UNIVERSITY OF OSLO
DEPARTMENT OF ECONOMICS

Exam: **ECON4921 – Institutions and Economic Systems**

Date of exam: Thursday, November 19, 2015 **Grades are given: December 11, 2015**

Time for exam: 09.00 a.m. – 12.00 noon

The problem set covers 2 pages

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.

I. Short questions (weight 1/3)

Answer each of the following questions. Each question carries equal weight.

1) Sánchez de la Sierra[1] (2015) argues that the settling of stationary bandits, a primitive form of state creation, is more likely where efficient taxation is possible. Explain briefly how he tests this hypothesis and what he finds.
2) Explain why democratization is more likely with a relatively weak labor movement according to Acemoglu and Robinson's[2] (2000) theory of extension of the franchise. Discuss briefly the empirical validity if this claim.

II. Long question (weight 2/3)

Answer each of the following questions. Each question carries equal weight.

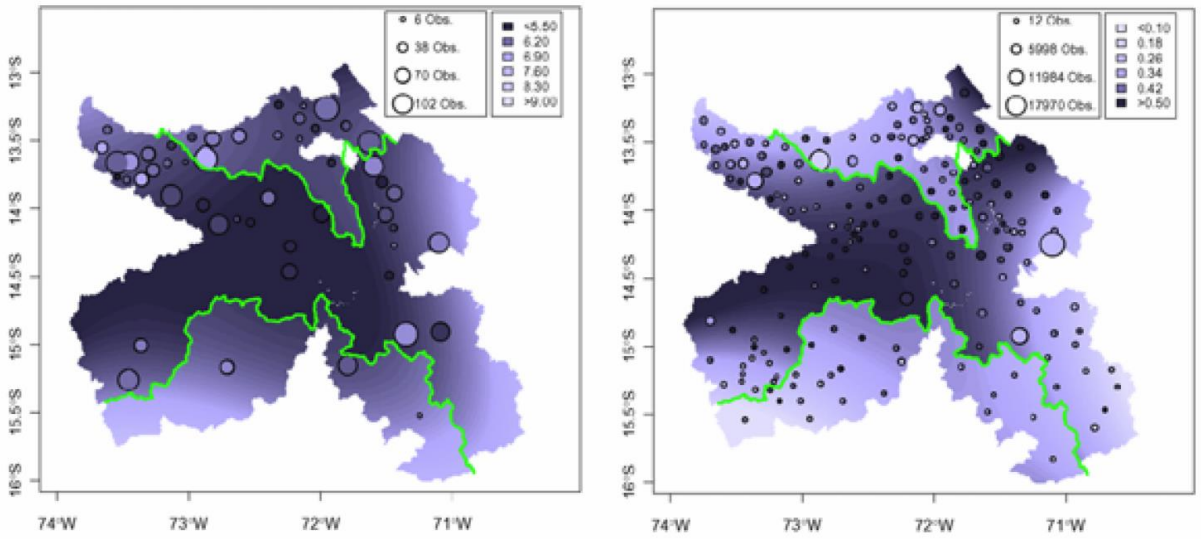
1) Explain why institutions may matter for economic performance and growth.
2) What are the difficulties in demonstrating a causal empirical effect of institutions on economic performance? Explain how Acemoglu, Johnson, and Robinson[3] (2001) solve these problems.
3) The approach taken by Acemoglu, Johnson, and Robinson (2001) relies on institutions being persistent. Explain how Dell[4] (2010) tests the persistence hypothesis using the so-called "Mining Mita" in Peru. Pay particular attention to her empirical identification strategy.
4) The Figure below, parts of Figure 2 in the paper, shows the effect of the Mita on household income levels. How we should read the figure? Do the figures indicate that the hypothesis of institutional persistence is true? You may also rely on the attached Table II from her paper.

[1] Sanchez de la Sierra, Raul: "On the Origins of the State: Stationary Bandits and Taxation in Eastern Congo", mimeo (2015).

[2] Acemoglu, D. and J.A. Robinson: "Why did the West extend the franchise? Democracy, inequality and growth in historical perspective", *Quarterly Journal of Economics* 115 (2001).

[3] Acemoglu, D., S. Johnson and J.A. Robinson: "The Colonial Origins of Comparative Development: an Empirical Investigation", *American Economic Review,* 91 (2001).

[4] Dell, Melissa. "The persistent effects of Peru's mining Mita". *Econometrica* 78 (2010).



(a) Consumption (2001) (b) Stunting (2005)

TABLE II

LIVING STANDARDS[a]

	Dependent Variable						
	Log Equiv. Household Consumption (2001)			Stunted Growth, Children 6–9 (2005)			
Sample Within:	<100 km of Bound. (1)	<75 km of Bound. (2)	<50 km of Bound. (3)	<100 km of Bound. (4)	<75 km of Bound. (5)	<50 km of Bound. (6)	Border District (7)
			Panel A. Cubic Polynomial in Latitude and Longitude				
Mita	−0.284	−0.216	−0.331	0.070	0.084*	0.087*	0.114**
	(0.198)	(0.207)	(0.219)	(0.043)	(0.046)	(0.048)	(0.049)
R^2	0.060	0.060	0.069	0.051	0.020	0.017	0.050
			Panel B. Cubic Polynomial in Distance to Potosí				
Mita	−0.337***	−0.307***	−0.329***	0.080***	0.078***	0.078***	0.063*
	(0.087)	(0.101)	(0.096)	(0.021)	(0.022)	(0.024)	(0.032)
R^2	0.046	0.036	0.047	0.049	0.017	0.013	0.047
			Panel C. Cubic Polynomial in Distance to *Mita* Boundary				
Mita	−0.277***	−0.230**	−0.224**	0.073***	0.061***	0.064***	0.055*
	(0.078)	(0.089)	(0.092)	(0.023)	(0.022)	(0.023)	(0.030)
R^2	0.044	0.042	0.040	0.040	0.015	0.013	0.043
Geo. controls	yes	yes	yes	yes	yes	yes	yes
Boundary F.E.s	yes	yes	yes	yes	yes	yes	yes
Clusters	71	60	52	289	239	185	63
Observations	1478	1161	1013	158,848	115,761	100,446	37,421

[a]The unit of observation is the household in columns 1–3 and the individual in columns 4–7. Robust standard errors, adjusted for clustering by district, are in parentheses. The dependent variable is log equivalent household consumption (ENAHO (2001)) in columns 1–3, and a dummy equal to 1 if the child has stunted growth and equal to 0 otherwise in columns 4–7 (Ministro de Educación (2005a)). *Mita* is an indicator equal to 1 if the household's district contributed to the *mita* and equal to 0 otherwise (Saignes (1984), Amat y Juniet (1947, pp. 249, 284)). Panel A includes a cubic polynomial in the latitude and longitude of the observation's district capital, panel B includes a cubic polynomial in Euclidean distance from the observation's district capital to Potosí, and panel C includes a cubic polynomial in Euclidean distance to the nearest point on the *mita* boundary. All regressions include controls for elevation and slope, as well as boundary segment fixed effects (F.E.s). Columns 1–3 include demographic controls for the number of infants, children, and adults in the household. In columns 1 and 4, the sample includes observations whose district capitals are located within 100 km of the *mita* boundary, and this threshold is reduced to 75 and 50 km in the succeeding columns. Column 7 includes only observations whose districts border the *mita* boundary. 78% of the observations are in *mita* districts in column 1, 71% in column 2, 68% in column 3, 78% in column 4, 71% in column 5, 68% in column 6, and 58% in column 7. Coefficients that are significantly different from zero are denoted by the following system: *10%, **5%, and ***1%.