

3 - Day Workshop: Basic Introduction to Portfolio Management

Course objectives

The workshop “Basic Introduction to Portfolio Management” is designed to provide a thorough introduction on how portfolios can be constructed in order to realize an optimal risk/return relationship. The course is structured to present a broad introduction to modern investment management in its key aspects. Focus of this workshop is the practical application of the learned concepts and the interpretation of the results.

Starting with the basic terms in asset and risk management, the workshop presents the necessary performance and risk measures in order to understand the ideas of modern portfolio management like diversification, efficient frontier and capital asset pricing model (CAPM) thereafter. It will also provide a brief introduction to the asset classes investors look at to invest in and their characteristics. Finally, observations in the market like stock market crashes, anomalies and behavioral finance will be discussed.

Workshop background

How to construct an investment portfolio in the best possible way is the key question of each investor, let it be a private person or an institution. But what does “best” mean and how can the “quality” of a portfolio be measured? The workshop will deal with these questions in detail, starting with the idea of risk and return for an investment which are essentially two sides of the same coin.

Also, two sides of the same coin are the theory and practice in asset management. Therefore, this workshop not only presents the concepts of portfolio construction as introduced by Nobel laureate Harry Markowitz but also the psychological side of investing, captured by the field of behavioral finance, the psychology of investing. For example, a year like 2008 was primarily characterized by fear and panic when it came to investing and not by rational concepts as introduced in the efficient frontier concept or the CAPM. Therefore, looking at both theory and practice is key to be successful when investing!

Who for?

The workshop is designed for junior and middle level managers working in finance, asset and risk management who want to get a structured introduction to the basic of portfolio management.

This workshop is very interactive. This means that the concepts will be presented with many applications which are explained by the trainer and by using many exercises that have to be solved by the participants with the trainer’s support. Case studies will be used to enhance the learning effort.

This is an introductory workshop on a basic level. No prior knowledge on the subjects is required but a sound interest in investment management is needed. All mathematical knowledge to understand the presented formulas will be introduced. However, high school level mathematics and some familiarity with Excel formulas and calculations is needed to understand the ideas for single parts of this workshop.

Benefits of the workshop

The workshop will enable you to:

- Get introduced to the idea of risk and return of a single investment or complete portfolio.
- Understand the key terminology in asset management and how they are linked.
- Learn the basic mathematical concepts to construct optimal portfolios.
- Get familiar with the idea of diversification between the different asset classes as the only free lunch available when it comes to investing.
- Acquire a thorough understanding of the key ideas of modern portfolio management: efficient frontier, minimum variance portfolio, CAPM, Fama-French 3-factor model and multi-factor models.
- Learn the most important stock market anomalies and crashes and understand why traditional portfolio theory cannot explain them properly.
- Understand the key ideas of behavioral finance and the associated behavioral biases through practical examples and realize their relevance for investment management.



Workshop agenda

The workshop covers the basic concepts of modern investment management in its various aspects. During the 3 days the concepts of traditional portfolio management and behavioral finance will be presented together with all necessary prerequisites in an interactive way. The course is designed around many exercises and practical cases.

| Day 1 | | Day 2 | | Day 3 | |
|---------------|--|---------------|--|---------------|---|
| 09.00 – 09.15 | Introduction and course description | 09.00 – 09.15 | Recap of day 1 | 09.00 – 09.15 | Recap of days 1 and 2 |
| 09.15 – 10.45 | Basic terminology used in asset management: <ul style="list-style-type: none"> • Index, benchmark and market • Capitalization • Growth and value styles • Composite • Track record • etc. | 09.15 – 10.45 | The Markowitz approach to modern portfolio management: <ul style="list-style-type: none"> • The idea of diversification • Efficient frontier • Minimum variance portfolio • Capital market line • Security market line • Capital asset pricing model (CAPM) • Empirical tests of the CAPM • Portfolio construction software • Calculating the efficient frontier and minimum variance portfolio | 09.15 – 10.45 | Stock market anomalies: <ul style="list-style-type: none"> • Weekend effect • January effect • Turn-of-the-month effect and holiday effect • S&P 500 index effect • Home bias investing |
| 10.45 – 11.15 | Coffee break | 10.45 – 11.15 | Coffee break | 10.45 – 11.15 | Coffee break |
| 11.15 – 12.45 | Mathematical prerequisites: <ul style="list-style-type: none"> • Basic definitions • Calculus • Linear algebra • Probability theory and statistics • Linear regression | 11.15 – 12.45 | Case study: Construction of an Excel Sheet to do Markowitz Optimization (using the derived formulas) for Asset Allocation | 11.15 – 12.45 | Stock market crashes: <ul style="list-style-type: none"> • Bubbles and crashes • Crashes with regional impact: <ul style="list-style-type: none"> - Tulip mania - Soukh-al-Manakh - Dubai real estate bubble • International crashes: <ul style="list-style-type: none"> - The Wall Street crash - Dot.com bubble - Subprime crisis etc. |
| 12.45 – 14.00 | Lunch break | 12.45 – 14.00 | Lunch break | 12.45 – 14.00 | Lunch break |
| 14.00 – 15.30 | Performance and risk measurement: <ul style="list-style-type: none"> • Measures for absolute return strategies <ul style="list-style-type: none"> - Return calculation - Volatility - Covariance, correlation - Sharpe ratio • Measures for relative return strategies: <ul style="list-style-type: none"> - Alpha - Tracking error - Information ratio - Beta | 14.00 – 15.30 | Extending the CAPM to multi-factor models: <ul style="list-style-type: none"> • The idea in general • Fama-French 3-factor model • Empirical tests of the Fama-French 3-factor model | 14.00 – 15.30 | Behavioral finance – the psychology of investing <ul style="list-style-type: none"> • Behavioral finance vs. traditional finance. • Historical development of traditional finance and behavioral finance • The behavioral biases in an overview: <ul style="list-style-type: none"> - Social biases - Perseverance biases - Information processing biases - Emotional biases |
| 15.30 – 16.00 | Coffee break | 15.30 – 16.00 | Coffee break | 15.30 – 16.00 | Coffee break |
| 16.00 – 17.00 | Brief overview of key asset classes one can invest in: <ul style="list-style-type: none"> • Equities • Fixed Income • Currencies • Cash | 16.00 – 17.00 | Extending the Markowitz approach to benchmark-oriented portfolio construction: <ul style="list-style-type: none"> • The idea in general • Tracking error and VaR efficient frontiers | 16.00 – 17.00 | Brief overview of alternative investments as asset classes: <ul style="list-style-type: none"> • Commodities • Hedge Funds • Private Equity • Infrastructure etc. |

Disclaimer

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