Prof. Dr. Bernd Süssmuth

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Applied Econometrics

(Module 07-101-5227)

Lecture: Thu, 11.15-12.45, SR 12; start: Oct 17
Tutorial: Wed, 9.15-10.45, Pool S01; start: Oct 23; instructors: Frank Simmen, Jordan Adamson

Aims and scope

This class follows an intuitive hands-on approach to impart a selection of topical econometric methods representing central prerequisites for quantitative research in economics. It builds on fundamentals as covered in mandatory introductory modules such as "*Ökonometrie.*" Application-oriented computer work is a crucial element of this course. To this end, statistical software package *Stata* (based on C) and packages based on R will be used. A central aim of this class is to prepare students to run their own empirical projects relying on sound and timely econometric techniques, e.g., within the scope of their bachelor theses.

Audience

Students enrolled in in the Bachelor of Science "*Wirtschaftswissenschaften*" program having passed module "*Ökonometrie*" and Erasmus-program students with some econometrics/statistics background.

Grading and material

Grades will be obtained from writing a term paper based on a quantitative research project and a preceding oral presentation. Passing grants students 5 ECTS credit points. Detail on requirements for papers is communicated in class. Problem sets and data will be online with more detail given in the accompanying computer-lab tutorial. A list of potential term paper projects will be provided

Outline

  I Refresher: Classical Linear Regression Model
 II Endogeneity and Instrumental Variable Estimation
III Longitudinal Data Models: Random/Fixed Effects Panels
IV Box/Jenkins-ARIMA: Reloaded
 V GARCH Models
VI VAR Models and Impulse Response Functions
VII Granger Causality and Dynamic Predictability

Literature

- Asteriou, D.; Hall, S.G. (2021): Applied Econometrics (4th ed), Palgrave Macmillan
- Further material will be given during class/tutorial