

Corporate Finance (ECON GU4280)

Meeting time: Tu, Th 4.10 - 5.25

Meeting place: Hamilton 602

Office address: IAB 1002A

Office hours: W 10.45 - 11.45 and other times by appointment

Course Description

The aim of this introductory course in corporate finance is to provide students with fundamental concepts for understanding firms' financing decisions and the basic tools for the valuation of a corporation. This course is divided into two parts. Section I discusses valuation frameworks and the theory of corporate finance. The theoretical foundations and concepts developed in this section will be useful for economic decisions making irrespective of whether students intend to specialize in finance or not. Section II is applied and will equip students with the basic techniques that are required for a job as a financial analyst at an investment bank or financial consulting firm. The following topics will be covered.

I. The theory of corporate finance

- I.1. Valuation concepts
- I.2. Financial structure decisions
- I.3. Taxation and the costs of financial distress
- I.4. Financial decisions and conflict of interests

II. The practice of corporate finance

- II.1. Internal finance, corporate control and merger analysis
- II.2. Private equity and venture capital finance
- II.3. Business analysis and financial analysis
- II.4. Enterprise valuation

The course content is a mixture of conceptual structures, analytic models, case analyses and discussions. A solid knowledge of conceptual frameworks will prove helpful in practical decisions making. Heavy emphasis is put upon a working understanding of the economic frameworks and theories discussed in class. The learning mode is a combination of lectures and discussion of real cases plus a Harvard Business School case. In particular, we will have an extensive business and financial analysis as well as a valuation exercise of Apple Inc. which highlights that valuation is more art and sentiment rather than science.

Course Requirements

The main course requirements are homework assignments (i.e. five problem sets), a midterm exam, and final exam. Grades will be allocated based on the following weights:

- Problem sets: 15%
- Midterm exam: 40%
- Final exam: 45%.

It is important that you be regular in preparations for this course. Important concepts will be developed through both lectures and homework assignments.

Some of the background material and institutional details are not covered in the lectures but can be found in the recommended textbook and papers.

Be prepared to participate in class discussions about assigned reading and previous lectures. Please ask questions during the lecture. Critical comments are highly appreciated.

Working on the homework assignments is a very important part of this course. You should expect to spend a considerable amount of time working through lecture notes and problems sets.

You are allowed to work together on problem sets. However, students must submit their homework individually. In case of collaboration, the names of students you worked with should be stated on the first page of the solution sheet.

I would like to encourage you to read the business and financial press regularly during the course. Examples include the *Wall Street Journal*, *Bloomberg*, *The Economist*.

Also, feel free to talk to me if you need career advice and want to hear my opinion.

Readings

Textbook (recommended)

Berg, Jonathan and Peter DeMarzo: Corporate Finance, Prentice Hall, Second Edition, 2011 (ISBN: 9780136089438). Other editions are more or less equivalent.

Lecture notes (Slides)

For each session students will obtain notes that can be downloaded from Courseworks.

Optional readings

Most of the papers can be downloaded from JStor.

Altman, E.I. (1984): A Further Empirical Investigation of the Bankruptcy Cost Question, *Journal of Finance* 39, 1067-1089.

Baker, G. B. (1992): Beatrice: A Study in the Creation and Destruction of Value, *Journal of Finance* 47, 1081-1119.

Bris, A., I. Welch, N. Zhu (2006): The Costs of Bankruptcy: Chapter 7 Liquidation versus Chapter 11 Reorganization, *Journal of Finance* 61, 1253-1303.

Cutler, M. and L. Summers (1985): The Cost of Conflict Resolution and Financial Distress: Evidence from the Texaco-Pennzoil Litigation, *Rand Journal of Economics* 19, 157-172.

Dang, T.V. and Z. Xu (2018): Market Sentiment and Innovation Activities, *Journal of Financial and Quantitative Analysis* 53, 1135-1161.

Falaye, O. (2004): Cash and Corporate Control, *Journal of Finance* 59, 2041-2060.

Jensen, M. (1986): Agency Costs of Free Cash Flow, Corporate Finance and Takeovers, *American Economic Review* 76, 323-339.

Jensen, M. (1989): Eclipse of the Public Corporation, *Harvard Business Review* 67, 61-74.

Jensen, M.C. and W.H. Meckling (1976): Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure, *Journal of Financial Economics* 3, 305-360.

Gompers, P. and J. Lerner (2001): The Venture Capital Revolution, *Journal of Economic Perspectives* 15, 145-168.

Gorton, G. and A. Metrick (2012): Securitization, working paper.

Holmstrom, B. and S.N. Kaplan (2001): Corporate Governance and Merger Activity in the U.S.: Making Sense of the 1980s and 1990s, *Journal of Economic Perspectives* 15, 121-144.

Kaplan, S.N. and A. Schoar (2005): Private Equity Performance: Returns, Persistence, and Capital Flows, *Journal of Finance* 60,1791-1823.

Kaplan, S.N. and P. Stromberg (2003): Financial Contracting Theory Meets the Real World: An Empirical Analysis of Venture Capital Contracts, *Review of Economic Studies* 70, 281-315.

MacKinlay, A.C. (1997): Event Studies in Economics and Finance, *Journal of Economic Literature* 35, 13-39.

Modigliani, F. and M.H. Miller (1958): The Cost of Capital, Corporation Finance and the Theory of Investment, *American Economic Review* 48, 261-297.

