



## COURSE TECHNICAL DATA

Course Information	
ECTS Credits	6
Degree	Master in Finance / Master Universitario en Finanzas por la Universidad Pontificia de Comillas
Professor	Ignacio Prieto Funes
Name	Portfolio Management
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## OBJETIVOS Y CONTENIDOS

### OBJECTIVES

#### General Competencies

**CG.6 Global and Local Orientation Capacity:** Analyze current financial problems in both local and global contexts, taking into account complex economic aspects, as well as cultural, social, and ethical factors.

RA1 – Ability to analyze current problems in local and global contexts, considering complex economic aspects, as well as cultural, social, and ethical factors.

**CG.10 Technical Capacity:** Ability to analyze, synthesize, and project, applied to situations, problems, and models within the financial sector.

RA1 – Capable of engaging in the analytical study of cases and scenarios, as well as synthesizing information and data.

#### Specific Competencies

**CE 02** - Analyze non-traditional asset markets such as alternative investment funds, digital currencies, venture capital, real estate assets, and impact investing, by examining the various strategies that comprise them.

RA3 – Understands non-traditional markets, the management of alternative assets, digital currencies, and real estate assets.

**CE13** - Correctly understand and apply modern principles of advanced portfolio construction and management theory.

RA1 – Capable of developing and programming valuation models (both fundamental and technical), and optimizing fixed income and equity assets, multi-asset portfolios, and financial institutions' portfolios, using data from various market sources (data vendors) while incorporating behavioral finance aspects into the analysis.

RA2 – Portfolio management in hedge funds, understanding their functioning, structure, and the mechanics of management and performance fees. Ability to differentiate between absolute and relative return management and their implications. Assess performance using various metrics, such as the Sharpe and Information ratios, Omega, etc. Comprehend directional, arbitrage, or global macro strategies. Understand how the alternative management industry operates, and explore aspects such as smart beta or factor investing. Analyze the main real assets.

### CONTENTS

Topic 1: Fundamentals and basic elements

- 1.1 Preferences and objectives of the institutional client.
- 1.2 Private client preferences and objectives.
- 1.3 Fundamentals of portfolio management. Strategic Asset Allocation versus Tactical Asset Allocation. The investment process and the "stay invested" concept.
- 1.4 Costs and revenues and their impact on portfolio management operations:
  - a) Dividends and coupons.
  - b) Securities lending.
  - c) Management, performance, administration, trading, and custody fees.

Topic 2: Management models and their limitations.

- 2.1 Mean-variance optimization. Markowitz and Sharpe. Criticism and potential solutions. Advantages and disadvantages of the Black-Litterman model.
- 2.2 Portfolio management based on risk budget: Risk-Parity model. Advantages and disadvantages.
- 2.3 Asset allocation models based on objectives. Core-Satellite model.
- 2.4 Heuristic asset management models. 1/N or 60/40 model.
- 2.5 Real limitations of an asset portfolio: size of asset markets, liquidity, time horizon and regulation.
- 2.6 Passive investing versus active investing.

Topic 3: The impact of currency on portfolio management.

- 3.1 Spot, forward and options markets on Forex.
- 3.2 Decomposition of the impact of currency on the risk-return relationship of a portfolio and its management.
- 3.3 Active currency management strategies: Purchasing Power Parity, technical analysis and carry trade.
- 3.4 Hedging a portfolio with currency exposure using forwards or options. Practical examples.

Topic 4: Fixed income portfolio management.

- 4.1 The role of fixed income in the dynamics of multi-asset portfolio management.
- 4.2 Differences between the different types of fixed income assets.
- 4.3 Decomposition of the impact of currency on the risk-return relationship of a portfolio and its management.
- 4.4 The impact of duration, positive and negative convexity in fixed income portfolios. The effect of leverage on return and volatility.
- 4.5 German Bund futures. Practical examples of implementation in portfolios.

Topic 5: Management of equity portfolios.

- 5.1 The role of equities in the dynamics of multi-asset portfolio management.
- 5.2 Capital appreciation, dividend yield and diversification potential versus other asset classes and inflation.
- 5.3 Choosing a benchmark. Tracking error management.
- 5.4 Passive investing: full replication, stratified sampling, and optimization.
- 5.5 Active investing: Bottom-up and Top-down strategies and factor-based strategies.
- 5.6 Growth versus Value.
- 5.7 Long/Short strategies.
- 5.7 Active investing using algorithms.
- 5.8 Equity index futures and stock options.

Topic 6: ESG factor in multi-asset portfolio management.

- 6.1 ESG, myth or reality in the world of portfolio management? Main advantages and disadvantages of incorporating it into the investment process.



<p>6.2 ESG as a factor generating Alpha. 6.3 ESG as a risk-reducing factor in portfolios.</p> <p>Topic 7: Cognitive biases in asset allocation. 7.1 Loss aversion. 7.2 Representativeness bias. 7.3 Hindsight bias. 7.4 Confirmation bias. 7.5 Conservation bias. 7.6 Illusion of control bias. 7.7 Anchoring bias.</p> <p>Topic 8: Alternative assets. 8.1 Real estate market. 8.2 Commodities. 8.3 Cryptoassets.</p>
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### TEACHING METHODOLOGY

General methodological aspects of the course
<p>This course is based on learning techniques driven by defined learning objectives. Student will be assessed by experiential learning assignments, exercises, and cases; participation in class discussion; participation in a group project; and a final examination.</p> <p>The practical approach of the course incorporates a continuous practical exercise with the help of a <b>virtual investment simulator</b> (please check APP to be downloaded in Bibliography and Resources module) in the financial markets. This approach allows to apply instantly and in a real scenario the techniques and concepts developed in the classes.</p>

