

18F033

3 ECTS

Investment and Portfolio Management

Introduction

This course deals with the theory and practice of portfolio management. In the first part, the course approaches the problem of asset allocation with a focus on the challenges of taking the theory of portfolio optimisation to practice. It includes topics such as non-normal returns, downside risk and estimation error. The second part of the course deals with the economics of the market for asset management services and covers topics such as the empirical performance of professional portfolio managers and investor behavior.

Objectives

The objective of this course is two-fold. First, we will study the analytical tools employed in quantitative asset management, common active portfolio management strategies, and portfolio performance evaluation. These tools are a blend of financial theory, statistics, and financial econometrics. Second, the student will be presented with the academic research that informs the current debate on the value of active portfolio management.

Required Background Knowledge

No specific background knowledge is required beyond that provided by the courses in the first two quarters (especially, asset pricing and econometrics).

Learning Outcomes

After taking this module, students are expected to have a solid understanding of the techniques employed by active asset managers, with a strong emphasis on the underlying theories and potential pitfalls. Students will also have an educated opinion about the main debate within the subfield of asset management: Whether or not (at least some) professional asset managers

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earn back management fees through their abilities to trade against market inefficiencies; Whether they should be expected to do so when investors compete for the most skilled managers; Whether and why competition among asset managers for investors' money differs from competition in other markets; And whether and how regulation can help. Both the contents and the teaching will be aimed at providing students with ideas for research in this field.

Methodology

The module will be divided in 10 two-hour sessions. In each session, the professor will present a problem in asset management and then the solutions to the problem provided by academic research. Teaching will emphasize state-of-the-art theories, unsolved empirical issues, and methodological challenges in empirical research. Students are expected to read all papers before each session, and participate actively during the class.

Evaluation

Evaluation will be based on the replication of one empirical paper from the reading list (50%) and an exam (50%).

Course contents

1. Classical portfolio choice theory
2. Estimation risk
3. Non-normal returns
4. Active management strategies
5. Portfolio performance evaluation
6. Institutional investors: Mutual funds and hedge funds
7. Empirical Evidence on Mutual Fund Performance
8. The Berk and Green (2004) Model
9. Investor behavior

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Bibliography

Chapter 1

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Chapter 2

Chopra and Ziemba (1993): "The effect of errors in means, variances, and covariances on optimal portfolio choice", *Journal of Portfolio Management*, Winter, p. 6-11.

DeMiguel, Victor, Lorenzo Garlappi, and Raman Uppal (2009): "Optimal versus Naïve Diversification: How Inefficient Is the 1/N Portfolio Strategy?" *Review of Financial Studies*, vol. 22, no. 5 (May):1915-1953.

He and Litterman (1999): "The intuition behind Black-Litterman model portfolios", Goldman Sachs Investments Management Series.

Chapter 3

Harlow (1991): "Asset allocation under a downside-risk framework", *Financial Analysts Journal*.

Jondeau and Rockinger (2006): "Optimal portfolio allocation under higher moments", *European Financial Management*, 12:1, p. 29-55.

Leibowitz and Henriksson (1989): "Portfolio optimisation with shortfall constraints: a confidence-limit approach to managing downside risk", *Financial Analysts Journal*, 45:2, p. 34-41.

Chapter 5

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Chapter 6

LHabitant (2004): *Hedge Funds. Quantitative insights*, Wiley.

LHabitant (2002): *Hedge Funds. Myths and Limits*, Wiley.

Lo (2008): *Hedge Funds. An analytic perspective*, Princeton.

Chapter 7

Barras, L., Scaillet, O., & Wermers, R. (2010). False discoveries in mutual fund performance: Measuring luck in estimated alphas. *The Journal of Finance*, 65(1), 179-216.

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Fama, E. F., & French, K. R. (2010). Luck versus skill in the cross-section of mutual fund returns. *The Journal of Finance*, 65(5), 1915-1947.

Kosowski, R., 2011, Do Mutual Funds Perform when it matters most to Investors? US Mutual Fund Performance and risk in Recessions and Expansions. *Quarterly Journal of Finance* 3, 607-664.

Wermers, R. (2000). Mutual fund performance: An empirical decomposition into stock-picking talent, style, transactions costs, and expenses. *The Journal of Finance*, 55(4), 1655-1703.

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Chapter 8

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Pástor, L., Stambaugh, R. F., & Taylor, L. A. (2015). Scale and skill in active management. *Journal of Financial Economics*, 116(1), 23-45.

Reuter, J. and E. Zitzewitz (2010). How much does size erode mutual fund performance? A regression discontinuity approach. Working paper.

Sirri, E. R., & Tufano, P. (1998). Costly search and mutual fund flows. *Journal of finance*, 53, 1589-1622.

Chapter 9

Bailey, W., A. Kumar, and D. Ng (2011). Behavioral biases of mutual fund investors. *Journal of Financial Economics* 102 (1), 1-27.

Barber, B. M., Odean, T., & Zheng, L. (2005). Out of Sight, Out of Mind: The Effects of Expenses on Mutual Fund Flows. *The Journal of Business*, 78(6), 2095-2120.

Choi, J. J., Laibson, D., & Madrian, B. C. (2010). Why does the law of one price fail? An experiment on index mutual funds. *Review of Financial Studies*, 23(4), 1405-1432.

Grinblatt, M., Ikkäheimo, S., Keloharju, M., & Knüpfer, S. (2012). IQ and Mutual Fund Choice. SSRN ID