
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 covers 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 the CAPM as well as factor asset pricing models, with a focus on their practical implementation. The course also analyzes the active asset management industry: common strategies and the challenges of generating superior performance (*alpha*). Finally, we explore the rapidly growing field of sustainable finance, examining the theoretical and empirical relationship between Environmental, Social, and Governance (ESG) criteria, firm value, and expected returns.

Objectives

To learn how to take 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

To learn about active asset management strategies and portfolio performance evaluation

To understand whether and how sustainable finance can add value

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 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 4 people.

Grading:

- > Final Exam: 50%
- > Problem sets: 40%
- > Case study: 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.

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. The Asset Management Industry

1. Active Portfolio Management
2. Institutional Investors
3. Portfolio Performance Evaluation
4. Empirical Evidence

Chapter 6. Sustainable Investing

1. What is CSR and ESG?
2. Can ESG create value?
3. ESG and investor returns

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 6

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

Bio of Professor

Javier Gil-Bazo is an Associate Professor of Finance at Universitat Pompeu Fabra, Barcelona School of Economics, and UPF Barcelona School of Management. He previously held an Associate Professor position (with tenure) at Universidad Carlos III and was a visiting scholar at Nova School of Business and Economics, the University of Maryland, Tilburg University, and the Wharton School of the University of Pennsylvania. He was the President of the Spanish Finance Association in 2019-20.

Javier's research interests cover institutional investors, asset management, asset pricing, and sustainable finance, with a focus on the impact of information frictions and communication, particularly through social media. His work has been published in academic journals such as *Journal of Finance*, *Review of Financial Studies*, *Journal of Financial Economics*, *Management Science*, *Journal of Banking and Finance*, *Journal of Financial Markets*, *Financial Management*, *Quantitative Finance*, *Journal of Financial Econometrics*, *Journal of Economic Behavior and Organization*, *Journal of Business Finance and Accounting*, *International Review of Financial Analysis*, *Journal of Accounting and Public Policy*, and *Economics Letters*.

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