Financial Economics

Lecturer BOTTAZZI Giulio

Semester Fall

ECTS 9

Description The aim of the course is to provide an intermediate treatment of the theory of speculative markets. After a review of decision theorynunder uncertainty, the notion of arbitrage and equilibrium price are introduced and developed for different market set- tings. The problem of portfolio optimization and meanvariance analysis is discussed in a rather general framework. The course concludes with a short introduction to behavioral and evolutionary finance (depending on the remaining time).

 Course outline

 1. choices under uncertainty: expected utility theory, risk aversion

 2. equilibrium and arbitrage: state prices, complete and incomplete markets, arbitrage and portfolio choices

 3. optimal portfolio: multiple risky assets; equilibrium prices; meanvariance analysis

 4. OPTIONAL: behavioral finance: asset prices under ambiguity, evolutionary finance: the market selection hypothesis

Textbooks Principles of Financial Economics, S. F. Le Roy and J. Werner Optional reading TBA Prerequisites Contents The course requires a basic knowledge of linear algebra (linear space, linear map, basis, inversion, eigenvectors and eigensystems), probability theory (probability distribution, joint and conditional probability, expectation, variance) and static optimization (Lagrange and Kuhn-Tukker conditions).

Previous knowledge of consumer theory and economic equilibrium can be useful, as well as basic notions of topology (in the first part of the course).

Suggested reading • C. P. Simon, L. E. Blume, Mathematics for Economists. • H. R. Varian Microeconomic Analysis.

Keywords: Financial economics, arbitrage, asset pricing, portfolio optimization Teaching Lectures Final valuation Written examination