

INVESTMENTS AND ASSET MANAGEMENT (30 hours)

1. Asset classes

- fixed income instruments – bonds, treasury bills,..
 - classification by issuers (government, corporates, ...)
 - classification by coupon (fixed, floating, inverse, ...)
 - other classifications and characteristics (convertible/non-convertible, asset-backed, with sinking fund, with built-in options, ...)
- shares
 - nature of shares, dividends and capital gain
 - preferential and common stocks
 - other classifications and characteristics (convertible/non-convertible, by issuer and origin, ...)
- real estate
 - income from investments in real estate
- derivatives
 - options
 - *forward* and *future* contracts
 - *swaps*
 - other derived instruments
- alternative investments
 - venture capital
 - pieces of art
 - other alternative instruments
- investment funds
 - distinction open-end/closed-end; interpretation of closed-end fund
 - classification by strategies: active/passive
 - other possible classifications and characteristics (hedge funds, trusts, ...)

2. Capital markets

- types and sizes of various financial primary/secondary markets/trading
 - markets for various financial instruments
 - some markets
- capital markets participants
- liquidity
- factors influencing capital markets
- capital markets as ‘barometer’
- Croatian capital markets

3. Risk

- definition of risk (possible definitions, accepted definitions)
- historical data on return and risk of various asset classes

4. Modern portfolio theory (MPT)

- risk dispersion
- principles and basic results of MPT
 - efficient frontier
 - market portfolio

5. Valuation of financial instruments

- bonds
 - coupon, current yield
 - yield to maturity, yield curve
 - valuation models based on modelling interest rates (binomial models)
 - stocks
 - fundamental analysis of stocks
 - financial analysis of companies
 - using multiples in valuation (P/E, P/B, ...)
 - dividend discount model (DDM)
 - discounted cash-flow models (free cash flow to equity/firm, ...)
 - risks and potential pitfalls in valuing stocks
 - real-estate
 - derivative instruments (convertibles, options, ...)
- 6. Institutional investors**
- classification of institutional investors (by type, size, ...)
 - goals and strategies of investments (passive/active, ...)
 - asset allocation principles
- 7. Individual investors**
- goals and strategies of investments (passive/active, ...)
 - main factors influencing strategies of investments
 - advantages of investing into investment (mutual) funds
- 8. Actuarial techniques**
- complete matching
 - immunization
 - sensitivity analysis
- 9. Investment performance measurement**
- ways of calculating return on investment
 - investment costs
 - direct costs: brokerage and research costs, market costs,...
 - indirect costs: moving the market, *bid-ask* spread (or equivalent.), liquidity cost,...
 - comparison of passive and active strategies
 - comparison to an index
- 10. Regulatory and tax aspects and other restrictions**
- regulatory aspects
 - possible regulatory aspects
 - some aspects in the Republic of Croatia
 - tax aspects
 - possible tax aspects
 - taxing of investment in the Republic of Croatia
 - other restrictions
 - ethical investments
 - other

Literature:

1. W. F. Sharpe et al., Investments (6th edition), Prentice Hall
2. J. C. Hull, Options, Futures and Other Derivatives, (4th edition), Prentice Hall
3. F. K. Reilly, K. C. Brown, Investment Analysis and Portfolio Management (6th edition), Harcourt College Publishers

4. E. J. Elton, M. J. Gruber, Modern Portfolio Theory and Investment Analysis (5th edition), Wiley
5. B. G. Malkiel, A Random Walk Down Wall Street (7th edition), Norton
6. J. J. Siegel, Stocks for the Long Run (2nd edition), McGraw Hill
7. Subject 301 Core Reading, Faculty and Institute Of Actuaries