



**Università Commerciale
Luigi Bocconi**

**MSc. Finance/CLEFIN
2015/2016 Edition**

Theory of Finance

Bocconi University

1st semester, Academic Year 2015-2016

20135 – Theory of finance Second Part: Asset Pricing Theory

Instructors

First Part (16 Hours) Prof. Massimo Guidolin

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Second Part (32 Hours) Prof. Claudio Tebaldi

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Office Hours: Tuesday 3-4 6-7PM

Teaching Assistants:

Daniele Imperiale (Class group 15,16)

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Course Description

The course presents an introduction to quantitative financial economics, with the goal of building a common basis for all the first-year students in view of the specialized courses that will be taken in the following semesters. Part 1 of the course specializes in the theory and practice of optimal portfolio choice. Part 2 is devoted to asset pricing theory and its applications to risky projects and investment performance evaluation.

Help Outside of Class

You are welcome to stop by our offices if you have any questions. If it is not convenient for you to come during our office hours, feel free to e-mail or call to set up an appointment.

Course Organization

There will be no intermediate exam. Classes will focus on applications of optimal allocation and asset valuation theory. Teaching activities are organized on a learning-by-doing basis and students are involved in active problem solving activities. Two lectures will be held by professional asset managers working for leading financial institutions. The final exam is written and based on the teaching material posted on the you@B

Course Material

The program is covered by Lecture Notes, Slides and Excel Files including Past Exams and Class Exercises prepared by the instructors. The Lecture Notes are written in English. All the teaching material, will be available from standard electronic channels (you@B).

The basic reference book:

Danthine, J.P. and J. Donaldson, 2005, *Intermediate Financial Theory*, Second Edition, Elsevier Academic Press.

does not cover all the topics treated in the Second Part.

Research papers will be posted and are supposed to be useful as a further reading, not strictly required to prepare the exam.

Course Outline

Introduction to Valuation

TEACHING MATERIAL:

- Introduction to Valuation

Unit 2: CAPM Equilibrium Valuation

Class/Topics

9: CAPM Equilibrium assumptions, capital market line, security market line, systematic risk, leverage

TEACHING MATERIAL:

- CAPM introductory teaching material +LN

10: Empirical evidence on CAPM: The Cross-Section of Expected Stock Returns (time series and cross-sectional tests),

TEACHING MATERIAL:

- Black_Jensen_Scholes_CAPM_Test (Fama McBeth slides only pg.1) + LN

11: Black CAPM and Roll's critique

TEACHING MATERIAL:

- CAPM introductory teaching material + LN

12: Application: Capital Budgeting and Valuation of Risky Projects

TEACHING MATERIAL:

- CAPM introductory teaching material + LN

13: Application: CAPM with Leverage Constraints. Betting Against Beta factor

TEACHING MATERIAL:

- See Solution Exam 2015

14: Class Exercises

TEACHING MATERIAL:

- See Problem set on CAPM and APT

Unit 3: Arbitrage Pricing Theory

Class/Topics

15: Linear (algebra) Factor Models with Excel

TEACHING MATERIAL:

- See Problem set on CAPM and APT + LN

16: Arbitrage Pricing Theory

TEACHING MATERIAL:

- Introduction to APT + LN

17: Fama-French Anomalies

TEACHING MATERIAL:

- Additional Material on APT applications + LN

18: Behavioral Anomalies

NOT DISCUSSED

19: Application: Fund Performance Evaluation

TEACHING MATERIAL:

- Buffett's alpha Slides

20: Application: Intermediaries Leverage and Asset Prices

- See Solution Exam February 2015

21: Class Exercises

TEACHING MATERIAL:

- See Problem set on CAPM and APT

Unit 4: Asset Pricing beyond linear factor models

Class/Topics

21: The Pricing Kernel approach

TEACHING MATERIAL:

- Price Deflator

22: Empirical Tests based on the Pricing Kernel approach

TEACHING MATERIAL:

- Price Deflator (only pg.2 $K=2$ and pg.4 Slides Pricing Kernel)

23: Application: The impact of (il)liquidity on asset valuation: the global financial crises

SEE INTRODUCTION TO VALUATION NOT RELEVANT FOR THE EXAM

24: Class Exercises

- See Problem Set 2

LN: Lecture Notes Chapter on CAPM, APT, Empirical Tests of Asset Pricing Models.

