

BROWN UNIVERSITY

Econ 172 (Section 01) Corporate Finance – Syllabus

Spring 2010

Class meetings: Monday, Wednesday and Friday, 9:00 a.m. to 9:50 a.m. in MacMillan Hall 115

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Office hours: Mondays and Wednesdays, from 12:20 p.m. to 1:30 p.m., or by appointment

Teaching Assistant: to be announced

E-mail address: to be announced

Office hours: to be announced

TA conference sections: to be announced

Textbook and Reading Materials (all required):

* Brealey, Myers and Allen (latest ed.), *Principles of Corporate Finance*.

* Lecture notes and homework sets on our Course Web Page at:

<http://mycourses.brown.edu>

* *The Wall Street Journal*: Brown library has online newspaper services at

<http://dl.lib.brown.edu/libweb/research/>

which can be accessed from any campus network sites. For the access from off-campus networks, download and install The Cisco Virtual Private Network (VPN) Client which is available at the following Brown sites:

For Mac

<http://software.brown.edu/dist/m-vpnclient4901.html>

For Windows

<http://software.brown.edu/dist/w-vpnclient5003.html>

Grading Rule

The course grade will be based on your performance on homework sets (30 percent of the final grade), one mid-term exam (30 percent) and the final exam (40 percent). Show a 90-percent-or-above weighted average performance to receive a sure “A” for the course, and 80-percent-or-above performance to assure a “B”. The weighted average score below 65 percent will receive a “Fail.” Auditing students are required to hand in all homework problem sets and must show minimum 65 percent performance.

Homework

Homework sets are on our course web-page for download. They are in the ‘pdf’ format. Print them out to write your answers on them. Homework is essential for (1) confirming your understanding of the course materials, (2) testing your ability to apply analytical skills to cases different from lectures. and (3) the preparation for the exams.

Homework problems must be solved by yourself without any help from anyone else. The due date for each homework will be announced in class. The due date shall be strictly enforced. Do not ask your friend to hand in your homework. If you will be absent from the class meeting due to unavoidable reasons, hand in homework by e-mail attachment to Akio_Yasuhara@brown.edu.

Auditors

Auditing students have to hand in all homework answers and show a passing grade (65 percent).

The dates of the exams are:

Midterm exam Monday, March 8 (in class, 50 minutes).

Final exam Wednesday, May 19, from 2:00 p.m. to 4:10 p.m (two hours).

Course Outline

Part 0. Introduction – chapters 1 and 2.

Part 1. Tools of Corporate Finance Analysis (overlaps with Investments I) – This part introduces how financial market views financial securities.

1. Financial Markets (mainly using lecture notes)
 - 1.1. functions
 - 1.2. participants
 - 1.3. institutions and regulations.
 - 1.4. danger of financial leverage (added because of the current financial crisis)
2. Present Value concept
 - 2.1. formulas (chapter 3)
 - market-based conversion of future cash flows into today's value
 - annuity
 - perpetuity
 - with growth
 - 2.2. bond valuation (chapter 4)
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 - 2.3. common-stock (equity) valuation (chapter5)
 - 2.4. Net Present Value – preview (chapter 6)
3. Risk Analysis – we look at the risk and risk analysis from the micro-economics view point and relate the idea to the modern portfolio analysis represented by the Capital-Asset-Pricing Model (the CAPM). We mainly use lecture notes. In the textbook chapters 8,9 and 10 correspond to our analysis.
 - 3.1. the state-contingent-claims market idea
 - 3.2. diversification pays
 - 3.3. the risk premium and covariance
 - 3.4. risk premium of a portfolio
 - 3.5. in terms of the CAPM β coefficient

Part 2. Corporate System

4. Corporate System (mostly using lecture notes)
 - 4.1. types of business organizations
 - 4.2. corporate system
 - characteristics
 - incorporation
 - shareholders, directors and management
 - 4.3. the goal of financial management (chapter 13 on agency problems is relevant)

Part 3. Capital Budgeting

5. Financial Statements (mostly using lecture notes and chapter)
 - 5.1 for book-keeping purpose
 - 5.2 for capital budgeting – cash flow from operation
6. Project Evaluation (chapters 6)
 - 6.1. the Net Present Value (NPV)
 - market-based evaluation
 - cash based evaluation
 - cost of capital
 - 6.2. the Internal Rate of Return (IRR)
 - 6.3. pay-back period
 - 6.4. capital rationing
7. Various Types of Capital Budgeting Decisions (chapter 7)
 - 7.1. incremental cash flows
 - 7.2. inflation

- 7.3. long-lived and short-lived equipment – equivalent annual cost
- 7.4. replacement decision
- 7.5. excess capacity
- 7.6. optimal timing
- 8. Risk and Leverage (chapter 10)
 - 8.1. company cost of capital and project cost of capital
 - 8.2. weighted average cost of capital
 - 8.3. in terms of the CAPM β coefficients
 - 8.4. operating leverage and financial leverage
- 9. Practical Problems of Capital Budgeting (chapters 11 and 12.)
 - 9.1. sensitivity analysis
 - 9.2. Monte-Carlo Analysis
 - 9.3. option values and decision trees
- 10. Real options (Chapters 21, 22 and 23 – only section 10.3. is discussed; sections 10.1. and 10.2. are topics of Investments I (Ec171).)
 - 10.1. option valuation model I – binomial-tree
 - 10.2. option valuation model II – the Black-Scholes model
 - 10.3. real options

Part 4. Capital Structure

- 11. Market Efficiency (chapter 14)
 - 11.1. the hypothesis regarding the informational efficiency
 - 11.2. some implications
 - 11.2. some empirical evidence
- 12. Financial Instruments for Corporations (chapters 15 and 16)
 - 12.1. equity and debt
 - 12.2. issuing securities
 - 12.3. IPOs
 - 12.4. venture capital
- 13. Dividend (chapter 17)
 - 13.1. different forms of dividend payments
 - 13.2. Modigliani-Miller irrelevance theorem
 - 13.3. tax and other factors
- 14. Does the Capital Structure Matter ? (chapters 18, 19 and 20)
 - 14.1. Modigliani-Miller theorem
 - 14.2. traditional view
 - 14.3. tax effects
 - 14.4. cost of financial distress: bankruptcy cost
 - 14.5. game of risk shifting
 - 14.6. asymmetric information
 - 14.7. the adjusted cost of capital v. adjusted NPV

Part 5. Other Topics (if time allows)

- leasing (chapter 26)
- risk management using derivatives (chapter 27)
- mergers (chapter 32)
- inventory management
- cash-balance
- short-term financing