Econometría II
Sexto semestre Licenciatura en Economía 2014-2019
(Spring 2017)
Dr. Edwin van Gameren

-- Preliminary –

Introduction

Econometrics II continuous where Econometrics I finished. The same textbook will be used, covering the remaining chapters. After the general principles of the multiple regression models, extensively discussed in Econometrics I, the current course is focused on regression models applicable in particular situations based on the research questions and on the type of data that is available. In particular, we will see the basics of time series models, models for qualitative and limited dependent variables, panel data, and – if time permits – impact evaluation techniques.

Classes will focus on the theory, while the accompanying *laboratorios* will focus on the practical estimation and the interpretation of the results.

Bibliography (mandatory)

The same books as for Econometrics I will be used: I

- Hill, R. Carter, William E. Griffiths, and Guay C. Lim (2012). Principles of Econometrics, 4th Edition, Wiley
- Lee C. Adkins, and Hill, R. Carter (2012). Using Stata for Principles of Econometrics, 4th Edition, Wiley

For the final topic, Impact evaluation techniques, the relevant bibliography will be added later. Moreover, some additional research papers may be used to demonstrate the application of the techniques in applied economics research, and for replication in the lab classes.

Bibliography (optional but recommended)

- Wooldridge, Jeffrey M. (2008). Introductory Econometrics: A Modern Approach, 4th Edition, South-Western College Pub.
- Stock, James H. and Mark W., Watson (2010). Introduction to Econometrics, 3rd Edition, Addison-Wesley.
- Gujarati, D.M. (2002). Basic Econometrics, 4th Edition, McGraw Hill.
- Greene, WIlliam H. (2012). Econometric Analysis, 7th edition, Pearson.
- Angrist, Joshua D., and Jörn-Steffen Pischke (2015). Mastering Metrics, Princeton UP.
- Kennedy, Peter (2008). A Guide to Econometrics, 6th Edition. Wiley-Blackwell

- Abbring, Jaap, Peter Boswijk, Philip-Hans Franses (2016). Canon deel 23: econometrie. Economisch-Statistische Berichten, vol. 101, pp. 106-111

Horarios

- Lunes y Martes, 16:00 – 17:30.
- Salón: 2265
- Horario de oficina: con cita. Cubículo 4487. Ext. 4087, email egameren@colmex.mx.
- Laboratorista: Victor H. Delgado Barrera. Horario: Jueves 09:00-10:30. Email: vhdelgado@colmex.mx
- Teaching language will be English, though you may use Spanish, Dutch, or German to communicate with me.

Evaluación *(tentativa)*
- Participación en clase (5%)
- Tareas (15%). Para la parte empírica de las tareas se usará el paquete Stata.
- Dos exámenes parciales (20% cada uno)
- Examen final (40%)

Program

Recap Chapters 1 – 8
- General principles – linear regression model

Chapter 10 Random Regressors and Moment-Based Estimation
- Measurement error
- Omitted variable bias
- Method of Moments estimator
- Instrumental Variables
- Validity of instruments

Chapter 11 Simultaneous Equations Models
- Exogenous vs endogenous variables
- Identification
- Two-Stage Least Squares
- Reduced vs Structural form models

Econometría II
Sexto semestre Licenciatura en Economía 2014-2019
(Spring 2017)
Dr. Edwin van Gameren

-- Preliminary –

Chapter 12 Regression with Time-Series Data: Nonstationary Variables
- recap of Chapter 9 (Stationary Variables)
- AR(1) Mpdel
- (Augmented) Dickey-Fuller (ADF) test
- Cointegration

Chapter 13 Vector Error Correction and Vector Autoregressive Models
- VEC (Vector Error Correction) Model
- VAR (Vector Autoregressive) Model

Chapter 14 Time-Varying Volatility and ARCH Models
- ARCH
- GARCH

Chapter 15 Panel Data Models
- Pooled Model
- Fixed Effects (FE) Model
- Random Effects (RE) Model

Chapter 16 Qualitative and Limited Dependent Variable Models
- Binary dependent variables
  - Probit, Logit
- Discrete choice variable
  - Multinomial Logit
  - Conditional Logit
  - Ordered Probit
- Count data
- Limited dependent variables
  - Censored data, Tobit model
  - Truncated data

Impact evaluation techniques (LITERATURE TO BE DECIDED)
- Propensity Score Matching (PSM)
- Differences-in-difference

The time schedule is still under construction, but expect some two weeks per chapter, with probably a bit more time for the last (micro-econometric) chapters and a bit less for the initial (time-series) chapters.