Corporate Finance I

Instructor:	*Instructor:*
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Course Description

This course is designed to introduce students to foundational theoretical models and empirical techniques in corporate finance. It is designed to have two components — a theory focused module and an empirical methods module — that are linked. The course will begin with the theory-focused module and conclude with the empirical-focused module. The goal of the theoretical component is to review classical theory papers in corporate finance and contract theory. It is assumed that students have taken an introductory course in microeconomics and are familiar with game theory and incomplete information. The goal of the empirical component of the course is to review econometric methods commonly used in corporate finance research. The module is designed to act as a bridge between a typical graduate course in theoretical microeconometrics and the practice of empirical research. It is assumed that students have taken an introductory course in econometrics and are familiar with, among other things, evaluation of econometric estimators and problems with omitted variables.

Course Evaluation

Class Participation	20%
Problem Set (1)	20%
Referee Report (3)	30%
Corporate Topic Report	30%

Referee reports will be due (tentatively) October 26, Nov. 23, and December 14. We will provide further guidance on the Topic Report during the course.

Theoretical Module

Tentative Topic and Reading List
Papers in **bold** are required for the lecture. Papers that are other papers should be read by the end of the course.

1 Lecture 1 Frictions and Corporate Finance (A. Dyck)

Date: October 12, 2017
Required Reading for session 1
Start with these two readings

- *** Zingales, Luigi, 2000, "In Search of New Foundations,"** ***Journal of Finance***

- *** Tirole, Jean,** ***The Theory of Corporate Finance*****, Introduction, p 1.-11**

And for the first session you must read the following that are **bold** with an asterisk, and you should read before the end of the year the other listed articles.

1. A Theory of the Firm

   - ***Coase, R., 1937, "Nature of the Firm,"** ***Economica*** **4, 386-405.**

2. The Firm as a Nexus of Explicit Contracts and Its Implications

   - Alchian, A. and H. Demsetz 1972, Production, Information Costs and Economic Organization, *American Economic Review*, 777-705.
   - ***Jensen M. C. and W. Meckling1976, Theory of the Firm: Managerial Behavior, Agency Costs and Capital Structure,** ***Journal of Financial Economics*****, 3, 305-360.**

3. The Firm as a Nexus of Explicit and Implicit Contracts and Its Implications

   - Baker, George, Robert Gibbons, and Kevin J. Murphy, 2001, Relational Contracts and the Theory of the Firm, Quarterly *Journal of Economics.*
   - Titman, S. 1984, The Effect of Capital Structure on a Firms Liquidation Decision, *Journal of Financial Economics* 13, 137 - 151.
   - ***Shleifer, Andrei, and Lawrence Summers, 1988, Breach of trust in hostile takeovers, in A. J. Auerbach, ed.:** ***Corporate Takeovers: Causes and Consequences*** **(University of Chicago Press, Chicago).**

4. The Firm as a Collection of Growth Options and Its Implications

- Myers, S.C., 1977, The Determinants of Corporate Borrowing, *Journal of Financial Economics,* 5, 146-175.
- ***Myers, S.C. and N.S. Majluf, 1984, Corporate Financing and Investment Decisions when Firms have Information that Investors do not Have *Journal of Financial Economics,* 13, 187-222.**

2 Lecture 2 Frictions and Corporate Finance (A. Dyck)

Date: October 19, 2017
We will return to some of articles from Lecture 1
You must in addition read chapters in Tirole Text listed below

- **Chapter 3 – Imperfect Information models moral hazard**
- **Chapter 6 – Imperfect Information models adverse selection**
- **Chapter 10 – Incomplete Contracting Models focus on 10.2**

And you must read the following that are **bold** with an asterisk, and you should read before the end of the year the other listed articles.

1. The Firm as a Collection of Assets and Its Implications

   - ***Hart, Oliver, 2001, Financial Contracting, *Journal of Economic Literature* 39, 1079-1100**
   - Klein, B., Crawford, and A. Alchian, 1978, Vertical Integration, Appropriable Rents and the Competitive Contracting Process, *Journal of Law and Economics*, 297-326.
   - Grossman, S. and Hart, O. 1986, The Costs and the Benefits of Ownership: A Theory of Vertical and Lateral Integration, *Journal of Political Economy*, 691-719.
   - Hart,O. and J. Moore, 1990, Property Rights and the Nature of the Firm *Journal of Political Economy*, 1119-1158.
   - Aghion, P. and P. Bolton,1992, An Incomplete Contract Approach to Financial Contracting *Review of Economic Studies* 59, 473-494.
   - Hart, Oliver, and John Moore, 1994, Debt and the inalienability of human capital, *Quarterly Journal of Economics* 109, 841-879.
   - Fluck, S. 1998, The optimality of debt vs outside equity, *Review of Financial Studies* 11, 383-418.
   - Myers, Stewart, 2000, Outside Equity, *Journal of Finance.*
   - Shleifer, A., and R. Vishny, 1997, A survey of corporate governance, *Journal of Finance* 52, 2, 737-783.

