

FIN 395.10 (UNIQUE 03525)
EMPIRICAL METHODS IN CORPORATE FINANCE

SPRING 2015

W 03:30PM – 6:30PM, GSB 5.154

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Course Web Page	via Canvas
Final Exam	TBD
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Course Objectives- This course surveys the common methodologies used in empirical corporate finance research, with an emphasis on practical issues. It also examines many of the important topics in corporate finance, including both seminal papers and working papers on the cutting edge of the field. The course is designed to help you to learn how to do empirical research in corporate finance via a two-pronged approach: (1) Lectures, readings, and course assignments will help you to learn the intuition behind each econometric method. (2) Student presentations, referee reports, and literature reviews will help you to learn the most important papers.

I will not go through the proofs of theorems, and you will not be tested on them. This is an applied econometrics course: Understanding the intuition and the rationale for choosing and using empirical models are more important than learning the mechanical steps to prove their derivation. In addition, most of the proofs are trivial or easy to derive, and you can find them in most textbooks.

Prerequisites- You should have taken at least a graduate-level course in introductory econometrics. In preparation for the class, you should also have done the following before the first day of class:

- Please read the book “Mostly Harmless Econometrics” (<http://www.mostlyharmlesseconometrics.com/>) by Angrist and Pischke. It is a good applied econometrics textbook. I don’t require that you understand every single concept in the book, as we will review the book in class during the semester, but I want you to be familiar with the content before the first day of class.
- You also should have access to Stata (version SE or better), and know how to use it before the beginning of the semester. You will not have time to learn how to code in Stata during the semester. There are several website (e.g. <http://www.ats.ucla.edu/stat/stata/> or <http://data.princeton.edu/stata/>) that offer free Stata tutorials. For this class, I don’t allow the use of any other statistical software (R, SAS, Matlab,...), because Stata is by far the most used statistical software in empirical corporate finance, and you should know how to use it, even if it is not your preferred software. If you don’t already have access to it, you have two options:
 - Access Stata remotely for free through the utexas stat app server (<https://stat.utexas.edu/consulting/stat-apps-server>)
 - Buy your individual copy of stata (<http://www.stata.com/order/new/edu/gradplans/student-pricing/>)

- Your computer (or remote server) should have at least 4Gb of RAM.
- You are also responsible to have a functioning access to the WRDS website at the beginning of the semester (<https://www.lib.utexas.edu/indexes/titles.php?id=340>).

Reading Materials-

Required Textbook:

- Mostly Harmless Econometrics, by Joushua D. Angrist and Jorn-Steffen Pischke, Princeton University Press, ISBN-10: 0691120358

Suggested Textbooks:

- Econometric Analysis of Cross Section and Panel Data, by Jeffrey Wooldridge, Second Edition, 2010, MIT Press, ISBN-10: 0262232588
- Econometric Analysis, by William H. Greene, Seventh Edition, 2011, Prentice Hall, ISBN-13: 978-0131395381
- Handbook of Corporate Finance, Volumes 1 & 2: Empirical Corporate Finance by B. Espen Eckbo (Editor), First Edition, 2007, North Holland, ISBN-13: 978-0444508980 & 978-0444530905

The Angrist and Pischke book should be read in its entirety before the beginning of the semester. You don't need to understand every single concept in the book, as we will cover the content in class, but I want you to be familiar with the approach before the semester starts. The Wooldridge and Greene books are for your reference. They have a much more classical, rigorous, but less intuitive (in my opinion), approach to econometric analysis.

Class Attendance and Participation- Class attendance is required. If you cannot attend a class, please email me in advance. If you fail to attend three or more classes during the semester, I will ask you to take the class at a better time that is more convenient for you. The class will be more a joint discussion of corporate finance topics and econometric techniques, rather than a typical lecture-based class. We may assign students to act as the “point person” for each article (i.e., lead or be prepared to lead the discussion).

All sessions will be videotaped, and made readily available online at <http://msl.mcombs.utexas.edu/UTMediasite/Catalog/catalogs/fracassigsb515403525>. However, it does not excuse you from attending class. Your presence and participation is essential to the classroom experience. I retain the option to stop posting videotaped classes online if the attendance drops.

Coursework- There will be five graded components to the course, designed to help you actively participate and learn the material discussed in class, and prepare you for your research projects.

1. Participation: Class participation is a critical part of the course, and you will be graded on it. This includes reading all assigned papers, actively engaging in the discussion, asking pertinent questions, and answering questions correctly. Failure to do presentations or to be engaged in the discussions will result in a lower grade.
2. Homework: You will be asked to download data and write code to implement some of the tools taught in the course. These will be very basic empirical exercises, but helpful to teach you how to actually use these tools.
3. Referee Reports: In the second part of the course, each week you will be assigned a paper to

read, review, and present a discussion in class. You will also have to write a short referee report that will be graded.

4. **Research Proposal:** You will be asked to write an outline for a potential empirical paper in corporate finance. First, you will have to think about an interesting research question, and place it within the relevant literature. Second, you will have to illustrate your identification strategy, and identify the necessary databases to implement such strategy. You are not asked to actually execute the idea. It is just a proposal, but it is a good preparation for your summer paper. You cannot choose an idea that you have previously used for previous classes or summer projects. It has to be a new idea that you came up during the course.
5. **Final Exam:** The final examination will be administered during the final exam period. The final exam is cumulative and covers all material mentioned in the course. The best way to prepare for these exams is by going through examples from the lecture notes and the textbook after each lecture and by working through the homework assignments. Please note the scheduling of the exam. You are responsible for ensuring that you are available and on campus to take the exam. I will not FAX exams to remote locations. I will not permit anyone to take the exams at another time unless you are gravely ill, face a significant emergency or have an exam conflict. If your travel plans conflict with the date of an exam, you should change your travel plans now, or drop the course.

