

Public Economics 2013
PS#3

due November 13th in class

1. Do skim reading of the paper "Econometric Policy Evaluation: critique" by Robert Lucas JR who won the Nobel in economics in 1995.(The paper is available on the class web). Robert Lucas is one of the most intellectually influential economist in the last 20th century and early 21th century. This paper is often called "Lucas's critique" and his paper changed the research strategy of economics since its publication in the field of economics.

In this paper, he emphasize the importance of finding(estimating) the fundamental parameters of the preferences and the production functional rather than estimating the statistical relationship between policy variables and the outcome variable such as GDP. Suppose that you are working in the government office and your boss, who has not studied economics asks about "What is the Lucas critique?". Explain the essence of Lucas critique in two paragraphs so that even your boss can understand the essence of "the Lucas critique." Also explain why Lucas think that it is more important to estimate the fundamental parameters such as the paramters of the utility function and the production function than estimating the statistical relationship between the policy variables and the outcome variables.

2. Read the comment by Heckman on Hausman's research, which is available in "Stochastic problems in the simulation of labor supply" in Behavioral Simulation Method in Public Finance Chapter 2". . There are two important points in Heckman's criticism. What are they? Explain. Do you think that his criticism are reasonable. Explain.

3. First read about the explanation on the maximum likelihood estimation by James Stock and Mark Watson, which is available on the class website. Then, read the paper by Leora Friedberg on the effect of social security earning test, which is available on the class website and answer the following questions.

(a) What is the social security earning test? Explain.

(b) Why does the social security earning test seem important from the point of economic policy?

(c) What would be the average of "the marginal tax rate introduced by the social security earning test"?

(d)In this paper, she wanted to examine the effect of the social security earning test on the labor supply of the elderly person? What is her identification strategy? What kind of the exogenous variation she wanted to use? Explain.

(e) Explain how the presence of the social security earning test affect the individual budget set graphically. Note that copying Figure 1 on the paper is not sufficient. You need to understand and explain it.

(f) What are figure 2A, 2B and 2C trying to show? Explain.

(g) On page 54, the right hand side, the author wrote "using the net instead of the gross wage as the regressor makes the net wage endogenous because it is correlated with hours through the nonlinear tax schedule." What does this sentence mean? Explain it.

(h) In her estimates that used the change of earning test in 1978, what is her Marshallian elasticity of labor supply (in her paper it is called uncompensated elasticity). What is her income elasticity of labor supply?

(i) In table 8, she run the policy simulation. In her simulation, her policy change is quite big. In spite of this, she could predict what will happen when the government changes the rule on earning test. Why can she run such a simulation?

(j) What is her conclusion on earning test.