Investment Analysis

Lecturer	Duration	ECTS /Credits
Prof. Dr. Frieder Meyer-Bullerdiek	4 SWS	6
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Course Character	Semester	Course Language
Elective Course	Spring Semester	English

Prerequisites

Basics of Business Finance

Description of the Course

The Investment Analysis course is a thorough study of the investment decision-making process including security analysis and portfolio management. The course starts with a study of risk aversion and capital allocation to risky assets. Then, portfolio theory and practice, equilibrium in capital markets, and security analysis is provided including equity valuation models and financial statement analysis. Finally, it is discussed how portfolio performance is evaluated using different performance evaluation measures.

Course components

a. Homework: Homework problems will be assigned in class and many solutions will be discussed in class.

- b. **Attendance and participation**: Attendance and participation in class is strongly encouraged as general discussion, asking and answering questions will help understanding the course material.
- c. **Exam**: The exam will be held during the examination period at the end of the semester. The date will be determined by the examination board. The time allowed is 90 minutes. The exam will be based on exercises, lecture, and the material discussed in class. It may include problems, multiple choice, true/false, short essay answers, short case studies etc. To receive a passing grade for the course students must obtain at least 50% of the total points possible.

Preparation for and Participation in Class:

You are expected to have completed all assigned readings and to have, at minimum, attempted the homework assignments prior to each class. Classroom lectures/discussions will be utilized to develop and enhance your understanding of the material. You should be prepared at all times to actively participate in classroom discussions, and you should attend class and participate on a regular basis. Please bring a calculator to each class.

Course Outline:

- 1. Risk Aversion and Capital Allocation to Risky Assets
 - 1.1. Risk and Risk Aversion
 - 1.2. Capital Allocation across Risky and Risk-Free Portfolios
 - 1.3. The Risk-Free Asset
 - 1.4. Portfolios of One Risky Asset and a Risk-Free Asset
 - 1.5. Risk Tolerance and Asset Allocation
 - 1.6. Passive Strategies: The Capital Market Line

2. Optimal Risky Portfolios

- 2.1. Diversification and Portfolio Risk
- 2.2. Portfolio of Two Risky Assets
- 2.3. Asset Allocation with Stocks, Bonds, and Bills
- 2.4. The Markowitz Portfolio Selection Model

3. Index Models

- 3.1.Introduction
- 3.2. The Single-Index Model
- 3.3. Estimating the Single-Index Model
- 3.4. Practical aspects of portfolio management with the index model
- 4. The Capital Asset Pricing Model (CAPM)
 - 4.1.The model
 - 4.2. The security market line (SML)
 - 4.3.Is the CAPM practical?

5. Equity Valuation Models

- 5.1. Introduction
- 5.2. Intrinsic Value versus Market Price
- 5.3. Dividend Discount Models
 - 5.3.1.Deriving the DDM model
 - 5.3.2.Constant-Growth DDM (or Gordon model)
 - 5.3.3. Estimating dividend growth rates
 - 5.3.4.Life Cycles and Multistage Growth Models
- 5.4. Price-Earnings Ratio
 - 5.4.1.The Price-Earnings Ratio and Growth Opportunities
 - $5.4.2.\mbox{P/E}$ ratios and stock risk
 - 5.4.3.Pitfalls in P/E Analysis
- 5.5. Free Cash Flow Valuation Approaches
- 5.6. Practical aspects of the Valuation Models
- 6. Financial Statement Analysis
 - 6.1. The Major Financial Statements
 - 6.2. Profitability Measures
 - 6.3.Ratio Analysis
 - 6.4. Economic Value Added (EVA)
 - 6.5. Comparability problems
 - 6.6. International Accounting Conventions
- 7. Portfolio Performance Evaluation
 - 7.1. The Conventional Theory of Performance Evaluation
 - 7.2. Performance measurement with changing portfolio composition
 - 7.3. Performance Attribution Procedures

Selected References:

The seminar is based in particular upon the following textbook:

Bodie, Z. / Kane, A. / Marcus, A.J.: "Investments", 9th edition, McGraw-Hill/Irwin, New York 2011.

Important Note:

The above outline is tentative to give you an idea of the sequence of topics. It can be modified and is only designed to give you a rough idea of the topics and the rate at which they will be covered. Some of the above topics will be covered in greater detail than others. The relative importance of each topic will be indicated by me.