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# **Advanced Development Economics**

Winter Term 2010/11

Exam 90 min.

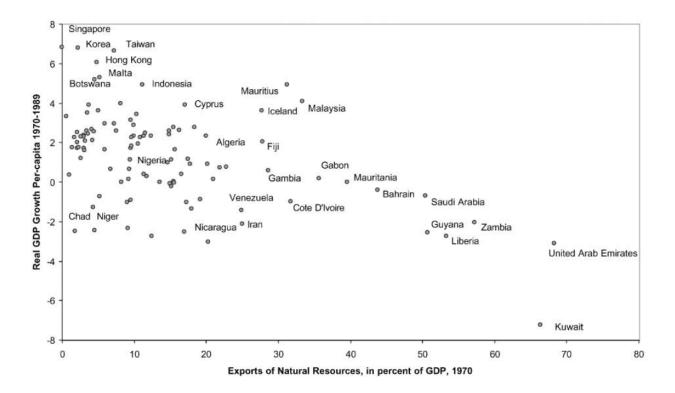
Part I: Answer all short questions (30 min). Each question carries the same weight.

- 1) Briefly discuss the most important advantages and disadvantages of the capability approach to measure development.
- 2) Briefly discuss the mechanisms how a reduction in income inequality can help reduce absolute income poverty.
- 3) Briefly compare experimental and survey data and discuss the advantages and disadvantages of the source of data to test theories and draw policy conclusions.
- 4) Briefly discuss the channels by which natural resource wealth can affect the risk of civil war and other types of conflict.
- 5) Briefly discuss how geography might affect differences in per capita GDP across countries today according to the "institutions hypothesis."

Part II: Choose two questions from different lecturers (30 minutes each).

### Dreher:

1) The Figure shows a negative relationship between exports of natural resources and real GDP per capita growth. Does the negative relationship imply that natural resource abundance reduces growth? How should this question best be addressed empirically? Among others, discuss the relevant covariates, method of estimation, time structure, and the measurement of resource abundance.



Source: Sachs and Warner (2001)

2) Does development aid increase economic growth? Provide a detailed evaluation of the empirical evidence. Does the effect of aid depend on the type of aid or donor- and/or recipient-characteristics? How do you think this question should be addressed empirically? Compare the benefits and drawbacks of your suggestions with existing approaches.

#### Ibanez:

- 3) Give an example on how experimental economics can be used to understand the use of common pool resources. Compare the predictions of the theoretical model with the evidence in the field and in the lab. Discuss the factors that have been identified to prevent the tragedy of commons. Explain the experimental designs that have been used to test the effect of those factors.
- 4) Social networks have been found to be important in protecting poor households against shocks. Discuss how social networks can help household to cope with risk. Contrast the predictions of the risk sharing model with the empirical evidence. Discuss the advantages and disadvantages of social networks as a risk coping mechanism.

#### Klasen:

- 5) Carefully discuss theoretical mechanisms how initial inequality can reduce subsequent growth. Carefully spell out under what conditions this can reproduce inequality and thus generate a stable negative impact. Briefly discuss the relevance of the findings with reference to the empirical literature on inequality and growth. Discuss any possible policy implications arising from these findings.
- 6) Carefully discuss the attached regression tables on the impact of gender inequality in education and employment on economic growth. What do the tables say about the mechanisms and pathways of these effects? Critically evaluate the findings (also pointing to possible econometric weaknesses of the analysis) and discuss possible policy implications than may arise from these findings.

Table 3 Gender inequality in education and economic growth

Dependent variable	Growth $(1)$	INV (2)	POPGRO (3)	<i>LFG</i> (4)	Growth (5)	$Growth$ $(6)^+$	$Growth \ (7)^+$
LOGGDP60	-2.27***	-3.51	-0.18	-0.21	-2.47***	-2.29***	-2.52***
	0.50	3.1	0.34	0.36	0.63	0.52	0.65
<b>POPGRO</b>	-2.80***	0.91				-2.79***	
	0.53	2.25				0.53	
LFG	2.33***	0.04				2.32***	
	0.47	2.10				0.47	
OPEN	-0.001	0.041**	-0.003	-0.002	0.005*	-0.0005	0.006*
	0.003	0.02	0.002	0.002	0.004	0.003	0.004
INV	0.06***					0.06***	
	0.02					0.02	
RED60	0.68	5.84**	-0.4	-0.17	1.75**	0.76	1.72**
	0.85	3.08	0.32	0.33	0.89	0.89	0.91
ED60	0.01	0.92**	-0.02	0.01	0.16**	0	0.13*
	0.07	0.44	0.05	0.06	0.09	0.08	0.10
GED	10.42***	35.42	-1.01	0.85	17.33***	10.59***	18.31***
	4.35	28.95	1.94	2.14	4.46	4.78	4.86
RGED	0.70***	2.07	0.001	0.05	0.95***	0.47**	0.62**
	0.29	2.19	0.25	0.25	0.37	0.25	0.34
SA	-0.07	-3.58	-0.17	-0.46**	-0.90*	-0.02	-0.85*
	0.59	3.07	0.24	0.24	0.64	0.61	0.65
SSA	-0.83*	-6.92***	0.40**	-0.06	-2.49***	-0.81*	-2.47***
	0.57	2.76	0.22	0.22	0.70	0.58	0.71
ECA	-0.1	3.57	-0.91**	-1.32***	-0.46	-0.1	-0.46
	0.63	2.80	0.41	0.54	0.87	0.63	0.88
LAC	-0.87*	-4.87**	0.08	-0.17	-1.79***	-0.87*	-1.81***
	0.56	2.73	0.28	0.27	0.74	0.56	0.74
MENA	-0.17	-3.77	0.72**	0.48	-1.26**	-0.12	-1.24**
	0.53	3.77	0.42	0.41	0.66	0.52	0.65
OECD	0.47	4.81*	-1.07***	-1.64***	-0.12	0.55	0.01
	0.60	3.04	0.37	0.38	0.83	0.60	0.82
CONSTANT	7.35***	13.65	3.26***	3.39***	7.16***	7.65***	7.73***
	1.84	11.80	1.06	1.11	2.10	1.85	2.14
ADJ R2	0.76	0.66	0.64	0.62	0.63	0.76	0.64
OV Test	passed	passed	failed	passed	passed	passed	passed
OBS	93	93	93	93	93	93	93

