Theoretical Corporate Finance: Part I

The Graduate School of Finance (GSF)

Aalto University
Spring 2018

Mikko Leppämäki (Aalto University), lectures
&
Ellapulli Vasudevan (Aalto University), exercises

Lectures, 27 hours

Tuesday	16.1.	10.00 - 13	G-109
Wednesday	17.1.	10.00 - 13	G-109
Tuesday	23.1.	10.00 - 13	G-109
Wednesday	24.1.	10.00 - 13	G-109
Tuesday	30.1.	10.00 - 13	G-109
Wednesday	31.1.	10.00 - 13	G-109
Tuesday	6.2.	10.00 - 13	G-109
Wednesday	7.2.	10.00 - 13	G-109
Tuesday	13.2.	10.00 - 13	G-109

Exercises, 12 hours

Wednesday	24.1.	13.15 - 15
Wednesday	31.1.	13.15 - 15
Wednesday	7.2.	13.15 - 15
Wednesday	14.2.	12.15 - 15
Wednesday	21.2.	12.15 - 15

Exams

Exam: Thursday, March 8 at 10.00-14.00
Retake Exam: tba tba

Assessment: The total points of the course are 100. The grading is based on the written examination (90 % weight) and exercises (10 % weight). In order to pass the course one needs at least 40% of the total points, which gives a minimum passing grade. In addition, one has to get at least 40% of the points from the written exam (i.e. 36 points). The grades are 5=Excellent knowledge, 4=Very good knowledge, 3=Good knowledge, 2= Satisfactory knowledge, 1=Sufficient knowledge and 0=Fail.

Exercises: Assignments will be posted on the home page of the course and typically you have about one week to solve them. You can earn up to 10 points (, i.e. 10 % weight) from the questions marked with (*) towards the final grade. Please send the answers for the questions marked with (*) in electronic form directly to ellapulli.vasudevan@aalto.fi before the exercise session or hand in the answers at the beginning of the exercise session. *Typed answers are strongly preferred to handwritten ones. Please keep a copy of your answers when you hand them in, since the answers are not returned.*

Exams: There is a closed book exam covering part I and part II of the course separately. There will also be a retake exam covering both parts. It is expected that you master the material covered in lectures, exercises and in the required readings as indicated in the reading list. In addition, you are encouraged to get familiar with the additional readings announced at the lectures. The questions in the exam will be similar(ish) as in the exercises. *By working on your own with the exercises helps you in learning new material and prepares to solve problems at the exam. Try to solve as many exercises as you can - the (second) best way to learn!*

Objective: Part I of the course offers a doctoral level introduction to the theoretical corporate finance research with the help of game theory and contracting. We focus on agency problems and capital structure by examining financial contracting under moral hazard, financial contracting under asymmetric information and signaling in finance. In particular, we examine how agency problems affect the way how corporations optimally finance their activities by taking into consideration the strategic behavior of other market participants.

Prerequisites: You are assumed to have basic knowledge of static optimization, utility functions, expected utility theory and some basic knowledge of microeconomics. However, I am not assuming that you have (although it would be helpful) background knowledge in noncooperative game theory, and that is why first two lectures will be mainly devoted to the basics of noncooperative game theory.

Teaching material: Lecture notes and exercises will be posted on the home page of the course.

Course Objectives Once More:

1. Introduce noncooperative *game theory and contracts* as the two main tools ("working horses") of theoretical corporate finance research.
2. Introduce and explain why and what type of *agency problems* are associated with external finance/capital structure*?*
3. To familiarize you with the *formal way of modeling* and solving agency problems by using game theory and contracts.
4. Explain in detail how firms can *optimally finance* their activities given various type of agency problems.

A Rough Course Outline

0. A Brief Introduction to Noncooperative Game Theory
1. Corporate Financing under Moral Hazard
2. Corporate Financing under Asymmetric Information
3. Signaling in Corporate Finance
4. Debt, Managerial Incentives and Entrenchment