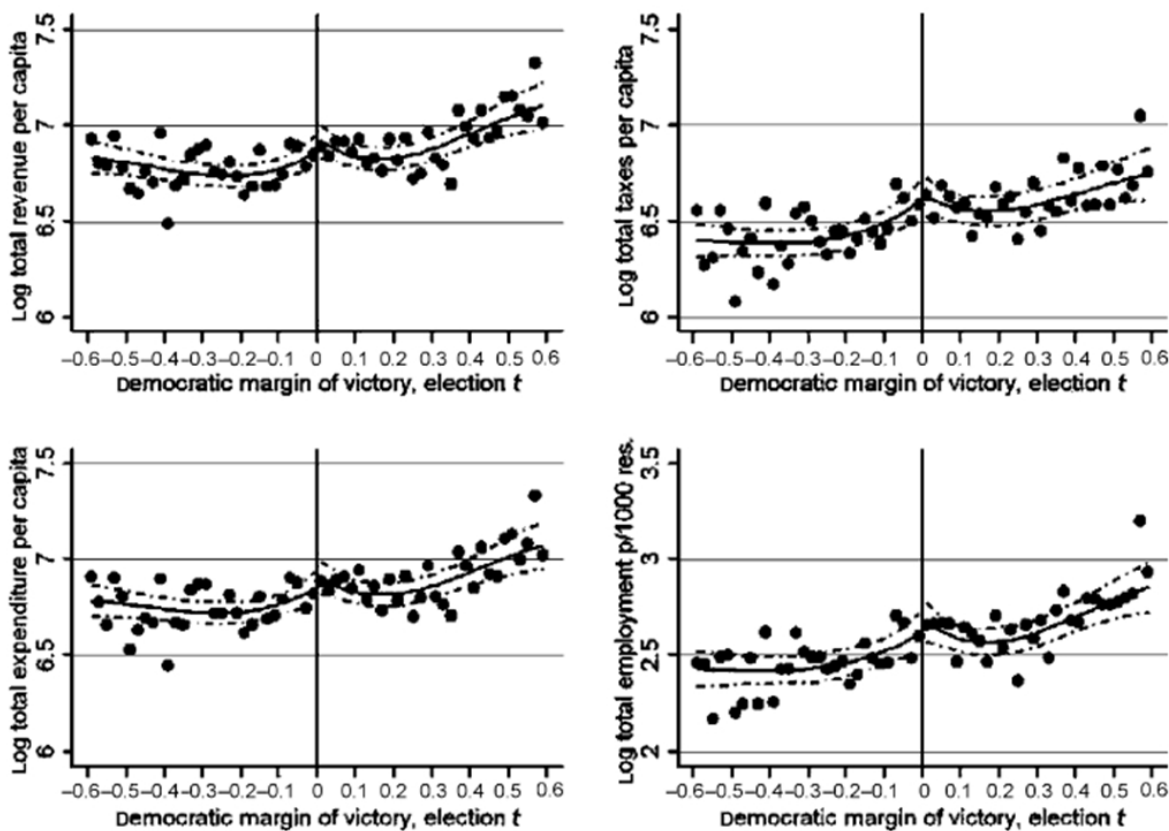
This exam question consists of 6 pages in total

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. Republican candidate Donald Trump recently won the presidential election in the United States. Many people have speculated about what this will imply for economic policy in the U.S., including the size of government and the level of redistribution.

a. The figures below are from the paper by Fernando Ferreira and Joseph Gyourko, "Do Political Parties Matter? Evidence from U.S. cities", Quarterly Journal of Economics, February 2009. Briefly explain what these graphs depict, and why they are informative about the causal impact of election outcomes (i.e. democratic vs. republican victory) in mayoral elections on the size of government in U.S. cities. What do the graphs suggest about the sign and size of this effect?

b. What can we infer from Ferreira and Gyourko's study about the likely consequences of Donald Trump's victory in the presidential election for the size of government in the United States (as compared to what would have happened if Hillary Clinton had won)? Explain your answer, and write no more than 15 lines.



Problem 2. Consider an economy in which a proportional tax on labor income is used to finance spending on some public good. Let citizens in this economy be indexed by i . Individual i 's preferences over private consumption and the public good are described by the utility function:

$$w^i = c^i - \frac{1}{2}(2 - g)^2$$

where c^i denotes private consumption for individual i , and g denotes the per capita level of spending on the public good. The budget constraint for citizen i is

$$c^i = (1 - \tau)y^i$$

where τ is the tax rate and y^i is citizen i 's income. Citizens have different levels of income. There are three equally-sized groups: Citizens in group P all have income $y^i=1$, citizens in group M have $y^i=3$, while citizens in group R have $y^i=8$.

Tax collection is costly: For each unit collected in revenue, a fraction θ must be paid in administrative costs. Thus, the government budget constraint is given by

$$g = (1 - \theta)\tau y$$

where y is the average income level for all citizens in the population.

There are two politicians who engage in Downsian electoral competition. The candidates are office-motivated and care only about winning the election. The timing is as follows: i) The two candidates announce policy platforms, ii) Voters observe the proposed policy platforms and vote for the one they like better (assume that they flip a coin if indifferent between the two proposals), iii) The elected candidate implements the announced policy.

a. Find the preferred level of public goods spending per capita, g^{*i} , for each citizen. How does g^{*i} depend on the value of θ ? Explain the intuition behind this.

b. Assume, for now, that $\theta=0$. What is the equilibrium level of per capita spending on public goods in this case? Would the answer to this question be different if we had instead assumed that politicians care about what policy they implement, but not about winning per se? Why/why not?

c. Suppose now instead that $\theta=0.5$. What is the equilibrium level of per capita spending on public goods in this case? Compare to the answer in question b and explain the difference. In the terminology used by e.g. Lee, Moretti, and Butler (2004), is this change in the equilibrium level of spending an example of voters affecting or electing policy?

