

# Econometrics in Action – Introduction to Econometrics

Econometric methods are important tools to analyse and quantify economic relationships. In order to assess the quality of studies using these methods mainly in economics as well as in social sciences, econometric skills are necessary. The primary objective of this course is to provide a practice-oriented introduction to econometrics. The first part of the course contains an extensive review of the basic statistical ideas necessary for econometric analysis. Subsequently, the course builds on this and imparts basic knowledge in econometric methods. Using practical examples, these methods are applied in order to learn how to interpret the results of econometric estimations in a meaningful way. The examples used in this course are mainly microeconometric problem sets.

## **Seminar Benefits**

- This course gives confidence in interpreting empirical work and helps to overcome any inhibitions relating to statistical and econometric methods.
- It will supply the basic tools which enable critical evaluation of empirical work.

#### Required Knowledge

Basic knowledge in mathematics or statistics

## **Target Group**

Experts from the EC, administration and enterprises without formal education in econometrics as well as journalists who need to interpret empirical work on economic topics

## **Learning and Teaching Methods**

Lectures, PC demonstrations, practical examples

## Seminar Date and Location

March 11 to 12, 2009, Brussels, 9:30 am – 5:30 pm European Liaison Office of the German Research Organisations, Rue du Trone 98, Brussels

### **Seminar Fee**

EUR 1370, – (possibly plus Belgian VAT)

# Programme

Wednesday, March 11, 2009

## **Basics**

- Variance
- Covariance
- Expected Value
- Correlation Coefficient

## Simple Regression Analysis

Ordinary least squares (OLS) method

## Hypothesis testing

- Gauss-Markov conditions
- Unbiased, consistent and efficient estimator
- Level of significance
- Confidence interval
- t-test
- Standard error
- Type I error and Type II error
- One-sided test and Two-sided test

# Thursday, March 12, 2009

Multiple regression analysis

**Dummy variables** 

Omitted variable bias

Multicollinearity

## **Seminar Organisation**

In case of questions concerning the organisation of the seminar or an accommodation please contact Vera Pauli,

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# Tutors



Dr. Christian Göbel, ZEW studied economics at the University of Mannheim and the Université Catholique de Louvain. From 2001 to 2006 he was a research and teaching assistant at the Université Catholique de Louvain. Since November 2006 he is working at ZEW in the department "Labour Markets, Human Resources and Social Policy". In June 2007 he defended his thesis "Evaluating the effect of participation in subsidised employment" at the Université Catholique de Louvain. His main research interests are labour economics, policy evaluation and applied econometrics.



Jan Fries, ZEW studied Economics at Albert-Ludwigs-University Freiburg and Free University Berlin, with a focus on Microeconometrics and Public Finance. In his Master's thesis he worked on the evaluation of relative effects of Active Labour Market Policy. At the ZEW he is working in the research department "Labour Markets, Human Resources and Social Policy".