Arizona State University
W.P. Carey School of Business
FIN 782 –Theory of Finance II
Spring 2015

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| Instructor: Ilona Babenko<br>Department of Finance<br>Office: BAC 540<br>Tel. 480-965-1036<br>Email: ibabenko@asu.edu | Class Time: Tuesdays 4:30 PM- 7:15 PM<br>Class Dates: Jan 13, 20, 27, Feb 3, 10, 17, 24, Mar 3, 17, 24, 31 Apr 7, 14, 21, 28<br>Final Exam: May 5, 4:30 PM- 6:30 PM<br>Location: Tempe BAC 311 |

**Course Overview:** The aim of this part of the course is to expose you to important papers that emphasize the theoretical foundations of corporate finance. My objective is to give you a working understanding of key papers and to expose you to solution techniques to be applied in your own research. At the end of the semester we will consider some empirical topics and will discuss how to bridge a gap between theoretical and empirical research.

The W.P. Carey School of Business has established the following learning goals for its graduate students: Critical Thinking, Communication, Discipline Specific Knowledge, and Research Methods.

**Textbooks:** There are no required textbooks for this class. However, you can find helpful:

1. The theory of corporate finance, by Jean Tirole (Tirole's aim is to simplify models; hence the text is more comprehensive than the papers themselves that we will cover).

**Grading Policy:** Your grade will be calculated as follows:

Problem Sets (5): 35%
Paper Critique & Presentation (1): 10%
Research Idea Assignments (2): 10%
Class Participation: 5%
Research Proposal Presentation (1) 10%: (Due Apr 28, in-class)
Final Exam: 30% (May 5, 4:30 PM-6:30 PM)

**Student learning outcomes:**
On completion of this course, students will be able to:

1. Understand the theoretical and conceptual underpinnings of the tradeoff and pecking order models of capital structure.
2. Compare and contrast contracting models that build on unverifiable, semi-verifiable or fully verifiable income framework and be able to explain why debt arises as optimal contract in each framework.
3. Interpret the existing empirical evidence on the magnitude of financing constraints faced by firms in the U.S.
4. Identify the main benefits and disadvantages for the firm to have large blockholders.

5. Identify and analyze different agency costs of debt and equity. Explain the nature of the conflict and be able to offer the mechanisms to mitigate the conflict.
6. List the possible signaling mechanisms explored by the signaling literature and identify the empirical predictions stipulated by signaling models.

**Assignments**:

There will be *5 problems sets* that students need to work out individually, aimed at practicing the standard techniques in theoretical corporate finance literature and contracting.

Students will also need to complete a *paper critique review*. The critique has to summarize the main contribution of the paper and place it in the literature, explain the major necessary assumptions made by the paper and discuss their validity, offer possible extensions or modifications to the model, assess whether the model captures the key elements of the real world and the main tradeoffs and whether it is tractable, and assess the strength and importance of the empirical work (if any is done in the paper). The critique will be presented in class.

Students will also have to submit *two original research ideas* that have not been implemented elsewhere in the literature. The ideas should be pertinent to research in theoretical or empirical corporate finance, economics, or accounting. The idea should briefly summarize what the student plans to do and explain the economic importance of studying this question (1-2 pages).

A *research proposal* along with the presentation is due in the last class. The proposal has to contain original research by a student. It should be accompanied by an abstract of less than 100 words, and contain literature review section, motivation of the research question, and the proposed methodology. The actual solution of the model (if the proposal is mainly theoretical) or the actual empirical tests (if the proposal is empirical) are not necessary, but would be a plus.