Modigliani, F and M.H. Miller (1963): Corporate Income Taxes and the Cost of Capital: A Correction, *American Economic Review* 53, 433-443.

Moeller, S.B., F.P. Schlingemann, R.M. Stulz (2005): Wealth Destruction on a Massive Scale? A Study of Acquiring Firm Returns in the Recent Merger Wave, *Journal of Finance* 60, 757-782.

Myers, S.C. (1977): Determinants of Corporate Borrowing, *Journal of Financial Economics* 5, 146-175.

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.

Porter, M.E. (1980): *Competitive Strategy: Techniques for Analyzing Industries and Competitors*, The Free Press.

Rajan, R.G. and L. Zingales (1995): What Do We Know about Capital Structure? Some Evidence from International Data, *Journal of Finance* 50, 1421-1460.

Trautwein, F. (1990): Merger Motives and Merger Prescriptions, *Strategic Management Journal* 11, 283-295.

Warner, J.B. (1977): Bankruptcy Costs: Some Evidence, *Journal of Finance* 32, 337-347.

Tentative Course Outline

Lecture 1 (Course overview)

Introduction to the course
Financial instruments and financing patterns

*Chapters 1, 24
Rajan and Zingales (1995)*

Lecture 2 (Valuation concepts)

Valuation and corporate finance
Discounted cash flow (DCF)
Bond pricing, yields, term structure of interests

Chapters 4, 5, 8

Lecture 3 (Valuation concepts)

Bond arbitrage
The No-Arbitrage Theorem

Chapter 3, 9.1-9.2

Lecture 4 (Valuation concepts)

Interpretation and applications of NA-Theorem
Stocks, risks and arbitrage
Options

Chapters 20, 21

Lecture 5 (Valuation concepts)

Put-Call-Parity
Option pricing
Financial engineering
Real options

Chapter 21, 22

Lecture 6 (Valuation concepts)

Risks and returns
Portfolio mechanics
Diversification
CAPM
Empirical test of CAPM and market efficiency

Chapter 10, 11, 13

Lecture 7 (Financial structure decisions)

Financial decisions of firms
No arbitrage and the MM Theorem
The MM Theorem and the Put Call Parity

Chapter 14
Modigliani and Miller (1958)

Lecture 8 (Financial structure decisions)

The cost of capital
MM Theorem and the cost of equity and debt
Event studies methodology
Event studies of security issuance and exchange offers announcements

Chapter 12,
Modigliani and Miller (1958), MacKinlay (1997)

Lecture 9 (Taxation and the costs of financial distress)

Debt finance and tax shield
International taxation and offshore cash
Debt finance and financial distress
The cost of financial distress

Chapter 15
Modigliani and Miller (1963)

Lecture 10 (Taxation and the costs of financial distress)

Case 1: Texaco-Pennzoil
Taxes, bankruptcy costs and hybrid securities
Securitization

Chapter 16.1- 16.4
Cutler and Summers (1985), Gorton and Metrick (2012)

Lecture 11 (Financial distress and conflict of interests)

Design of bankruptcy codes
Strategic default
Restructuring and distressed investments
A contracting view on financial structure choices
The agency costs of debt finance

Chapter 16.5-16.9, 17
Bris, Welch and Zhu (2006)

Lecture 12 (Financial structure and conflict of interests, internal finance)

The agency costs of equity finance
Equity issuance and stock price reactions
Corporate cash holdings

Jensen and Meckling (1976), Myers and Majluf (1984)

Lecture 13 (Internal finance and corporate control, merger analysis)

The agency costs of free cash flow
The market for corporate control
A framework for merger analysis
Case 2: The Beatrice Co.

Chapter 28
Jensen (1986), Falaye (2004), Trautwein (1990), Baker (1992)

Lecture 14 (Merger analysis)

Case 2: The Beatrice Co.
Case 3: Constellation and MidAmerican
Case 4: AOL and Time Warner

Chapter 29
Baker (1992)

Lecture 15 (Merger analysis)

Case 4: AOL and Time Warner
Structuring M&A transactions

Holmstroem and Kaplan (2001)

Lecture 16 (Private equity and venture capital finance)

Private equity: Basics
Fundraising
VC contracting I: GP and LP
Overview of deal structure

Chapter 23.1

Jensen (1989), Gompers and Lerner (2001)

Lecture 17 (Private equity and venture capital finance)

Venture capital finance: History and investment patterns
VC contracting II: VC fund and portfolio firm
Economic and empirical analysis of VC contracts
Leverage buyouts: Structure and history

Kaplan and Stroemberg (2003)

Lecture 18 (Business analysis)

What do financial analysts do?
Firm and industry analysis
Apple: Analysis of a business model and business risks

Porter (1980)

Lecture 19 (Financial analysis)

Financial statements: Balance sheet, income and cash flow
Apple: Financial analysis

Chapter 2

Apple SEC Filings

Lecture 20 (Financial analysis and enterprise valuation)

Apple: Financial analysis
Financial forecasts

Chapter 7

Lecture 21 (Enterprise valuation)

Enterprise valuation methods
Apple: Enterprise valuation

Chapter 9.3-9.5

Lecture 22 (Enterprise valuation)

Dell: LBO Valuation
HBS Case: American Chemical

Dell SEC Filings, HBS Case

Lecture 23 (Enterprise valuation)

HBS Case: American Chemical

HBS Case

Lecture 24 (Enterprise valuation)

Valuation, pricing, bubbles and corporate finance

Chapter 19
Dang and Xu (2018)