

## ECON582 Econometrics III - Mega Homework 1

**Due: 5:00pm, 30<sup>th</sup> April 2007 (Monday)**

### Goals

1. To know more about instrumental variable estimation (For papers I and II)
2. To know yet another important paper in empirical macroeconomics (For paper III)
3. To learn how to read a paper carefully, and how to be skeptical
4. To have some experience with real data

### Guidelines

1. You choose one out of the following three papers to replicate:

**I. Evaluating the Cost of Conscription in the Netherlands** by Guido Imbens; Wilbert van der Klaauw (*Journal of Business & Economic Statistics*, Vol. 13, No. 2, JBES Symposium on Program and Policy Evaluation. (Apr., 1995), pp. 207-215.)

**II. Democratization or Diversion? The Effect of Community Colleges on Educational Attainment** by Cecilia Elena Rouse (*Journal of Business & Economic Statistics*, Vol. 13, No. 2, JBES Symposium on Program and Policy Evaluation. (Apr., 1995), pp. 217-224.)

**III. Unanticipated Money Growth and Unemployment in the United States** by Robert J. Barro (*American Economic Review*, Vol. 67, No. 2. (Mar., 1977), pp. 101-115.)

All of them are short and easy to read. The third one is not quite related to IV, but it is for people who still want to work on empirical macroeconomics after what you have experienced last quarter. Please take a look at all three of them, and then decide which one to work on. The amount of time you are about to spend is about the same among the three papers.

2. The requirements for the three papers are different.

For papers I and II, I will provide you with the data (and I got them from the journal). Your goals are the following:

- a) **Replicate the results in the paper (i.e. reproduce the tables)**
- b) **Describe clearly what you do with the data**
- c) **Describe and analyze the results (e.g. what research questions you can answer and what you cannot)**

- d) If you cannot replicate the results in the paper exactly (when using the same dataset!), try to find out why**
- e) Depending on all you know about econometrics, suggest some potential problems of the paper**

For paper III, you have to obtain the data yourself (e.g. from [economagic.com](http://economagic.com)). Your goals are the following:

- a) Replicate the results in the paper (i.e. reproduce the tables and other regression results)**
- b) Update the data and see if the results in the paper still hold**
- c) Describe clearly what you do with the data**
- d) Describe and analyze the results (e.g. what research questions you can answer and what you cannot)**
- e) If you cannot replicate the results in the paper exactly (when using a dataset of a different vintage), try to find out why**
- f) Depending on all you know about econometrics, suggest some potential problems of the paper**

3. Try to do the project as if you are a research assistant reporting to your advisor: describe carefully what you do, what assumptions you make, what problems you think there are ..., or whatever interesting things you can come up with. Your reader should be able to understand what you are doing without reading the original paper.
4. The data in the first two papers are more difficult to deal with, but you do not have to update the data; the data in the third paper, which are macroeconomic time series, are easier to work with, but you have to update the data as well.
5. Your grade for this project, besides achieving the above goals, also depends on
  - a) How well you understand the paper
  - b) How well you write

Of course, any interesting or innovative extra thing you do will increase your grade.

6. You are going to work as a group of 2 or 3 people (no other options!), and the final report should be about 10 to 15 pages long (double space).
7. Good news: almost everything you need to do can be done in EViews. Not true for the second mega homework though.