

i Instructions

Department of Economics

Examination paper for SØK2007 Development Economics

Examination date: 23.05.2024

Examination time (from-to): 09:00 – 13:00

Permitted examination support material: C

Mathematical manuals:

Knut Sydsæter, Arne Strøm og Peter Berck (2006) Matematisk formelsamling for økonomer, 4utg. Gyldendal akademiske.

Knut Sydsæter, Arne Strøm, og Peter Berck(2005): Economists' mathematical manual, Berlin.

Approved calculator:

- Casio FX-82CW, Casio FC100 V2, Casio fx-82ES PLUS og Casio fx-82EX
- Citizen SR-270X og Citizen SR-270X College
- Hewlett Packard HP30S

Academic contact during examination: Gustav Agneman

Phone: +46 79 358 79 08

Academic contact present at the exam location: NO

OTHER INFORMATION

Get an overview of the question set before you start answering the questions.

Read the questions carefully and make your own assumptions. If a question is unclear/vague, make your own assumptions and specify them in your answer. The academic person is only contacted in case of errors or insufficiencies in the question set. Address an invigilator if you suspect errors or insufficiencies. Write down the question in advance.

Hand drawings/tablet*: The questions can be answered directly in Inspira and/or on handwritten sheets or tablet.

***Hand drawings:** At the bottom of the question you will find a seven-digit code. Fill in this code in the top left corner of the sheets you wish to submit. We recommend that you do this during the exam. If you require access to the codes after the examination time ends, click "Show submission".

***Tablet:** Save the file on your computer and upload the file in the file-upload task at the end of the exam.

File upload: 15 minutes are added for file upload. The time is included in the time shown at the top left of the test, and the time is reserved for file upload.

Weighting: *Stated in the exam*

Notifications: If there is a need to send a message to the candidates during the exam (e.g. if there is an error in the question set), this will be done by sending a notification in Inspira. A dialogue box will appear. You can re-read the notification by clicking the bell icon in the top right-hand corner of the screen.

Withdrawing from the exam: If you become ill or wish to submit a blank test/withdraw from the exam for another reason, go to the menu in the top right-hand corner and click "Submit blank". This cannot be undone, even if the test is still open.

Access to your answers: After the exam, you can find your answers in the archive in Inspira. Be aware that it may take a working day until any hand-written material is available in the archive.

i Part A instructions

In this multiple choice section, only one alternative to each question is correct. Each correct answer is worth 3 marks.

1 A1

According to the Kuznets Hypothesis, how does inequality relate to economic development?

- As countries develop, within-country inequality tends first to increase, then to decrease
- As countries develop, within-country inequality tends first to decrease, then to increase
- As countries develop, within-country inequality tends to decrease linearly
- As countries develop, within-country inequality tends to increase linearly

Maks poeng: 1

2 A2

Under the World Trade Organization regulation, the Most Favored Nation Clause:

- Mandates that member countries must prioritize domestic products over imported goods to protect their domestic economies
- Allows countries to retaliate in case another country increases tariffs on their exports
- Requires countries that provide trade concessions to one trading partner to extend the same treatment to all
- Enables member countries to negotiate exclusive trading rights with other members

Maks poeng: 3

3 A3

Which of the following statements about geography and economic outcomes does not align with empirical evidence?

- The effect of temperature anomalies (deviations from average temperature) on agricultural output tends to be linear with respect to temperature anomalies
- Landlocked countries tend to face higher transportation costs
- Marcella Alsan (2015) finds that areas in Sub-Saharan Africa with more Tse Tse flies tend to have lower levels of economic development
- Most of the world's population lives in the northern hemisphere (north of the equator)

Maks poeng: 1

4 **A4**

Age group	People	Fertility rate	Mortality rate
0-20	40	0	0
20-40	40	4	0
40-60	20	0	1

Table 1: Population profile

Consider a country with the above population profile. What is the total population after 20 years (1 period), given that the gender ratio is 0.5? Note that fertility rate only refers to women and that no one lives after the age of 60.

- 140
- 160
- 180
- 120

Maks poeng: 1

5 **A5**

Two countries, Country A and Country B, are in a conflict over land worth 100. Assume the following:

- Both incur a cost of 20 in case of war and both are risk neutral
- Country A has 80% chance and Country B 20% chance of winning the war
- The country that wins gets the value of the land minus the costs of war
- The country that loses gets no land and still pays the costs of war

What is the bargaining range for possible peace deals?

