

FIN 395.10 (UNIQUE 03525)
EMPIRICAL METHODS IN CORPORATE FINANCE

SPRING 2016

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 learn how to do empirical research in corporate finance via a two-pronged approach: (1) Lectures, readings, and course assignments will help you understand the intuition behind each econometric method. (2) Student presentations, referee reports, and literature reviews will help you become familiar with the most important papers in the literature.

I will not go through the proofs of theorems, and you will not be tested on them. This is an applied econometrics course with a focus on corporate finance: Understanding the intuition and the rationale for choosing and using empirical models are more important than learning the mechanical steps to derive the theorems. In addition, most of the proofs are trivial, 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 buy the book and briefly take a look at “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

Ideally, it would be good if the students are familiar with the Angrist and Pischke book before the beginning of the semester. 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. Sometimes, I 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/Full/25366a7e33aa43b98f6e245847eda0a821>. 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. You will also be asked to replicate the main results of several papers.

3. **Referee Reports:** In the second part of the course, you will be assigned a paper to read, review, and present a discussion in class. Sometimes 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. The research proposal is due the day of the final exam. I am not expecting that you write a full paper, but I would like to see that you thought about an interesting idea, and that you spent some time on how to develop it into a research project. The topic of the paper has to be on empirical corporate finance only if you are a finance PhD student. If you are not a finance PhD student, you can choose any empirical applied micro-economics topic (labor, accounting, marketing, ...), so that it can be a useful first step for your academic career. You cannot choose an idea that you have already used for other courses, or for other research papers. Your research proposal should include: (a) a detailed exposition of the research question. Make sure you spell out what your null and alternative hypotheses are, and what frictions (or theoretical models) would support your alternative hypothesis; (b) an overview of the literature on the topic, and your contribution (How is this different from what has already been done?); (c) a list of datasets you would need to test your hypothesis; (d) the empirical methodology that allows you to answer the research question (What is your identification strategy? Are all the observations iid? What other possible explanations could drive your results? How you can separate them from your main hypothesis?). Take this as an opportunity to receive some feedback on one of your early ideas for your dissertation. While you are not required to execute your idea, if you feel inclined to do so you will receive even more informative feedback.
5. **Final Exam:** The final examination will be administered during the final exam period. The exam will be oral, and individual. The exam is cumulative and covers all material mentioned in the course. I believe that this is the best way to test whether you understood the material I taught in class. You only really learn about a topic when you are able to teach it. Each student will be tested for approximately 30 minutes. Questions will be initially broad (e.g. Talk to me about pros and cons of IV; or Tell me the state of the literature on capital structure, ...), and then I might ask more specific questions depending on how you answer the open-ended question. The best way to prepare for the exam is to go through the lecture notes and the textbook and to work 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 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 material covered 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 knowledge of the empirical corporate finance literature, and of your ability to apply the tools of this course in a research project. Your grade in the course will be determined as follows:

<u>Assignment</u>	<u>Points</u>
Participation	20
Referee Reports and HWs	40
Project Proposal	10
Final Exam	<u>30</u>
	<u>100</u>

Grades are non-negotiable, but if you have a question about 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.
- **Turning in your assignments late:** Individual extension of assignment deadlines could negatively alter the level-playing field within the classroom. Assignments turned in late will be discounted 30%.

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 Due</u>
Wed Jan 20	1	Introduction, OLS	
Wed Jan 27	2	Endogeneity	
Wed Feb 3	3	Fixed Effects Models	HW 1 (OLS), Replication 1
Wed Feb 10	4	Instrumental Variables	HW 2 (FE), Replication 2
Wed Feb 17	5	Natural Experiments	HW 3 (IV), Replication 3
Wed Feb 24	6	Regression Discontinuity	HW 4 (Diff-in-Diff)
Wed Mar 2	7	Matching	
Wed Mar 9	8	Non-linear Models and Other Econometric Techniques	Replication 4
Wed Mar 23	9	Standard Errors	
Wed Mar 29	10	Structural Estimation	
Wed Apr 6	11	Capital Structure	Referee report 1
Wed Apr 13	12	Investments, M&A, and Internal Capital Markets	HW 5 (M&A)
Wed Apr 20	13	Security Offerings (IPO, SEO, ...) and Payout	Replication 5 (Conglomerates)
Wed Apr 27	14	Corporate Governance	HW 6 (Patents)
Wed May 4	15	Other Corporate Finance Topics	
TBD	16	Final Exam	Project Proposal

Reading List

Practical guides on how to write research papers and referee reports

- Berk, Harvey, and Hirshleifer - Preparing a referee report: Guidelines and perspectives.
- Ferson - Tips on writing a referee's report
- Cochrane (2005) - Writing tips for PhD students
- William Thomson, A Guide for the Young Economist, The MIT Press, 2001

Finance Survey Books

- Foundations and Trends in Finance, Now Publishers.
- Handbook of Empirical Corporate Finance, Elsevier.
- Handbook of the Economics of Finance, Elsevier.

