UNIVERSITY OF PENNSYLVANIA
The Wharton School

FINANCE 912 – Corporate Finance and Financial Institutions

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Course Objective:

The objective of the course is to provide an introduction to the theory of corporate finance, financial intermediation, and financial markets. The goal is to expose students to existing work and provide basic tools to do research in the area. While the course covers the theories in the area, it also provides essential tools in forming frameworks that can serve as a basis for empirical work.

Course Organization:

The course will consist of lectures, in which I will review papers from the literature. Some papers will be discussed in class in great depth, while others will be mentioned briefly and left for the students for further research. The general structure has three parts: corporate finance, financial intermediation, and financial markets. Each one consists of several lectures covering different theories and subtopics. A tentative list of topics and papers appears below. Topics and papers may be dropped or added, depending on progress.

Grades:

The final grade will be based on an exam and a final project. Both get equal weights.

The exam will be scheduled during the exam period immediately after the end of classes. The exam will cover all the material discussed in class. I will distribute all the previous exams I gave in this course including solutions to the problems. This will be the best source of practice for the exam.

The project will be due on Memorial Day weekend. You will be expected to write a short paper, where you develop and solve a simple model and describe the motivation and implications. Each project topic will have to be approved, and so you will need to schedule a meeting with me and discuss your ideas.

Course Materials:

The slides I use for class presentations are available online as lecture notes. Below, I provide details on which sets of lecture notes will be used for the different topics. I also provide details on the articles covered by the lecture notes. For a couple of topics, I will use simplified versions of articles based on the following books:

- Mas-Collel, Whinston, and Green (1995), *Microeconomic Theory*, Oxford University Press.
- Tirole (2006), *The Theory of Corporate Finance*, Princeton University Press.

Course Overview:

Here is a tentative list of topics and the lecture notes, articles, and book chapters that are covered in them:

1. Corporate Finance

1.a. Separation of Ownership and Control: Moral Hazard

Lecture Notes:

- "Moral Hazard"

Book Chapters:

- Mas-Collel, Whinston, and Green, Chapter 14.

Articles:

- Holmstrom, B., 1979, “Moral hazard and observability,” *Bell Journal of Economics* 10, 74-91.
- Holmstrom, B., 1982, “Moral hazard in teams,” *Bell Journal of Economics* 13, 324-340.
- Holmstrom, B., and P. Milgrom, 1991, “Multi-task principal agent analyses: linear contracts, asset ownership, job design,” *Journal of Law, Economics, & Organization* 7, 24-52.
- Jensen, M., and W. Meckling, 1976, “Theory of the firm: managerial behavior, agency costs and ownership structure,” *Journal of Financial Economics* 3, 305-360.

1.b. Capital Structure

Lecture Notes:

- “Capital Structure”

Book Chapters:

- Tirole, Chapters 3 and 6.

Articles:

- Brander, J., and T. Lewis, 1986, “Oligopoly and financial structure: the limited liability effect,” *American Economic Review* 76, December, 956-70.

- Jensen M., 1986, “Agency costs of free cash flow, corporate finance and takeovers,” *American Economic Review* 76, 323-329.

- Leland, H., and D. Pyle, 1977, “Information asymmetries, financial structure, and financial intermediation,” *Journal of Finance* 32, 371-388.

- Miller, M., 1977, “Debt and taxes,” *Journal of Finance* 32, 261-275.

- Modigliani, F., and M. Miller, 1958, “The cost of capital, corporation finance, and the theory of investment," *American Economic Review* 48, 261-297.

- Myers, S., and N. Majluf, 1984, "Corporate financing and investment decisions when firms have information that investors do not have," *Journal of Financial Economics* 13, 187-221.

- Ross, S., 1977, "The determination of financial structure," *Bell Journal of Economics* 8, 23-40.

- Stulz, R., 1990, "Managerial discretion and optimal financing policies," *Journal of Financial Economics* 26, 3-27.

1.c. Financial Contracting

Lecture Notes:

- "Financial Contracting"

Book Chapters:

- Tirole, Chapter 10.

Articles:

- Aghion, P., and P. Bolton, 1992, "An incomplete contracts approach to financial contracting," *Review of Economic Studies* 59, 473-494.

- Bolton, P., and D. Scharfstein, 1996, Optimal debt structure and the number of creditors, *Journal of Political Economy* 104, 1-25.

- Dewatripont, M., and J. Tirole, 1994, "A theory of debt and equity: diversity of securities and manager-shareholder congruence," *Quarterly Journal of Economics* 109, 1027-1054.

- Gale D., and M. Hellwig, 1985, "Incentive compatible debt contracts: the one period problem," *Review of Economic Studies* 52, 647-63.

