USI – Institute of Finance

Empirical Methods for Corporate Finance

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Course Objectives

The objective of the course is to introduce you to empirical research in corporate finance. Corporate finance is largely a non-experimental field with lots of data. The nature, scope, and detail of available data continue to expand rapidly. These data are used to test theories and to generate empirical facts that constitute a basis for further theories. In this class, you will discover and work with some of the main datasets used in empirical research and apply some of the main methods used to analyze them.

The overall approach in this class is to read and understand (selected) prior empirical work and replicate or extend some of these studies. The topics have been selected to make you work with specific datasets and methods. The primary expertise necessary is the understanding of how to use or manipulate STATA or SAS. You will need to appreciate the methods, approaches, and intuition of econometrics including and beyond a first graduate level of econometrics. I will cover some of the underlying approaches in class but our objectives will be different from those of an econometric course. Rather than a formal derivation of the underlying assumptions and tests, we will assess why something works the way it does.

Deliverables - Empirical exercises

You will have four exercise sets to do using Stata (or SAS). They are designed to get you up and running with financial datasets and methods. There is a lot of work going into extracting databases and matching datasets. You should treat this as a permanent lifelong investment and the costs will seem more bearable. You will have to extract data from the relevant source, run the assigned tests, and answer to question I will specify. Individual effort is necessary. **NOTE: This first assignment (simple event study) is due on April 25th (the second day of class)**.

Schedule-Program

We will meet every day for five hours between April 24 and April 28. The room is TBD. Here is the program (subject to very small adjustments):

Schedule		Topics and deliverables
Monday, April 24	Morning	Introduction and identification/causality
	Afternoon	The research process
Tuesday, April 25	Morning	Event studies and Panel data estimations (fixed effects)
	Afternoon	Estimation of standard errors
		Exercise 1 due
Wednesday, April 26	Morning	Instrumental Variables
	Afternoon	Textual Analysis
		Exercise 2 due
Thursday, April 27	Morning	Difference-in-Differences
	Afternoon	Matching Methods
		Exercise 3 due
Friday, April 28	Morning	Regression Discontinuity Design
	Afternoon	The writing process
		Exercise 4 due

Textbooks

- Selected chapters from the Handbook of Corporate Finance: Empirical Corporate Finance. Edited by B. Espen Eckbo: North Holland, 2007. (**HCF** hereafter)

- Cameron, A. Colin, and Pravin Trivedi, 2009, Microeconometrics: Methods and Applications, ISBN-13 #: 978-0-521-84805-3. Published by Cambridge University Press. (**CT#1** hereafter)

- Cameron, A. Colin, and Pravin Trivedi, 2009, Microeconometrics Using STATA, ISBN-13 #: 978-1-59718-048-1. Published by STATA Press. (**CT#2** hereafter)

- Wooldridge, Jeffrey M., 2002, Econometrics Analysis of Cross-Section and Panel Data, MIT Press, MA. (This has a more formal treatment of the materials).

- Angrist, D. Joshua, and Jorn-Steffen Pischke, 2009, Mostly Harmless Econometrics: An Empiricist's companion. ISBN-978-0-691*12035-5. Princeton University Press. (**AP** hereafter)

Course outline and Readings

All chapters and articles marked with an * should be **carefully** read in advance. As we will discuss these papers in class, not reading makes your attendance almost useless. I will ask questions related to these articles in class, and your answers are part of the class evaluation.

