Course unit: Corporate Finance

** Beware! Under construction. **

Course metadata

- Title in French: Finance d'entreprise
- Course code: tba
- Type: specialized course
- ECTS credits: 4
- Semester 10 (Spring)
- Teaching period: Mid-February to Mid-April
- Teaching hours: 100h
- Language of instruction: English and French
- Coordinator: tba
- Instructor(s): Amaury Schoenauer (Monte Cristo Advisory), Mehdi El Alaoui (World Bank IFC), Benoît Forgues (Rgreen), Olivier Vandooren (Sigée Finance), Lilian Lancelot (Caisse des dépôts), sitraka Forler (Post Luxembourg), Lirone Samoun (smartpush).
- *Last update 22/05/2026 by C. Pouet*

Brief description

This course unit is divided into four parts:

- ** Structured finance ** (24 hours) taught by Amaury Schoenauer,
- ** Project finance ** (24 hours) taught by Mehdi El Alaoui, Benoît Forgues and Olivier Vandooren,
- ** Workshop in corporate finance ** (24 hours) taught by Lilian Lancelot,
- ** Data Project: modeling and validation ** (20 hours) taught by Sitraka Forler and Lirone Samoun.

Learning outcomes

- Know how to build a financial model and challenge its assumptions
- Understand how these operations can allow for financing large industrial projects
- Know the advantage and drawbacks of PPPs
- Understand how bankers can manage risks using structured finance
- Know the advantages and drawbacks of structured operations
- Understanding the specificities of start-up financing and advising

Course content

Structured finance

1. Main market players and rationale for using structured finance

2. Promoters Credits
    - Understanding the Promoter's logic
    - Understanding Credit Risk
    - Assessing the risks for the banker
3. Investor Credit
    - Conceptualization
    - Leverage and Loan to Value (LTV)
    - Debt Service Cover Ratio (DSCR) and Interest Cover Ratio (ICR)
    - Slicing of Debt
4. Due diligence and points of vigilance of the banker
    - Leases and Rental Conditions
    - Valuation Report
5. Other operations
6. Perspectives on Market Finance (Securitization)

Project finance

1. The main steps of project finance
    - Tender
    - Structuring
    - Optimization
2. Financial modelling
    - The issue of circularity
    - Internal rate of return and gearing ratio
    - Case study
3. The case of renewable energy projects
    - Prices and costs of renewables
    - Bank versus funds
    - How to set the price of a project?

Workshop in corporate finance

1. Financial modelling using Excel
2. Advising start-ups (on their business model and in making them viable)
3. Projects with real start-ups

Data Project: modeling and validation

- Projects and models

1. The Bias-Variance tradeoff
2. Feature Selection
3. Feature Engineering
4. Defining a metric
5. Models and applications
6. Regressions (linear, polynomial, penalized and logistic)
7. Decision trees (random forest and gradient boosting)
8. Focus on Natural Language Processing (NLP)

Bibliography

You can check the availability of the books below at Centrale Méditerranée library.

1. Structured finance
    - Vernimmen, P. (2021). Finance d’entreprise. Dalloz.
2. Project finance
    - Vernimmen, P. (2021). Finance d’entreprise. Dalloz.
3. Workshop in corporate finance
    - Vernimmen, P. (2021). Finance d’entreprise. Dalloz.

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