PhD-course in Corporate Finance

Theory and Empirical Foundations

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Objective

This course is intended to enable participants to understand and conduct research in some selected areas of corporate finance. It is taught at a first-year doctoral level and combines two objectives. Firstly, participants learn some of the classic contributions to the theory of modern corporate finance and understand the main contributions in the respective area. Secondly, the course also introduces some of the main empirical contributions to the field and studies the main econometric and statistical techniques used in corporate finance.

1. What is "Corporate Finance"?

Most basically, corporate finance addresses the questions how companies raise financing and structure their liabilities. The major areas of research addressed in this course are:

1. Capital structure: how do companies choose between different types of securities, particularly debt and equity?
2. Security design: How do companies design liabilities (e.g., maturity and seniority of debt claims, call and conversion provisions)
3. Corporate payout policy: How much do companies pay out to investors as dividends?
4. The corporation in primary markets: why do companies go public, and why are initial public offerings (IPOs) generally underpriced?
5. Ownership rights: how are control rights (e.g., voting rights, liquidation rights) assigned to security holders? When are these rights contingent?
6. Mergers and acquisition and the market for corporate control: What determines the boundaries of the company? What are the costs and benefits of concentrated ownership? How is corporate control exercised?

Note that the emphasis here is on positive, not on normative questions. The research discussed here generally aims at understanding observed corporate financial policies, and market price responses to these decisions.
2. Format and Scope of the Course

Each session covers one key area of corporate finance. We will cover the main theoretical papers as well as some important empirical applications. Usually, I will give a presentation of the key theoretical paper(s) for each session. I will ask participants to volunteer for presenting some of the other papers.

Everybody who wishes to complete a PhD in Finance should read the "Classics" in the theory of corporate finance. These articles are usually widely cited, and started completely new areas of research. All modern research and academic discussion assumes familiarity with these contributions. Unfortunately, those papers that are path breaking in terms of ideas are not always those that contain the most general or rigorous statement of a particular result. In some cases the results stated in a fundamental paper are solely based on a numerical example, in others the statement or proof is incomplete or plainly incorrect. Hence, on several occasions we will discuss those papers during the lectures that state a certain result more generally or carefully, or restate older results in the context of modern methodology. For this reason some of the papers above will be mentioned only in passing during the lectures. However, this should not lead anybody to believe that they are not worth reading. Several of these papers contain stimulating ideas and original thoughts that were lost in the reception, and re-discovering those is sometimes a valuable stimulus for formulating new research ideas.

Most of the published papers in Corporate Finance are empirical and it is therefore important to connect theoretical research with empirical applications. For this reason, each session will combine theoretical and empirical contributions. As with the theoretical contributions, we will be introduced to classics as well as to new research. However, the selection of the empirical papers puts a stronger emphasis on exemplifying methodologies and introducing particular econometric techniques.

The last (but not least important) objective of the course is to give students some feel for the more recent research in the field. Hence, we shall discuss some working papers and recently published research that addresses new question or opens up new perspectives. The selection of these papers is naturally the most subjective, and reflects personal tastes. Here we enter the current discussion, where the dust has not yet settled.

3. What the course does not

The focus is necessarily narrow, and some important areas of the subject are excluded. We shall not address the following:
• Transaction costs and taxes; we shall mention this only in passing, although the subject is certainly important.
• Real investment decisions. We shall say little about corporate investment decisions and exclude the important (and growing) area of real option analysis.
• Financial intermediation; corporate finance in a broader context includes the analysis of banks, investment banks, and the price setting on exchanges. We shall bypass this area altogether.

Moreover, the focus of the course is on research. While we will also touch on some institutional aspects of the subject as well, these will remain on the sidelines. Students are strongly encouraged to complement the course and familiarize themselves with some institutional and legal details, results in empirical research and case studies. Indications for further reading are given throughout. Those who have not already done so as part of their Bachelor or Master courses are strongly advised to consult MBA-level textbooks (e.g., the textbooks by Brealey, Myers, Allen, Berk and DeMarzo, or Grinblatt and Titman).

