

課程目標

1. 學習個體經濟學實證分析常用的計量方法。
2. 練習操作相關套裝軟體。
3. 熟悉論文撰寫技巧。
4. 簡介最新個體經濟學實證研究方向。
5. 尋找潛在論文題目。

參考書目

1. Kumbhakar, S.C. and C.A.K. Lovell (2000), Stochastic Frontier Analysis, Cambridge University Press.
2. Coelli, T., D.S.P. Rao, and G.E. Battese (1999), An Introduction to Efficiency and Productivity Analysis, Kluwer Academic Publishers.
3. Maddala, G.S. (1983), Limited-dependent and Qualitative Variables in Econometrics, Cambridge University Press.
4. 黃台心 (2005), 計量經濟學, 雙葉書廊, 台北市。

Grading

1. Presentation (50%)
2. Term paper (50%)

PART I Measuring Economic Efficiency

Chapter 1: Production Efficiency

- 1.1 Introduction
- 1.2 Technical efficiency: Input and output orientation
- 1.3 Stochastic distance functions
- 1.4 Panel data production frontier models
- 1.5 Time-varying technical efficiency

Chapter 2: Cost Efficiency

- 2.1 Introduction
- 2.2 Cross-sectional cost frontier models
- 2.3 Panel data cost frontier models
- 2.4 Distribution-free approach

Chapter 3: Profit Efficiency

- 3.1 Introduction
- 3.2 Shadow profit function
- Chapter 4: Technical change
  - 4.1 Introduction
  - 4.2 The production frontier approach
  - 4.3 Cost frontier approach
- 補充教材：講義（同時包括技術與配置效率）
- Chapter 5: Imperfect Competition
  - 5.1 Introduction
  - 5.2 Theoretical model
  - 5.3 Incorporating inefficiency
  - 5.4 Estimation approach
- Chapter 6: Confidence Interval of Economic Efficiency
  - 6.1 Stochastic frontier approach
  - 6.2 Fixed-effect approach
    - 6.2.1 Multiple comparisons as a control (MCC)
    - 6.2.2 Multiple comparisons with the best (MCB)
    - 6.2.3 Marginal comparison with the best (MgCB)
- Chapter 7 Data Envelopment Analysis (DEA)
  - 7.1 Input-oriented technical efficiency
  - 7.2 Output-oriented technical efficiency
  - 7.3 Allocated efficiency
  - 7.4 Revenue maximization
  - 7.5 Malmquist index

## PART II Labor Economics

- Chapter 8: Discrete Regression Models
  - 8.1 What are discrete regression models?
  - 8.2 The linear probability model
  - 8.3 The probit and logit models
  - 8.4 Polychotomous variables: Unordered variables
  - 8.5 Measures of goodness of fit
  - 8.6 Polychotomous variables: Ordered-response models
  - 8.7 Polychotomous variables: Sequential-response models
  - 8.8 Survey response bias
- Chapter 9: Censored and Truncated Regression Models
  - 9.1 Introduction

- 9.2 Censored and truncated variables
  - 9.3 The tobit (censored regression) model
  - 9.4 Two-stage estimation of the tobit model
  - 9.5 Prediction in the tobit model
  - 9.6 The two-limit tobit model
  - 9.7 Truncated regression models
  - 9.8 Truncated and censored regression models with stochastic and unobserved thresholds
- Chapter 10: Simultaneous-Equations Models with Truncated and Censored Variables
- 10.1 Introduction
  - 10.2 Simultaneous-equations models with truncation and/or censoring
  - 10.3 Simultaneous-equations models with probit- and tobit-type selectivity
  - 10.4 Models with mixed latent and observed variables
- Chapter 11: Two-stage Estimation Methods
- 11.1 Introduction
  - 11.2 Two-stage method for the tobit model
  - 11.3 Two-stage methods for switching regression models
  - 11.4 Two-stage estimation of censored models
  - 11.5 Two-stage estimation of Heckman's model
  - 11.6 Probit two-stage and tobit two-stage methods
  - 11.7 Models with self-selectivity