
Investments and Portfolio Management

Professor: Javier Gil-Bazo

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Office hours: By appointment

Course Type: Compulsory

Credits: 4 ECTS

Term: Fall

Course Description

This course is an introduction to the foundations of Portfolio Theory and Asset Pricing. It starts with optimal portfolio choice under both expected utility and the mean-variance paradigm. It then deals with asset pricing models and their practical implementation. The course then covers asset pricing under no arbitrage.

Objectives

To learn how to make portfolio decisions under uncertainty

To understand how markets price financial risks according to the most important asset pricing models

To be able to apply these models to real data in a practical context

To understand the notion of arbitrage and the implications for asset prices

To know alternative approaches to the implementation of asset pricing models under the no arbitrage assumption

Methodology

Lectures will cover the theory and will be complemented with readings of articles from the specialized press as well as from academic journals. Special attention will be given to the practical implementation of the theory with application to real data

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using Excel as well as computational languages. Practical classes will be devoted to presenting and discussing assignments.

The competences, the learning outcomes, the assessment elements and the quality of the learning process included in this Teaching Plan will not be affected if during the academic trimester the teaching model has to switch either to a hybrid model (combination of face-to-face and on-line sessions) or to a complete on-line model.

Evaluation criteria

Students will solve problem sets working in groups of 3 people.

Grading:

- Final Exam: 50%
- Problem sets: 40%
- Active class participation: 10%

Students who do not achieve an overall grade of 5/10, will have the opportunity to do a retake exam only if they have submitted all problem sets and have taken the final exam.

Students are required to attend 80% of classes. Failing to do so without justified reason will imply a Zero grade in the participation/attendance evaluation item and may lead to suspension from the program

Students who fail the course during the regular evaluation are allowed ONE re-take of the evaluation, in the conditions specified above. If the course is again failed after the retake, the student will have to register again for the course the following year.

In case of a justified no-show to an exam, the student must inform the corresponding faculty member and the director(s) of the program so that they study the possibility of rescheduling the exam (one possibility being during the "Retake" period). In the meantime, the student will get an "incomplete", which will be replaced by the actual grade after the final exam is taken. The "incomplete" will not be reflected on the student's Academic Transcript.

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Plagiarism is to use another's work and to present it as one's own without acknowledging the sources in the correct way. All essays, reports or projects handed in by a student must be original work completed by the student. By enrolling at any UPF BSM Master of Science and signing the "Honor Code," students acknowledge that they understand the schools' policy on plagiarism and certify that all course assignments will be their own work, except where indicated by correct referencing. Failing to do so may result in automatic expulsion from the program."

Calendar and Contents

Chapter 1: Portfolio Theory

1. Preferences and portfolio choice
2. Mean-Variance Analysis
3. Efficient Portfolios

Chapter 2. Asset Pricing in Equilibrium

1. The CAPM
2. Applications

Chapter 3. Empirical Evidence

1. Testing the CAPM
2. Anomalies
3. 3-factor model
4. 5-factor model
5. Liquidity risk
6. Is there a replication crisis in Finance?

Chapter 4. The APT

1. The Law of One Price
2. The Arbitrage Pricing Theory (APT)
3. Implementing the APT

Chapter 5. Introduction to Derivatives

1. Forwards
2. Futures
3. Options

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Session	Topic
1	Chapter 1
2	Chapter 1
3	Chapter 2
4	Chapter 2
5	Chapter 3
6	Chapter 3
7	Chapter 4
8	Chapter 4
9	Chapter 5
10	Chapter 5

Reading Materials/ Bibliography/Resources

- Class Slides
- Proposed Readings
- Campbell, J., *Financial Decisions and Markets: A Course in Asset Pricing*
- Campbell, J, Lo, A. and A.C. Mackinley, *The Econometrics of Financial Markets*, Princeton University Press, 1997.
- Cochrane, J., *Asset Pricing*
- Hull, J., *Options, Futures and Other Derivatives*, Prentice Hall, 2000.
- Marín, J. and G. Rubio, *Economía Financiera*, Antoni Bosch Editors, 2001, (in Spanish).

Bio of Professor

Javier Gil-Bazo is an Associate Professor of Finance at Universitat Pompeu Fabra. He has previously held an Associate Professor position (with tenure) at Universidad Carlos III. Javier has also undertaken research at the University of Maryland, Tilburg University, and the Wharton School of the University of Pennsylvania.

His research interests cover institutional investors, investor behavior, asset management, and asset pricing. His research has been published in academic journals such as *Journal of Finance*, *Review of Financial Studies*, *Journal of Banking and Finance*, *Journal of Financial Markets*, *Quantitative Finance*, *Journal of Financial Econometrics*, *Journal of Economic Behavior and Organization*, *Journal of Business*

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Finance and Accounting, International Review of Financial Analysis, and Economics Letters.

Javier Gil-Bazo's work has been awarded with the Best Paper Award at the European Conference of the Financial Management Association, the Honorable Mention of the Moskowitz Prize for outstanding research in socially responsible investing and the BME Best Derivatives Paper Award at the Annual Meeting of the Spanish Finance Association.

Javier Gil-Bazo was the President of the Spanish Finance Association in 2018-19.

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