

G003: Microeconometrics

Syllabus

A variety of widely used econometric methods for panel data and cross-section will be discussed in this course. For each method, the goal is to understand the properties of the method and how to establish them, under what conditions can the method be applied, the limitations of the method, how to apply the method and how to use it in practice. This part of the course will study instrumental variables and panel data models. A parallel set of sessions will focus on non-linear models. Economic applications and important developments of the methods will be studied in the second part of the term, linking the econometric techniques with the economic problems being currently addressed in the literature.

Main reference

The exposition of the econometric techniques in this part of the course will follow closely Wooldridge book, "Econometric Analysis of Cross Section and Panel Data", MIT Press, 2002. Handouts will be distributed. Further references for each subject are detailed below and in the handouts.

Monica's contact: monica.d@ifs.org.uk

Lectures: Fridays, 3-5pm, Jevons, Drayton House

Office hours: email me to arrange a time

Tutorial classes with Ken Yamada, arrange with Daniella Fauvrelle

Webpage: <http://www.homepages.ucl.ac.uk/~uctpmsd/index-G003.htm>

Grades: based on examination

Course outline

0. Brief overview of asymptotic theory

Some basic concepts to pave the way for future discussion of the estimators properties: convergence, law of large numbers, central limit theorem, asymptotic properties of the estimators.

References:

Wooldridge, Econometric Analysis of Cross-Section and Panel Data

Amemiya, Advanced Econometrics.

1. Instrumental variables and Generalised Method of Moments

What to do when there are endogeneity problems? The IV estimator. The 2 Steps Least Squares Estimator. The Generalised Method of Moments.

References:

Wooldridge, *Econometric Analysis of Cross-Section and Panel Data*

2. Panel Data Models

The use of panel data. Exogeneity assumptions. Random effects and fixed effects models. Dynamic panel data models. Testing hypothesis.

References:

Wooldridge, *Econometric Analysis of Cross Section and Panel Data*.

Cheng Hsiao, *Analysis of Panel Data*.

Ahn and Schmidt, 1995, "Efficient Estimation of Panel Data Models", *Journal of Econometrics*, special issue on Panel Data.

Arellano and Bond, 1991, "Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations", *Review of Economic Studies*.

Chamberlain, 1982, "Multivariate Regression Models for Panel Data", *Journal of Econometrics*.

Nickell, 1981, "Biases in Dynamic Models with Fixed Effects", *Econometrica*.