

Part A. Introduction

Introduction to Finance and Course Overview (*Chapters 1-2*)

- Financial decisions of households and corporations
- Objectives of corporate financial managers
- Approaches to valuing financial and real assets
- Opportunity of cost of capital
- The role of financial markets
- Unifying principles of finance

Present Value (*Chapter 3*)

- Present value (PV) and net present value (NPV)
- Discount rates and the time value of money
- Mechanics of NPV calculations
- Compound interest
- Annuity and perpetuity formulas
- Real vs. nominal cash flows

Part B. Valuation

Fixed-Income Securities (*Chapters 4, 24-25*)

- Fixed-income markets
- Term structure of interest rates
- Market conventions, properties of bond prices
- Measuring and hedging interest rate risk
- Inflation risk, credit risk

Common Stocks (*Chapter 5*)

- Discounted cash flow (DCF) model
- Earnings per share (EPS), price-to-earnings ratio (P/E), discount rates

Forward and Futures Contracts (*Chapter 27*)

- Definitions of forwards and futures
- Arbitrage pricing relations
- Using forwards and futures to hedge

Options (*Chapters 21-22*)

- Basic properties of options
- Valuation of options
- Binomial and Black-Scholes pricing models

Part C. Risk and Return

Introduction to Risk and Return (*Chapters 7, 24.1, 24.4*)

- Historical asset returns
- Risk/reward trade-off

Risk Analytics (*Chapter 8*)

- Measures of risk
- Risk and investment horizon

Portfolio Theory (*Chapters 8, 9.1*)

- Diversification, systematic and idiosyncratic risk
- Portfolio optimization
- Efficient risk/return trade-offs

The Capital Asset Pricing Model (CAPM) (*Chapters 9.2-9.3*)

- The CAPM and linear risk/return trade-offs
- Applications of the CAPM
- Empirical evidence and extensions of the CAPM

Part D. Corporate Finance

Capital Budgeting I (*Chapters 6-7, 10, 23*)

- Capital budgeting criteria
- NPV rule, cash flow calculations, discount rates

Capital Budgeting II

- Project interactions
- Real options

Capital Budgeting III

- Case discussion: Acid Rain

Market Efficiency (*Chapter 14*)

- Origins of the efficient markets hypothesis (EMH)
- Implications and empirical tests of the EMH
- Recent developments

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