Department of Economics

Course name:	**Policy Analysis in Labour Economics**
Course code:	**EC7414**
Examiner:	**Peter Fredriksson**
Number of credits:	**7.5 credits**
Date of exam:	**Saturday 12 December 2015**
Examination time:	**3 hours [09:00-12:00]**

Write your identification number on each paper and cover sheet (the number stated in the upper right hand corner on your exam cover).

Use one cover sheet per question. Explain notions/concepts and symbols. If you think that a question is vaguely formulated, specify the conditions used for solving it. Only legible exams will be marked. **No aids are allowed.**

The exam consists of 4 questions. Each question is worth 20 points, 80 points in total. For the grade E 36 points are required, for D 40 points, C 48 points, B 60 points and A 72 points.

Your results will be made available on your "My Studies" account (www.mitt.su.se) on 8 January 2016 at the latest.

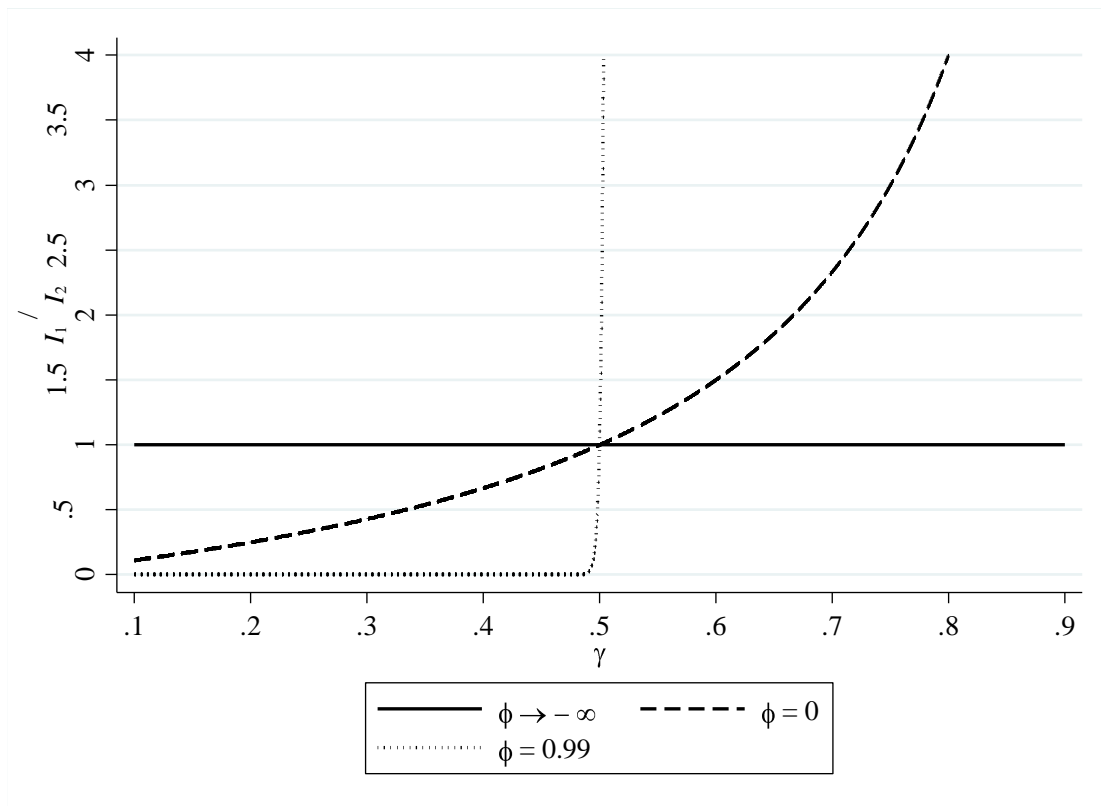
Good luck!

<u>Question 1</u>

In the Cunha et al (2006) model, child human capital $(h_\alpha = \alpha \left[\gamma I_1^\phi + (1-\gamma)I_2^\phi\right]^{\rho/\phi})$ is maximized by choosing educational investments during early and late childhood (I_1 and I_2) subject to a constraint. The solution to the problem implies that (I_1/I_2) is a function of γ and ϕ (and the interest rate, r)

$$\frac{I_1}{I_2} = \left[\frac{\gamma}{(1-\gamma)(1+r)}\right]^{\frac{1}{1-\phi}}$$

The figure below shows optimal (I_1/I_2) as a function of γ and ϕ ($r = 0$ is assumed)

a) Focus on the case $\phi = 0$. Explain the slope of the dashed line.

b) Focus on the cases $\phi \to -\infty$ and $\phi = 0.99$. Explain the shapes of the solid and the dotted lines. (Hint: What is the elasticity of substitution?)