Week 1 and 2 - OLS and Endogeneity:

- Angrist and Pischke Ch. 1, 2, 3
- Wooldridge Ch 4.1, 4.2
- Greene Ch. 3, 4.1-4.4, 5.7-5.9, 6.1-6.2
- Oster, Emily, 2014, Unobservable selection and coefficient stability: Theory and validation, *NBER Working Paper*, Brown University.
- Roberts, Michael R., and Whited, Toni M., 2012, Endogeneity in empirical corporate finance, *Working Paper, Ch. 1, 2, and 7*, The Wharton School – University of Pennsylvania.
- Bowen, Don, Fresard, Laurent, and Taillard, Jerome P., 2014, What's your identification strategy? Technology adoption within corporate finance, Working Paper, Robert H. Smith School of Business – The University of Maryland.
- Morck, Randall, Shleifer, Andrei, Vishny, Robert W., 1990, The stock market and investment: is the market a slideshow?, BPEA, University of Alberta.
- Rajan, Raghuram G., and Zingales, Luigi, 1998, Financial dependence and growth, *American Economic Review* 88:3, 559-586.
- Opler, Tim, Pinkowitz, Lee, Stulz, Rene, and Williamson, Robin, 1999, The determinants and implications of corporate cash holdings, *Journal of Financial Economics* 52, 3-46..
- La Porta, Rafael, Lopez-de-Silanes, Florencio, Shleifer, Andrei, and Vishny, Robert W., 1998, Law and finance, *Journal of Political Economics* 106:6, 1113-1155.
- Doidge, Craig, Karolyi, Andrew, and Stulz, Rene M., 2004, Why are foreign firms listed in the U.S. worth more?, *Journal of Financial Economics* 71, 205-238.
- Faulkender, Michael, Petersen, Mitchell A., 2006, Does the Source of Capital Affect Capital Structure?, *Review of Financial Studies* 19:1, 45-79.

Week 3 - Panel Data

- Angrist and Pischke Ch. 5.1, 5.3, 5.4
- Wooldridge Ch. 10, 13.9.1, 15.8.2, 15.8.3
- Greene Ch. 11
- Roberts, Michael R., and Whited, Toni M., 2012, Endogeneity in empirical corporate finance, *Working Paper, Ch. 3*, The Wharton School – University of Pennsylvania.
- Campello, Murillo, Galvao, Antonio F. and Juhl, Ted, 2013, Policy heterogeneity in empirical corporate finance, *NBER Working Paper*, Cornell University.
- Khwaja, Asim I., and Mian, Atif, 2008, Tracing the impact of bank liquidity shocks: Evidence from an emerging market, *American Economic Review* 98:4, 1413-1442.
- Lemmon, Michael L., Roberts, Michael R., and Zender, Jaime F., 2008, Back to the beginning: persistence and the cross-section of corporate capital structure, *The Journal of Finance* 63, 1575-1608.
- Graham, John R., Li, Si, and Qiu, Jiaping, 2012, Managerial attributes and executive compensation, *Review of Financial Studies* 25, 144-186.
- Bertrand, Marianne, and Schoar, Antoinette, 2003, Managing with style, *Quarterly Journal of Economics* 118, 1169-1208.
- Fracassi, Cesare, Petry, Stefan, and Tate, Geoffrey, 2014, Do credit analysts matter?, *Working Paper*, McCombs Business School - University of Texas (Austin).