*Academic Integrity:* Any student caught cheating will receive a grade of zero for that exam/assignment and/or an F for the course. Please familiarize yourself with ASU's academic integrity policies:
https://provost.asu.edu/sites/default/files/AcademicIntegrityPolicyPDF.pdf

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**Outline of lecture schedule (tentative)**

*Lecture 1. Optimal capital structure and agency theory, Jan 13 and Jan 20*

1) (14,124) Modigliani, Franco, and Merton Miller, 1958, The cost of capital, corporation finance and the theory of investment, *American Economic Review* 48, 261-297.
2) (4,887) Modigliani, Franco, and Merton Miller, 1963, Corporate income taxes and the cost of capital: A correction, *American Economic Review* 53, 433-443.
3) (9,853) Myers, Stewart, 1977, Determinants of corporate borrowing, *Journal of Financial Economics* 5, 147-175. (**)

4) (17,234) Jensen, Michael, 1986, Agency cost of free cash flow, corporate finance and takeovers, *American Economic Review* 76, 323-339. (**)

5) (2,799) Stulz, Rene, 1990, Managerial discretion and optimal financial policies, *Journal of Financial Economics* 26, 3-27. (*)

6) (46,175) Jensen, Michael, and William H. Meckling, 1976, Theory of the firm: Managerial behavior, agency cost, and capital structure, *Journal of Financial Economics* 3, 305-360. (**)

7) (720) Zwiebel, Jeffrey, 1996, Dynamic capital structure under managerial entrenchment, *American Economic Review* 86, 1197-1215.

8) (759) Green, Richard, 1984, Investment incentives, debt and warrants, *Journal of Financial Economics* 13, 115-136. (*)

*Lecture 2. The information content of financial decisions, Jan 27,* Tirole Ch 6, **PS 1 DUE Jan 27**

1) (13,537) Myers, Stewart, and Nicholas Majluf , 1984, Corporate financing and investment decisions when firms have information that investors do not have, *Journal of Financial Economics* 13, 187-221. (**)

2) (5,268) Leland, Hayne, and David Pyle, 1977, Information asymmetries, financial structure and financial intermediation, *Journal of Finance* 32, 371-387. (*)

3 (587) Stein, Jeremy, 1992, Convertible bonds as backdoor equity financing, *Journal of Financial Economics* 32, 3-21. (*)

5) (2,773) Miller, Merton, and Kevin Rock, 1985, Dividend policy under asymmetric information, *Journal of Finance* 40, 1031-1051. (**)

6) (1,178) Diamond, Douglas, 1991, Debt maturity structure and liquidity risk, *Quarterly Journal of Economics* 106, 709-737. (*)

7) (224) Dybvig, Philip H., and Jaime D. Zender, 1991, Capital structure and dividend irrelevance with asymmetric information, *Review of Financial Studies* 4, 201-219.

*Lecture 3. Theories of debt and credit rationing, Feb 3 and Feb 10*, Tirole Ch 3, **PS 2 DUE Feb 3**

1) (2,280) Holmstrom, Bengt, and Jean Tirole, 1997, Financial intermediation, loanable funds, and the real sector, *Quarterly Journal of Economics* 112, 663-692. (*)

2) (632) Innes, Robert, 1990, Limited liability and incentive contracting with ex-ante action choices, *Journal of Economic Theory* 52, 45-67. (*)

3) (1,828) Gale, Douglas, and Martin Helwig, 1985, Incentive compatible debt contracts: The one period problem, *Review of Economic Studies* 52, 647-663. (**)

4) (1,419) Bolton, Patrick, and David Sharfstein, 1990, A theory of predation based on agency problems in financial contracting, *American Economic Review* 80, 93-106. (*)
5) (1,126) Hart, Oliver D., and John Moore, 1994, A theory of debt based on inalienability of human capital, *Quarterly Journal of Economics* 109, 841-879. (*)
6) (11,410) Stiglitz, Joseph E., and Andrew Weiss, 1981, Credit rationing in markets with imperfect information, *American Economic Review* 71, 393-410. (**) (585)

*Lecture 4. Theories of corporate control, Feb 17,* **Research Idea 1 DUE Feb 17**

