

Corporate Finance (ECON GU4280)

Meeting time: Tu, Th 4:10 - 5:25

Meeting place: Fayerweather 310

Office address: IAB 1001B

Office hours: Th 11:30 - 12:45 and other times by appointment

Course Description

The aim of this introductory course in corporate finance is to provide students with the fundamental concepts for understanding firms' financing decisions and the basic tools for the valuation of a corporation. The 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 highlight important trade-offs in financing decisions and will be useful for choosing an optimal financial structure. Section II is applied and will equip students with the basic skills to work as a financial analyst at an investment bank or other financial services firms. 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. Financing decisions and conflict of interests

II. The practice of corporate finance

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

The learning mode is a combination of theoretical frameworks and its applications to real cases. Heavy emphasis is put upon a working understanding of the economic concepts. Theoretical frameworks highlight the key economic tradeoffs and can help better understand why firms make specific corporate financing decisions. This course provides a fundamental understanding of valuation models and a critical discussion of the underlying assumptions. The extensive business analysis, financial analysis and valuation exercise of Apple Inc. will highlight that valuation is art and sentiment rather than science. Even though a valuation framework has a scientific micro foundation, its application requires the input of data. Forecasting any type of data is a subjective exercise since it depends on the perspective and sentiment of the decision maker. A solid knowledge of theory can help understand why different decision makers employ different assumptions to obtain their own subjective valuation opinion. In addition, a conceptual understanding of corporate finance in terms of theory and practice is useful for making financing decisions and forming an independent and critical opinion about finance topics.

Course Requirements

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

Exercise sets: 15%

Midterm exam: 40%

Final exam: 45%.

It is important to be regular in preparations for this course. The main concepts and theoretical frameworks 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.

Working on the exercise assignments is a very important part of this course. Students are expected to spend a considerable amount of time working through lecture notes and exercise sets.

It is allowed to work together on exercise sets. However, students must submit their homework individually. In case of collaboration, the names of students in the same group should be stated on the first page of the solution sheet.

Students are expected to participate in class discussions. Please ask questions during the lectures. Critical comments are highly appreciated.

Students are welcome to talk to me about career advice if they want to hear my opinion.

Readings

Recommended Textbook (not required)

Berg, Jonathan and Peter DeMarzo: Corporate Finance, Pearson, Fourth Edition, 2017 (ISBN: 9780134083278). Other editions and the shorter version of the book are similar.

Lecture notes (Slides)

Comprehensive teaching notes will be posted on Courseworks for each class session.

Optional readings

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., Y. Wang and Z. Wang (2022): The Role of Financial Constraints in Firm Investment under Pollution Abatement Regulation, *Journal of Corporate Finance* 76, 102252.

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 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.

Markowitz, H. (1952): Portfolio Selection, *Journal of Finance* 7, 77-91.

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.

Ross, S. A. and Dybvig, P. H. (2003): Arbitrage, state prices and portfolio theory, Chapter 10 in *Handbook of the Economics of Finance*, Volume 1, Part B, 605-637.

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
Financial instruments and financing patterns

Chapter 1, 23, 24
Rajan and Zingales (1995)

Lecture 2 (Valuation concepts)

Discounted cash flow (DCF)
Bond pricing, yields and yield curve

Chapter 4, 5, 6, 7

Lecture 3 (Valuation concepts)

Bond arbitrage
The No-Arbitrage Theorem

Chapter 9
Ross and Dybvig (2003)

Lecture 4 (Valuation concepts)

Interpretation and applications of NA-Theorem
ETFs and NA principle
Stocks, risks and arbitrage

Chapter 3, 9, 10

Lecture 5 (Valuation concepts)

Options
Put-Call-Parity
Option pricing
Financial engineering

Chapter 20, 21

Lecture 6 (Valuation concepts)

Real options
Risks and returns
Portfolio mechanics
Diversification

Chapter 22, 11
Markowitz (1952)

Lecture 7 (Valuation and Financial structure decision)

CAPM
Empirical test of CAPM and market efficiency
Financing decision of firms
No arbitrage and the MM Theorem

Chapter 12, 13
Modigliani and Miller (1958)

Lecture 8 (Financial structure decision)

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

Chapter 14
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

Chapter 15
Modigliani and Miller (1963)

Lecture 10 (Taxation and the costs of financial distress)

The cost of financial distress
Case: Texaco-Pennzoil
Taxes, bankruptcy costs and hybrid securities

Cutler and Summers (1985)

Lecture 11 (Taxation and the costs of financial distress)

Securitization
Design of bankruptcy codes
Strategic default
Restructuring and distressed investments

Gorton and Metrick (2012), Bris, Welch and Zhu (2006)

Lecture 12 (Financing decision and conflict of interests)

A contracting view on financial structure choices
The agency costs of debt finance
The agency costs of equity finance
Equity issuance and stock price reactions

Chapter 16

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

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

Corporate cash holdings
The agency costs of free cash flow
The market for corporate control
A framework for merger analysis

Chapter 17, 28

*Jensen (1986), Holmstrom and Kaplan (2001),
Falaye (2004), Trautwein (1990)*

Lecture 14 (Merger analysis)

Case: The Beatrice Co.
Case: Constellation and MidAmerican

Chapter 29

Baker (1992)

Lecture 15 (Merger analysis)

Case: AOL and Time Warner
Structuring M&A transactions
M&A bidding process
Case: Acquisition of Twitter

Chapter 29

Twitter SEC Filings

Lecture 16 (Private equity finance)

Private equity: Basics
PE Fundraising
Contracting between GP and LP

Jensen (1989), Gompers and Lerner (2001)

Lecture 17 (Private equity finance)

Venture capital finance: Structure and history
Contracting between VC fund and portfolio firm
Economic and empirical analysis of VC contracts
Leverage buyout: Structure and history

Kaplan and Stroemberg (2003)

Lecture 18 (Business analysis)

What do financial analysts do?
Remarks on valuation and due diligence
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 forecasts
Valuation multiples
Apple: Historical stock performance
Apple: DCF valuation

Chapter 19

Lecture 21 (Enterprise valuation)

HBS Case: American Chemical

HBS Case

Lecture 22 (Enterprise valuation)

HBS Case: American Chemical
Case: LBO of Dell

HBS Case
Dell SEC Filings

Lecture 23 (Enterprise valuation)

Case: Acquisition of EMC by Dell and listing
A fundamental analysis of the Chinese economy

Dell SEC Filings

Lecture 24 (Enterprise valuation)

Market sentiment, bubbles and valuation
Market sentiment, investment and corporate finance

Dang and Xu (2018)