

# MONECO FINANCIAL TRAINING

**ADVANCED PORTFOLIO ANALYTICS:  
PERFORMANCE APPRAISAL,  
RISK MEASUREMENT AND ATTRIBUTION  
ANALYSIS**

**October 9 - 11, 2017**

**Lecturer: Andreas Steiner**

**MONECO**  
Financial Training

CE Approved Provider  CFA Institute

MONECO Financial Training is registered with CFA Institute as an Approved Provider of continuing education programs for CFA Institute members.

Upcoming Seminar

*This course provides participants with comprehensive and detailed methods used in investment performance and risk analysis. Particular emphasis is placed on being able to handle the risk and return dimensions in an integrated manner using the latest quantitative concepts to handle non-normal and non-linear tail risks. The program finally focuses on applications like performance appraisal, risk management and operating a performance measurement function in an organization.*

**Attend this intensive 3-day training and learn to...**

- Understand time-weighted and money-weighted return calculations
- Handle derivatives, short positions and perform security-level calculations
- Learn about performance measurement industry standards
- Conduct performance appraisals with benchmark and peer groups
- Analyse traditional and alternative investment portfolios with Brinson-style attribution methodologies
- Understand the peculiarities of fixed income attribution models
- Attribute currency effects for international portfolios, portfolios with currency overlay managers and strategic currency hedging
- Understand the use of factor models in portfolio analysis
- Use style analysis to attribute performance when no constituent data is available
- Learn about the latest risk indicators capturing tail risk, non-normal risks, tail risk and non-linear dependence
- Calculate risk attribution consistent with your performance attribution
- Enhance your practical skills with spreadsheet example calculations for various quantitative methods discussed
- Put into perspective some of the more recent industry trends (smart beta, factor-based investing)

**Who should attend?**

This course has been designed for the benefit of:

- Research analysts
- Portfolio managers
- Mid-office personnel
- System developers
- Risk managers
- Reporting specialists
- Fund analysts
- Quantitative analysts

**Methodology:** The training consists of classroom-based teaching combined with selected group exercises and spreadsheet-based example calculations.

**MONDAY, OCTOBER 9**

**09<sup>00</sup>-09<sup>15</sup>**

**Welcome and Introduction**

**09<sup>15</sup>-12<sup>30</sup>**

**Simple Returns**

- Why percentage returns?
- Calculation of simple returns
- Aggregating returns over time
- Aggregating returns across portfolios with weighting schemes
- Single-period and multi-period returns (chain-linking)
- Average returns: arithmetic and geometric averages

**Returns with Contributions**

- The impact of contributions and withdrawals to capital invested
- Money-Weighted Return
  - International Rate of Return
  - Approximations
- Time-Weighted Return
  - True TWR
  - Dietz and Modified Dietz approximations
  - Unit-value method and related methods
- The relationship between MWR and TWR
- Industry trend: Going in Circles – from TWR to MWR and (maybe) back

**12<sup>30</sup>-13<sup>30</sup>**

**Lunch**

**13<sup>30</sup>-17<sup>30</sup>**

**Portfolio Accounting Basics**

- Basic relationships between ending and beginning market values
- Selected issues: treatment of transaction costs, the net-of-fee and gross-of-fee perspectives and trade date versus value date

- Currency aspects: exchange rates, position and portfolio currencies

**Selected Topics in Applied Return Measurement**

- Position-level return calculations
- Aggregating portfolio returns
- Derivatives: Future and options, swaps, currency forwards
- Leverage and investment risk and return
- Risk and return with short positions

**Investment Return Reporting and Presentation**

- Reporting investment performance
  - Internal clients
  - External clients
- Behavioral finance aspects
- Regulations: MiFID and more
- Industry standards:
  - Some history
  - GIPS
  - Other standards

**TUESDAY, OCTOBER 10**

**09<sup>00</sup>-12<sup>30</sup>**

**Performance Attribution Basics**

- Return contributions: calculation, the impact of transactions, chain-linking contributions
- Active return: arithmetic and geometric
- The difference between contribution to attribution analysis
- Active investment management decisions
- Attributing time-weighted and money-weighted returns

**Basic Brinson Attribution**

- Deriving the Brinson decomposition
- Understanding of the Interaction effect
- Allocation with a hurdle rate (Brinson/Fachler)
- Multi-period attribution: Available alternatives, cumulative attribution effects
- Handling portfolio and benchmark investment universe mismatches
- Evaluating hierarchical investment decisions
- Evaluating non-hierarchical investment decisions
- Is there really a selection effect? Reconciling Brinson with Markowitz and making sense of the debate about the relative importance of allocation and selection
- Evaluating pure selection decisions
- Conditional attribution effects

**12<sup>30</sup>-13<sup>30</sup>**

**Lunch**

**13<sup>30</sup>-17<sup>30</sup>**

**Advanced Brinson Attribution**

- Long/short attribution
- Multi-Manager attribution
- International portfolios
  - Spot currency effects
  - Expected and unexpected currency return components
  - Currency hedging
  - Karnosky/Singer attribution

**Factor Attribution and Style Analysis**

- Introduction to factor models
- Multi-factor attribution
- Style attribution
- Hybrid models
- Industry trend: factor-based investment strategies

WEDNESDAY, OCTOBER 11

09<sup>00</sup>–12<sup>30</sup>

## Fixed Income Attribution

- Bond valuation basics
- Introduction to the yield curve
- Fixed income return components
- Modeling duration
- Brinson-style fixed income attribution (van Breukelen)
- Commercial fixed income attribution models

