

SYLLABUS

Financial Econometrics II, BUSN 6360-25924, Spring 2021

General Information

Time and Location: Th 6:00-8:50PM, Zoom [Join URL]

Instructor: Dr. Xiaojin (Aaron) Sun

Office: BUSN-237

Email: xsun3@utep.edu

Office Hours: By appointment

Course Overview

This two-semester sequence of PhD Financial Econometrics is an in-depth study of quantitative methods as employed in finance and accounting research. The range of topics covered in this course will span a large part of econometrics generally with a particular interest in those techniques adapted to the analysis of panel data sets.

I have given a review on linear models and maximum likelihood, and covered static linear panel data models and simple discrete choice models in the Fall. This semester we will learn the generalized method of moments, dynamic panel data models, treatment evaluation, and Tobit and selection models.

Course Objectives

This course aims to equip students with the econometric tools needed to analyze finance and accounting data. Students are expected to acquire theoretical knowledge on key econometric methods and practical ability to apply that knowledge in their own research. Upon completion of the course, students should be able to understand and use basic econometric tools in the analysis of cross-sectional and panel data, replicate empirical results from the applied literature, and undertake empirical analysis using standard statistical software.

Textbook

- *Econometric Analysis of Panel Data* by Badi H. Baltagi, 5th Edition. Wiley. ISBN: 978-1-118-67232-7.
- **(Optional)** *Microeconometrics: Methods and Applications* by A. Colin Cameron and Pravin K. Trivedi, Cambridge University Press. ISBN: 9780521848053.
- **(Optional)** *Microeconometrics Using Stata* by A. Colin Cameron and Pravin K. Trivedi, Revised Edition. Stata Press. ISBN: 978-1-59718-073-3.

Statistical Software

- Stata (available via UTEP MyAPPS)

Grading Policy

The class grade will be determined by the following components:

- **Homework Assignments (10%×5):** Five homework assignments will be given during the semester. Assignments will usually be collected on Tuesdays by end of day unless otherwise announced. No late submissions will be accepted. Your homework should be typed in LaTeX or Microsoft Word and submitted in pdf documents, supplemented with Stata do files. For each homework, please submit only one pdf and one do file. Please name your homework submission using the homework number followed by your last name and the initial of your first name, e.g., HW1_SunX.pdf and HW1_SunX.do.
- **Term Project and Presentation (50%):** You will have to find a topic in your area of specialization and use the knowledge acquired in this class to write a paper of your own. The project should consist of
 1. complete Stata code that produces all your results,
 2. nicely formatted figures and tables produced by your code,
 3. and a complete research paper.

The last two weeks of the semester will be reserved for presentations. If possible, we may reschedule the two classes for two consecutive days of the last week. Each student will have about 30 minutes. Please mark the following important dates:

- March 31: Research proposal due.
- April 30: Presentation slides due.
- May 12: Paper and do file due.

Grading Scale: 90+=A, 80-89=B, 70-79=C, 60-69=D, 59 and below=F.

Tentative Course Schedule

Generalized Method of Moments (3 weeks)	Lecture Notes
Dynamic Panel Data Models (4 weeks)	Baltagi Ch 8
Treatment Evaluation (3 weeks)	Lecture notes
Tobit and Selection Models (3 weeks)	Lecture Notes

Reading List

Dynamic panel

- Arellano, Manuel, and Stephen Bond. "Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations." *The Review of Economic Studies* 58, no. 2 (1991): 277-297.
- Blundell, Richard, and Stephen Bond. "Initial conditions and moment restrictions in dynamic panel data models." *Journal of Econometrics* 87, no. 1 (1998): 115-143.
- Bruno, Giovanni SF. "Approximating the bias of the LSDV estimator for dynamic unbalanced panel data models." *Economics Letters* 87, no. 3 (2005): 361-366.
- Bruno, Giovanni SF. "Estimation and inference in dynamic unbalanced panel-data models with a small number of individuals." *The Stata Journal* 5, no. 4 (2005): 473-500.
- Bun, Maurice JG, and Jan F. Kiviet. "On the diminishing returns of higher-order terms in asymptotic expansions of bias." *Economics Letters* 79, no. 2 (2003): 145-152.
- Bun, Maurice JG, and Jan F. Kiviet. "The effects of dynamic feedbacks on LS and MM estimator accuracy in panel data models." *Journal of Econometrics* 132, no. 2 (2006): 409-444.
- Dang, Viet Anh, Minjoo Kim, and Yongcheol Shin. "In search of robust methods for dynamic panel data models in empirical corporate finance." *Journal of Banking & Finance* 53 (2015): 84-98.
- Everaert, Gerdie, and Lorenzo Pozzi. "Bootstrap-based bias correction for dynamic panels." *Journal of Economic Dynamics and Control* 31, no. 4 (2007): 1160-1184.
- Flannery, Mark J., and Kristine Watson Hankins. "Estimating dynamic panel models in corporate finance." *Journal of Corporate Finance* 19 (2013): 1-19.
- Gourieroux, Christian, Peter CB Phillips, and Jun Yu. "Indirect inference for dynamic panel models." *Journal of Econometrics* 157, no. 1 (2010): 68-77.
- Kiviet, Jan F. "On bias, inconsistency, and efficiency of various estimators in dynamic panel data models." *Journal of Econometrics* 68, no. 1 (1995): 53-78.

