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## Econ 4622 Public Economics A2014: Seminar assignment for 1 September

Please, prepare for the seminar.

### Problem 1

Explain what it means that a tax is distortional.  
Give some examples.

### Problem 2

- State the main assumptions made in the Mirrlees income tax model.
- How does the model explain tax distortions?
- Consider the two-type model with exogenous wage rates. What is the intuition for the zero marginal tax at the top?
- Consider the two-type model with endogenous wage rates. What is the intuition for the negative marginal tax at the top?
- State some of the main limitations of the Mirrlees model as a tool for discussing income tax setting.

### Problem 3

Derive and interpret the optimality condition

$$t_i^* = \frac{\text{cov}(s, x_i)}{\bar{x}_i'}$$

of the Boskin-Sheshinski model, presented in Apps and Rees (2011).

### Problem 4

Within the framework of the household production model in Apps and Rees (2011) consider the wage rate and the household productivity parameter.

- Explain how one can get an increase in utility in parallel with i. an increase in labour supply or ii. a decrease in labour supply.
- Which case is more conducive to a high marginal tax on female income.