4. Prerequisites

The most appropriate preparation for this course are a first-year doctoral level course in microeconomics that covers game theory and information economics (signaling, adverse selection, equilibrium refinements) and a first-year doctoral level course in econometrics that covers estimation and testing theory (e.g., at the level of Greene, Econometric Analysis). Some familiarity with corporate finance and financial institutions at the level of a masters level course is also assumed, but not essential. If you have no prior knowledge of corporate finance, then some chapters in an MBA-level textbook (e.g. Brealey, Myers, and Allen, Principles of Corporate Finance, 10th edition, McGraw Hill 2011; Berk and DeMarzo, Corporate Finance, Pearson 2008) would be useful.

5. Textbooks and readings

There is no general textbook that covers the material in this course. A good book on the theory of corporate finance is:


However, Tirole’s book organizes the material by theoretical theme and not by application. The text is therefore not used for the assigned readings here as the course is organized by applications with a strong perspective on empirical tests of corporate financial theory. Another text is:

This book is organized by applications and therefore somewhat closer to the structure of this course. In the final conclusion you need to be able to read and comment on the original papers and not just on the condensed discussion in textbooks, but you may find textbook discussions useful to guide your study.

For each session I assign one or two papers as required reading. I expect all participants to carefully read these papers before class. In addition, there are several papers for further reading. These papers will all play a role in class and the more of them you can read the better. The summary for each session puts these papers into the context of the discussion. I will ask participants to present 2-3 papers from the further reading section throughout the course. Assignments of papers will be discussed in the first class.

6. Assessment

Grading is based on paper presentations (30%), class participation during the course (20%), and a take-home exam at the end of the course (50%). Depending on the number of participants, you are asked to make about two 20 minute presentations of papers and to contribute to specific questions in class. The papers selected for presentation are listed in the presentation schedule at the end of this document. Please return this sheet by email to my secretary at cf.secretary@uni-mannheim.de no later than Wednesday, February 8, 2017 and list at least five papers in the order of priority. Papers will then be allocated shortly after and your preferences will be taken into account as much as possible. Please take note of the presentation guidelines with some dos and don’ts for good presentations. The class participation grade depends on the extent to which you have covered the required readings.

At the end of the course there will be a 24h take-home exam. You will be given two papers (most likely recently circulated working papers) and you will have to write a referee report. The instructions for this exam are as follows:

Your report should be a maximum of 1.200 words in length. Of these the summary of the paper should be a maximum of 150 words. Please conclude your report with a final recommendation to the editor of the journal. For this recommendation, assume that the journal is one of the major finance journals (JoF, JFE, RFS).

Start of exam: tba
Finish: tba
The papers and further details will be handed out with the exam. You can download the take home exam here.

7. Organization

The course has six sessions. Each session lasts for about 3 to 3 ½ hours and takes place in room R4.09 (fourth floor) in L9, 1-2. Each session will have a presentation by the instructor, mostly on the relevant theory, and two presentations of about 20 minutes each by students, mostly on empirical subjects.

8. Readings

Each section below has an extensive list of readings. Some of these readings are marked as follows:

(R) Required readings, paper will be mentioned or discussed extensively in class and students are expected to read it.

(C) Classic. Every finance student should have read this already. These are papers that are foundational for the field, widely cited, but rarely read properly.

(P) Presentations. These papers will be presented by students in class.

All other papers: Useful, must-read for those who want to do research in this area. Students should pick papers from this list according to their interests. Having an extensive background in a field helps with the takehome exam.

Syllabus, schedule, and readings

General Readings on Methodology


Session 1 (February 17, 2017): Capital structure

We will look at several theories of capital structure, beginning with a basic restatement of the Modigliani-Miller theorems. Familiarity with the subject at the masters or MBA-level (Trade-off theory, Modigliani-Miller, APV-model) is presumed here. We will start with a generalized statement of the Modigliani-Miller theorem of capital structure irrelevance (Hellwig 1981).

