Topics in Microeconometrics

Please note there has been a change in the schedule (see below).

Lectures:

- Thursday, 23 Oct 2014, 10:00-14:00 h, Alte Uni, HS 220
- Thursday, 6 Nov 2014, 10:00-14:00 h, HS 1131
- Thursday, 20 Nov 2014, 10:00-14:00 h, HS 1136
- Thursday, 27 Nov 2014, 10:00-14:00 h, HS 1132
- Thursday, 11 Dec 2014, 10:00-14:00 h, HS 1132
- Thursday, 15 Jan 2015, 10:00-14:00 h, HS 1131

Four exercise sessions (taught by Markus Zimmermann) take place during the semester, which are all to be attended:

- Thursday, 13 Nov 2014, 10:00-14:00 h PC Pool 2114a
- Thursday, 4 Dec 2014, 10:00-14:00 h PC Pool 2114a
- Thursday, 22 Jan 2015, 10:00-14:00 h PC Pool 2114a
- Thursday, 29 Jan 2015, 10:00-14:00 h PC Pool 2114a

Exam: tba

Credits: 6

Course Description

With the increasing availability of large cross sectional data sets or even panel data sets (i.e. data with observations on a cross-section of households, firms, regions, etc. possibly available over several time periods) and the increasing awareness of the necessity to control for individual heterogeneity when estimating economic relations, microeconometrics has flourished since quite some time. The course provides an up-to-date treatment at the level of Wooldridge's textbook on "Econometric Analysis of Cross Section and Panel Data" and Cameron/Trivedi “Microeconometrics – Methods and Applications”. The course will give a rigorous introduction for regression analysis based on cross sectional data and panel data and for causal analysis. The second part of the course focuses on the method of quantile regression. Quantile regression allows to estimate the differential effects of covariates along the conditional distribution of the response variable. This is of interest in many areas of empirical research in economics, where the impact of some characteristics or of a policy intervention may depend upon the position in the distribution. The focus of the course is both on understanding the methodological concepts and on how to apply them. Students will learn to implement the estimation methods using the econometric packages TSP and Stata.

Prerequisites

Knowledge of econometrics at the level of the courses “Einführung in die Empirische Wirtschaftsforschung” or “Intermediate Econometrics".
Outline

1. Review of the linear Regression Model for Cross-Sectional Data and basic linear panel estimation (random effects, fixed effects)
   References: WO Chapters 1–5, 10, CT Chapters 4, 21, 22, AP Chapters 3–4

2. Introduction to Linear Quantile Regression (QR)
   References: KO, AP Chapter 7, WO Chapter 12.10, CT Chapter 4.6

   2.1 Introduction to linear quantile regression: Distance function, Asymptotic distribution, 
   Properties of the estimator, Interpretation as Method-of-Moments Estimator, 
   Application: Mincer Earnings Equation

   2.2 Censored Quantile Regression

   2.3 Decomposition Analysis with Quantile Regression and Unconditional Quantile Regression 
   Application: Changes in Wage Distribution

   2.4 IV estimation with Quantile Regression

   2.5 Quantile Regression for Panel Data

Main References:

- **CT**: Cameron, A. C. and P. K. Trivedi (2005): Microeconometrics – Methods and Applications, Cambridge University Press.

Further References:


Grade
The grade will be based on a written final exam (120 minutes).

Further Information
There will be two problem sets including empirical exercises which will be assigned as voluntary homeworks. They will be corrected, but not count as part of the final grade.

Further references, particularly regarding the method of Quantile Regression and the application of the methods, will be given in the course. The basic estimation techniques will be implemented in the PC-Pool using the econometric packages TSP and Stata. We have a site license for TSP (both for Windows and MAC PCs) which can be used by students. TSP International (see www.tspintl.com) provides numerous examples for using the program for advanced estimation problems. The User’s guide and the Reference Manual for TSP are available under http://www.tspintl.com/products/userref.htm.