- Shleifer, A. and R. Vishny, 1992, Liquidation Value and Debt Capacity: A Market Equilibrium Approach, *Journal of Finance* 42, 1343-1365.

2. Financial Intermediation

   - ***Diamond, D. (1984) "Financial Intermediation and Delegated Monitoring," *Review of Economic Studies*, 51, 393-414.**
   - Diamond, D. and P. Dybvig (1983) "Bank Runs, Deposit Insurance, and Liquidity," *Journal of Political Economy*, 91, 401-419.
   - Rajan, R. (1992) "Insiders and Outsiders: The Choice between Informed and Arms Length Debt," *Journal of Finance*, 47, 1367-1400.
   - Holmstrom, B. and J. Tirole (1997) "Financial Intermediation, Loanable Funds, and the Real Sector," *Quarterly Journal of Economics*, 112, 663-691.

Empirical Module

Tentative Topic and Reading List
Papers in **bold** are required. Papers that are underlined should be skimmed. I suggest that all PhD students purchase a copy of *Mostly Harmless Econometrics*. This is a textbook that will be useful for many of you going forward.

3 Perspectives on Empirical Analysis (Lecture 1)

Date: November 9, 2017

3.1 Why do we care about econometrics?

1. **Angrist, J. and J.-S. Pischke, 2010, The credibility revolution in empirical economics: How better research design is taking the con out of econometrics, *Journal of Economic Perspectives***

2. **Nevo, A. and M. Whinston, 2010, Taking the dogma out of econometrics: Structural modeling and credible inference, *Journal of Economic Perspectives***

3. Shadish, W., T. Cook, and D. Campbell, 2002,*Experimental and Quasi-Experimental Designs for Generalized Causal Inference*, Chapters 1 – 3 (Note that I will provide you a photocopy of the relevant chapters I DO NOT expect you to purchase this book.)

3.2 What are we estimating? What are we NOT estimating? How can we do this?

1. **Angrist, J. and J.-S. Pischke, 2009, *Mostly Harmless Econometrics*, Chapters 1 – 2.**

2. **Hennessy, C. and I. Strebulaev, 2016, Beyond random assignment: Credible inference of causal effects in dynamic economices, LBS Working Paper**

3. **Roberts, M. and T. Whited, 2012, Endogeneity in Empirical Corporate Finance, in George Constantinides, Milton Harris, and Rene Stulz, eds. *Handbook of the Economics of Finance***

4 Introduction OLS and Limitations (Lecture 1)

1. OLS

   - **Angrist, J. and J.-S. Pischke, 2009, *Mostly Harmless Econometrics*, Chapter 3.**

2. Control strategies for selection — Matching, Propensity Score Matching, Two-stage selection modeling

   - **Persson, T. and G. Tabellini, 2005, *The Economic Effects of Constitutions*, Chapter 5** (Note that I will provide you a photocopy of the relevant chapter I DO NOT expect you to purchase this book.)
   - **Persson, T. and G. Tabellini, 2003, Constitutional Rules and Fiscal Policy Outcomes, *American Economic Review***
   - Persson, T. and G. Tabellini, 2005, *The Economic Effects of Constitutions*, Chapter 6 (Note that I will provide you a photocopy of the relevant chapter I DO NOT expect you to purchase this book.)
   - **Kleymenova, A., 2015, Consequences of Mandated Bank Liquidity Disclosures, University of Chicago working paper** (Note that I will send you a different version of the paper than the one that is currently publicly available)
   - Rosenbaum, P. and D. Rubin, 1983, The central role of the propensity score in observational studies for causal effects, *Biometrika*

5 Introduction to Common Methods with Examples (Lecture 2)

Date: November 16, 2017

5.1 Instrumental Variables

1. Introduction/Homogeneous effects

   - **Angrist, J. and J.-S. Pischke, 2009, *Mostly Harmless Econometrics*, Chapter 4.1–4.3**
   - Atanasov, V. and B. Black, 2016, Shock based causal inference in corporate finance and accounting research *Critical Finance Review*
   - Atanasov, V. and B. Black, 2016, The trouble with instruments: Re-examining shock based IV designs, Northwestern WP
   - **Giroud, X., H. Mueller, A. Stomper, and A. Westerkamp, 2011, Snow and leverage, *Review of Financial Studies***