<u>Question 2</u>

a) Baker, Gruber, and Milligan (2008) analyze the introduction of highly subsidized, universally accessible child care in Quebec, Canada. What are the key results from this study on child outcomes?

b) Havnes and Mogstad (2011) examine a reform from late 1975 in Norway, which led to a large scale expansion of subsidized child care; see figure 1 below. Describe how Havnes and Mogstad use this expansion to examine the effects of childcare on the children's outcomes. What is the identifying assumption?
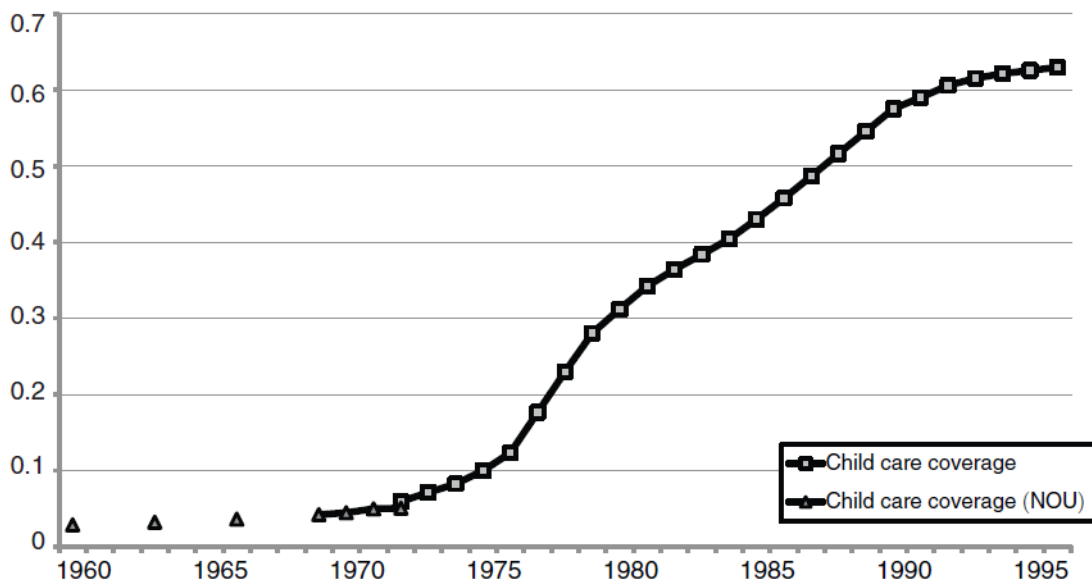

FIGURE 1. CHILD CARE COVERAGE RATE IN NORWAY 1960–1996 FOR CHILDREN 3–6 YEARS OLD

c) Havnes and Mogstad (2011) and Baker, Gruber and Milligans (2008) conclusions about the effects of childcare on children's outcomes differ. Which are the key potential reasons according to Havnes and Mogstad?

Question 3

The so-called Laffer-curve has figured prominently in the discussion about tax policy. The Laffer-curve is the relationship between tax revenue and the tax rate.

a) Suppose that tax revenue is generated by a proportional tax on taxable labor income. Derive an expression for the "revenue-maximizing" tax rate. Show how the revenue-maximizing tax rate depends on the elasticity of taxable income with respect to the net of tax rate. Why is the precise value of this elasticity important?

b) Describe the evolution of the empirical literature on the elasticity of taxable income. How big were the early estimates (in papers published in the mid-1990s)? How big are recent estimates?

c) One recent approach to estimate the elasticity of taxable income is based on bunching at certain points in the income distribution. Describe (briefly) the main ideas of this bunching approach.

Grönqvist (2012) examine the effects of a reform that affected contraception prices

a) Describe the reform and the empirical strategy Grönqvist (2012) use to examine the effects of the subsidy.
b) Provide a summary of the results of Grönqvist (2012).
c) Discuss the conclusions from his back-of-the-envelope calculations of the cost and benefits of the reform. According to Grönqvist some potentially important benefits and costs that are not considered in his cost-benefit analysis. Provide examples of and discuss some of these potentially important unmeasured benefits and costs.