The two main contenders in the capital structure debate to this day are the pecking order theory and the trade-off theory. The pecking-order theory was first formulated by Myers and Majluf (1984) and later put into a coherent game theoretic framework by Noe (1988). It is based on adverse selection arguments. The trade-off theory was first formulated by Kraus and Litzenberger (1973) and is based on the notion that companies choose the optimal trade-off of tax savings and the costs of financial distress. Later, dynamic versions of this theory differ from the original formulation in important aspects (Leland 1994). This theory underlies all textbook formulations of the adjusted present value approach. In addition, we will look at agency-theoretic arguments and the notion of strategic debt service (Anderson and Sundaresan 1996) and leverage policy in industry equilibrium (Maksimovic and Zechner 1991).

We will discuss the empirical challenges faced by these models, discuss identification issues and the power of empirical tests to distinguish the main theories.

Downloadable Presentations

Capital Structure 1 (Maug)

Glover (2015)

Heider Ljungqvist (2015)

Readings


Session 2 (March 10, 2017): Initial Public Offerings

Initial public offerings are one of the most fertile areas of theoretical and empirical research in corporate finance. Three puzzles have been the subject of recurrent attention: (1) the offer price of newly issued shares is typically significantly below the price in secondary markets (underpricing); (2) IPO stocks underperform risk-adjusted benchmarks over the long term (long-term underperformance; Loughran and Ritter, 1995); (3) IPOs are strongly pro-cyclical and sometimes IPO-markets dry up completely (hot and cold markets). I will give a presentation of the Rock (1986) and the Benveniste and Spindt (1990)-explanations for underpricing. We will then look at a theory based on capacity constraints in the investment-banking industry that attempts to address all three puzzles.

Downloadable Presentations

IPOs (Maug)

Loughran McDonald (2013)

Bessembinder Zhang (2013)

Readings


(B) Chang, Chun, Yao-Min Chiang, Yiming Qian, and Jay R. Ritter, 2016, Pre-market Trading and IPO Pricing, Review of Financial Studies (forthcoming)


Tian, Xuan, and Tracy Yue Wang, 2014, Tolerance for Failure and Corporate Innovation, Review of Financial Studies 27:1, 211-255

Session 3 (March 24, 2017): Large shareholders

One intensely debated area of corporate governance studies the role of large blockholders. One part of the literature assumes that large blockholders influence companies’ business policies to their own advantage and extract private benefits of control (e.g., Burkart, Gromb, and Panunzi 2000). Another strand of the literature argues that large blockholders have superior incentives to monitor managers and therefore offer a governance service (Shleifer and Vishny 1986; Admati, Pfleiderer and Zechner 1994). A more recent debate concerns the fact that blockholders have the option to either monitor the firm and express their concerns (“voice”) or sell their shares (“exit”). Some authors are therefore concerned that higher stock market liquidity leads to less monitoring and less effective governance (Bhide 1993), while others arrive at the opposite conclusions, based on different mechanisms (Maug 1998; Edmans 2009). These debates have also affected the perception of the governance role of hedge funds in the literature.

Downloadable Presentations

Large shareholders (Maug)
Brav et al (2008)
Albuquerque Schroth (2014)

Readings

Executive compensation is a large area of applied microeconomics, which attracts researchers from finance, accounting, and labor economics, who try to understand the many facets of the remuneration of top executives, including the sometimes astonishing magnitude of compensation (and how it is related to talent: Gabaix and Landier 2008), the structure of contracts (in particular, how pay is related to performance, e.g., Jensen and Murphy 1990; Aggarwal and Samwick, 1999). A large literature relies on a conventional principal-agent model to analyze the optimal structure and design of contracts (among many others, Hall and Murphy, 2000, 2002; Dittmann and Maug 2007). In this class we will look in particular at calibration and structural estimation as methods to investigate the structure of contracts that also try to quantify the predictions of theoretical model (Taylor 2013; Coles, Lemmon and
Meschke 2012). In addition to models of bilateral contracting we will also look at market-wide general equilibrium effects (Acharya and Volpin 2010).