- [80,20] - [40,60]
- [70,30] - [30,70]
- [100,0] - [60,40]
- [60,40] - [40,60]

The numbers in square brackets represent the bargaining range for the possible peace deals between Country A and Country B, where the first number of each bracket indicates the value that Country A would receive from the peace deal, and the second number indicates the value that Country B would receive from the peace deal. Remember that the expected value of a specific scenario is calculated as $ExpectedValue = ValueScenario \times ProbabilityScenario$

Maks poeng: 1

6 **A6**

Consider the regression table above. What is the association between traditional plow use and female labor force participation, when country fixed effects are included?

- Negative and statistically significant
- Positive and statistically insignificant
- Positive and statistically significant
- Negative and statistically insignificant

Maks poeng: 1

i Part B instructions

In this part, you should provide short and concise answers. Most of the questions require no more than a few sentences. You will be graded on the accuracy of the answers only, and the maximum number of marks per question is 15.

7 B1

Consider the following Neoclassical (Solow) Growth Model.

Production function:

$$Y = A \cdot K^\alpha \cdot L^{1-\alpha}$$

Per worker output:

$$y = A \cdot k^\alpha$$

Per worker savings:

$$S = s \cdot y$$

Per worker capital depreciation:

$$D = \delta \cdot k$$

where Y is total output, A is total factor productivity (technology), K is the stock of capital, L is the labor force, $0 < \alpha < 1$, k is the capital intensity, s is the savings rate (fraction of per worker output that is saved), and δ is the depreciation rate (the fraction of capital that becomes obsolete)

(a) From the production function, mathematically derive the marginal productivity of capital and explain the intuition behind why there are diminishing marginal returns to capital. (33%)

(b) What happens to the marginal productivity of capital if, all else equal, (a) the level of A (technology) increases and (b) the size of L (the labor force) decreases? Briefly explain in words why this happens. (33%)

(c) Graphically illustrate the steady state with per worker output on the y-axis and capital intensity (k) on the x-axis. Include the functions for y , S , and D . (33%)

Skriv ditt svar her

Format
|
B
I
U
 x_2
 x^2
 I_x
|
📄
📂
|
↶
↷
🔄
|
☰
☱
☲
☳
|

☰
☱
☲
☳
|
Ω
📊
|
✎
|
Σ
|
✖

Words: 0

8 B2











There are different land-tenure agreements across the globe. Provide a concise explanation of fixed rental contracts and sharecropping agreements. (33%)










Then outline how each of these systems influences tenants'

(a) incentives to maximize effort (33%)

(b) risk profiles (33%)

Skriv ditt svar her

Format | **B** | *I* | U | x_2 | x^2 | \int_x |  |  |  |  |  |  |  |  |  | 

 |  |  |  |  |  |  |  | 

Words: 0

9 B3

Asymmetric information can reduce incentives for buyers and sellers to engage in transactions, thereby limiting economic activity. Briefly explain why this happens by discussing adverse selection OR moral hazard. (33%)

Why is asymmetric information a bigger problem in developing countries compared to advanced economies? (33%)

Name at least one formal mechanism and one informal mechanism that can reduce issues related to asymmetric information. (33%)

Skriv ditt svar her

Format | **B** | *I* | U | x_2 | x^2 | I_x | | | | | | | | |

| | | | | | |

Words: 0

Maks poeng: 15

i Part C instructions

In this part, you should choose only two of the three questions. Please indicate clearly which ones you choose to respond to. The nature of these questions is more open. You will be assessed on the coherence of your argument and on how well you draw from the course material to motivate your answers. The maximum number of marks per question is 20.

10 C1










What are the main deep determinants of economic development?










In what sense are they "deep"? Discuss the relationship between deep and proximate determinants of economic development.

Additionally, pick two deep determinants and discuss the interrelationship between them, i.e., how they causally relate to each other.

Finally, based on a framework of deep determinants, what are (a) the main explanations of cross-country differences in economic prosperity today and (b) some predictions of the growth prospects for poor countries in the future? Motivate your answers.

Skriv ditt svar her

Format ▾ | **B** | *I* | U | x_2 | x^2 | I_x |  |  |  |  |  |  |  |  |  |

 |  |  |  |  |  |  |  |  |

Words: 0

Maks poeng: 10

11 C2

Country	Grain	Cars
North	80	6
South	40	1

Table 2: Output per hours worked

Explain trade patterns between the Global South and the Global North based on the Theory of Comparative Advantage. Illustrate your argument by considering a simple case of two countries and two sectors (table above).

Discuss production specialization in the light of relative factor endowments, opportunity costs, and transportation costs. Finally, discuss advantages and disadvantages of production specialization and the role of different development strategies in shaping the production composition. Why might countries want to diversify their production composition beyond primary commodities even when they have a comparative advantage in primary commodity production?