Week 4 - IV

- Angrist and Pischke Ch. 4
- Atanasov, Vladimir A., and Black, Bernard S., 2014, Shock-Based Causal Inference in Corporate Finance Research, *Working Paper*, Ch. 6, Raymond A. Mason School of Business.
- Murray, Michael P., 2006, Avoiding Invalid Instruments and Coping with Weak Instruments, *The Journal of Economic Perspectives* 20:4, 111-132.
- Roberts, Michael R., and Whited, Toni M., 2012, Endogeneity in empirical corporate finance, *Working Paper*, Ch. 5, The Wharton School – University of Pennsylvania.
- Bennedsen, Morten, Nielsen, Kasper M., Perez-Gonzalez, Francisco, and Wolfenzon, Daniel, 2007, Inside the family firm: The role of families in succession decision and performance, *Quarterly Journal of Economics* 122, 647-691.
- Giroud, Xavier, Mueller, Holger M., Stomper, Alex, Westerkamp, Arne, 2012, Snow and Leverage, *Review of Financial Studies* 25:3, 680-710.
- D'Acunto, Francesco, 2014, Innovating to invest: The role of basic education, *Working Paper*, Haas School of Business, University of California (Berkeley).
- Guiso, Luigi, Sapienza, Paola, and Zingales, Luigi, 2004, The role of social capital in financial development, *American Economic Association* 94:3, 526-556.
- Becker, Bo, 2007, Geographical segmentation of US capital markets, *Journal of Financial Economics* 85, 151-178.
- Chaney, Thomas, Sraer, David, Thesmar, David, 2012, The collateral channel: How real estate shocks affect corporate investment, *American Economic Review* 102:6, 2381-2409.
- Ponticelli, Jacobo, 2013, Court enforcement and firm productivity: Evidence from a bankruptcy reform in Brazil, *Working Paper*, Booth School of Business - University of Chicago.

Week 5 - Diff-in-Diff

- Angrist and Pischke Ch. 5.2
- Roberts, Michael R., and Whited, Toni M., 2012, Endogeneity in empirical corporate finance, *Working Paper*, Ch. 2.2, 4, The Wharton School – University of Pennsylvania
- Hennessy, Christopher A., and Strebulaev, Ilya A., 2014, Natural Policy Experiment Policy Evaluation: A Critique, *NBER Working Paper*, London Business School.
- Bertrand, Marianne, Duflo, Esther, and Mullainathan, Sendhil, 2004, How much should we trust differences-in-differences estimates, *Quarterly Journal of Economics* 119:1, 249-275.
- Atanasov, Vladimir A., and Black, Bernard S., 2014, Shock-Based Causal Inference in Corporate Finance Research, *Working Paper*, Ch. 1-5, Raymond A. Mason School of Business.
- Jayaratne, Jith, and Strahan, Philip E., 1996, The finance-growth nexus: Evidence from bank branch deregulation, *Quarterly Journal of Economics*, 639-670.
- Hayes, Rachel M., Lemmon, Michael, and Qiu, Mingming, 2012, Stock options and managerial incentives for risk taking: Evidence from FAS 123R, *Journal of Financial Economics* 105, 174-190.
- Gormley, Todd A., and Matsa, David A., 2011, Growing out of trouble? Corporate Response to liability risk, *Review of Financial Studies* 24:8, 2781-2821.
- Becker, Bo, and Stromberg, Per, 2012, Fiduciary duties and equity-debtholder conflicts, *Review of Financial Studies* 25:6, 1931-1969.
- Guiso, Luigi, Sapienza, Paola, and Zingales, Luigi, 2004, The role of social capital in financial development, *American Economic Association* 94:3, 526-556.

- Ashwini, Agrawal K., Matsa, David A., 2012, Labor unemployment risk and corporate financing decisions, *Journal of Financial Economics* 108:2, 449-470.
- Heider, Florian, and Ljungqvist, Alexander, 2013, As certain as debt and taxes: Estimating the tax sensitivity of leverage from state tax changes, *Journal of Financial Economics*.

Week 6 - RDD and RKD

- Angrist and Pischke Ch. 6
- Roberts, Michael R., and Whited, Toni M., 2012, Endogeneity in empirical corporate finance, *Working Paper, Ch. 5*, The Wharton School – University of Pennsylvania
- Lee, David S., and Lemieux, Thomas, 2010, Regression Discontinuity Designs in Economics, *Journal of Economic Literature* 48:2, 281-355.
- Imbens, Guido W., and Lemieux, Thomas, 2008, Regression discontinuity designs: A guide to practice, *Journal of Econometrics* 142, 615-635.
- Atanasov, Vladimir A., and Black, Bernard S., 2014, Shock-Based Causal Inference in Corporate Finance Research, *Working Paper, Ch. 7*, Raymond A. Mason School of Business.
- Chang, Yen-Cheng, Hong, Harrison, and Liskovich, Inessa, 2014, Regression Discontinuity and the Price Effects of Stock Market Indexing, *Review of Financial Studies* 28:1, 212-246.
- Crane, Alan D., Michenaud, Sebastien, and Weston, James P., 2014, The effect of institutional ownership on payout policies: Evidence from index thresholds, *Working Paper*, Rice University.
- Keys, Benjamin, Mukherjee, Tanmoy, Seru, Amit, and Vig, Vikrant, 2010, Did securitization lead to lax screening?, *Quarterly Journal of Economics* 125:1, 307-362.
- Fracassi, Cesare, Garmaise, Mark J., Kogan, Shimon, and Natividad, Gabriel, 2014 JFQA – Business Microloans for US Subprime Borrowers, *Journal of Financial and Quantitative Analysis*.
- Dobridge, Christine L., 2014, Fiscal stimulus and firms - a tale of two recessions, *Working Paper*, Wharton School of Business – University of Pennsylvania.
- Bakke, Tor-Erik, and Whited, Toni M., 2012, Threshold events and identification: a study of cash shortfalls, *Journal of Finance* 67:3, 1083-1111.

