MASTER Economics
Econometrics II: non linear model

Contacts

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Description

Part of course.

Code: PA-ME5BEC-BECAV3B

Domain: Law, Economics, Management

CONTENT

Provide students with the basics of the econometrics of non linear models for binary, multinomial, ordered and count dependent variables as well as models for censored and truncated variables.

Course outline :

1. Introduction to non-linear models in econometrics and a brief reminder about the maximum likelihood principle.
2. Models for binary dependent variables.
   - The linear probability model.
   - The Logit model.
   - The Probit model.
3. Models for multinomial and ordered dependent variables.
4. Models for count data.
5. Models for truncated and censored variables.

PROFESSIONAL SKILLS

- Ability to determine the right specification of a model when the variable to explain is not continuous.
- Ability to choose the relevant estimation method for a given model.
- Ability to correctly analyze the estimation results in these models, knowing their limits.

BIBLIOGRAPHY

- Microeconometrics, A.C. Cameron and P.K. Trivedi, Cambridge University Press, 2005.
- Econometric Analysis of Cross Section and Panel Data, J. Wooldridge, the MIT Press, 2002.
- R. Carter-Hill, W.E. Griffiths, G.C. Lim, Principles of Econometrics, Wiley, 2011.

ORGANISATION

- 12 sessions of 2 hours each including small exercises.
- The evaluation for this course is partly based on an econometric essay on a topic chosen by the student, in association with the Software for Economists1 (SAS) course.

FUNDAMENTAL PREREQUISITES

- Basics of linear econometrics : OLS, GLS, FGLS and associated tests for serial correlation and heteroscedasticity.

VOLUME OF TEACHINGS

- Lectures: 24 hours

TRAININGS

Master's degree: Economics
- Empirical and theoretical economics
- Economic policy analysis
- Econometrics, big data, statistics
- Quantitative finance and insurance