



Summer 2013 examination

EC426

Public Economics

2012/2013 Syllabus

Instructions to candidates

Time allowed: 3 hours

This paper contains **Thirteen** questions and is divided into **two** sections.

ALL candidates should answer **two** short questions and **one** long question from **each** of Section A and Section B.

Each short question has a weight of 10% (of the overall mark) and each long question a weight of 30% (of the overall mark). In multipart questions, answer all parts.

Calculators are **not** allowed in this examination.

Section A (Short questions) Answer TWO questions (each question carries 10 marks)

- 1 What determines a society's willingness to redistribute income?
- 2 Is there a case for eliminating commodity taxation?
- 3 Is there a case for mandating retirement savings?
- 4 Does the "overconsumption" of cigarettes justify taxation?

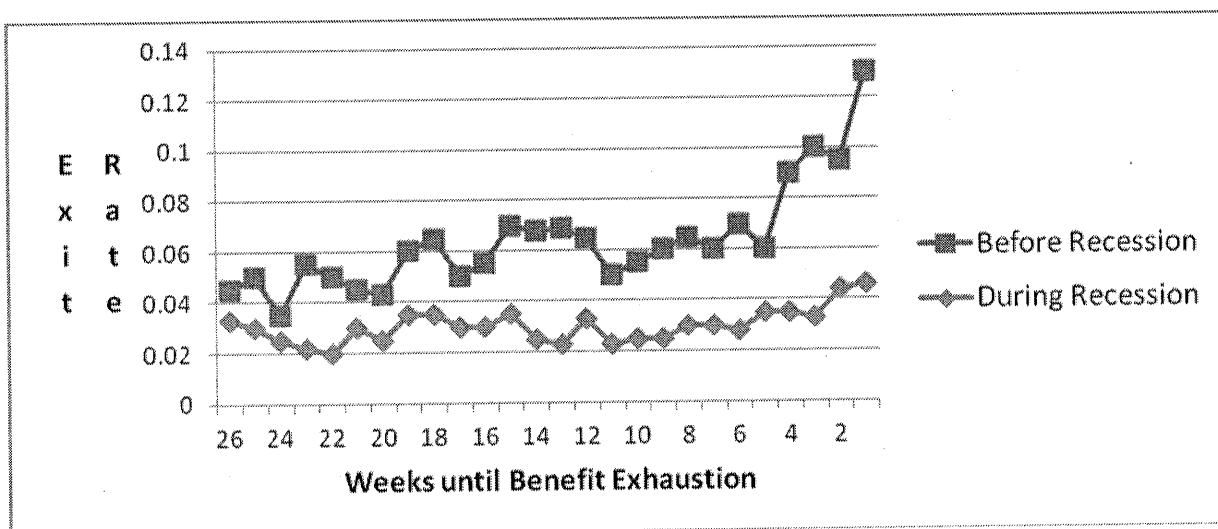
Section A (Long questions) Answer ONE question (each question carries 30 marks)

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- (a) What problems are involved in determining the demand for public goods? [9 marks]
- (b) Why are voluntary provision mechanisms likely to be inefficient as a means for providing public goods? [7 marks]
- (c) Are provision-point schemes or lotteries likely to be more effective than voluntary provision mechanisms for providing public goods? [14 marks]

6 David Cameron asks you to evaluate the generosity of the UK unemployment policy. He provides you with the following data from before the recession; the average drop in consumption due to unemployment was 15%, the elasticity of the probability of unemployment with respect to unemployment benefit is 0.8 and the coefficient of relative risk aversion equals 2.

