

NEW YORK UNIVERSITY
Stern School of Business
Fall 2000

Corporate Finance

Professor Yakov Amihud

Course & time: B40.2302.10, Tuesday, 6:00-8:50
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Course Objective:

This course will introduce the theory and practice of corporate finance, and will provide students with analytical tools for decision making in finance. The main topics are:

- (i) How to evaluate investments under certainty and under uncertainty.
- (ii) How to raise resources to finance these investments -- the effect of debt and equity financing on the value of the firm and on its cost of capital.
- (iii) The design of securities and the use of options theory.
- (iv) The effect of dividend policy on the value of the firm.
- (v) Corporate mergers and acquisitions.

Course requirements:

- (a) Reading the assigned material - textbook, **class notes**, articles - and be responsible for the material discussed in class.
- (b) The outline indicates the cases that need to be done. There will be some problem sets handed in during the semester to do as homework. You have to submit at least 75% of the homework assignments. If you submit more assignments, I'll consider only the best 75% of the number of assignments due. Doing the assignments is important for your understanding, and therefore shortcuts are not recommended. Sometimes, problems will be assigned on material not yet covered in class; it's all right if you make mistakes, you will learn a lot from them. Problems should be solved and submitted individually; cases should be solved **in groups of three**. You'll learn a lot from your group discussion, so it is suggested not to skip this important step.
- (c) Solving the end-of-chapter problems as well as supplementary problem sets with solutions. It is strongly recommended that you solve these problems on your own before looking at the solution. Doing the problems significantly improves your understanding and increases your chances of doing well in the exams.

Grading:

The final grade will be based on the following:

Midterm exam - 30%.

Final exam - 50%.

Homework assignments - 20% (all assignments are equally weighted). The assignments' grade will be used towards the final grade only if it is higher than the final exam's grade; otherwise, the weight of the final exam will be 70%.

The expected grade distribution (departmental guidelines):

A: 15-20%, B: 60-70%, C: 15-20% (all include + & -), balance D & F

Textbook:

1. S. Ross, R. Westerfield and J. Jaffe, Corporate Finance, Fifth Edition, Irwin, 1999 (RWJ).
2. S-P Ku, Solution Manual
3. Case Problems in Finance, Packet at the bookstore.
4. Teaching notes. Will be available on the web.

Course Outline

(preliminary, subject to change)

Session	Topics	Assignments
9/12	A. Introduction and overview Concept of the firm and its financing: debt & equity Agency problems in the corporation B. Market efficiency Implications for corporate finance	RWJ - Ch. 1 (skim), 2, 4, 5 Teaching notes RWJ - Ch. 13 Teaching notes
9/19	A. Long term financing B. Investment banking The public issue process IPOs, seasoned equity, rights Debt offerings, debt rating	RWJ - Ch. 14 RWJ - Chs. 19, 20 Teaching notes

9/26	<p>The present value of cash flows Capital budgeting and investment decisions How to treat cash flows and depreciation (7,4) Taxes and their effect Replacement decision (handout) Alternative methods of valuation Projects with unequal lives (7.4)</p>	<p>RWJ Ch. 7 Teaching notes Case: Economy Shipping due 9/28</p> <p>RWJ - Ch. 6</p>
10/03	<p>Capital budgeting (cont.) Inflation adjustment (7.3) Leasing Solving the case Economy Shipping Valuation</p>	<p>RWJ - Ch. 8</p> <p>RWJ - Ch. 24</p> <p>Teaching notes and material</p>
10/10	<p>Mergers and acquisitions Reasons for mergers and acquisitions Empirical evidence Merger Tactics Merger defenses Leveraged buyouts</p>	<p>RWJ – Ch. 30 Teaching notes and material</p>
10/17	<p>A. Risk and return – review The effect of diversification CAPM Determinants of beta (12.3) B. Capital budgeting under uncertainty Cost of Capital Value additivity Divisional cost of capital</p>	<p>RWJ - Chs. 9, 10, (11) Teaching notes and material</p> <p>RWJ - Ch. 12 Problems (handout) Case: Concordia Electronic Systems (due next class).</p>
10/24	<p>A. Solving “Concordia” and problem set. B. Capital structure The effects of leverage on value The division of the firm's value between claimholders M&M propositions</p>	<p>RWJ - Chs. 15, 16 Case: Chem Cal, due 11/2</p>

10/31	<p>A. Midterm exam</p> <p>Material covered: up to (including) capital budgeting under uncertainty.</p> <p>B. Capital structure (cont.) Cost of capital Personal taxes and Miller's proposition (16.7)</p>	
11/7	<p>A. Capital structure (cont.) Solving Chem Cal</p> <p>B. Cost of debt Agency problems Conflict of interests: stockholders and bondholders The information content of capital structure changes – empirical evidence</p>	<p>Teaching notes and material</p> <p>Assignment: Synerdyne (due 11/9)</p>
11/14	<p>A. Valuation with leverage</p> <p>B. Solving Synerdyne Bond indentures. Bankruptcy and reorganization</p>	<p>RWJ - Ch. 17 Teaching notes and material</p> <p>RWJ – Ch 31 (skim)</p>
11/21	<p>Dividend Policy Why firms pay dividends? Tax and information issues The relationship between earnings and dividend Taxes and dividends</p>	<p>RWJ - Ch. 18 Teaching notes</p>
11/28	<p>Options Option characteristics Put-call parity</p> <p>Pricing corporate securities Equity and risky debt as options</p> <p>Valuation: the binomial and the Black-Scholes models</p>	<p>RWJ - Ch. 21 Teaching notes and material</p> <p>RWJ - Ch. 21.9-10</p> <p>RWJ – Ch. 22.4. Teaching notes</p>

12/5	A. Real options Application to corporate finance decisions B. Warrants and convertible bonds Valuation Reasons for issuance Securities which emulate options Risk management	RWJ - Ch. 22 RWJ - Ch. 23 RWJ - Ch. 24
12/12	A. International corporate finance B. Summary and integration	RWJ – Ch. 32

Final exam: TBA

Notes:

- 1) The readings are required prior to the class session to which they are assigned.
- 2) The course outline may be changed during the semester; please follow the announcements in class.
- 3) Students are encouraged to present in class current issues in corporate finance. It would be helpful if you communicate with me in advance and provide background material (such as a newspaper article that you wish to discuss).

Recommended problems from the textbook I recommend that you do each problem, from beginning to end, without looking at the answers. I also recommend that you try to do additional problems.

Ch. 4: 12, 13, 22, 28, 45, 48, 50.

Ch. 5: 6, 8, 14, 25,

Ch. 6: 1, 5, 6, 10, 15

Ch. 7: 1, 4, 7, 9, 11, 16, 21, 26.

Ch. 12: 1, 3, 7, 8, 11-15.

Ch. 13: 1-12, 21.

Ch. 14: 4-7, 9 (4 was done in class).

Ch. 15: 15-22.

Ch. 16: 5, 6, 9, 10, 13, 18.

Ch. 17: 3, 6, 9, 10,

Ch. 18: 1-4, 6, 9, 10, 12, 13, 16-26.

Ch. 19: 1-5, 7-11, 15, 16.

Ch. 20: 2-5, 13-16.

Ch. 21 – all except 19-24.

Ch. 23 – all.

Ch. 30: 4, 11, 14.