Skriv ditt svar her

Format
|
B
I
U
 x_2
 x^2
 I_x
|
📄
📄
|
↶
↷
↺
|
☰
☰
☰
☰
|
Ω
📊
|
✎
|
Σ
|
✖

Maks poeng: 10

















12 C3

Empirical research in development economics has undergone a revolution over the past decades, a so-called "credibility revolution". The methodological toolbox has expanded and allowed development economists to make more credible claims of causality in their research. Pick one method that has been covered in this course and describe its underlying principle(s) in words. If you want to, you can draw from a specific research project covered in the course to exemplify the use of the methodology.

How does the methodology allow researchers to make claims about causal effects? Describe a key assumption that is made to support a causal interpretation.

Finally, critically discuss the advantages and disadvantages of a very strong emphasis on causal inference in development economics.

Skriv ditt svar her

Format | **B** | *I* | U | x_2 | x^2 | I_x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 

Words: 0

Maks poeng: 10


13 File upload

Upload your power point or other files here.



Upload here. Maximum one file. Last opp filen her. Maks én fil.

Alle filtyper er tillatt. Maksimal filstørrelse er **50 GB**.

 Velg fil for opplasting

Maks poeng: 10

Question 6
Attached



Table: Individual-level OLS estimates: World Values Surveys.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Dependent variable:											
	Female labor force participation, 1995-2007	When jobs are scarce, 1995-2007	Men better political leaders, 1995-2007	Female labor force participation, 1995-2007	When jobs are scarce, 1995-2007	Men better political leaders, 1995-2007	Female labor force participation, 1995-2007	When jobs are scarce, 1995-2007	Men better political leaders, 1995-2007	Female labor force participation, 1995-2007	When jobs are scarce, 1995-2007	Men better political leaders, 1995-2007
	All countries			All countries			Countries with subnational variation only (s.d. greater than zero)			Countries with subnational variation only (s.d. greater than 0.10)		
Mean of dep. var.	0.55	0.46	2.62	0.55	0.46	2.64	0.50	0.56	2.79	0.54	0.57	2.78
Traditional plough use	-0.177*** (0.035)	0.193*** (0.033)	0.224*** (0.069)	-0.002 (0.031)	0.100* (0.059)	0.304*** (0.117)	-0.011 (0.032)	0.127** (0.062)	0.290*** (0.111)	-0.031 (0.036)	0.159** (0.069)	0.356*** (0.117)
Individual & district controls	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Contemporary country controls	yes	yes	yes	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Fixed effects	continent	continent	continent	country	country	country	country	country	country	country	country	country
Number of countries	73	74	50	78	79	55	32	31	26	18	18	16
Number of districts	672	674	453	698	700	479	323	317	265	180	180	163
Observations	43,801	80,303	64,215	47,587	87,528	72,152	23,892	42,930	40,201	12,550	23,492	23,513
Adjusted R-squared	0.17	0.21	0.19	0.27	0.28	0.26	0.29	0.26	0.28	0.19	0.17	0.17
R-squared	0.17	0.21	0.19	0.27	0.28	0.26	0.29	0.26	0.28	0.19	0.17	0.17

Notes: The table reports OLS estimates, with standard errors clustered at the district level. The unit of observation is an individual. In columns 1, 4, and 7 the sample only includes women and the dependent variable is an indicator variable that equals one if she is in the labor force. The estimates in columns 2, 3, 5, 6, 8, and 9 include men and women. The dependent variables measure a respondent's self-report attitudes regarding gender roles. A higher value indicates beliefs about greater inequality between men and women. "When jobs are scarce" takes on the value of zero or one while "men better political leaders" takes on the values of 1, 2, 3, or 4. "Individual controls" are: age, age squared, dummies for primary and secondary education (the excluded group is tertiary education), gender (for gender-attitude dependent variables only) and an indicator variable for marital status. "District controls" include district level measures of: ancestral suitability for agriculture, fraction of ancestral land that was tropical or subtropical, ancestral domestication of large animals, ancestral settlement patterns, and ancestral political complexity. "Contemporary country controls" include: the natural log of real per capita GDP, and its square, measured in the same year as the dependent variable. Columns 1-6 report estimates including all countries in the sample, while columns 7-9 only include countries with subnational variation in traditional plough use. Columns 10-12 only include countries with significant subnational variation, defined as standard deviation in traditional plough use being greater than 0.1. ***, ** and * indicate significance at the 1, 5 and 10% levels.