Advanced Econometrics 2005-2006

Econometric Theory and Methods

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Provisional Programme, Period 1 2005-2006

Davidson and MacKinnon (2004)

Week 1  Regression, estimation and exact testing, Asymptotic and bootstrap tests (Ch. 3-4)

2 Finite sample and (robust) confidence interval estimation (Ch. 5)

3 Nonlinear regression and Gauss Newton Regression (Ch. 6)

4 Generalised least squares and Panel data (Ch. 7)

5 Maximum Likelihood (Ch. 10)

6 ML for selected models (Ch. 11)
Provisional Exam Programme, Block 1.1 2005-2006

Davidson and MacKinnon (2004)

1 §2.4, §2.5, §2.6, §3.7, §4.2, §4.3, §4.4 §4.5, §4.6
2 §5.2, §5.3, §5.4, §5.5, §5.6
5 §10.1, §10.2, §10.3, §10.4, §10.5 §10.7, §10.8
6 Selection of Chapter 11
Lecturers

- dr. M. Ooms (Econometrics)
  - Week 1, 3, 5, 6
- prof. dr. S.J. Koopman (Econometrics)
  - Week 2, 4
- TA drs. S.Y. Wong (Tinbergen Institute and Econometrics) Exercises Week 1-6.
Purpose Advanced Econometrics

Learning Objectives

- Learn basics of general econometric methods and terminology for
- specification, estimation, inference and testing in econometric models
- Application and testing on real and simulated data.
Other optional Econometrics Master Courses, see Master Programmes ’Faculty of Economics and Business Administration’ Study Guide 2005/2006:

- Period 3 (Jan 2006): Case Study Econometrics and Quantitative Finance: Stochastic Volatility (dr. Marius Ooms, Prof. dr. Siem Jan Koopman and dr. Mark-Jan Boes)
- Period 4: Computational Econometrics (prof. Siem Jan Koopman and dr. Aart de Vos)
- Periods 5, 6: Thesis
What is new compared to Bachelor level?

- Power analysis of tests
- Simulation based tests §4.6 and bootstrap: finite sample inference
- Confidence intervals, asymptotic, bootstrap and delta method §5.2-4
- Gauss-Newton regression §6.5
- GLS and Panel data §Ch. 7
- Selected Models §11, estimated with ML.
Material

www.feweb.nl: Schedule lectures and exam.

bb.vu.nl: Enrollment, Assignments, slides and data sets.

Software: Oxmetrics: Ox Professional and (PcGive / Eviews). Instruction needed?

Time

- Total Time: 6 ects: 160 hours
- Studying relevant parts of D&M 50 hours
- Lectures and exercise classes: 36 hours
- Make selected Exercises and Assignments: 36 hours
- Preparation written exam: 35 hours.
- Written exam: 3 hours.