Consider now a situation in which there is a large influx of new immigrants to the economy: The group of immigrants, which we can call group I , is the same size as each of the three original groups of citizens, and every member of this group has income $y^i=1$. Assume again that $\theta=0$.

d. At first, the immigrants pay taxes and enjoy public goods like everyone else in the economy, but given their recent arrival, they are not allowed to vote in the elections. Compute the equilibrium level of public goods spending in this situation and explain the difference compared to the answer in question b.

e. After some years, the immigrants are allowed to vote in the elections. Assume, for simplicity, that group P is a tiny bit larger than the other three groups, so that groups I and P together constitute a (slim) majority of the population. How does the extension of voting rights to citizens in group I affect the equilibrium level of public goods spending in this model? Briefly explain how this prediction matches with existing empirical evidence.

Problem 3. In the paper by Besley et al., “Gender Quotas and the Crisis of the Mediocre Man: Theory and Evidence from Sweden,” the authors construct a measure of political competence. To do so, they run the following Mincer regression:

$$y_{it} = f(\text{age}_{it}, \text{educ}_{it}, \text{empl}_{it}) + \alpha_m + \epsilon_{it}$$

where y_{it} is the disposable income for person i in year t , age_{it} are indicators for five-year age intervals, educ_{it} is a dummy for tertiary education or above, and empl_{it} are dummies for 13-digit industrial codes. The function f captures the fact that the estimation includes a fixed-effect for each possible interaction. α_m are municipality fixed effects.

The authors use the residuals from the regression above, ϵ_{it} , as their measure of political competence.

How is their measure of political competence different from previous studies that used income or educational attainment as a proxy for the quality of politicians? Why is the difference important? What is captured in the measure of political competence used by Besley et al.? In other words, what is the interpretation of the residuals ϵ_{it} ? Do not write more than 10 lines when answering.

Problem 4. During the Russian parliamentary elections in 1999, there was a TV channel, NTV, that supported the opposition parties. Two thirds of Russia’s population could watch NTV in 1999, and the other third of voters were living in areas where NTV was not accessible. Suppose you are interested in testing whether watching the NTV channel affected the probability of voting for one party or the other in 1999. You have access to survey data with individual voting behavior and information regarding whether the person watched NTV in 1999, as well as other control variables.

You are set to estimate the following equation:

$$vote_{ij,1999} = \beta_0 + \beta_1 WatchesNTV_{i,1999} + \beta_2 X_{i,1995} + \epsilon_i$$

where $vote_{ij,1999}$ is a dummy variable capturing whether individual i voted for party j in 1999, $WatchesNTV_{i,1999}$ is a dummy equal to 1 if individual i watched NTV during the elections in 1999, and $X_{i,1995}$ is a set of control variables.

a. Explain what the problem would be if you had to interpret β_1 as the causal effect of watching NTV on voting behavior. Use the potential outcomes model to do so.

b. Now suppose you have data on the actual availability of NTV around Russia in 1999. Availability to NTV broadcasting was determined by the location of transmitters, which were inherited from Soviet times. You are thinking of using this new variable as an instrument for $WatchesNTV_{i,1999}$ and implementing an instrumental variables approach. Explain why an IV approach might be a better research design. Two of the assumptions underlying the IV method are i) independence, and ii) the exclusion restriction. Explain what these assumptions mean both in theoretical terms and in the context of the research question described here.

c. The following table shows summary statistics for areas with and without NTV broadcasting. Does the table provide any information regarding the validity of the independence assumption discussed in the previous question? Also, explain how the table informs us about the validity of an IV method with and without controls.

Table 1. Summary statistics, socio-economic characteristics of subregions with and without NTV signal

	NTV=0			NTV=1			p-value of difference	Official Results of Elections
	Mean	St. dev.	Obs.	Mean	St. dev.	Obs.		
Socio-economic characteristics								
Population, thousands	35.68	32.98	1617	134.75	219.62	468	0.000***	
Population change	-0.28	2.27	1617	-0.33	2.64	468	0.711	
Migration rate, %	-0.06	1.26	1617	0.06	1.28	468	0.067*	
Average wage, thousands of rubles	749.53	512.32	1629	1112.10	778.16	466	0.000***	
Average pension, thousands of rubles	394.40	63.27	1486	417.78	70.54	435	0.000***	
Retired, %	25.76	10.61	1614	24.18	10.71	467	0.005***	
Unemployed, %	1.80	1.81	1617	1.77	1.62	468	0.724	
Population employed in farms, %	0.23	1.50	1617	0.31	1.87	468	0.412	
Crime rate, per 10000	163.48	223.05	1617	165.34	191.27	468	0.858	

d. Suppose you had data on voting behavior in the 1995 parliamentary elections. Also, note that in 1995 there were no significant differences between political coverage of different national TV channels. Thus, you decide to run the IV regression using voting behavior in the 1995 parliamentary elections as the dependent variable and with $WatchesNTV_{i,1999}$ as the main regressor. Explain why is it important for the credibility of this study to not find any significant effect of watching NTV in 1999 on voting behavior in 1995.

e. The paper “Media and Political Persuasion: Evidence from Russia,” by Enikolopov et al., analyzed the problem described in the previous questions. Their results show that watching NTV decreased the aggregate vote for the government party by 2.5 percentage points, and increased the combined vote for major opposition parties by 2.1 percentage points. Contrast these findings with those in Gentzkow and Shapiro “What Drives Media Slant? Evidence from US Daily Newspapers.” What is the main take-away in Gentzkow and Shapiro and how does it contrast with the results for the effects of media on Russia’s 1999 parliamentary elections?