- Townsend R., 1979, “Optimal contracts and competitive markets with costly state verification,” *Journal of Economic Theory* 21, 265-293.

1.d. Corporate Control

Lecture Notes:

- “Corporate Control”

Book Chapters:

- Tirole, Chapter 11.

Articles:

- Bagnoli, M., and B. Lipman, 1988, “Successful takeovers without exclusion,” *Review of Financial Studies* 1, 89-110.
- Grossman, S., and O. Hart, 1980, “Takeover bids, the free rider problem and the theory of the corporation,” *Bell Journal of Economics* 11, 42-64.
- Shleifer, V., and R. Vishny, 1986, “Large shareholders and corporate control,” *Journal of Political Economy* 94, 461-488.

2. Financial Intermediation

2.a. Liquidity Provision and Runs

Lecture Notes:

- “Financial Intermediation and Crises”

Book Chapters:

- Tirole, Chapter 12.

Articles:

- Allen, F., and D. Gale, 2000, "Financial contagion," *Journal of Political Economy* 108, 1-33.

- Diamond, D., and P. Dybvig, 1983, "Bank runs, deposit insurance, and liquidity," *Journal of Political Economy* 91, 401-419.

- Goldstein, I., and A. Pauzner, 2005, "Demand deposit contracts and the probability of bank runs," *Journal of Finance* 60, 1293-1328.

- Morris, S., and H. S. Shin, 1998, "Unique equilibrium in a model of self-fulfilling currency attacks," *American Economic Review* 88, 587-597.

2.b. Monitoring and Credit Markets

Lecture Notes:

- "Financial Intermediation and Crises"
- "Financial Fragility"

Book Chapters:

- Tirole, Chapter 13.

Articles:

- Bebchuk, L., and I. Goldstein, 2011, "Self-fulfilling credit market freezes," *Review of Financial Studies* 24, 3519-3555.

- Diamond, D., 1984, "Financial intermediation and delegated monitoring," *Review of Economic Studies* 51, 393-414.

- Holmstrom, B., and J. Tirole, 1997, "Financial intermediation, loanable funds, and the real sector," *Quarterly Journal of Economics* 112, 663-691.

2.c. Short Term Debt and Incentives

Lecture Notes:

- "Short Term Debt and Incentives in Banks"

Articles:

- Allen, F., E. Carletti, I. Goldstein, and A. Leonello, 2018, "Government guarantees and financial stability," *Journal of Economic Theory* 177, 518-557.

- Calomiris, C., and C. Kahn, 1991, "The role of demandable debt in structuring optimal banking arrangements," *American Economic Review* 81, 497-513.

- Diamond, D., and R. Rajan, 2001, "Liquidity risk, liquidity creation and financial fragility: a theory of banking," *Journal of Political Economy* 109, 287-327.

- Eisenbach, T., 2017, "Rollover risk as market discipline: a two-sided inefficiency," *Journal of Financial Economics* 126(2), 252-269.

3. Financial Markets

3.a. Information and Trading in Financial Markets

Lecture Notes:

- "Financial Markets"

Articles:

- Glosten, L., and P. Milgrom, 1985, "Bid, ask and transaction prices in a specialist market with heterogeneously informed traders," *Journal of Financial Economics* 14, 71-100.

- Grossman, S., and J. Stiglitz, 1980, "On the impossibility of informationally efficient markets," *American Economic Review* 70, 393-408.

- Kyle, A., 1985, “Continuous auctions and insider trading,” *Econometrica* 53, 1315-1336.

3.b. Financial Market Feedback

Lecture Notes:

- “Financial Markets, Information, and Real Investments”
- “Feedback Effects”

Articles:

- Bond, P., A. Edmans, and I. Goldstein, 2012, “The real effects of financial markets,” *Annual Reviews of Financial Economics* 4, 339-360.

- Bond, P., I. Goldstein, and E. S. Prescott, 2010, “Market-based corrective actions,” *Review of Financial Studies* 23, 781-820.

- Dow, J., I. Goldstein, and A. Guembel, 2017, “Incentives for information production in markets where prices affect real investment,” *Journal of the European Economic Association* 15, 877-909.

- Edmans, A., I. Goldstein, and W. Jiang, 2015, “Feedback effects and the limits to arbitrage,” *American Economic Review* 105, 3766-3797.

- Goldstein, I., and A. Guembel, 2008, “Manipulation and the allocational role of prices,” *Review of Economic Studies* 75, 133-164.

- Goldstein, I., E. Ozdenoren, and K. Yuan, 2013, “Trading frenzies and their impact on real investment,” *Journal of Financial Economics* 109, 566-582.