Professor	Prof. Dr. Bernhard Nietert
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ECTS	3
Examination	Final exam together with Asset Pricing Theory (120 minutes)
Course description and learning objectives	The lecture deals with the general theory of risk and decision making under risk and, in particular, with portfolio selection theory.
Course outline	1 Introduction 1.1 Institutional Background 1.2 Brief Introduction to Decision Theory under Risk 1.2.1 Basics of decision theory 1.2.2 Characterization of risk 1.2.3 Basics of the solution of decision problems under risk 1.2.4 Risk preferences in the context of expected utility maximization 1.2.5 Common model of preferences in Accounting and Finance 2 Traditional Portfolio Theory 2.1 General characteristics of optimal portfolios 2.1.1 Risk aversion and demand for risky assets 2.1.2 Structure of optimal portfolio holdings 2.2 Specific characteristics of optimal portfolios: the exact size of portfolio holdings 2.2.1 μ-σ-efficient portfolios of risky assets (Markowitz diversification) 2.2.2 μ-σ-efficient portfolios of risky and riskless assets (Markowitz Tobin diversification) 2.2.3 Summary on μ-σ-efficient portfolios 2.2.4 Addendum: determination of portfolio weights 2.3 Excursus: invertibility of the variance/covariance matrix 2.3.1 Definition of invertibility 2.3.2 Economic consequences of stochastically linearly dependent assets 2.4 Portfolio theory on imperfect markets 2.4.1 Portfolio theory with constraints on portfolio holdings 2.4.1.1 Short selling constraints on risky assets 2.4.1.2 Diverging savings and loan rates 2.4.2 Portfolio theory with different information: special case of informationally inefficient markets 2.5 Simplification of portfolio selection to keep the amount of data in check 2.5.1 Simplifying the computation of the structural component 2.5.2 Simplifying the computation of the volume component 3 Advanced Portfolio Theory 3.1 Portfolio theory with more than one source of risk 3.1.1 Portfolio selection with nonmarketable income 3.1.2 International diversification 3.1.3 Black/Litterman model: integration estimation risk and subjective views into portfolio selection 3.2 ESG Investing 3.2.1 Characterization of ESG investing 3.2.2 Portfolio selection on (mildly) segmented markets 3.2.3 Portfolio selection with ESG preferences 3.3 Behavioral Finance 3.3.1 Introduction to the ideas of Behavioral Finance 3.3.2 Consequences of Behavioral Finance to portfolio selection

	4 Asset Pricing 4.1 Asset pricing in a Markowitz Tobin framework 4.1.1 Subjective marginal prices 4.1.2 Asset prices in market equilibrium: Capital Asset Pricing Model (CAPM) 4.1.3 Side aspect of the asset pricing results: variance decomposition 4.2 Asset pricing in a Markowitz framework: zero Beta version of pricing formulas 4.3 Asset pricing with a second source of risk 4.3.1 CAPM with nonmarketable income 4.3.2 International CAPM 4.4 ESG CAPM 4.4.1 Mildly segmented market 4.4.2 ESG preferences 4.5 Performance measurement 4.5.1 General performance measure 4.5.2 Simplified, i.e., "classical" performance measures
Selected references	– Lecture notes – Copeland, T. W., Weston, J. F., and Shastri, K. (2005): "Financial Theory and Corporate Policy", 4th edition, Boston et al. 2005, pp. 52-59. – Elton, E. J., Gruber, M. J., Brown, S. J., and Goetzmann, W. N. (2003): "Modern Portfolio Theory and Investment Analysis", 6th edition, Hoboken 2003.