2. Heterogenous effects/local effects

   - **Angrist, J. and J.-S. Pischke, 2009, *Mostly Harmless Econometrics*, Chapter 4.4–4.6**
   - **Bernstein, S., 2015, Does Going Public Affect Innovation?, *Journal of Finance***

5.2 Diff-in-Diff and Natural Experiments (Lecture 3)

Date: November 30, 2017

1. Introduction

   - **Angrist, J. and J.-S. Pischke, 2009, *Mostly Harmless Econometrics*, Chapter 5.**
   - **Barrot, J.-N., 2016 , Trade credit and industry dynamics: Evidence from trucking firms, *Journal of Finance***
   - **Bertrand, M., E. Duflo, and S. Mullainathan, 2004, How much should we trust differences-in-differences estimates?, *Quarterly Journal of Economics***
   - **Bertrand, M. and S. Mullainathan, 2003, Enjoying the Quiet Life: Corporate Governance and Managerial Preferences, *Journal of Political Economy***
   - **Karpoff, J. and M. Wittry, 2016, Institutional and legal context in natural experiments: The case of state antitakeover laws, working paper**

   - **Akey, P., R. Heimer, and S. Lewellen, Politicizing Consumer Credit, working paper**

2. Triple differences and non-standard diff-in-diff

    - Shadish, W., T. Cook, and D. Campbell, 2002, *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*, Chapters 5 – 6 (Note that I will provide you a photocopy of the relevant chapters I DO NOT expect you to purchase this book.)
    - **Akey, P. and S. Lewellen, 2016, Policy Uncertainty, Political Capital, and Firm Risk-Taking, Working paper**

5.3 Regression Discontinuity Design (Lecture 4)

Date: December 7, 2017

1. Introduction to RDD

    - **Angrist, J. and J.-S. Pischke, 2009, *Mostly Harmless Econometrics*, Chapter 6 .**
    - McCrary, J., 2008, Manipulation of the running variable int he regression discontinuity design: A density tes, *Journal of Econometrics*
    - Lee, D. and T. Lemieux, 2010, Regression Discontinuity Designs in Economics, *Journal of Economic Literature*
    - **Keys, B., T. Mukherjee, A. Seru, and V. Vig, 2008, Did securitization lead to lax screening? Evidence from subprime loans, *Quarterly Journal of Economics***

2. Extensions (Regression Kink Design and identification away from the threshold)

    - **Cuñat, V., M. Giné, and M. Guadaloupe, 2016, Price and Probability: Decomposing the Takeover Effects of Anti-Takeover Provisions, working paper**
    - Angrist, J. and M. Rokkanen, 2014, Wanna Get Away? RD Identification Away from the Cutoff, *Journal of the American Statistical Association*
    - Card, D., Lee, D., Pei, Z., and A. Weber, 2015, Inference on Causal Effects in a Generalized Regression Kind Design, *Econometrica*
    - Dobridge, C., 2016, Fiscal Stimulus and Firms: A Tale of Two Recessions, working paper

5.4 Other Methods and Common Problems (things that Pat likes and things that drive Pat bonkers)

1. **Abadie, A. and J. Gardezebal, 2003, The economic costs of conflict: A case study of the Basque Country, *The American Economic Review***

2. **Angrist, J. and J.-S. Pischke, 2009, *Mostly Harmless Econometrics*, Chapter 8.**

3. **Bertrand, M., E. Duflo, and S. Mullainathan, 2004, How much should we trust differences-in-differences estimates?, *Quarterly Journal of Economics***

4. **Petersen, M., 2009, Estimating standard errors in finance panel data sets: Comparing approaches, *Review of Financial Studies***

5. **Gormley, T. and D. Matsa, 2014, Common errors: How to (and not to) control for unobserved heterogeneity, *Review of Financial Studies***

6. **Kothari, S., and J. Warner, 2004, Econometrics of Event Studies, working paper**

7. Fixed Effects and Problems with limited dependent model methods

   - Greene,W., 2004, The behaviour of the maximum likelihood estimator of limited dependent variable models in the presence of fixed effects, *Econometrics Journal*
   - Ai, C. and E. Norton, 2003, Interaction Terms in Logit and Probit Models, *Economic Letters*