

**An Introduction
to Econometric Models of Agricultural Supply and Input Demand
Online course via Zoom**

Lecturer: Professor Michael Grings

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Dates: 6.12 2022

9.12.2022

13.12.2022

16.12.2022

From 10 am to 12 am (Kyiv Time)

Course language is English

Deadline for the registration 04 December 2022

For the registration please follow the **link**

<https://iamo.zoom.us/meeting/register/tZAqde2srToqHd0P9qyC4vlpz8zfJsWI9DDc>

The Leibniz Institute of Agricultural Development in Transition Economies (IAMO) organizes this Lecture Series in the frame of the Project *“Land reform in Ukraine: new perspectives and challenges for sustainable development of the agricultural sector and rural areas”* (Landreform-UA).

Course outline

Econometric model building requires decision making about a large number of model aspects concerning model structure, collection and processing of data, and choice of an appropriate econometric estimation method. Particularly important for the interpretation of the estimation results is the foundation of the model on economic theory.

The objective of the course is an introduction to econometric model building. Although statistical aspects will be referred to, the main emphasis is not on econometric methods, but on empirical application. The material presented should help participants to assess models found in the literature and to avoid some of the most common mistakes in constructing and interpreting econometric models. Part I of the course discusses important aspects of econometric model building with reference to economic production theory. A special focus of the presentation will be on the question, how to handle quasi-fixed factors (labor, land and capital) in models of agricultural supply and input demand. The insights gained from this discussion will be used in Part II, where three econometrically estimated models will be presented and discussed in detail. Participants will receive the manuscript of the course (as a pdf-file) with detailed lecture notes and exercises.

Participants should have knowledge in, at least, intermediate microeconomic theory, mathematics and statistics.

For further questions please contact Dr. Inna Levkovych landreform_ua@iamo.de

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Content

1. Introduction

Part I: Basics of econometric model building and production theory

2. Five steps of econometric model building

- 2.1 Model specification
- 2.2 Collection and processing of data
- 2.3 Model estimation
- 2.4 Model evaluation
- 2.5 Model application

3. A production function for the agricultural sector of the Federal Republic of Germany

- 3.1 Model specification
- 3.2 Production elasticities
- 3.3 Model interpretation

4. A short-run model of agricultural supply and input demand

- 4.1 The system of equations
- 4.2 General properties
- 4.3 Substitution and complementarity

Part II: Three examples of econometric models of agricultural supply and input demand

5. Am for the US agricultural sector

- 5.1 Model characteristics
- 5.2 Economic and statistical evaluation

6. A model for the Australian agricultural sector

- 6.1 Model characteristics
- 6.2 Economic and statistical evaluation

7. A model for the German agricultural sector

- 7.1 Model characteristics
- 7.2 Economic and statistical evaluation