uc3m Universidad Carlos III de Madrid

Dynamic Asset Pricing

Academic Year: (2021 / 2022) Review date: 09-07-2021

Department assigned to the subject: Business Administration Department

Coordinating teacher: SERRANO JIMENEZ, PEDRO JOSE

Type: Electives ECTS Credits: 5.0

Year: 1 Semester: 2

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Financial Economics, Quantitative Methods I & II

OBJECTIVES

- To know the main approaches for pricing assets
- Empirical analysis of the most relevant asset pricing models in the financial literature

DESCRIPTION OF CONTENTS: PROGRAMME

- -Stochastic discount factor and pricing equation
- -Consumption asset pricing model and the puzzle of the risk premium
- -Empirical evidence of pricing models
- -Pricing models with habit preferences
- -Continuous time pricing: Ito's lemma and the Girsanov theorem
- -Stochastic differential equations and the Black-Scholes model
- -Derivative pricing. Applications.

LEARNING ACTIVITIES AND METHODOLOGY

This course includes

- 1.- Theoretical classes, where the different concepts are explained and discussed
- 2.- Exercise classes, where the different models covered in 1.- are estimated.

Due to the special situation of public health, during the academic year 2020/2021 the bimodality of teaching is implemented: online teaching for theoretical classes, onsite teaching for practical classes.

ASSESSMENT SYSTEM

First call:

100% - Individual and group assigments

Second call:

100% - Final exam

% end-of-term-examination:

% of continuous assessment (assigments, laboratory, practicals...):

BASIC BIBLIOGRAPHY

- John H. Cochrane Asset Pricing (revised edition), Princeton University Press, 2005

ADDITIONAL BIBLIOGRAPHY

- Hamilton, J.D. Time series analysis, Princeton University Press, 1994