

University of Neuchatel – Institute of Financial Analysis

## **Empirical Methods for Corporate Finance and Accounting Research**

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### **Course Objectives**

The objective of the course is to introduce you to empirical research in finance and accounting, with a focus on empirical 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. 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 two practical exercise sets to complete. 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. Further information will follow, after registration. The course is equivalent to 3ECTS, and students need to succeed in all two exercises to pass the course (and get the credits if needed).

## Schedule-Program

We will meet on September 5, 6 and 7 for five hours each day (3 hours in the morning and 2 hours in the afternoon). The room is TBD. Here is the program (subject to very small adjustments):

Schedule	Topics and deliverables	
Monday, September 5	Morning	Introduction and identification/causality
	Afternoon	Panel data estimations + Estimation of standard errors
	Evening	Group dinner 😊
Tuesday, September 6	Morning	Instrumental Variables
	Afternoon	Difference-in-Differences
Wednesday, September 7	Morning	Difference-in-Differences (advanced topics)
	Afternoon	Regression Discontinuity Design
		<i>Exercise 1 (panel data) due</i>
Friday, September 16		<i>Exercise 2 (diff-in-diff) due</i>

## Textbooks

- Cameron, A. Colin, and Pravin Trivedi, 2009, *Microeconometrics: Methods and Applications*, ISBN-13 #: 978-0-521-84805-3. Published by Cambridge University Press. (CT hereafter)
- 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)
- Scott Cunningham, 2021, *Causal Inference: The Mixed Tape*, ISBN-978-0300251685. Yale University Press. Free online version at: <https://mixtape.scunning.com/>. (SC hereafter)

## Course outline and Readings

All chapters and articles marked with an \* should be carefully read in advance (I might add other papers later depending on interest and speed).

### Identification and Causality

- \*AP, chapter 2
- SC, chapter 4
- \*Roberts and Whited (2012), section 2
- \*Bowen, Fresard, and Taillard (2015)
- \*Akerlof (2020)

### Panel Data: Fixed effects and Standard Errors Estimation

- \*CT, chapters 21 and 22
- \*SC, chapter 8
- \*Petersen (2009)
- \*Lemmon, Roberts, and Zender (2008)
- Coles and Li (2012)
- Bertrand and Schoar (2003)

### Instrumental Variables

- \*AP, chapter 4
- \*SC, chapter 7
- \*Roberts and Whited (2012), section 3
- \*Chaney, Sraer, and Thesmar (2012)
- \*Bennedsen, Nielsen, Perez-Gonzalez, and Wolfenzon (2007)

### Difference-in-Differences

- \*AP, chapter 5, Section 2
- \*SC, chapter 9
- \*Roberts and Whited (2012), section 4
- \*Giroud (2013)
- \*Gormley and Matsa (2014)
- Bertrand, Duflo, and Mulainathan (2004)
- Goodman-Bacon (2021)
- De Chaisemartin and d'Haultfoeuille (2020)
- Baker, Larcker, and Wang (2022)

### Regression Discontinuity Design

- \*SC, chapter 6
- \*Roberts and Whited (2012), section 5
- \*Malenko and Shen (2016)

### Bibliography

1. Akerlof, George, 2020, Sins of Omission and the Practice of Economics, *Journal of Economic Literature* 58, 405-418.
2. Baker, Andrew, David Larcker, and Charles Wang, 2022, How much should we trust staggered difference-in-differences estimates? *Journal of Financial Economics* 144, 370-395.
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, 2017, What's your Identification Strategy?, *Management Science* 63, 2397-2771
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. Coles, Jeffrey , and Zhichuan Li, 2012, An empirical Assessment of Empirical Corporate Finance, Working Paper, Arizona State University.
9. de Chaisemartin, Clement and Xavier d'Haultfoeuille, 2020, Two-Way Fixed Effects Estimators with Heterogeneous Treatment Effects, *American Economic Review* 110, 2964–96.
10. Giroud, Xavier, 2013, Proximity and Investment: Evidence from Plant-Level Data, *Quarterly Journal of Economics* 128, 861-915.

11. Goodman-Bacon, Andrew, 2021, Difference-in-Differences with Variation in Treatment Timing, *Journal of Econometrics* 225, 254–277.
12. Gormley, Todd, and David Matsa, 2014, Common Errors: How to (and Not to) Control for Unobserved Heterogeneity, *Review of Financial Studies* 27, 617-661.
13. Lemmon, Michael, Michael Roberts, and Jaime Zender, 2008, Back to the Beginning: Persistence and the Cross-Section of Corporate capital Structure, *Journal of Finance* 63, 1575-1608.
14. Malenko, Nadya, and Yao Shen, 2016, The Role of Proxy Advisory Firms: Evidence from a Regression-Discontinuity Design, *Review of Financial Studies* 29, 3394–3427
15. Roberts, Michael, and Toni Whited, 2012, Endogeneity in Corporate Finance, forthcoming in George Constantinides, Milton Harris, and Rene Stulz, eds. *Handbook of the Economics of Finance* Volume 2, Elsevier.
16. Petersen, Mitchell, 2008, Estimating Standard Errors in Finance Panel Datasets: Comparing Approaches, *Review of Financial Studies* 22, 435-480.