# uc3m Universidad Carlos III de Madrid

# Advanced Empirical Methods in Finance

Academic Year: ( 2023 / 2024 ) Review date: 18-03-2023

Department assigned to the subject: Business Administration Department

Coordinating teacher: MORENO MUÑOZ, JESUS DAVID

Type: Electives ECTS Credits: 6.0

Year: 2 Semester: 1

# REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Quantitative Methods I & II, Research Methods, Financial Economics, Corporate Finance I & II.

### **OBJECTIVES**

- Identify key identification problems in Empirical Corporate Finance
- Be familiar with the main econometric techniques used in the literature to solve/minimize identification challenges
- Use the most appropriate technique to solve a particular empirical problem
- Manage the main performance measures for portfolio managers evaluation
- Be familiar with the main agency problems studied in the literature of mutual funds and other investment companies

#### DESCRIPTION OF CONTENTS: PROGRAMME

- 1) Main identification concerns in an Empirical Corporate Finance Setting
- 2) Overview of methods to solve identification problems
- 3) Instrumental Variables
- 4) Experiments and Quasi-experiments: the difference-in-differences estimators
- 5) Regression discontinuity
- 6) Matching methods
- 7) Other methods: discrete choice models and introduction to structural estimation
- 8) Introduction to Investment Companies
- 9) Traditional Performance measures in IC
- 10) Others Performance Measures in IC
- 11) Empirical Research in IC: Corporate Governance, Agency Problems, Risk issues. (Special case:Outsourcing in Mutual funds)

## LEARNING ACTIVITIES AND METHODOLOGY

- Discussion of the empirical strategy used in recently published papers in top journals
- Empirical work using statistical and analytical software (STATA, R, Matlab, etc.)
- Lectures

There will be a regular schedule of office hours. Collective office hours will be arranged upon request.

# ASSESSMENT SYSTEM

A final closed-book exam (60%)

Reading papers, oral presentations, homeworks (40%)

% end-of-term-examination: 60

% of continuous assessment (assignments, laboratory, practicals...): 40

## **BASIC BIBLIOGRAPHY**

- Bodie, Kane and Marcus Investment, McGraw Hill, 2009
- Michael R. Roberts and Toni M. Whited Endogeneity in Empirical Corporate Finance, Simon School Working Paper No. FR 11-29., october 2012
- ¿ Fischer, B. R., and Russ, W Performance Evaluation and Attribution of Security Portfolios, Academic Press , 2013