Real options and financial structuring
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Summary
The course covers advanced topics in corporate finance such as the design and valuation of corporate securities, the issuing process for these securities, real options, and their implications for valuation, financial structuring, and business development. It also applies the theory to case studies.

Content
1. Capital structure
2. The security issuance process
3. Valuation of corporate securities
4. Real options
5. Continuous time real option models

Keywords
Real options - financial contracting - financing decisions

Learning Prerequisites
Required courses
• Derivatives
• Introduction to finance
• Quantitative methods in finance
• Stochastic calculus

Learning Outcomes
By the end of the course, the student must be able to:
• Describe and apply the different valuation methods for corporate securities, such as discounted cash flow, peer comparison, and real option methods, and evaluate their relative performance in different settings.
• Explain the security issuance process, contrast the differences in this process for the issuance of equity and debt securities, and the agency costs associated with this process.
• Derive the optimal investment and financing strategies in structural real option models, and economically interpret the different parts of the equations.
• Discuss the methods for the valuation of real options and apply these concepts to problem settings in case studies.
• Coordinate and develop ideas how to solve specific problems related to the valuation of corporate securities and financial structuring, while working in a team.
• Structure and compose a document with solutions to questions related to the valuation of real options, and present these solutions in front of other students.
• Apply the intuitions and concepts to the development of business ideas.

Transversal skills
• Plan and carry out activities in a way which makes optimal use of available time and other resources.
• Communicate effectively, being understood, including across different languages and cultures.
• Negotiate effectively within the group.
• Make an oral presentation.
• Demonstrate the capacity for critical thinking

Teaching methods
Lectures, assignments, case studies, and presentations.
The assignments and case studies are open book and done in groups of students

Expected student activities
The students are expected to attend the lectures.
The students will work in groups to solve problem sets and case studies. They will have to hand in their solutions to the problem sets and case studies, which will be graded and count 40% towards the final grade. The case studies will also lead to short class presentations by teams of students.

Assessment methods
40% Assignments and case studies
60% Final exam
Final exam is closed-book

Supervision
Office hours Yes
Assistants Yes
Forum No

Resources
Virtual desktop infrastructure (VDI)
No

Bibliography
Dixit and Pindyck, Investment under Uncertainty, Princeton University Press
Berk and DeMarzo, Corporate Finance, Pearson Education
Tirole, The Theory of Corporate Finance, Princeton University Press

Ressources en bibliothèque
• The Theory of Corporate Finance / Tirole
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