

TEACHING GUIDE

Course Information	
Name	Portfolio Management
Degree	Master in Finance
Code	0000012210
Term	1
Credits	4
Type	Mandatory
Department	Advantere School of Management
Area	Financial Markets
Professor Information	
Professor	
Name	Dr. Ignacio Prieto
CV	https://web.comillas.edu/profesor/iprieto
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Telephone	
Degree	Continuous availability via email

SPECIFIC COURSE INFORMATION

Course contextualization
<p>Contribution to the professional profile of the degree</p> <p>Portfolio management is the art and science of making decisions about the combination of assets that make up a portfolio at any time, with the objective of achieving a certain return adjusted to a maximum risk. The asset management industry has made substantial progress in recent years aided by a better understanding of how asset prices fluctuate due to greater efficiency in processing large amounts of qualitative and quantitative information. This has been reflected in the proliferation in recent years of new products and services based, for example, on smart beta, alternative beta, fundamental indexing, low volatility and leverage, inverse ETFs...</p> <p>The course builds on the mathematical concepts studied in descriptive statistics, econometrics and quantitative techniques and introduces fundamental and advanced principles of investment analysis from an eminently top-down and fundamental perspective, although without forgetting technical analysis. It develops portfolio management theory and techniques, covering the main topics of current interest to investors, providing students with an immersive experience using portfolio simulators and access to Bloomberg to manage and evaluate different risk and return metrics.</p> <p>The study plan discusses modern portfolio theory (CAPM&APT), from Markowitz to Black-Litterman, passing through Risk-Parity or factor investing models. The course covers aspects of SRI directly linked to portfolio management, fixed income portfolio management with an introduction to interest rate futures, as well as the use of derivative instruments in general as fundamental components of alpha generation and management risk of a portfolio.</p>

The course will also develop advanced elements of alternative asset management (cryptos, raw materials or real estate market), will discuss the differences between active and passive management and will close with the main elements to take into account when implementing investment decisions, their monitoring, rebalancing, risk management and return evaluation.

Goals

1. Students will gain a systematic knowledge, understanding and critical awareness of portfolio theory showing a comprehensive understanding of the complex techniques applicable to solve problems within the world of asset management.
2. Understand the recent developments and methodologies in investment analysis and the links between theory and its practical application and critically evaluate such methodologies showing empirical capacity to understand, select and apply appropriate methods in portfolio management, both strategically and tactical, depending on the goals pursued.
3. Students will manage their own portfolios with professional tools like Bloomberg or Excel in an immersive experience.
4. Understand the most modern risk concepts and portfolio management strategies.
5. Describe and evaluate perspectives of economic analysis based on the expectations of the capital market.

THEMES AND CONTENT

Contents-Themes

MODULE 1: Portfolio Management

Lesson 1: Fundamentals and basic elements.

- 1.1 Preferences and goals of the institutional client.
- 1.2 Preferences and goals of the private client.
- 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 income and their impact on portfolio management operations:
 - a) Dividends and coupons.
 - b) Loan of titles.
 - c) Management, results, administration, trading and custody commissions.

Lesson 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 models of asset management. Model 1/N or 60/40.
- 2.5 Real limitations of an asset portfolio: size of asset markets, liquidity, time horizon and regulation.
- 2.6 Passive investing versus active investing.

Lesson 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 forex management strategies: Purchasing Power Parity, technical analysis and carry trade.
- 3.4 Hedging of a portfolio with currency exposure using forwards or options. Practical examples.

Lesson 4: Management of fixed income portfolios.

<p>4.1 The role of fixed income in the dynamics of multi-asset portfolio management.</p> <p>4.2 Differences between the different types of fixed-income assets.</p> <p>4.3 Decomposition of the impact of currency on the risk-return relationship of a portfolio and its management.</p>
<p>4.4 The impact of duration, positive and negative convexity in fixed income portfolios. The effect of leverage on return and volatility.</p> <p>4.5 Futures on the German Bund. Practical examples of implementation in portfolios.</p>
<p>Lesson 5: Variable income portfolio management.</p>
<p>5.1 The role of equities in the dynamics of multi-asset portfolio management.</p> <p>5.2 Capital appreciation, dividend yield and diversification potential against other types of assets and inflation.</p> <p>5.3 Choosing a benchmark. Tracking error management.</p> <p>5.4 Passive investing: full replication, stratified sampling and optimization.</p> <p>5.5 Active investing: Bottom-up and Top-down strategies and strategies based on factors.</p> <p>5.6 Growth versus Value.</p> <p>5.7 Long/Short Strategies.</p> <p>5.7 Active investing using algorithms.</p> <p>5.8 Equity Index Futures and Stock Options.</p>
<p>Lesson 6: The ESG factor in multi-asset portfolio management.</p>
<p>6.1 ESG, myth or reality in the world of portfolio management? Main advantages and disadvantages of incorporating it into the investment process.</p> <p>6.2 ESG as a generating factor of Alpha.</p> <p>6.3 ESG as a risk reduction factor in portfolios.</p>
<p>Lesson 7: Cognitive biases in asset allocation.</p>
<p>7.1 Loss aversion.</p> <p>7.2 Bias of representativeness.</p> <p>7.3 Hindsight bias.</p> <p>7.4 Confirmation bias.</p> <p>7.5 Conservation bias.</p> <p>7.6 Illusion of control bias.</p> <p>7.7 Anchor bias.</p>
<p>Lesson 8: Alternative assets.</p>
<p>8.1 Real estate market.</p> <p>8.2 Raw materials.</p> <p>8.3 Cryptoactives..</p>