**Downloadable Presentations**

Executive Compensation (Maug)

Graham Li Qiu (2012)

Shue (2013)

**Readings**


Dittmann, Ingolf, Ernst Maug, and Oliver G. Spalt, 2013, Indexing Executive Compensation Contracts, Review of Financial Studies 26:12, 3182-3224


(P) Graham, John R., Si Li, and Jiaping Qiu, 2012, Managerial Attributes and Executive Compensation, Review of Financial Studies 25:1, 144-186

(C) Grossman, Sanford J., and Oliver D. Hart, 1983, An Analysis of the Principal-Agent Problem, Econometrica 51:1, 7-45

Hall, Brian J., and Kevin J. Murphy, 2000, Optimal Exercise Prices for Executive Stock Options, American Economic Review 90, (May), pp. 209-214

Hall, Brian J., and Kevin J. Murphy, 2002, Stock Options for Undiversified Executives, Journal of Accounting and Economics 33, no. 2 (April), pp. 3-42
Session 5 (April 28, 2017): Mergers and Takeover Bidding

The theoretical and empirical analysis of mergers and acquisitions forms a large literature within the field of corporate finance, which covers topics such as the creation of synergies, allocation of synergies between the parties, means of payments, takeover defenses, insider trading before announcements, consequences for competition and competition policy, bidder wars, means of payments in mergers, the long-term profitability of mergers, and the corporate governance requirements for successful merger strategies. The class assumes that you are familiar with the design of short-term event studies (see the assigned chapter by Campbell/Lo/MacKinlay) that are used to analyze the synergies and the allocation of synergies between bidders and target.

Downloadable Presentations

Mergers (Maug)

Boone Mulherin (2008)

Atanassov (2013)

Readings


Bagnoli, Mark, and Barton L. Lipman, 1988, Successful Takeovers without Exclusion, The Review of Financial Studies 1, no. 1 (Spring), pp. 89-110

Session 6 (May 5, 2017): Diversification and the Conglomerate Discount

For a long time, it was an established (“stylized”) fact of the literature on diversification that diversified conglomerates are punished by capital markets by a “conglomerate discount”, whereby the conglomerate as a whole is worth less than the sum of its parts (Lang and Stulz, 1994; Berger and Ofek, 1995). More recently, Villalonga (2004) provides evidence that the conglomerate discount may not exist (she finds a conglomerate premium instead). Also, Graham, Lemmon, and Wolf (2002) argue that the conglomerate discount may result from acquirers’ selection strategy, which prefers low-valued targets. I will give an introduction into
Stein’s (1997) paper to talk about the potential advantages of internal capital markets. We will then discuss the empirical issues involved in the identification and interpretation of the conglomerate discount and empirical methods to analyze internal capital markets.

Downloadable Presentations

Internal Capital Markets and Diversification (Maug)

Matvos Seru (2014)

Bakke Whited (2012)

Readings


Duchin, R. A. N., 2010, Cash Holdings and Corporate Diversification, Journal of Finance 65, no. 3 (June), pp. 955-992

Frésard, Laurent, and Philip Valta, 2013, Competitive Pressure and Corporate Investment: Evidence from Trade Liberalization, Working Paper, University of Maryland


Session 7 (May 5, 2017): How to write a Referee Report

Downloadable Presentations

Referee report (Maug)

Readings

Welch, Ivo, 2013, Referee Recommendations, Working Paper, University of California at Los Angeles
Presentation Schedule

Note: The ordering of presentations in each session is normally in the order of publication, i.e., older publications come first.

Please take note of the presentation guidelines with some dos and don’ts for good presentations.

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