1) (2,197) Aghion, Philippe, and Patrick Bolton, 1992, An incomplete contracts approach to financial contracting, *Review of Economic Studies* 59, 473-494. (*)
2) (5,964) Shleifer, Andrei, and Robert Vishny, 1986, Large shareholders and corporate control, Journal of Political Economy 94, 461-488. (*)
3) (1,229) Burkart, Michael, Denis Gromb, and Fausto Panunzi, 1997, Large shareholders, monitoring and the value of the firm, *Quarterly Journal of Economics* 113, 693-728.
4) (896) Maug, Ernst, 1998, Large shareholders as monitors: is there a tradeoff between liquidity and control? *Journal of Finance* 53, 65-98. (*)
5) (777) Dewatripont, Mathias, and Jean Tirole, 1994, A theory of debt and equity: Diversity of securities and manager-shareholder congruence, *Quarterly Journal of Economics* 109, 1027-1054. (*)
6) (97) Acharya, Viral, Stewart Rajan, and Raghuram Zingales, 2011, The internal corporate governance, *Journal of Finance* 66, 689-720.

*Lecture 5. Theories of debt structure, Feb 24*

1) (968) Bolton, Patrick, and David Scharfstein, 1996, Optimal debt structure and the number of creditors, *Journal of Political Economy* 104, 1-25.
2) (357) Berglof, Eric, and Elu von Thadden, 1994, Short-term vs. long-term interests: Capital structure with multiple investors, *Quarterly Journal of Economics*, 1055-1084.
3) (542) Diamond, Douglas, 1993, Seniority and maturity structure of debt contracts, *Journal of Financial Economics* 33, 341-368.

*Lecture 6. Capital structure and corporate strategy, product markets, Mar 3,* Tirole Ch 7, **PS 3 DUE *Mar 3***

1) (1,213) Brander, James A., and Tracy R. Lewis, 1986, Oligopoly and financial structure: the limited liability effect, *American Economic Review* 76, 956-970. (*)
2) (449) Maksimovic, Vojislav, 1988, Capital structure in repeated oligopolies, *The RAND Journal of Economics* 19, 389-407. (*)

3) (256) Bronars, Stephen G., and Donald R. Deere, 1991, The Threat of unionization, the use of debt, and the preservation of shareholder wealth, *Quarterly Journal of Economics* 106, 231-254. (*)

4) (207) Perotti, Enrico C., and Katryn E. Spier, 1993, Capital structure as a bargaining tool: The role of leverage in contract renegotiation, *American Economic Review* 83, 1131-1141. (*)

*Lecture 7. Internal vs. external finance and corporate investment, Mar 17,* **Research Idea 2 DUE**

1) (5,174) Fazzari, Steven M., R. Glenn Hubbard, and Bruce C. Petersen, 1988, Financing constraints and corporate investment, *Brookings Papers on Economic Activity* 1988, 141-195. (*)
2) (2,250) Kaplan, Steven, and Luigi Zingales, 1997, Do investment-cash flow sensitivities provide useful measures of financial constraints? *Quarterly Journal of Economics* 112, 169-215. (*)
3) (2,126) Froot, Kenneth A., David S. Scharfstein, and Jeremy Stein, 1993, Risk management: Coordinating corporate investment and financing policies, *Journal of Finance* 48, 1629-58. (*)
4) (1,296) Stein, Jeremy, 1997, Internal capital markets and competition for corporate resources, *Journal of Finance* 52, 111-133.
5) (1,219) Scharfstein, David, and Jeremy Stein, 2000, The Dark Side of Internal Capital Markets: Divisional Rent-Seeking and Inefficient Investment, *Journal of Finance*
6) (461) Alti, Aydogan, 2003, How sensitive is investment to cash flows when financing is frictionless? *Journal of Finance* 58, 707-722.
7) (326) Moyen, Nathalie, 2004, Investment-cash flow sensitivities: Constrained versus unconstrained firms, *Journal of Finance* 59, 2061-2092.

*Lecture 8: Theories of liquidity, Mar 24,* **PS 4 DUE**

1) (6,607) Diamond, Douglas, and Philip Dybvig, 1983, Bank runs, deposit insurance, and liquidity, *Journal of Political Economy* 1991, 401-419.
2) (1,177) Holmstrom, Bengt, and Jean Tirole, 1993, Market liquidity and performance monitoring, *Journal of Political Economy* 101, 710-740.

