

## **Course Title: Evaluation Methods of Business Projects**

**Course Requirements:** Corporate Finance, Financial Accounting

**Person responsible for the course syllabus and documents:**

Contact email:

Course topics (workshops and lectures):

1. Capital budgeting process – elements of the decision making process, importance of data collection and validation, monitoring of the project
2. Cash flows construction, FCFF and FCFE methodology, similarities and differences between theoretical sources and practical (empirical application)
3. General outline of investment evaluation methods, advantages and disadvantages of various methods
4. Specific investment decisions
5. Allowing for inflation and taxation
6. Risk analysis in capital budgeting
7. Methods of determining discount rates, general formulae and specific problems

Lectures present theoretical aspects of the problems, the workshops provide exercises for the students to be able to use the knowledge presented during lectures.

### **Course literature:**

BPP Financial Management Practice and Revision Kit Feb 1, 2016, part D (all) + part E (chapter about the cost of capital)

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Havranek P.M., Behrens W., Manual for the preparation of industrial feasibility studies, UNIDO (available online at: [https://owaisshafique.files.wordpress.com/2011/04/manual\\_for\\_the\\_preparation\\_of\\_industrial\\_feasibility\\_studies.pdf](https://owaisshafique.files.wordpress.com/2011/04/manual_for_the_preparation_of_industrial_feasibility_studies.pdf) )

Any other relevant textbook or workbook.

### **Grading:**

final grade = 50% \* grade from the quiz (written at the end of the workshops) + 50% \* grade from the exam (written at the end of the lectures) + additional corrections for class participation and attendance

Topics to be prepared for the exam (theory and exercises from lectures and workshops):

1. Adjusting the discount rates to risk
2. Advantages and misuses of real values and real rate of return
3. Advantages and problems of DCF methods
4. Allowing for inflation
5. Allowing for taxation
6. Analysis and acceptance
7. Annual cash flows in perpetuity
8. Approximation formula for the IRR calculation

9. Before and after tax return on capital employed calculation
10. Calculation of NPV for purchase and lease of a machine
11. Calculation of NPVs and IRRs
12. Calculation of real and nominal cost of capital and discount rates
13. Calculation of the annual percentage rate (APR) implied by the bank
14. Calculation of the equivalent annual cost
15. Capital Asset Pricing Model (CAPM) – definition, application, advantages, disadvantages
16. Capital budgeting stages and elements
17. Capital rationing:
  - (a) multiple period capital rationing
  - (b) single period capital rationing
  - (c) single period rationing with divisible projects
  - (d) single period rationing with non-divisible projects
18. Causes of capital rationing for investment purposes
19. Comparison (similarities and differences) between IRR and NPV
20. Construction of FCFE cash flows
21. Construction of FCFF cash flows
22. Cost of convertible bonds
23. Cost of convertible debt
24. Cost of equity based of dividend growth model calculation
25. Cost of equity based of the CAPM calculation
26. Cost of floating rate debt
27. Cost of loan notes
28. Cost of ordinary shares
29. Cost of preference shares
30. Cost of preference shares
31. Debt capital and taxation
32. Decisions about investment projects under the assumption that projects are divisible under capital rationing
33. Decisions about investment projects under the assumption that projects are not divisible
34. Decisions to delay the projects
35. Determining relevant cash flows for a specific investment
36. Difference between risk and uncertainty
37. Discounted payback – definition, application, advantages, disadvantages
38. Dividend growth model – definition, application, advantages, disadvantages
39. Dividend growth model and CAPM
40. Efficient market hypothesis and its impact on investment projects appraisal
41. Equivalent annual benefit method
42. Equivalent annual cost method
43. Evaluation of the sensitivity of the project
44. Expansion of the business considerations
45. Expectation of inflation and the effects of inflation
46. Features of financial leases and operating leases
47. Financial analysis of investment projects
48. Finding errors in investment appraisal valuations and preparing revised calculations
49. Go/no decisions
50. Hamada equation
51. Lease or buy decisions

52. Lease or buy decisions with inflation
53. Linear and reducing balance depreciation
54. Making decision about investment projects under hard rationing
55. Making decisions about investment projects under soft rationing
56. Making lease or buy decisions
57. Marginal cost of capital
58. Market risk and returns
59. Market weight and book weights in WACC
60. Monitoring the progress of the project
61. Monte Carlo Simulation – definition, application, advantages, disadvantages
62. Soft capital rationing
63. Mutually exclusive projects in NPV and IRR
64. Non-conventional cash flows in NPV and IRR
65. NPV layout (cash flows form)
66. Opportunity costs – definition and application
67. Origination of proposals
68. Payback period – definition and application, advantages and disadvantages
69. Performing probability analysis of a project
70. Portfolio theory
71. Postponing projects
72. Precise formula the for IRR calculation
73. Probability analysis – definition, application, advantages and disadvantages
74. Probability estimates of cash flows excluding discounting
75. Problems with applying the CAPM in practice
76. Problems with expected values
77. Profitability index method – definition, application, advantages, disadvantages
78. Project screening
79. Qualitative issues in capital budgeting process
80. Reaction of the NPV to changes in inflation, discount rates, cash flows
81. Reinvestment assumptions in IRR
82. Relevant benefits of investments
83. Relevant cash flows definition and application
84. Residual value - definition and application
85. Return of capital employed – definition and application, advantages and disadvantages
86. Risk – adjusted discount rates
87. Risk and returns from an individual security
88. ROCE of mutually exclusive projects
89. Sale and leaseback decisions
90. Scenario analysis – definition, application, advantages and disadvantages
91. Sensitivity analysis – definition, application, advantages and disadvantages
92. Short and long replacement cycles – benefits and disadvantages
93. Similarities and differences between investment by the commercial sector and non-for-profit organizations
94. Sunk costs – definition and application
95. Systematic and unsystematic risk: the idea, definitions, implications for investments
96. Systematic risk and the CAPM
97. Tax allowable depreciation
98. The certainty – equivalent approach – definition, application, advantages, disadvantages

- 99. The cost of capital and risk
- 100. The cost of capital as an opportunity cost of finance
- 101. The cost of equity and the cost of debt – definitions and formulae
- 102. The cost of irredeemable debt capital
- 103. The cost of redeemable debt capital
- 104. The equity risk premium
- 105. The internal rate of return method – definition, application, advantages and disadvantages
- 106. The net present value method – definition, application, advantages and disadvantages
- 107. The process of creation of capital budgets and their approval
- 108. The relative costs of sources of finance
- 109. Time value of money
- 110. Timing of cash flows
- 111. Types of leases
- 112. Understanding and calculation of a scrap value
- 113. Understanding of terms: capital expenditure, revenue expenditure, investment in non-current assets / working capital
- 114. Using discount tables and annuity tables and a calculator to determine discount factors
- 115. Using nominal and real terms approaches in investment evaluation
- 116. Value Added Tax
- 117. Weighted average cost of capital (WACC)
- 118. What is the main advantage of using simulations to assist in investment appraisal
- 119. Working capital – definition and usage
- 120. Yield to maturity of a bond calculation