<p>Competences– Objectives</p>
<p>General Competences</p> <p>CG.6 Global and local orientation capacity: Analyze current financial problems, in a local and global environment, taking into consideration complex economic aspects, cultural, social and ethical factors.</p> <p>RA1 - Ability to analyze current problems, in the local and global environment, taking into account complex economic aspects, the cultural, social and ethical factor</p> <p>CG.10 Technical Capacity: Capacity for analysis, synthesis, and projection, applied to situations, problems, and models, in the financial field.</p> <p>RA 1. Is able to deal with the analytical study of cases and scenarios, as well as to carry out information and data synthesis.</p>
<p>Specific Competencies</p>

CE 02 - Analyze non-traditional markets for alternative assets such as alternative management funds, digital currencies, venture capital, real estate assets and impact investment, analyzing the different strategies that comprise them.

AR3. Learn about non-traditional markets, and the management of alternative assets, digital currencies and real estate assets.

CE13 - Know and correctly apply the modern principles of advanced portfolio construction and management theory

AR1. It is capable of developing and programming valuation models -fundamental and technical- and optimization of fixed and variable income assets, multi-asset portfolios and financial entities based on various market data (data vendors), inserting in the analysis aspects of behavioral finance.

AR2. Portfolio management in hedge funds, their operation, structure and the mechanics of management and performance fees. Differentiate between absolute and relative return management and its implications. Performance using various metrics, such as Sharpe and Information ratio, Omega, etc. Global directional, arbitrage or macro strategies. How the industry works alternative management and will delve into aspects such as smart beta or investment in factors. Analysis of the main real assets.

SUMMARY OF STUDENT WORK HOURS

PRESENTIAL HOURS					
Professor Exposition	Student exhibition. Debates and group dynamics	Exercises and problem solving. Elaboration of applied work	Analysis and documentation	Tutorial sessions	Development of real projects for organizations
7,5	17	13	0	1,5	1
NON-PRESENTIAL HOURS					
Professor Exposition	Student exhibition. Debates and group dynamics	Exercises and problem solving. Elaboration of applied work	Analysis and documentation	Tutorial sessions	Development of real projects for organizations
0	0	39	38,5	1,,5	1

ECTS CREDITS: 4,0 (120,00 hours)

EVALUATION AND GRADING CRITERIA

Graded Activities	Evaluation Criteria	% of Total Grade
Assessment of individual or group work carried out by students, some of them presented in class	<ul style="list-style-type: none"> • Work adequacy to the objectives set • On-time delivery • Goal adequacy and focus • Results achieved • Compliance with deadlines • The participation of ALL members of each team in the presentations and elaborations is required 	50
Performance of oral and written examinations, public defenses and multiple-choice tests, concept tests and resolution of practical cases as exams	<ul style="list-style-type: none"> • Throughout the program, exams or written tests will be given to test the solidity of the concepts acquired. • In order to pass the course, the final exams and tests of each section of the course must be passed. If there are several exams in the same section or block of a course, the weighted average of them must be higher than 5.0 as a necessary condition to pass the course. 	30
Participation and utilization of the classes	<ul style="list-style-type: none"> • When we talk about participation, it is clear that both the positive and negative ones are counted and that the quality of participation is as important as the quantity. The students' participation in class, the quality and timeliness of their interventions, the quality in the preparation and presentation of their work, predisposition and commitment, initiative, attendance. 	20

The evaluation criteria of the course are governed by the following regulations:

1. All students must comply with 100% attendance on the days set for this course. Any absence must be justified.
2. The final grade corresponds to the sum of the graded activities, evaluation criteria and % of total grade described in the Evaluation and Grading Criteria section.
3. Individual and group work must be delivered on time and in the manner planned by the professor.
4. A final mark below 5 implies the completion of an extraordinary test. The final grade in this exam may not be higher than the median of those passed at the time of set exams.
5. 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 of the subject, which will be included as part of the Assessment Activity "Evaluation of individual or collective work carried out by students, some of which are presented in class"

The Evaluation Criteria to enroll for a second year

The student enrolled in the Course for the second year must comply with the individual and group tasks set by the course professor. The same evaluation criteria described in the Evaluation and Grading Criteria section will be maintained.

For those circumstances not foreseen in this Teaching Guide, the Advantere School of Management Regulations and the Comillas General Regulations will apply.

Health alert criteria:

The student must be permanently identified, with an identification in the classroom and with her full name remotely. Students should not change the spaces they occupy in the classroom, unless directed to do so by a professor or program management.

Failure to comply with any of the health recommendations during class sessions may lead to a fail in the matter.

Bibliography

Basic Bibliography
Textbooks
<ol style="list-style-type: none">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 Learning4. Choudhry M: "An Introduction to Bond Markets" Securities and Investment Institute series, Wiley5. Fabozzi F: "Fixed Income Analysis" 2nd Edition, CFA Institute Investment Series, Wiley6. Hull John C: "Options, Futures, and other Derivatives" 7th edition Pearson7. Sugden D; Gee & Holmes: "Interpreting Company Reports and Accounts" FT/Prentice Hall
Other readings
Sugden D; Gee & Holmes: "Interpreting Company Reports and Accounts" FT/Prentice Hall
Web pages
Additional Bibliography
Papers
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 Treydor, "Only Game in Town", Financial Analysts Journal Treydor, "The 10 Most Important Questions to Ask in Selecting a Money Manager", Financial Analysts Journal, 1990

