Econometric Methods - Part I, WS 2016/17
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Lectures: Fridays 9:00-12:30, Dulles Room at DIW, starting on 21 October 2016
TA sessions: Mondays 9:00-11:00, Dulles Room at DIW, starting on 24 October 2016

1. The Classical Linear Regression Model
   a) Ordinary Least Squares (OLS) Estimation
   b) Maximum Likelihood (ML) Estimation
   c) Hypothesis Testing
   d) Generalized Least Squares (GLS) Estimation

2. Asymptotic Theory
   a) Stochastic Convergence Concepts
   b) Laws of Large Numbers (LLN) and Central Limit Theorems (CLT)
   c) Asymptotic Properties of OLS
   d) Asymptotic Properties of ML
   e) Asymptotic Properties of GLS

3. Single Equation Generalized Method of Moments (GMM)
   a) Instrumental Variables (IV) Estimation
   b) Method of Moments (MM) Estimation
   c) GMM Estimation
   d) Asymptotic Properties of GMM
   e) Related Tests

4. Multiple Equation Generalized Method of Moments (GMM)
   a) Simultaneous Equations
   b) GMM Estimation
   c) Uses of Multiple Equation GMM

5. Panel Data
   a) Random Effects
   b) Fixed Effects
6. Optional Topics
   a) Discrete Choice Models
   b) Limited Dependent Variables
   c) Duration Models


References


Course Requirements

The grading is based on the assignments (20%) and an exam (80%) at the end of the term. Each part of the course is given a 50% weight of the total grade.