*Lecture 9. Trade-off theory of capital structure, Mar 31,* **PARER CRITIQUE DUE**

1) (1,931) Leland, Hayne, 1994, Corporate debt value, bond covenants and optimal capital structure, *Journal of Finance* 49, 1213-1252. (*)
2) (523) Mella-Barral, Pierre, and William Perraudin, 1997, Strategic debt service, *Journal of Finance* 52, 531-556. (*)
3) (653) Goldstein, Robert, Nengjiu Ju, and Hayne Leland, 2001, An EBIT-based model of dynamic capital structure, *Journal of Business* 74, 483-512. (*)
4) (529) Strebulaev, Ilya, 2007, Do tests of capital structure mean what they say? *Journal of Finance* 62, 1747-1787.
5) (68) Tserlukevich, Yuri, 2008, Can real options explain financing behavior? *Journal of Financial Economics 89*, 233-252.

*Lecture 10. Trade-off, pecking order, and market timing theories of capital structure, Apr 7*, **PS 5 DUE**

1) (991) Graham, John, 2000, How big are the tax benefits of debt? *Journal of Finance* 55, 1901-1941.
2) (1,878) Fama, Eugene, and Kenneth French, 2002, Testing trade-off and pecking order predictions about dividends and debt, *Review of Financial Studies* 15, 1-33.
3) (709) Welch, Ivo, 2004, Capital structure and stock returns, *Journal of Political Economy* 112, 106-131.
4) (2,047) Baker, Michael, and Wurgler, Jeffrey, 2002, Market timing and capital structure, *Journal of Finance* 57, 1-32.
5) (4,310) Rajan, Ragu, and Luigi Zingales, 1995, What do we know about capital structure? Some evidence from international data, *Journal of Finance* 50, 1421-1460.
6) (1,552) Shyam-Sunder, Lakshmi, and Stewart Myers, 1999, Testing static tradeoff against pecking order models of capital structure, *Journal of Financial Economics* 51, 219-244.
7) (1,270) Frank, Murray, and Vidhan Goyal, 2003, Testing the pecking order theory of capital structure, *Journal of Financial Economics* 67, 217-24

*Lecture 11. Executive compensation, Apr 14 and Apr 21*

1) (5,458) Jensen, Michael, and Kevin Murphy, 1990, Performance pay and top-management incentives, *Journal of Political Economy* 98, 225-264.
2) (467) Baker, George, and Brian Hall, 2004, CEO incentives and firm size, *Journal of Labor Economics* 22, 767-798.
3) (885) Gabaix, Xavier, and Augustin Landier, 2008, Why has CEO pay increased so much? *Quarterly Journal of Economics* 123, 49-100.
4) (353) Murphy, Kevin, and Jan Zabojnik, 2004, CEO pay and appointments: A market-based explanation for recent trends, *American Economic Review* 94, 92-196.
5) (325) Frydman, Carola, and Raven Saks, 2010, Executive Compensation: A new view from a long-term perspective, 1936-2005, *Review of Financial Studies* 23, 2099-2138.
6) (1,838) Hall, Brian, and Liebman, Jeffrey, 1998, Are CEOs paid like bureaucrats? *Quarterly Journal of Economics* 113, 653-691.
7) (533) Aggarwal, R., and A. Samwick, 1999, Executive compensation, strategic competition, and relative performance: Theory and evidence, *Journal of Finance* 54, 1999-2043.
8) (970) Bertrand, M., Mullainathan, Sendhil, 2001, Are CEOs rewarded for luck? The ones without principals are, *Quarterly Journal of Economics*, 116, 3, 901-32.
9) (1,556) Bebchuk, Lucian and Jesse Fried, 2003, Executive compensation as an agency problem, *Journal of Economic Perspectives* 17, 71-92.

10) (1,303) Bertrand, M., Schoar A., 2003, Managing with style: The effects of managers on firm policies, *Quarterly Journal of Economics* 118, 1169-1208.
11) (20) Casamatta, Catherine, and Alexander Guembel, 2010, Managerial legacies, entrenchment, and strategic inertia, *Journal of Finance* 65, 2403-2436.

**April 28 (Student Proposal Presentations)**