Advanced Course in Public Economics

Dominik Sachs
European University Institute

Format

We will meet twice a week: Wednesday at 3pm and Friday at 8:45 am. I'll provide some handouts and lecture notes just in time. There will be 2 problem sets, which have to be handed in and will be graded. Some problems will be theoretical and some will be computational (Matlab). In addition, at the end of the course either a research proposal or a referee report has to be written and then be later presented when the ten lectures are over. This will also be graded.

Below is a rough outline of what we are going to do. Depending how fast or slow we are, this can of course change a bit. I also give some references here, but we will cover many more papers.

Lectures I - IV: Basics of Mirrlees Income Taxation

We will use the first 4 meetings to learn the basics of optimal nonlinear taxation in the spirit of Mirrlees (1971).

- We'll start with the workhorse model and thereby also have a short refresher about mechanism design and optimal control. After a derivation of the optimality conditions with this approach, we will derive them more intuitively with a tax perturbation as in Piketty (1997) and Saez (2001). We will then go to the computer (using Matlab) and see what the formulas quantitatively imply and how sensitive results are. In particular, we will also think a bit more about the optimal top tax rate.

- We will then also follow a recent approach to invert the problem (Werning 2007) and ask the question whether some given (arbitrarily nonlinear) tax schedule is Pareto efficient. If it is not Pareto efficient, a feasible tax reform exists which makes everybody weakly better of. Thus, we will extend the idea of the Laffer bound to nonlinear taxes.

- We will quickly talk about what happens if individuals adjust their labor supply along the extensive margin (Diamond 1980, Saez 2002).

- Finally, we will ask the question whether the government should use differential commodity taxation (such as luxury taxes) and thereby revisit the famous uniform commodity taxation result by Atkinson and Stiglitz (1976) and then discuss also when it is violated.

- We will also quickly talk about the Ramsey-approach to optimal commodity taxation (Ramsey 1927).

Lectures V-VI: Human Capital

We ask how the results of the optimal tax problem changes if human capital is endogenous. In particular we will derive the result that education subsidies and redistribution are 'siamese twins' (Bovenberg and Jacobs 2005). Besides this paper, we'll also study some more recent papers on the issue, in particular, we'll have a closer look at Findeisen and Sachs (2015).

Lectures VII-VIII: Empirical Topics

We'll go through some modern empirical methods to estimate elasticities. We will discuss some recent influential papers that measure how labor supply and education decisions respond with respect to taxes and subsidies.

Lectures IX-X: Recent Topics and Successful Job Market Papers in the Area

Finally, we will talk about recent papers in the literature such as redistributive taxation with general equilibrium effects (Rothschild and Scheuer 2013) or the taxation of couples (Kleven, Kreiner, and Saez 2009); we might also look at other papers and discuss in class which you would find most interesting to look at. We will also look at some recent successful job market papers in the field.

References

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Kleven, H., C. Kreiner, and E. Saez (2009): "The Optimal Income Taxation of Couples," *Econometrica*, 77(2), 537–560.

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