Identification and Causality (Monday)

- ***AP**, chapter 2
- *Roberts and Whited (2012), section 2
- *Bowen, Fresard, and Taillard (2015)
- Morck and Yeung (2011)
- Leamer (2010)

Event studies (Tuesday)

- ***HCF**, chapter 1
- Fama, Fisher, Jensen, and Roll (1969)
- Kolari and Pynnonen (2010)
- Khotari and Warner (1997)
- Thomson (1995)

Panel Data: Fixed effects and Standard Errors Estimation (Tuesday)

- **HCF**, chapters 4 and 12
- **CT#1**, chapters 21 and 22
- **CT#2**, chapter 8
- Lemmon, Roberts, and Zender (2008)
- Coles and Li (2012)
- *Petersen (2009)
- *Bertrand and Schoar (2003)
- Gormley and Matsa (2014)

Instrumental Variables (Wednesday)

- **CT#1**, chapter 4
- **CT#2**, chapters 6 and 9.2
- ***AP**, chapter 4
- *Roberts and Whited (2012), section 3
- Angrist and Krueger (2001)
- Bennedsen, Nielsen, Perez-Gonzalez, and Wolfenzon (2007)
- *Chaney, Sraer, and Thesmar (2012)

- *Paravisini, Rappoport, Schnabl, and Wolfenzon (2014)

Textual Analysis (Wednesday)

- Fresard, Hoberg, and Phillips (2015)
- *Hoberg and Phillips (2010)
- Hoberg and Maksimovic (2014)

Difference-in-Differences (Thursday)

- ***AP**, chapter 5, Section 2
- Bertrand, Duflo, and Mulainathan (2004)
- *Giroud (2013)
- *Roberts and Whited (2012), section 4
- Leary (2009)

Matching Methods (Thursday)

- **ECF**, chapter 2
- *Roberts and Whited (2012), section 6
- Fresard and Valta (2016)
- Derrien and Kecskes (2013)
- *Almeida, Campello, Laranjeira, and Weisbenner (2012)

Regression Discontinuity Design (Friday)

- Lee and Lemieux
- *Roberts and Whited (2012), section 5
- Chava and Roberts (2008)
- *Malenko and Shen (2015)

Bibliography

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2. Angrist, Joshua, and Alan Krueger, 2001, Instrumental Variables and the Search for Identification: From Supply and Demand to Natural Experiments, Journal of Economic Perspectives 15, 69-85.

3. Bennedsen, Morten, Kapser Meisner Nielsen, Francisco Perez-Gonzalez, and Daniel Wolfenzon, 2007, inside the Family Firm: The Role of Families in Succession Decisions and Performance, Quarterly Journal of Economics 122, 647-691.

4. Bertrand, Marianne, Esther Duflo, and Sendhil Mullainathan, 2004, How Much Should we Trust Difference in Difference Estimators? Quarterly Journal of Economics 119, 249-275.

5. Bertrand, Marianne, and Antoinette Schoar, 2003, Managing with Style: The Effect of Managers of Firm Policies, Quarterly Journal of Economics 118, 1169-1208.

6. Bowen, Donald, Laurent Fresard, and Jerome Taillard, 2015, What's your Identification Strategy? Technology Adoption in Corporate Finance, Management Science, forthcoming

7. Chaney, Thomas, David Sraer, and David Thesmar, 2012, The Collateral Channel: How Real Estate Shocks Affect Corporate Investment, American Economic Review 102, 2381-2409.

8. Chava, Sudheer, and Michael Roberts, 2008, How does Financing Impact Investment? The Role of Debt Covenant Violation, Journal of Finance 63, 2085-2121.

9. Coles, Jeffrey , and Zhichuan Li, 2012, An empirical Assessment of Empirical Corporate Finance, Working Paper, Arizona State University.

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27. Paravisini, Daniel, Veronica Rappoport, Philip Schnabl, and Daniel Wolfenzon, 2014, Dissecting the Effect of Credit Supply on Trade: Evidence from Matched Credit-Export Data, Review of Economic Studies (forthcoming)

28. Petersen, Mitchell, 2008, Estimating Standard Errors in Finance Panel Datasets: Comparing Approaches, Review of Financial Studies 22, 435-480.

29. Thomson, Rex, 1995, Empirical Methods of Event Studies in corporate Finance, in R. Jarrow et al., Eds., Handbooks in OR & MS, Vol.9, 963-992.