*Notes:* Heteroscedasticity-adjusted standard errors reported under the coefficients. \*\*\* Refers to 1 percent, \*\* to 5 percent, and \* to 10 percent significance level using a one-tail test. <sup>+</sup> indicates regression with total education instead of male education only. OV test refers to the Ramsey Reset test for omitted variables.

Table 5 Gender inequality and economic growth

	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
LOGGDP	-5.54***	-7.82***	-10.37***	-6.08***	-10.81***	-6.99***	-6.14***	-8.48***	-11.09***
	1.42	1.33	1.31	1.43	1.32	1.28	1.48	1.41	1.28
POPGRO	-0.57*	-0.44	-0.22	-0.47	-0.23	-0.47*	-0.59*	-0.45	-0.20
	0.42	0.35	0.40	0.40	0.39	0.37	0.42	0.37	0.39
LFG	0.31	0.46*	0.32	0.38	0.34	0.48*	0.45*	0.54**	0.29
	0.27	0.31	0.40	0.31	0.40	0.30	0.31	0.31	0.37
FLFT	_	_	-	7.86**	4.17	_	_	_	_
	_	_	_	3.49	3.36	_	-	_	_
OPEN	0.002	0.005	0.006	0.000	0.006	0.001	0.001	0.003	0.007
	0.004	0.005	0.008	0.005	0.007	0.005	0.004	0.005	0.007
INV	0.09***	0.10***	0.13***	0.10***	0.14***	0.12***	0.10***	0.10***	0.14***
	0.03	0.03	0.02	0.03	0.02	0.03	0.03	0.03	0.02
OED25+	0.00	0.08	_	0.00	_	_	0.00	0.05	_
	0.16	0.17	_	0.16	-	-	0.16	0.16	_
ORED25+	0.43	2.30**	-	1.01	i —	i —	1.14	3.09**	e=.
	1.45	1.28	_	1.43	-	_	1.51	1.41	_
YED15+	_	_	0.31**	-	0.31***	=	_	-	0.29***
		-	0.13	-	0.12	-	-	-	0.12
YRED15+	_	_	3.33**	_	3.66**	_	_	_	4.42***
	_	_	1.65	_	1.70	_	-	_	1.76
RACT	_	_	-	_	1-	5.41***	3.72**	2.97**	1.93*
	_	-	-	_	-	1.48	1.51	1.37	1.49
MACT	-	-	-	_	-	-0.70	3.85	-0.91	-6.60
	-	_		-	-	6.69	6.90	7.03	5.73

Table 5 (Continued)

	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1960S	0.12	-0.65	-1.32***	0.59	-0.97*	0.61	0.40	-0.21	-0.49
	0.57	0.59	0.51	0.61	0.59	0.58	0.70	0.76	0.74
1970S	0.04	-0.52	-1.04***	0.37	-0.80**	0.30	0.28	-0.18	-0.47
	0.38	0.41	0.38	0.41	0.44	0.37	0.46	0.51	0.54
1980S	-0.60**	-1.07***	-0.62***	-0.44*	-0.52**	-0.31	-0.46	-0.86***	-0.33
	0.26	0.29	0.25	0.27	0.26	0.26	0.29	0.33	0.30
Constant	20.20***	26.79***	34.93***	18.53***	34.58***	21.45***	16.04**	27.53***	40.98***
	4.87	4.78	4.73	4.89	4.55	7.80	8.03	7.51	6.32
R2	0.32	0.43	0.60	0.34	0.61	0.36	0.34	0.44	0.62
OBS	341	296	143	341	307	441	341	296	143

Notes: Heteroscedasticity-adjusted standard errors reported under the coefficient. \*\*\* Refers to 1 percent, \*\* to 5 percent, and \* to 10 percent significance level using a one-tail test. In regressions 9 and 15, the sample excludes Sub-Saharan Africa and Latin America for the 1990s. In regressions 10, 12, and 16, only the OECD, East Asian, and South Asian countries are included.

## Explanation of Variables:

LOGGDP: Log of GDP

INV: investment/GDP ratio POPGRO: Population growth LFG: Labor force growth

OPEN: X+M/GDP

RED: Ratio of female to male years of schooling (ORED: of adults 25+, YRED of people 15+)

ED: total years of male schooling (OED: of adults 25+, YED of people 15+)

FLFT: Female labor force participation rate

MACT: Male activitiy rate

RACT: Female/male ratio of activity rates

Please note that in Table 3 the regression are based on a single cross-section with variables averaged for the time period 1960-2000; the regressions in Table 5 are based on a 10-yr- panel, where the regressors always refer to the values at the start of the decade.