Lecture in Quantitative Finance: Portfolio Management

Outline:

The lecture provides an introduction to security and portfolio analysis, the problem of optimal allocation of assets into a portfolio, as well as the evaluation of investments. Topics which will be discussed in the seminar include:

- classical mean-variance portfolio theory (risk and return, efficient frontier)
- determination of equilibrium security returns and prices (CAPM, arbitrage pricing models, empirical tests)
- analysis and valuation of securities (such as stocks, bonds, options, etc.)
- evaluation of portfolio performance (performance measurement, diversification, active portfolio management)

The lecture, which will be held in English, is offered for students in the Finance profile of the M.Sc. Economics, but is also open to students of M.Sc. Volkswirtschaftslehre and M.Sc. Mathematics, especially to those of the profile “Finanzmathematik”.

Instructor:

Dr. Christoph Gerhart, Department of Quantitative Finance, University of Freiburg

Participants:

This lecture is primarily intended for students in the second year of the master program, and can be regarded as preparation for potential master theses.

Prerequisites:

Principles of Finance, Futures and Options.

Course Schedule:

The lecture will take place on a weekly basis on Thursdays from 10-12 am in the lecture hall HS 1098 KG I. The first meeting will take place on Thursday, April 19th, 2018.
**ECTS (credit points):**

6 ECTS points based on

- an oral presentation of an individual lecture topic
- an executive summary (1 page) and a short but precise and meaningful paper (not more than 3 pages plus references, tables and graphs) together with a well documented implementation of the performed numerical simulations in the software R or Matlab if the topic involves any numerical implementations
- an active participation during the whole lecture

**Main References:**


**Additional Information:**

http://www.finance.uni-freiburg.de/studium-und-lehre-en