UNIVERSITY OF OSLO
DEPARTMENT OF ECONOMICS

Exam: **ECON4640 – Political economics**

Date of exam: Friday, May 15, 2014 **Grades are given: June 6, 2014**

Time for exam: 2.30 p.m. – 5.30 p.m.

The problem set covers 5 pages (incl. cover sheet and tables)

Resources allowed:

- No resources allowed (except if you have been granted use of a dictionary from the Faculty of Social Sciences)

The grades given: A-F, with A as the best and E as the weakest passing grade. F is fail.

Part I Short questions (weight 1/3)

Answer *both* questions. Each question carry equal weight.

i) Explain how electoral uncertainty affects the composition and the size of government when different parties compete to be elected and also care of the implemented policies in an environment with public debt.

ii) Discuss the possibilities and limitations of political competition to reduce and remove rents from politics.

Part II Essay question (weight 2/3)

Answer *all* of the following questions. All questions carry the same weight.

a) Explain first why, in an heterogeneous society, parties that are both policy motivated and office-seeking may converge to the same political platform.
Then explain why, in similar environments, there may be cases where parties in equilibrium propose different platforms.

b) The first case above leads to the hypothesis that politician preferences (and hence politician identity) are irrelevant for implemented policies. Explain the challenges in testing this hypothesis empirically. Pay particular attention to why it is insufficient to compare constituencies with different politicians.
Explain some possible approaches to identifying the causal effect of politician identity on policy outcomes.

c) Irma Clots-Figueras[1] uses a regression discontinuity design to study the effect of politician gender on spending patterns on education. That is, she asks whether female politicians spend more on education than male politicians.
Explain what we mean by a regression discontinuity design and explain how it can be used to identify the causal effect of politician gender.
India has a system of plurality election where a single representative is elected from each constituency. Explain why this makes her task easier than it would have been with plurality elections.

d) The attached Tables 2 and 3 show her results. Explain what is meant by the "first stage" (Table 2), and explain why it is reasonable to use an instrumental variables approach in addition to the regression discontinuity.
Finally discuss her findings of the effect of gender on schooling outcomes.

[1] Clots-Figueras, Irma. 2012. "Are Female Leaders Good for Education? Evidence from India." *American Economic Journal: Applied Economics*, 4(1): 212-44.

TABLE 2—FIRST STAGE REGRESSIONS

Dependent variable: Fraction of constituencies in the district won by a woman	(1)	(2)	(3)
Panel A. Linear margins			
Fraction of constituencies in the district won by a woman in a close election against a man	1.0748***	1.0747***	1.0779***
	(0.0986)	(0.0987)	(0.0994)
Proportion of seats that had close elections between women and men	−0.4198***	−0.4198***	−0.4298***
	(0.0801)	(0.0801)	(0.0794)
F-statistic first stage	118.72	118.66	117.59
Observations	105,208	105,208	105,208
District-years	5,463	5,463	5,463
R^2	0.7965	0.7965	0.7972
Panel B. Second-order polynomial			
Fraction of constituencies in the district won by a woman in a close election against a man	1.0868***	1.0867***	1.0906***
	(0.0949)	(0.0949)	(0.0953)
Proportion of seats that had close elections between women and men	−0.4148***	−0.4148***	−0.4261***
	(0.0815)	(0.0815)	(0.0805)
F-statistic first stage	131.11	131.06	130.93
Observations	105,208	105,208	105,208
District-years	5,463	5,463	5,463
R^2	0.7992	0.7992	0.800
Panel C. Third-order polynomial			
Fraction of constituencies in the district won by a woman in a close election against a man	1.0645***	1.0644***	1.0680***
	(0.0928)	(0.0298)	(0.0939)
Proportion of seats that had close elections between women and men	−0.3964***	−0.3964***	−0.4068***
	(0.0803)	(0.0804)	(0.0794)
F-statistic first stage	131.5	131.44	129.57
Observations	105,208	105,208	105,208
District-years	5,463	5,463	5,463
R^2	0.8081	0.8081	0.809
District and cohort dummies	Yes	Yes	Yes
Individual controls	No	Yes	Yes
District controls	No	No	Yes

Notes: Robust standard errors clustered at the district level are reported between parentheses. Close elections are defined as those in which the winner won over the runner-up by less than 3.5 percent of votes. All controls included in the second-stage regressions are included here.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

TABLE 3— DO FEMALE POLITICIANS HAVE AN EFFECT ON EDUCATION?

Dependent variable: primary education attainment (1 = primary education or higher, 0 = otherwise)
Coefficients : Fraction of constituencies in the district won by a woman

