

MSc. Finance/CLEFIN 2015/2016 Edition

# **Theory of Finance**

Bocconi University
1st semester, Academic Year 2016-2017

# 20135 - Theory of finance Second Part: Asset Pricing Theory

#### **Instructors**

First Part (16 Hours) Prof. Massimo Guidolin

Office: Finance Department, E2-

Via Röntgen 1, 2<sup>nd</sup> floor.

E-mail: massimo.guidolin@unibocconi.it

Office Hours:

## Second Part (32 Hours) Prof. Claudio Tebaldi

Office: Finance Department, E2-05

Via Röntgen 1, 2<sup>nd</sup> floor.

E-mail: claudio.tebaldi@unibocconi.it

Office Hours: Wednesday 2.30-4.00 PM

### **Teaching Assistants:**

Daniele D'Arienzo (Class group 15,16) Zorntisa Todorova (Class groups 16,17)

Office: Finance Department, Via Röntgen 1, 2<sup>nd</sup> floor.

E-mail: daniele.darienzo@unibocconi.it
Office Hours: Wednesday 1PM-2PM 2-E4-SR02
E-mail: zornitsa.todorova@phd.unibocconi.it
Office Hours Thursday 10 AM-11AM 2-C3-09

# **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 the basic reference book, Lecture Notes, Slides and Excel Files including Past Exams and Class Exercises prepared by the instructors. The Lecture Notes are written in English. .

The basic reference book is:

"Asset Management: a systematic approach to factor investing", Andrew Ang, Oxford University Press. Lecture Notes, Slides and Excel Files will be available from standard electronic channels (you@B).

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**

### **Asset Pricing Theory**

Class/Topics

9: Introduction to Valuation Theory

TEACHING MATERIAL:

- Book Ch. 6.

10: Classical CAPM Equilibrium assumptions, capital market line, security market line, systematic risk, leverage TEACHING MATERIAL:

- Book Ch. 6 +Lect. Notes Ch.1

11: Black CAPM and Roll's critique and Multifactor Models

TEACHING MATERIAL:

- Book Ch. 6 + Lect. Notes Ch.1 and 2

12: Arbitrage Pricing Theory

TEACHING MATERIAL:

- Book Ch. 6 + Lect. Notes Ch.2

13: The Pricing Kernel approach

TEACHING MATERIAL:

- Book Ch. 6 + Lect. Notes Ch.3

14: Economic interpretation of the Price Deflator

TEACHING MATERIAL:

- Book Ch.6 + Lect. Notes Ch.3

15: Application: Valuation of Risky Projects and the Dividend Discount Model

TEACHING MATERIAL:

- Book Ch.8 + Lect. Notes Ch.1 and 3

16: Class Exercises

TEACHING MATERIAL:

- Problem set on CAPM and APT

#### **Empirical Asset Pricing**

#### Class/Topics

17: Empirical tests of CAPM: The Cross-Section of Expected Stock Returns,

TEACHING MATERIAL:

- Book Ch.10 Sect. 4 + Lect. Notes Ch. 4+ Excel file: replication of BJS and FMB tests

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

TEACHING MATERIAL:

Book Ch.10 Sect. 4

19: Fama-French Anomalies

TEACHING MATERIAL:

- Book Ch.7 + Lect. Notes Ch.4

20: Behavioral Anomalies

TEACHING MATERIAL:

- Book Ch.7 21: Factors

TEACHING MATERIAL:

- Book Ch.7 + Lect. Notes Ch.4

22: Performance Attribution

TEACHING MATERIAL:

- Book Ch.10

23: Application: Buffett's alpha

TEACHING MATERIAL:

- Book Ch.10 + Excel replication file of the Performance Analysis

24: Class Exercises

TEACHING MATERIAL:

Problem set on Empirical Asset Pricing