- Roodman, David. "How to do xtabond2: An introduction to difference and system GMM in Stata." *The Stata Journal* 9, no. 1 (2009): 86-136.
- Wintoki, M. Babajide, James S. Linck, and Jeffrey M. Netter. "Endogeneity and the dynamics of internal corporate governance." *Journal of Financial Economics* 105, no. 3 (2012): 581-606.

Treatment evaluation

- Abadie, Alberto, and Javier Gardeazabal. "The economic costs of conflict: A case study of the Basque Country." *American Economic Review* 93, no. 1 (2003): 113-132.
- Abadie, Alberto, Alexis Diamond, and Jens Hainmueller. "Synthetic control methods for comparative case studies: Estimating the effect of California's tobacco control program." *Journal of the American statistical Association* 105, no. 490 (2010): 493-505.
- Abadie, Alberto, Alexis Diamond, and Jens Hainmueller. "Comparative politics and the synthetic control method." *American Journal of Political Science* 59, no. 2 (2015): 495-510.
- Card, David, and Alan B. Krueger. "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania." *The American Economic Review* 84, no. 4 (1994): 772-793.
- Card, David, and Alan B. Krueger. "Minimum wages and employment: a case study of the fast-food industry in New Jersey and Pennsylvania: reply." *American Economic Review* 90, no. 5 (2000): 1397-1420.
- Jalan, Jyotsna, and Martin Ravallion. "Does piped water reduce diarrhea for children in rural India?." *Journal of Econometrics* 112, no. 1 (2003): 153-173.
- Huang, Jiekun, and Darren J. Kisgen. "Gender and corporate finance: Are male executives overconfident relative to female executives?." *Journal of Financial Economics* 108, no. 3 (2013): 822-839.
- Calonico, Sebastian, Matias D. Cattaneo, and Rocio Titiunik. "Robust data-driven inference in the regression-discontinuity design." *The Stata Journal* 14, no. 4 (2014): 909-946.

Academic Integrity

The University of Texas at El Paso prides itself on its standards of academic excellence. In all matters of intellectual pursuit, UTEP faculty and students must strive to achieve excellence based on the quality of work produced by the individual. In the classroom and in all other academic activities, students are expected to uphold the highest standards of academic integrity. Any form of academic dishonesty is an affront to the pursuit of knowledge and jeopardizes the quality of the degree awarded to all graduates of UTEP. It is imperative, therefore, that the members of this academic community understand the regulations pertaining to academic integrity and that all faculty insist on adherence to these standards.

Any student who commits an act of academic dishonesty is subject to discipline. Academic dishonesty includes, and is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, and any act designed to give unfair advantage to a student or the attempt to commit such acts. Proven violations of the detailed regulations, as printed in the Handbook of Operating Procedures (HOP), and available in the Office of Student Life and on the homepage of the Office of Student Life at www.utep.edu/dos, can result in sanctions ranging from disciplinary probation, to a failing grade on the work in question, to a failing grade in the course, to suspension or dismissal, among others.

Disabilities Statement

I will make any reasonable accommodations for students with limitations due to disabilities, including learning disabilities. Please see me personally before or after class in the first two weeks or make an appointment, to discuss any special needs you might have. If you have a documented disability and require specific accommodations, you will need to contact the Disabled Student Services Office in the East Union Building, Room 106 within the first two weeks of classes. The Disabled Student Services Office can also be reached in the following ways:

Web: <http://www.utep.edu/dsso>

Phone: (915) 747-5148

E-Mail: dss@utep.edu

Copyright Statement

All materials used in this course are protected by copyright law. The course materials are only for the use of students currently enrolled in this course and only for the purpose of this course. They may not be further disseminated.

COVID-19 Accommodations

Students are not permitted on campus when they have a positive COVID-19 test, exposure or symptoms. If you are not permitted on campus, you should contact me as soon as possible so we can arrange necessary and appropriate accommodations.

COVID-19 Precautions

You must STAY AT HOME and REPORT if you (1) have been diagnosed with COVID-19, (2) are experiencing COVID-19 symptoms, or (3) have had recent contact with a person who has received a positive coronavirus test. Reports should be made at screening.utep.edu. If you know of anyone who should report any of these three criteria, you should encourage them to report. If the individual cannot report, you can report on their behalf by sending an email to COVIDaction@utep.edu.

For each day that you attend campus - for any reason - you must complete the questions on the UTEP screening website (screening.utep.edu) prior to arriving on campus. The website will verify if you are permitted to come to campus. Under no circumstances should anyone come to class when feeling ill or exhibiting any of the known COVID-19 symptoms. If you are feeling unwell, please let me know as soon as possible, and alternative instruction will be provided. Students are advised to minimize the number of encounters with others to avoid infection.

Wear face coverings when in common areas of campus or when others are present. You must wear a face covering over your nose and mouth at all times in this class. If you choose not to wear a face covering, you may not enter the classroom. If you remove your face covering, you will be asked to put it on or leave the classroom. Students who refuse to wear a face covering and follow preventive COVID-19 guidelines will be dismissed from the class and will be subject to disciplinary action according to Section 1.2.3 Health and Safety and Section 1.2.2.5 Disruptions in the UTEP Handbook of Operating Procedures.