### EVALUATION AND GRADING CRITERIA

Evaluation Activities	(%)
Final exam	30%
Final group work and class presentation	20%
Participation	20%
Practical cases and daily exercises	20%
CAIA Level 1 / CFA Level 1 result	10%

Grading
<p><b>Class Participation:</b></p> <p>Students will be assessed based on their proactive contribution in class by offering ideas and/or asking questions regularly and/or consistently working on the group project. These ideas or questions must be aimed at enriching and/or expanding discussions by relating the discussed topics to others from the same course or a different one. Students must listen without interrupting when others speak, whether in group work or class, incorporating new perspectives into the discussion or further elaborating on other students' ideas. Additionally,</p>



contributing to the overall class environment will be highly regarded, along with adequate preparation for sessions, i.e., having completed the recommended readings for each session.

- Full attendance is mandatory (including excursions, off-site visits, Master Classes, thematic lunches, among others), and attendance will be checked at the beginning of each class.
- Students who miss many classes or are frequently late will see a reduction in their participation grades.
- Personal travel does not constitute a justified absence.
- Unjustified absences will incur the following penalties in the class participation rubric:
  - a. One unjustified absence: a reduction of -15% in the final class participation grade.
  - b. Two unjustified absences: a reduction of -40% in the final class participation grade.
  - c. More than two unjustified absences will result in a 60% reduction in the final class participation grade. The student will not be allowed to take the exam and, therefore, will be required to take the retake exam. If the student passes the retake exam, their final Class Participation grade will be capped at 5.0.
- Arriving late to class is a sign of disrespect to the teacher and other students and will not be allowed. Therefore, students arriving more than 10 minutes late will be required to wait outside until the break.

### **1) Exercises, Case Studies, and Final Project:**

Throughout the course, exercises based on real cases will be reviewed. To maximize the benefit of the class, students are expected to prepare these in advance. Some of these exercises will be assigned to be completed individually, while others will be group tasks.

As part of this course, a financial assessment for a real client will be developed. A dedicated role-play session will be scheduled at the end of the course. In this session, each team must present their wealth management conclusions to a real client, with the characteristics of each client being of special relevance.

If a student fails to pass the Exercises and/or the Group Project, they must agree with the course professor on what activities must be completed to pass.

### **2) Final Exam:**

The final exam will generally consist of a set of multiple-choice questions, short/long essays, and/or practical exercises. The exam will assess comprehension and analysis of all course concepts, alongside practical exercises based on topics discussed in class.

A minimum grade of 5 (out of 10) on the final exam is required for all assessment criteria (Participation/Exercises/Project) to be weighted as stated in the syllabus. A weighted average grade of over 5 is required to pass the course.

If a student does not achieve a minimum grade of 5.0 (out of 10), they will have to take the retake exam.

### **3) CAIA Level 1 - CFA ESG / CFA Level 1:**

Please note that the final grade obtained in the final exam of the CAIA Level 1 - CFA ESG / CFA Level 1 preparation course will account for 10% of the final grade for the subject "Portfolio Management." This will be integrated into the Assessment Activity "Evaluation of individual or collective work done by students, some of which will be presented in class."

### **5) Retake Exam:**

The course grade will be calculated as follows: the retake exam grade will be capped at the



median grade of the students who passed the first exam. The final retake exam grade will then be weighted with the Class Participation, Exercises, and Group Project grades.

**Evaluation Criteria for Re-Enrolled Students:**

Students re-enrolled in the course for a second year must complete the individual and group tasks set by the course professor. The same evaluation criteria expressed in the "Evaluation and Grading Criteria" section will apply.

For any circumstances not covered in this Course Guide, the Regulations of Advantere School of Management and the general regulations of Comillas University will apply.

## BIBLIOGRAPHY AND RESOURCES

### Basic Bibliography

#### Reference books

1. Bodie Z; Kane A & Marcus A.J : "Investments" 8th Edition ,McGraw-Hill.
2. Maginn, Tuttle, Pinto, and McLeavey (2007), Managing Investment Portfolios: A Dynamic Process. CFA Institute and Wiley.
3. Brown K C & Reilly F K: "Analysis of Investments and Management of Portfolios" 9th Edition, South-Western CENGAGE Learning
4. Choudhry M: "An Introduction to Bond Markets" Securities and Investment Institute series, Wiley
5. Fabozzi F: "Fixed Income Analysis" 2nd Edition, CFA Institute Investment Series, Wiley
6. Hull John C: "Options, Futures, and other Derivatives" 7th edition Pearson
7. Sugden D; Gee & Holmes: "Interpreting Company Reports and Accounts"

#### Reference articles

- Markowitz H., Portfolio Selection The Journal of Finance Vol. 7, No. 1 (Mar., 1952), pp. 77-91 (15 pages)
- Fischer Black, Robert Litterman, Global Portfolio Optimization Journal of Fixed Income, volume 1, p. 7 - 18, 1991.
- Fischer Black, Robert Litterman, Asset Allocation: Combining Investor Views with Market Equilibrium, 1990.
- Piros, Chris, "Asset Allocation: Seperating Alphas and Asset Classes", MFS working paper
- Stewart, Scott. "Is Consistency of Performance A Good Measure of Manager Skill?" Journal of Portfolio Management, Spring 1998
- Stewart et al., "Constant Horizon Portfolio Insurance" in Portfolio Insurance
- Hernandez, Cesar and Stewart, Scott"Active Management of International Equities: Is there a disconnect...?", Fidelity working paper