

Written Exam at the Department of Economics winter 2017

Development Economics

Final Exam

29. May, 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 2 pages in total

Please answer ALL questions (A, B and C)

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 A

Please provide short answers to the following questions and statements:

- 1) Please explain what knowledge about poverty we gain from looking at the poverty severity index in addition to the poverty gap index and the poverty headcount index.
- 2) Consider Figure 4 and Figure 5 in Jerzmanowski (2007) [Given below]. Please explain why it may be problematic for developing countries that the technology frontier $T(K/H)$ as estimated by Jerzmanowski is only increasing for fairly high levels of the physical capital to human capital ratio.

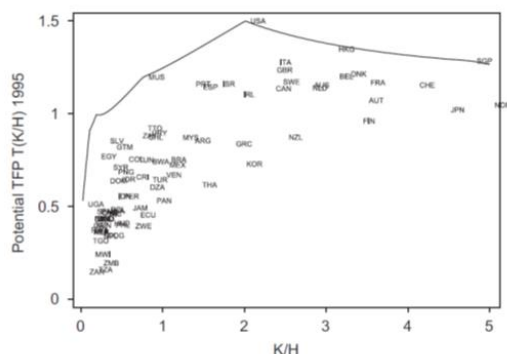


Fig. 4. Technology frontier: 1995.

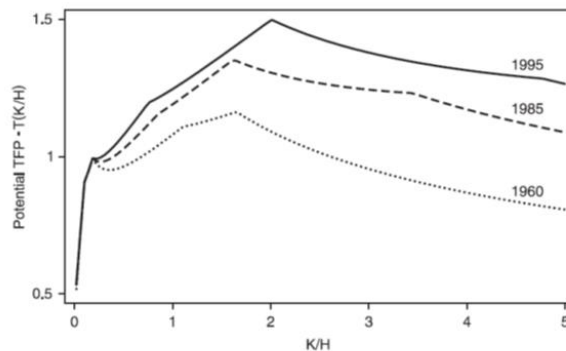


Fig. 5. Shifts of the technology frontier $T(k/h)$ 1960–1995.

- 3) What are the possible channels through which growth reduces fertility?
- 4) Consider a Solow model with population growth (cf Weil ch. 4). Assume that population can grow at two different rates n_1 and n_2 , where $n_1 > n_2$. The population growth rate depends on output per capita (and therefore on the level of capital per capita). Specifically, population grows at rate n_1 if $k < \bar{k}$ and slows down to rate n_2 when $k \geq \bar{k}$. Suppose the steady state associated with n_1 is denoted k^* and that $\bar{k} \geq k^*$. Draw a diagram for this model. Explain what the diagram says about the steady state of the model. Would there be a case for foreign aid, in the form of a (productivity enhancing) capital transfer?
- 5) Please provide an argument why increasing life expectancy might be good for growth in income per capita, and an argument why rising life expectancy might reduce income per capita.
- 6) Please explain how donations of food to a country can hurt local farmers by undermining the incentives for them to produce food.

Problem B

Please present and discuss Lewis' two-sector labour-surplus model. State and explain (a) the assumptions of the model, (b) the predictions of the model, and (c) contrast the model assumptions and predictions the neoclassical version of the model.

Furthermore, please explain how dual economy may influence income differences between countries and give the key results of an accounting procedure in terms of the contribution to income differences and the contribution to TFP differences.

Problem C

Please explain how we measure income inequality within countries and globally. Also, describe the possible links from economic growth to income inequality as well as the possible links from income inequality to economic growth.