# uc3m Universidad Carlos III de Madrid

## Financial Economics

Academic Year: (2023 / 2024) Review date: 28-06-2021

Department assigned to the subject: Business Administration Department

Coordinating teacher: MARIN VIGUERAS, JOSE MARIA

Type: Compulsory ECTS Credits: 5.0

Year: 1 Semester: 1

# REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Students are assumed to have an intermediate background in:

- Statistics, Probability and Econometrics
- Calculus
- Economics

#### **OBJECTIVES**

This is the first finance course in the Ms in Business and Finance. Students will acquire broad knowledge of:

- Asset pricing (CAPM, CCAPM, Derivatives pricing, etc.)
- Portfolio Management
- Corporate finance

Furthermore, students will the basic fundamentals of research in finance and the two main approaches in finance:

- The equilibrium approach
- The absence of arbitrage approach

# **DESCRIPTION OF CONTENTS: PROGRAMME**

Ch. 1. Historical and Institutional background (No part of the exam)

\*Allen and Gale (94), chs. 1,2

De la Vega (1688)

# Ch. 2. A Basic Framework

- Individuals consumption and investment decisions
- Rules for managers of corporations
- Perfect, complete and efficient markets
- Extension 1: many dates
- Extension 2: uncertainty
- Application: the dangers of shortermism and longtermism in corporate policy.

# Ref.:

Brealey, Myers and Allen, chs. 1-6

Copeland and Weston, 1,2

\*Fried, Jesse, "The Uneasy Case for Favouring Long-Term Shareholders", 2013.

# Ch. 3. Rationality and Walrasian Equilibrium (No part of the exam)

- The axioms of rationality
- Utility functions
- Agents; decision problem
- Static pure exchange economy
- Why studying the Walrasian equilibrium

#### Ref.:

Marín and Rubio, 16.

Mas-Colell, Whinston and Green, 1995.

# Ch. 4. Financial Equilibrium: Existence, Efficiency and Valuation

- A simple model of equilibrium in capital markets: certainty
- Extension to many periods

- The financial equilibrium in economies with uncertainty
- Economies with a full set of Arrow securities
- General economy with complex securities

## Ref.:

Huang and Litzenberger, LeRoy and Werner, 1. Marín and Rubio. 17.

# Ch. 5. Behavior under Uncertainty

- Expected utility
- Risk aversion
- The portfolio choice problem
- Comparative statics results
- Useful utility functions
- Mean-variance analysis
- Asset pricing with expected utility: CCAPM and CAPM

#### Ref.:

Brealey and Myers, 7,8 Copeland and Weston, 6,7 Huang and Litzenberger, 3,4 LeRoy and Werner, 8-10.

Marín and Rubio, 18

# Ch. 6. Asset Pricing in Equilibrium: CAPM

- Diversification and the measurement of risk
- The CAPM
- The role of the assumptions of the CAPM
- Asset Management: Conflict of Interests
- Hedge Funds

## Ref.:

LeRoy and Werner, 8-10.

Marin and Rubio, 19.

Huang and Litzenberger, 3,4

\*Cukurova and Marín, "Darwinian Selection in the Hedge Fund Industry", 2015.

\*Golez and Marín, "Price Support by Bank-Affiliated Mutual Funds", 2015.

## Ch. 7. Market Efficiency

- The Market Efficiency Hypothesis (MEH)
- The Grossman-Stiglitz paradox
- The joint test of market efficiency
- New developments on the MEH

# Ref.:

Brealey, Myers and Allen, 13

Huang and Litzenberger,

Copeland and Weston, 10, 11

\*Grossman, S.J., Stiglitz, J. "On the Impossibility of Informationally Efficient Markets"

\*Karapandza and Marín, "The Rate of Market Efficiency", 2015.

# Ch. 8. Options

- Concepts and institutional background
- Pricing: binomial distribution
- Pricing: the Black and Scholes option pricing formula
- General Theory of Pricing in the Absence of Arbitrage.

Ref.:

Kolb.

Hull.

# LEARNING ACTIVITIES AND METHODOLOGY

The course combines theory and practice classes. There is a weekly problem set which is solved in the practice sessions.

Students are also required to go over the academic papers in the literature which are used as leading examples of keys issues covered in class.

## ASSESSMENT SYSTEM

Regular evaluation: Problem set grading and final exam.

Extraordinary evaluation: Exam.

% end-of-term-examination:

% of continuous assessment (assignments, laboratory, practicals...): 20

## **BASIC BIBLIOGRAPHY**

- Allen, F. and Gale, D. Financial Innovation and Risk Sharing, The MIT Press, 1994
- Brealey, R., Myers, S. and Allen, F. Principles of Corporate Finance (tenth edition)., McGraw-Hill, 2011
- Copeland, T. and Weston, F. Financial Theory and Corporate Policy. , Reading (Mass): Addison-Wesley, 1992
- Huang, C. and Litzenberger, R. Foundations for Financial Economics., North-Holland, 1988
- LeRoy, S. and Werner, J. Principles of Financial Economics, Cambridge University Press, 2001
- Marín, J. and G. Rubio Economía Financiera (in Spanish), Antoni Bosch Editors, 2001
- Mas-Colell, A., Whinston, M. and Green J. Microeconomic Theory, OUP USA, 1995

## ADDITIONAL BIBLIOGRAPHY

- Benjamin Golez y Jose M. Marin Price support by bank-affiliated mutual funds, Journal of Financial Economics, 2015
- Francesco Franzoni and Jose M. Marin Pension Plan Funding and Stock Market Efficiency, Journal of Finance, 2006
- Jesse Fried THE UNEASY CASE FOR FAVORING LONG-TERM SHAREHOLDERS, Harvard Law School, 2013
- Jose M. Marin and Rohit Rahi Information Revelation and Market Incompleteness, Review of Economic Studies, 2000
- Jose M. Marin y Jacques Olivier The Dog That Did Not Bark: Insider Trading and Crashes, Journal of Finance, 2008
- Maarten Meeuwis Wealth Fluctuations and Risk Preferences: Evidence from U.S. Investor Portfolios, Mimeo, 2019
- Ozlem Akin, Jose M. Marin and Jose-Luis Peydro Anticipating the financial crisis: evidence from insider trading in banks, Economic Policy, 2020
- Rasa Karapandza and Jose M. Marin The Rate of Market Efficiency, Mimeo, 2016
- Sanford J. Grossman Dynamic Asset Allocation and the Informational Efficiency of Markets, Journal of Finance,
- Sanford J. Grossman and Joseph Stiglitz On the Impossibility of Informationally Efficient Markets, American Economic Review , 1980
- Sevinc Cukurova y Jose M. Marin Darwinian Selection in the Hedge Fund Industry, Mimeo, 2016