# Corporate Finance (Asset Pricing and Corporate Financing)

## Prof. Andrea Signori

***COURSE AIMS AND INTENDED LEARNING OUTCOMES***

The course aims to introduce the key concepts that constitute the theoretical foundations of corporate finance, with a focus on the main asset pricing models and the issues related to corporate financial decisions. In particular, it will adopt a theoretical approach supported by the analysis of real issues and their empirical evidence, in order to help students develop their professional profile and their strategic management skills in the field of corporate finance.

At the end of the course, students will:

1. have acquired knowledge and understanding of the main models for determining prices for financial instruments, as well as the critical issues related to the investment and financing decisions of a company.

2. be able to apply *asset pricing* models to real problems concerning the investment and financing decisions of a company, in particular to determine the impact of these decisions on the value of the company itself.

3. know how to identify and process the information necessary to develop a critical judgment about these models independently, also with reference to empirical findings.

4. have acquired a language that will enable them to communicate clearly with both Corporate Finance specialists and general corporate figures.

5. have acquired the fundamental tools necessary to learn advanced Corporate Finance concepts, such as the pricing of complex financial instruments and problems connected to extraordinary finance transactions.

***COURSE CONTENT***

The course is divided into three parts:

1. *Risk-return models*
   1. The Capital Asset Pricing Model (CAPM) and its weaknesses: expected utility of wealth, attitude towards risk, mean-variance principle;
   2. The Arbitrage Pricing Theory (APT): factor models, risk hedging.
2. *Option pricing and its applications in financial corporate decisions*
   1. Fundamentals of *option pricing*: definitions, *boundary conditions*, from the binomial model to the Black-Scholes formula;
   2. *Option pricing* and capital structure;
   3. Applications of option pricing in capital budgeting: real options.
3. Agency costs and information asymmetry in company financial decisions:
   1. Agency costs and ownership structure: the Jensen and Meckling models (1976);
   2. Agency costs of equity and debt;
   3. Information asymmetry in corporate finance: Myers and Majluf (1984) and Leland and Pyle (1977) models;
   4. Bankruptcy: valuing bankruptcy costs using option pricing, debt restructuring.

***READING LIST***

For part 1 of the course content:

J. Elton-J. Gruber-S.J. Brown-W.N. Goetzmann, *Teorie di portafoglio e analisi degli investimenti,* Apogeo, Milan.

For parts 2 and 3: Letture di Finanza Aziendale (asset pricing e finanziamento delle imprese), EDUCatt, Milan.

To review topics for preliminary knowledge: S. Ross-D. Hillier-R. Westerfield-J. Jaffe-B. Jordan, *Finanza Aziendale,* Mc Graw Hill, Milan.

Further material will be made available on *Blackboard* platform.

***TEACHING METHOD***

Frontal lectures, problem-solving activities, and practical classes.

***ASSESSMENT METHOD AND CRITERIA***

Assessment occurs through a written exam with numerical exercises and multipe and open-ended questions on theory. Broad awareness of the course topics, ability to critically apply knowledge and specific language in the financial area are the main criteria for obtaining a mark of excellence.

***NOTES AND PREREQUISITES***

There are no prerequisites for attending the course. However, students should ideally have a good knowledge of the key concepts of corporate finance, such as cash flow calculation, present value, capital budgeting, enterprise value determinants, and capital structure decision. The course is recommended only to students who have good knowledge of the topics mentioned above.

*Office hour*

Office hour is scheduled for Thursdays from 3PM to 5PM (via Necchi 7, 1st floor, office A105).