

Intensive PhD course on Dynamic Asset Allocation
Aarhus University, Denmark
August 16-20, 2010

The course focuses on the optimal consumption and investment decisions of utility-maximizing individuals in an intertemporal setting. The analysis is carried out in a continuous-time framework in which the basic uncertainty is represented by Brownian Motions. General results on diversification, fund separation, and intertemporal hedging are derived and discussed. A number of specialized models for long-term investment problems of individuals are analyzed in detail. The models feature interest rate risk, stochastic market prices of risk, stochastic price volatility, labor income risk, and the impact of housing decisions and house price risk. The appropriateness of popular investment advice is discussed.

Teacher: Claus Munk, Professor of finance, Aarhus University
(web-page: <http://www.econ.au.dk/about-us/people/faculty-vip/munk-claus/>)

Form: 20 hours of lectures with occasional exercises in one week. At the end of the week the participants will be given a take-home exam assignment, and they will have to submit their solutions within a few weeks (the exact deadline will be discussed during the lectures). The evaluation is on a pass/fail basis (graduation on the Danish 7-scale may be obtained if necessary). The course workload corresponds to 5 ECTS.

Schedule: The course begins around 10:00 on August 16 and ends at around 14:00 on August 20. Lunches and coffee during breaks will be provided. There will be a course dinner for all participants in the evening of August 16.

Literature: Lecture notes written by the teacher and research articles.

Prerequisites: Participants are assumed to be familiar with

- continuous-time financial modelling as covered by most derivatives textbooks, including Brownian motions, diffusions, Ito's Lemma, the Black-Scholes-Merton option pricing model, basic interest rate models (Vasicek, CIR), and Monte Carlo simulation.
- mean-variance analysis of static portfolio choice
- basic utility theory and utility functions
- dynamic programming (a short review of dynamic programming in continuous time will be given in the course)

Participants and fees: PhD students enrolled at Nordic universities and MSc students at Danish universities participate free of charge. For PhD students from other countries there is a participation fee of 200 Euro to cover lunches, coffee breaks, and the course dinner. For practitioners there is a participation fee of 1000 Euro. Participants have to arrange and pay for accommodation and travel on their own. Nordic Finance Network (NFN) will provide travel grants for a limited number of Nordic and Baltic doctoral students coming from outside of Denmark. Please visit the NFN's web page and follow the instructions.

Sponsors: School of Economics and Management at Aarhus University; the Danish Doctoral School of Finance.

Registration: To register for the course send an e-mail to Claus Munk at cmunk@econ.au.dk no later than June 15, 2010. Please include information about your current student status or employment. In case of excess demand for participation, preference is given to Nordic PhD students and MSc students enrolled at Aarhus University.