- (a) Explain carefully to him what the benefits and the costs from an increase in the generosity of the unemployment policy would be. What would you recommend given his data? [14 marks]
- (b) Cameron also shows you the chart below with the exit rates out of unemployment in the US as a function of the time until benefit exhaustion, both before and during the recession. Would you think that the current policy is more appropriate in times of recession? [8 marks]
- (c) Cameron is worried that job seekers have less access to other forms of unemployment insurance during recessions. How does this affect your recommendation? Is it still sufficient to look at the drop in consumption? [8 marks]



Section B (Short questions) Answer TWO questions (each question carries 10 marks)

- 7 Derive the formula for the revenue-maximizing tax rate on income above a certain threshold. Discuss the formula. Empirically, the income distribution features a thicker upper tail among older workers than among younger workers. If we allow for age-dependent taxation, should the tax rate on older workers be higher or lower than on younger workers according to this formula? Explain.
- 8 "[The] simple version of the Allingham-Sandmo model has been criticized on the grounds that it fails a simple reality check. If [we consider] the fraction of returns audited in the U.S., about 0.015, and the statutory [surcharge] for non-criminal evasion, about 0.2, then based on the degree of risk aversion exhibited in other situations people should be evading a lot more than they apparently do. The intriguing question becomes why people pay taxes rather than why people evade." (Slemrod and Yitzhaki 2002). To what extent can the empirical evidence on compliance give guidance on the appropriate specification of a tax-evasion model?
- 9 A government determines whether or not to contribute to overseas development aid by balancing the costs to its taxpayers against the potential benefits to the recipients in a developing country. What factors influence the valuation of the costs and the valuation of the benefits?
- 10 A government announces that next period it will abolish the state pay-as-you-go pension (cancelling both pensions and the taxes used to finance the pensions). Using a simple overlapping-generations model, describe the consequences for wages and the rate of return, and for the consumption of different generations.

Section B (Long questions) Answer ONE question (each question carries 30 marks)

11

- (a) Characterize earnings responses to a discrete increase in the *marginal* income tax rate (a kink) using graphical and/or formal exposition. Express the elasticity of earnings with respect to the marginal net-of-tax rate as a function of bunching in the earnings distribution. Is this a compensated or an uncompensated elasticity (or neither)? Explain. [10 marks]
- (b) Characterize earnings responses to a discrete increase in the *average* income tax rate (a notch) using graphical and/or formal exposition. Outline how the elasticity of earnings with respect to the marginal net-of-tax rate can be inferred from bunching in this case. If the true elasticity is zero, will there be any bunching? Explain. [10 marks]
- (c) Consider instead a discrete fall in the average income tax rate. Compare responses to this notch to those associated with the opposite notch above. In this case, will there be any bunching if the true elasticity is zero? Explain. In the presence of optimization frictions that prevent agents from responding to taxes in the short-run, which kind of notch (increase or fall in the average tax rate) is more useful for identifying the structural long-run elasticity? Explain. [10 marks]

12 In the context of taxation on the transfers of wealth:

- (a) It is sometimes argued that because wealth-transfer taxation forms only a small proportion of total tax revenue it is therefore ineffective as a policy tool. Why might this view be mistaken? [6 marks]
- (b) Show how different assumptions about personal savings behaviour will lead to different conclusions about the equilibrium distribution of wealth. In what way will the savings behaviour affect the role of taxation in the equilibrium wealth distribution? [12 marks]
- (c) Discuss the ways in which the structure of families can affect the long-run effectiveness of taxation. [12 marks]

- 13 A small open economy exports an advanced good (produced by sector A) and imports a basic good (produced by sector B), where the world prices of the two goods are p_A and p_B , respectively. The goods are produced under constant returns to scale by skilled and unskilled labour, with wages w_S and w_U , respectively.

As a result of globalisation, p_A rises and p_B falls.

- (a) What is the effect of globalisation on the wage ratio w_S/w_U and on the distribution of income among persons? [8 marks]
- (b) What are the consequences of an increase in the proportion of the labour force that is skilled? [7 marks]
- (c) The government decides to help employment in the B sector by subsidising the use of labour in that sector, the subsidy being funded by a tax on all labour. What effect does this have on the wage ratio w_S/w_U ? [8 marks]
- (d) Globalisation is one possible explanation of rising wage dispersion. Another possible explanation is that technological change is biased towards skilled workers. How could this be incorporated into the model described above? What public policy implications follow? [7 marks]

In answering all parts of the question, you must state clearly any further assumptions that you are making.