Week 7 - Matching

- Angrist and Pischke Ch. 3.3
- Roberts, Michael R., and Whited, Toni M., 2012, Endogeneity in empirical corporate finance, *Working Paper, Ch. 6*, The Wharton School – University of Pennsylvania
- Wooldridge Ch. 21.3.5
- Morse, Adair, 2011, Payday lenders: heroes or villains?, *Journal of Financial Economics* 102:1, 28-44.
- Colak, Gonul, and Whited, Toni M., 2007, Spin-offs, divestitures and conglomerate investment, *Review of Financial Studies* 20:3, 557-595.
- Lemmon, Michael, and Roberts, Michael R., 2010, The response of corporate financing and investment to changes in the supply of credit, *Journal of Financial and Quantitative Analysis* 45:3, 555-587.

Week 8 – Non-Linear Models

- Angrist and Pischke Ch. 3.4
- Li, Kai, and Prabhala, Nagpurnanand R., 2007, Self-selection models in corporate finance, *Handbook of Corporate Finance* 1, Ch. 2.

Week 9 – Statistical Inference

- Angrist and Pischke Ch. 8
- Petersen, Michael A., 2009, Estimating standard errors in finance panel data sets: Comparing approaches, *Review of Financial Studies* 22:1, 435-480.
- Thompson, Samuel B., 2011, Simple formulas for standard errors that cluster by both firm and time, *Journal of Financial Economics* 99:1, 1-10.

Week 10 - Structural Estimation

- Rust, John, 1987, Optimal replacement of GMC bus engines: An empirical model of Harold Zurcher, *Econometrica* 55:5, 999-1033.
- Hotz, Joseph V., and Miller, Robert A., 1993, Conditional choice probabilities and the estimation of dynamic models, *The Review of Economic Studies* 60:3, 497-529.
- Aguirregabiria, Victor, and Mira, Pedro, Dynamic discrete choice structural models: A survey, *Journal of Econometrics* 156:1, 38-67.
- Taylor, Lucian A., 2012, Why are CEOs rarely fired? Evidence from structural estimation, *The Journal of Finance* 65:6, 2051-2087.
- Kang, Ari, Lowery, Lowery, and Waldraw, Malcolm, The costs of closing failed banks: A structural estimation of regulatory incentives, *Review of Financial Studies* 28:4, 1060-1102.
- Hennessy, Christopher A., and Whited, Toni M., 2005, Debt dynamics, *Journal of Finance* 60, 1129-1165.
- Murphy, Alvin, 2013, A dynamic model of housing supply, *Working Paper*, Olin Business School – Washington University (St. Louis).

Week 11 – Capital Structure

Survey Papers

- Murray, Z. Frank, Vidhan K. Goyal, 2008, Ch. 12: Trade-off and pecking order theories of debt, *Handbook of Empirical Corporate Finance Vol. 2*, 135-202.
- Parsons, Chris, and Titman, Sheridan, 2008, Ch. 13: Capital Structure and corporate strategy, *Handbook of Empirical Corporate Finance Vol. 2*, 203-234.
- Graham, John R., Leary, Mark T., 2011, A review of empirical capital structure research and directions for the future, *Annual Review of Financial Economics* 3, 309-345.
- Welch, Ivo, 2012, A critique of recent quantitative and structural models in capital structure and beyond, *NBER Working Paper*, University of California.
- Senbet, Lemma W., and Wang, Tracy Yue, 2012, Corporate financial distress and bankruptcy: A survey, *Foundations and Trends in Finance* 4, 243-335.
- Hotchkiss, Edith S., John, Kose, Mooradian, Robert M., Thorburn, Karin S., 2008, Ch. 14:

Bankruptcy and the resolution of financial distress, *Handbook of Empirical Corporate Finance Vol. 2*, 235-287.