## Risk Measurement and Attribution

- Introduction to measuring investment risk
  - Dispersion-based risk: Volatility and Tracking Error
  - Loss-based risk: VaR, CVaR, LPM/UPM
  - Interim risk: Drawdown, Drawdown-At-Risk, Conditional Drawdown-At-Risk
- Volatility and tracking error decomposition
- Stylized empirical facts about non-normal return distributions and non-linear dependency in financial market data

- Tail risk attribution
  - Contributions from non-normality
  - Contributions from excess kurtosis and skewness
- Risk analysis before the trade: trade-risk profiles

12<sup>30</sup>–13<sup>30</sup>

## Lunch

13<sup>30</sup>–17<sup>30</sup>

## Risk-adjusted Performance and its Attribution

- The link between risk and return
- Industry trend: risk-based investment strategies (risk parity, Smart Beta)
- Traditional risk-adjusted measures
  - Sharpe and Information ratio, M2
  - Treynor ratio, Alpha
- Alternative risk-adjusted measures
  - Sortino Ratio, Modified Sharpe Ratio
  - Omega, Ulcer Index, Farinelli/Tibiletti Ratio, Generalized Rachev Ratio
  - Sterling Ratio, Calmar Ratio, Burke Ratio

- Risk-adjusted performance attribution: the Ankrim decomposition
- Introduction to decompositions of Information and Sharpe ratios

## Performance Appraisal

- The importance of appraisal
  - For investors
  - For investment managers
  - Other stakeholders
- Quantitative methods for fraud: the Madoff case
- Benchmarking: Characteristics of good benchmarks
- Peer group analysis and potential biases
- Behavioral Finance aspects
- Performance measurement in an investment management organization

## Evaluation and Termination of the Course

## Lecturer: Andreas Steiner

Andreas Steiner is an independent consultant specializing in portfolio analytics and risk management. The services provided include training, advanced portfolio analytics software and mandate-based projects for banks, investment managers, institutional investors and software companies. Andreas has been teaching as a lecturer at the Zurich University of Applied Sciences in Switzerland, where he gave courses covering performance analysis, international investing and Behavioral Finance. Andreas has published several articles in investment-related journals and is making available his research online in the form of research notes and blog entries.

Andreas has more than 15 years of working experience in institutional asset management and private banking. He held various performance and risk-related roles at Credit Suisse Asset Management and was head investment risk management at LGT Capital Management. Andreas holds a master's degree magna cum laude in Economics from the University of Zurich with specializations in Monetary Economics and Financial Markets.



## Terms and Conditions of the MONECO Financial Training

### MONECO Financial Training

MONECO Financial Training offers a comprehensive programme of English-language seminars, trainings and practical workshops lectured by qualified tutors. Our objective is to provide the industry professionals with advanced financial know-how and up-to-date analytical methods and skills.

### Seminar Venue and Accommodation

The bulk of the MONECO seminars are traditionally held at the international four-star NH Prague Hotel in Prague, Czech Republic. Since we are expanding our training activities, we run some selected seminars also in other European destinations. Accommodation is not included in the seminar price, but upon request we are happy to offer you hotel reservations in every of our training destinations at special discounted prices for our valued clients.

### Tuition Language

Seminar tuition is in English language, as are all manuals, training software etc. Therefore, in order to benefit from participation, at least a passive knowledge of English, including common financial phrases and related terminology, is required.

### Registration

Clients who decided to participate, should submit us in advance a registration for a particular seminar (letter, fax, internet etc.). Subject to availability, the participant will then receive a confirmation of participation. The number of participants is always strictly limited in order to secure an effective and focused learning environment.

### Seminar Prices

The quoted seminar prices are per person and include all the training manuals, lunches and refreshments, certification diploma in English and selected software solutions used at the seminar. The price does not include hotel accommodation. Quoted prices are exclusive of local VAT (21 %) "Bundle" prices represent the total fee for participation in mutually related seminars (i.e. "Bundles 3+2, 2+3, 2+2, 3+1, 1+3, 1+2+2 and 2+2+1"). "Bundle" prices are provided in the Calendar of the MONECO Financial Training seminars.

### Discounts

Bulk discounts are offered when submitting an application for the participation of more than one person. A 10 % discount is offered when at least two participants from one company register for a seminar or one participant registers at once for two or more seminars. The discounts do not apply for "bundle" prices, as these already represent discounted prices.

### Invoicing and Payment

An invoice for the seminar price will be sent to the participants no later than 10 working days prior to the beginning of the seminar. **Full payment of the invoice must be made before the start of the seminar as a precondition of participation.**

### Terms of Cancellation

If for whatever reasons a registered participant is unable to attend, a substitute delegate may be appointed to participate instead. For cancellations received 20 days or more before the beginning of the seminar, a 10 % cancellation fee of the full price will be invoiced i.e. 90 % of the price is refunded. **For cancellations received less than 20 days prior to the beginning of the seminar, the full price is payable i.e. no refund will be provided. All cancellations must be in writing.** The organizers of the MONECO Financial Training courses reserve the right to cancel the individual participation or cancel the entire seminar or part of it for whatever unspecified reasons, including possible force majeure. In this case, the price paid will be refunded in full or in part, accordingly.

## REGISTRATION FORM

• Advanced Portfolio Analytics: Performance Appraisal, Risk Measurement and Attribution Analysis

October 9 – 11, 2017

€ 1,950

### COMPANY

Name:

Approving Manager:

Person responsible for training:

Address:

Tax Registration No.:  VAT Identification No.:

### PARTICIPANTS

1. Title: Name:  Mr/Mrs/Ms Phone:   
E-mail:  Position:

2. Title: Name:  Mr/Mrs/Ms Phone:   
E-mail:  Position:

3. Title: Name:  Mr/Mrs/Ms Phone:   
E-mail:  Position:

Date:  Signature: