

Econometric Analysis

Single subject and programme course

7.5 credits

Ekonometrisk analys

730A08

Valid from:

Determined by

The Quality Board at the Faculty of Arts
and Sciences

Date determined

2011-02-18

Main field of study

Economics

Course level

Second cycle

Advancement level

A1X

Course offered for

- International Business and Economics Programme
- Business and Economics Programme

Entry requirements

For admission to the course, completed Economics 3, or the equivalent, is required as well as completed basic course in Econometrics, comprising 7.5 HE credits, or the equivalent knowledge.

Intended learning outcomes

On completion of the course, the student should be able to:

- In a practical way, carry out econometric studies by means of the most relevant econometric method for the issue
- apply econometric methods to estimate and test models and then carry out statistical studies and/or forecasting within typical microeconomic, macroeconomic and financial issues.

Course content

The course contains practical applications of the theoretical problems that are discussed in the course Econometric Theory. The basic linear regression model has a severely limited field of application. This course builds on the basic course and examines what the typical econometric modelling problems are in reality. The following are examples of the subjects covered in the course: panel data where the data is a series of observations over time of the same subject, models where the dependent variable is censored or limited in some form so that it, for example, can never be negative or has two possible outcomes, type zero (nothing happened) or type one (something happened). Discussed in connection with these models are different approaches to so called sample selection problems, i.e. observations of the dependent variable can not be seen as generated from a random sample but must have been generated via some non-stochastic process. An example of the latter is that the sample only consists of variables that are measurable, such as the salaries of women that are gainfully employed or that the sample only consists of the test subjects that volunteered to participate in the experiment.

Also covered are the problems that arise in the modelling of non-stationary variables, i.e. variables that have mean values and variances that are functions of time. Here, so called unit-root tests and co-integration tests are covered. AutoRegressive Integrated Moving Average Models (ARIMA), Vector autoregressive (BE) models and Vector Error Correction models (VECM) are also covered. These models are used for descriptive statistics, forecasts and for testing causality and economic hypotheses. Models for time-varying variances, Generalized AutoRegressive Heteroscedastic (GARCH) models are also covered.

Teaching and working methods

The course is read in parallel with Econometric Theory. This course, Econometric Analysis, contains practical applications (teacher-supervised laboratory sessions) of the problems that are covered in the course Econometric Theory. The course contains computer exercises (E-views) with elements of lectures and individual/group supervision.

Examination

The course is examined continuously through a number of written assignments during the course. Detailed information can be found in the study guide or on the course website.

Grades

Three-grade scale, U, G, VG

Other information

Planning and implementation of a course must take its starting point in the wording of the syllabus. The course evaluation included in each course must therefore take up the question how well the course agrees with the syllabus. The course is carried out in such a way that both men's and women's experience and knowledge is made visible and developed.

Department

Institutionen för ekonomisk och industriell utveckling