	All	Urban	Rural	Observations		
	(1)	(2)	(3)	All	Urban	Rural
OLS regressions	0.0787	0.1040	0.0910	105,208	34,604	70,604
	(0.055)	(0.068)	(0.065)			
Individual controls	0.0821	0.1222*	0.1013			
	(0.055)	(0.068)	(0.063)			
Individual and district controls	0.0912*	0.1323*	0.1053*			
	(0.054)	(0.068)	(0.063)			
2SLS regressions: control for margins: linearly	0.0458	0.6455**	−0.1132	105,208	34,604	70,604
	(0.187)	(0.291)	(0.235)			
Individual controls	−0.0268	0.6503**	−0.1661			
	(0.180)	(0.292)	(0.219)			
Individual and district controls	0.0128	0.6236**	−0.1078			
	(0.177)	(0.304)	(0.211)			
2SLS regressions: control for margins: second order polynomial	0.0410	0.7306***	−0.1272	105,208	34,604	70,604
	(0.188)	(0.270)	(0.236)			
Individual controls	−0.0219	0.7276***	−0.1700			
	(0.179)	(0.274)	(0.220)			
Individual and district controls	0.0179	0.7095**	−0.1118			
	(0.175)	(0.291)	(0.210)			
2SLS regressions: control for margins: third order polynomial	0.0513	0.7535***	−0.1248	105,208	34,604	70,604
	(0.192)	(0.273)	(0.243)			
Individual controls	−0.0099	0.7397***	−0.1682			
	(0.184)	(0.278)	(0.227)			
Individual and district controls	0.0298	0.7284**	−0.1098			
	(0.180)	(0.295)	(0.217)			
2SLS regressions: dropping outliers Control for margins: linearly	0.0564	0.7479**	−0.1208	104,214	34,144	70,070
	(0.205)	(0.320)	(0.255)			
Individual controls	−0.0207	0.7624**	−0.1883			
	(0.195)	(0.319)	(0.234)			
Individual and district controls	0.0198	0.7370**	−0.1245			
	(0.193)	(0.336)	(0.228)			
2SLS regressions: dropping outliers Control for margins: second order polynomial	0.0498	0.8241***	−0.1378	104,214	34,144	70,070
	(0.207)	(0.299)	(0.257)			
Individual controls	−0.0228	0.8227***	−0.1970			
	(0.196)	(0.303)	(0.236)			
Individual and district controls	0.0194	0.8053**	−0.1319			
	(0.193)	(0.324)	(0.228)			
2SLS regressions: dropping outliers Control for margins: third order polynomial	0.0625	0.8532***	−0.1361	104,214	34,144	70,070
	(0.212)	(0.304)	(0.265)			
Individual controls	−0.0075	0.8365***	−0.1954			
	(0.202)	(0.310)	(0.244)			
Individual and district controls	0.0354	0.8282**	−0.1289			
	(0.198)	(0.331)	(0.235)			
2SLS regressions: restricting to districts with at least one election w–m Control for margins: linearly	−0.1899	0.8977***	−0.4391	55,002	20,007	34,995
	(0.240)	(0.345)	(0.339)			
Individual controls	−0.2189	0.8828**	−0.4353			
	(0.214)	(0.350)	(0.295)			
Individual and district controls	−0.1855	0.8940**	−0.3883			
	(0.207)	(0.377)	(0.283)			

(*Continued*)

TABLE 3— DO FEMALE POLITICIANS HAVE AN EFFECT ON EDUCATION? (*Continued*)

Dependent variable: primary education attainment (1 = primary education or higher, 0 = otherwise)
Coefficients : Fraction of constituencies in the district won by a woman

	All	Urban	Rural	Observations		
	(1)	(2)	(3)	All	Urban	Rural
2SLS regressions: restricting to districts with at least one election w-m Control for margins: second order polynomial	−0.2025 (0.244)	1.0087*** (0.325)	−0.4672 (0.341)	55,002	20,007	34,995
Individual controls	−0.2181 (0.217)	0.9846*** (0.337)	−0.4501 (0.297)			
Individual and district controls	−0.1838 (0.208)	1.0102*** (0.366)	−0.4016 (0.283)			
2SLS regressions: restricting to districts with at least one election w-m Control for margins: third order polynomial	−0.1900 (0.249)	1.0117*** (0.327)	−0.4670 (0.353)	55,002	20,007	34,995
Individual controls	−0.2019 (0.224)	0.9757*** (0.342)	−0.4472 (0.310)			
Individual and district controls	−0.1662 (0.214)	1.0093*** (0.373)	−0.3977 (0.295)			
2SLS regressions: restricting to districts with at least one election w-m 3.5 percent Control for margins: linearly	−0.3042 (0.317)	0.9492* (0.567)	−0.5826 (0.389)	12,761	4,766	7,995
Individual controls	−0.2955 (0.287)	1.0569* (0.556)	−0.5747 (0.348)			
Individual and district controls	−0.2040 (0.301)	0.8407 (0.597)	−0.3884 (0.374)			
2SLS regressions: restricting to districts with at least one election w-m 3.5 percent Control for margins: second order polynomial	−0.2107 (0.289)	0.9203 (0.567)	−0.4644 (0.378)	12,761	4,766	7,995
Individual controls	−0.1945 (0.252)	0.9735* (0.554)	−0.4278 (0.329)			
Individual and district controls	−0.1360 (0.267)	0.7069 (0.591)	−0.2757 (0.353)			
2SLS regressions: restricting to districts with at least one election w–m 3.5 percent Control for margins: third order polynomial	−0.2365 (0.287)	0.8706 (0.559)	−0.4503 (0.375)	12,761	4,766	7,995
Individual controls	−0.2084 (0.254)	0.8970 (0.542)	−0.4158 (0.324)			
Individual and district controls	−0.1163 (0.273)	0.5951 (0.598)	−0.2182 (0.355)			

Notes: Robust standard errors clustered at the district level are reported between parentheses. Close elections are defined as those in which the winner won over the runner-up by less than 3.5 percent of votes. Regressions include district and cohort fixed effects. District controls include the fraction of urban, SC/ST, and female population, and male and female literacy rate. Individual controls include dummy variables for whether the individual is a woman, Muslim, Hindu, SC/ST, or lives in a rural area in regressions where the whole sample is used. All these regressions also include as a control the fraction of constituencies in the district that had close elections between women and men. Weighted with NSS weights.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.