Grading- You should not be too worried about your grade; instead, you should focus on learning the tools taught in this course. Using these tools to write a solid job market paper and dissertation is far more important than your actual grade. When you're on the job market, no one will care what grade you got in your PhD courses. You should view your grade in this course as a signal of where I think you stand in terms of your understanding and ability to apply the tools of this course. Your grade in the course will be determined as follows:

<u>Assignment</u>	<u>Points</u>
Participation	20
HWs	20
Referee Reports	20
Project Proposal	10
Final Exam	<u>30</u>
	<u>100</u>

Grades are non-negotiable, but if you have a question about feedback or an assigned grade, please ask. Make-up and extra-credit assignments are generally not possible. Your grade will be determined solely by the components listed above. The average turn-around time for returning the graded HWs and reports back to students is one week.

Classroom Policies- Standard policies used in other courses apply to this class. I don't expect these to be an issue for PhD students:

- **Attending class:** The education experience for everyone suffers if participation or attendance for the class becomes a problem. If you must miss a class, an examination, a work assignment, or a project, in order to observe religious holidays, you will be given an opportunity to complete the missed work within a reasonable timeframe after the absence.
- **Using laptops, smartphones, and other wireless devices:** There are often cases where learning is enhanced by the use of laptops and other devices in class. However, when students are surfing the web, responding to e-mails, instant messaging each other, and otherwise not devoting their full attention to the topic at hand, they are doing themselves and their peers a major disservice.

Those around them face additional distraction. Fellow students cannot benefit from the insights of the students who are not engaged.

- Arriving on time: On time arrival ensures that classes are able to start and finish at the scheduled time. On time arrival shows respect for both fellow students and faculty and it enhances learning by reducing avoidable distractions.
- Displaying Name cards: This permits fellow students and faculty to learn names, enhancing opportunities for community building and evaluation of in-class contributions.
- Turning in your assignments late: Individual extension of assignment deadlines could negatively alter the level-playing field within the classroom.

Academic Dishonesty- I have no tolerance for acts of academic dishonesty. Such acts damage the reputation of the school and demean the honest efforts of the majority of students. The minimum penalty for an act of academic dishonesty will be a zero for that assignment or exam.

The responsibilities for both students and faculty with regard to the Honor System are described on <http://mba.mcombs.utexas.edu/students/academics/honor/index.asp>. As the instructor for this course, I agree to observe all the faculty responsibilities described therein. If the application of the Honor System to this class and its assignments is unclear in any way, it is your responsibility to ask me for clarification.

As specific guidance regarding collaboration for this course, you should consider the completion of the three individual problem sets to be an individual effort. It is OK to ask for help from others on the individual assignments if you get completely stuck or lost, however, you should develop your own answer and certainly not cut and paste the work of others. The two case assignments will be completed in pairs or groups of three. Group *preparation* for examinations is acceptable and encouraged.

Students with Disabilities- Upon request, the University of Texas at Austin provides appropriate academic accommodations for qualified students with disabilities. Services for Students with Disabilities (SSD) is housed in the Office of the Dean of Students, located on the fourth floor of the Student Services Building. Information on how to register, downloadable forms, including guidelines for documentation, accommodation request letters, and releases of information are available online at <http://deanofstudents.utexas.edu/ssd/index.php>. Please do not hesitate to contact SSD at (512) 471-6259, VP: (512) 232-2937 or via e-mail if you have any questions.

Tentative Schedule

The first part of the course will be focused on reviewing the most current econometric techniques used in corporate finance. In the second part of the course, we will discuss an important corporate finance topic each week. The dates and topics are tentative and might change during the semester.

<u>Date</u>	<u>Class</u>	<u>Topic</u>	<u>Assignments</u>
Wed Jan 21	1	Introduction, OLS and Causality	
Wed Jan 28	2	Fixed Effects Models	HW OLS Due
Wed Feb 4	3	Instrumental Variables	HW FE Due
Wed Feb 11	4	Regression Discontinuity	HW IV Due
Wed Feb 18	5	Natural Experiments	
Wed Feb 25	6	Matching and Event Studies	HW Diff-in-Diff Due
Wed Mar 4	7	Non-linear Models and Other Econometric Techniques	
Wed Mar 11	8	Standard Errors	
Wed Mar 25	9	Structural Estimation	
Wed Apr 1	10	Investments, M&A, and Spin-offs	Referee report 1
Wed Apr 8	11	Capital Structure	Referee report 2
Wed Apr 15	12	Security Offerings (IPO, SEO, ...) and Payout	Referee report 3
Wed Apr 22	13	VC, PE, Entrepreneurship, Private firms	Referee report 4
Wed Apr 29	14	Conglomerates and Internal Capital Markets	Referee report 5
Wed May 6	15	Corporate Governance and Behavioral Corporate Finance	Referee report 6
TBD	16	Final Exam	Project Proposal