Papers on Capital Structure

- Senbet, Lemma W., and Wang, Tracy Yue, 2012, Corporate financial distress and bankruptcy: A survey, *Foundations and Trends in Finance* 4, 243-335.
- Baker, Malcolm, and Wurgler, Jeffrey, 2002, Market timing and capital structure, *The Journal of Finance* 57:1, 1-32.
- Welch, Ivo, 2004, Capital structure and stock returns, *Journal of Political Economy* 112:1, 106-131.
- Leary, Mark T., and Roberts, Michael R., 2005, Do firms rebalance their capital structure?, *The Journal of Finance* 60:6, 2575-2619.
- van Binsbergen, Jules H., Graham, John R., Yang, Jie, 2010, The cost of debt, *The Journal of Finance* 65:6, 2089-2136.
- Chava, Sudheer, and Roberts, Michael R., 2008, How does financing impact investment?, *The Journal of Finance* 63:5, 2085-2121.
- Strebulaev, Ilya A., 2007, Do tests of capital structure theory mean what they say?, *The Journal of Finance* 62:4, 1747-1787.
- DeAngelo, Harry, and Roll, Richard, 2015, How stable are corporate capital structures?, *The Journal of Finance* 70:1, 373-418.
- Banerjee, Shantanu, Dasgupta, Sudipto, and Kim, Yungsan, 2008, Buyer-supplier relationship and the stakeholder theory of capital structure, *The Journal of Finance* 63:5, 2507-2552.
- Flannery, Mark J., Rangan, Kasturi P., 2006, Partial adjustment toward target capital structures, *Journal of Financial Economics* 79:3, 469-506.
- Frank, Murray Z., and Goyal, Vidhan K., 2003, Testing the Pecking Order Theory of capital structure, *Journal of Financial Economics* 67:2, 217-248.
- Frank, Murray Z., and Goyal, Vidhan K., 2009, Capital structure decisions: Which factors are reliably important?, *Financial Management* 38:1, 1-37.
- Graham, John R., Leary, Mark T., Roberts, Michael R., 2015, A century of capital structure: The leveraging of corporate America, *Journal of Financial Economics*, forthcoming.
- Huang, Rongbing, and Ritter, Jay, 2009, Testing theories of capital structure and estimating the speed of adjustment, *Journal of Financial and Quantitative Analysis* 44:2, 237-271.
- Khanna, Naveen, and Tice, Sheri, 2000, Strategic responses of incumbents to new entry: The effect of ownership structure, capital structure, and focus, *Review of Financial Studies* 13:3, 749-779.
- Lemmon, Michael L., Roberts, Michael R., and Zender, Jaime F., 2008, Back to the beginning: persistence and the cross-section of corporate capital structure, *The Journal of Finance* 63, 1575-1608.
- Opler, Tim C., and Titman, Sheridan, 1994, Financial distress and corporate performance, *The Journal of Finance* 49:3, 1015-1040.
- Rauh, Joshua D., and Sufi, Amir, 2010, Capital structure and debt structure, *Review of Financial Studies* 23:12, 4242-4280.
- Strebulaev, Ilya A., and Yang, Baozhong, 2013, The mystery of zero-leverage firms, *Journal of Financial Economics* 109:1, 1-23.
- Zingales, Zingales, 1998, Survival of the fittest or the fattest, *The Journal of Finance* 53:3, 905-938.

Week 12 – Investments, M&A, and Internal Capital Markets

Survey Papers

- Stein, Jeremy C., 2003, Agency, Information, and Corporate Investment, *NBER Working Paper*, Harvard University.
- Maksimovic, Vojislav, and Phillips, Gordon, 2007, Ch. 8: Conglomerate Firms and Internal Capital Markets, *Handbook of Empirical Corporate Finance Vol. 1*, 423-479.
- Betton, Sandra, Eckbo, B. Espen, Thorburn, Karin S., 2008, Ch. 15: Corporate Takeovers, *Handbook of Empirical Corporate Finance Vol. 2*, 291-429.
- Eckbo, B. Espen, Thorburn, Karin S. 2013, Corporate Restructuring, *Foundations and Trends in Finance* 7, 159-288.
- Martynova, Marina, Renneboog, Luc, 2008, A century of corporate takeovers, *Journal of Banking & Finance* 32:10, 2148-2177.
- Maksimovic, Vojislav, Phillips, Gordon M., 2013, Conglomerate firms, internal capital markets, and the theory of the firm, *Annual Review of Financial Economics* 5, 225-244.

Papers on Investments

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