Contents of Class “Investments”

Business Faculty, HS – Schmalkalden, Prof. Milde, Winter 2018/2019

1. Time value of money
   - Capital budgeting
   - Present value calculation (PV)
   - Net present value calculation (NPV)
   - Annuity calculation
   - Internal rate of return (IRR)
   - NPV – rule & IRR – rule
   - PVIF & PVIFA

2. Present value of financial assets
   - Pricing of dividend paying stocks
   - Pricing of coupon paying bonds
   - Pricing derivatives

3. Present value of real investment projects
   - Objective function of investor
   - Optimal investment volume
   - Marginal present value

4. Combining real and financial asset markets
   - Budget constraint with real and financial assets
   - Investor’s time preference
   - Optimal composition of real and financial assets
   - Capital structure decision making (Modigliani and Miller)
   - Tax shield and wealth transfer
   - conflict of interest (shareholder vs. debtholder)
   - limited liability and wealth transfer
5. **Forecasting future cash flows**
   - relevance of historical data
   - reactions of competitors (existing and new)
   - reactions of customers
   - Marvin Enterprise expansion plan (case from Brealey / Myers)
   - details of entry and exit decisions

6. **Textbooks**
   - Brealey / Myers: Principles of Corporate Finance (Ch. 11.3)
   - Grinbatt / Titman: Financial Markets and Corporate Strategy
   - Ross / Westerfield / Jaffe: Corporate Finance
Contents of Class “Risk Management”

Business Faculty, HS-Schmalkalden, Prof. Milde, Summer 2018

1. **Valuing financial assets with certainty**
   - stock pricing
   - bond pricing

2. **Decision making will, uncertainty**
   - risk neutrality
   - expected value calculation
   - value of information
   - risk aversion
   - expected utility calculation
   - concave utility function, why?
   - certainty equivalent
   - Jensen’s inequality
   - insurance decision making

3. **Risk averter portfolio selection**
   - portfolio return
   - portfolio risk
   - variance and covariance calculation
   - minimum variance portfolio
   - zero variance portfolio

4. **Capital asset pricing model (CAPM)**
   - efficiency line with risky assets only
   - efficiency line including a risk free asset
- asset composition of the market portfolio
- introducing investor’s risk preference
- asset composition of the investor’s portfolio
- capital market line & security market line
- systematic risk & diversifiable risk

5. **Assumption of CAPM**

- event risk and behavioral risk
- market imperfections
- informational asymmetry
- incentive mechanism

6. **Textbooks**

- Grinblatt / Titman: Financial Markets and Corporate Strategy
- Brealey / Myers: Principles of Corporate Finance
- Ross / Westerfield / Jaffe: Corporate Finance