

# **MBALN-622 Financial Management**

## **Midterm Examination**

Financial Management – Theory and Application

### **Deadline**

As per the VLE

### **Learning Objectives for Course**

1. Obtain a comprehensive understanding of the financial environment and adequately define financial terms
2. Have an ability and readiness to formulate, examine and defend business case judgments, as well as recognize ethical dilemmas and corporate social responsibility issues in Finance,
3. Conceptually understand the main theories of Corporate Finance and have a commitment to their practical mathematical application
4. Compare and appraise theories that underlie current thinking in Corporate Finance and Investment, demonstrate and evaluate how these theories can be applied in practical situations,
5. Demonstrate effective oral communication of complex ideas and arguments, possess developed listening skills.

### **Guidelines for assignment**

- This is an individual assignment, no group work or collaboration is allowed.
- Ground your answer in relevant theory
- Plagiarism and reproduction of someone else's work as your own will be penalized
- Make use of references, where appropriate – Use Harvard or APA referencing method.
- Structural elements should include an introduction, main body, and a conclusion
- Weight – 40%
- Word count guidance: 2000 words
- Type of assignment: Business Report
- Start / Finish : Week 4-5
- Learning Outcome Assessed: 1,2,3,4,5

## Part 1

The directors of M & R plc wish to expand the company's operations. However, they are not prepared to borrow at the present time to finance capital investment. The directors have therefore decided to use the company's cash resources for the expansion programme.

Three possible investment opportunities have been identified. Only £600,000 is available in cash and the directors intend to limit the capital expenditure over the next 12 months to this amount. The projects are not divisible and none of them can be postponed. The following cash flows do not allow for inflation, which is expected to be 12% per annum constant for the foreseeable future.

Expected net cash flows (including residual values)

|         | Initial investment | Year 1  | Year 2  | Year 3  |
|---------|--------------------|---------|---------|---------|
| Project | £                  | £       | £       | £       |
| A       | -310,000           | 96,000  | 113,000 | 210,000 |
| B       | -115,000           | 45,000  | 42,000  | 47,000  |
| C       | -36,000            | -41,000 | -23,000 | 127,000 |

The company's shareholders currently require a return of 16 per cent nominal on their investment. Ignore taxation.

Required

- a) Explain how inflation affects the rate of return required on an investment project, and the distinction between a real and a nominal approach to the evaluation of an investment project under inflation.  
(7 marks)
- b)
  - I. Calculate the expected net present value and profitability indexes of the three projects; and
  - II. Comment on which project(s) should be chosen for the investment, assuming the company can invest surplus cash in the money market at 10 per cent.  
(15 marks)
- c) Discuss whether the company's decision not to borrow, thereby limiting investment expenditure, is in the best interests of its shareholders.  
(8 marks)

## Part 2

### True/False and Multiple Choice Questions and Short Answers (10 marks, 0.5 marks each)

Please attempt all answers. The questions for this part of the assignment are to be included in your document with Part 1.

#### True/False:

Q1. At some level, an additional increase in the size of the firm's total capital budget may lead to a decrease in the NPVs of all the investments being considered.

Q2. Sole proprietorship is an owner's only business.

Q3. The main function of the capital budget is to forecast the funds needed for future investments that must be raised through external funding, that is, by selling stock or bonds.

Q4. When a project's NPV exceeds the project's IRR, then the project should be accepted.

Q5. When examining two mutually exclusive projects, the financial manager should always select that project whose internal rate of return is the highest *provided the projects have the same initial cost*.

#### Multiple Choice

Q6. Which of the following is correct? With regard to information, a central idea of fairness suggests that

- a) outsiders should not be allowed to trade since, by definition, they are at a disadvantage.
- b) insiders should never be able to trade.
- c) decisions should be made on an even playing field.
- d) insiders should be able to trade whenever they want.

Q7. Identify which of the following capital budgeting methods might not consider the salvage value of a machine being considered for purchase?

- a. Internal rate of return.
- b. Net present value.
- c. Payback.
- d. Discounted payback.
- e. Answers c and d are both correct.

Q8. When the calculated NPV is negative, then which of the following must be true? The discount rate used is

- a. Equal to the internal rate of return.
- b. Too high.
- c. Greater than the internal rate of return.
- d. Too low.
- e. Less than the internal rate of return.

Q9. Which of the following indices is not a broad market average index?

- a) CAC-40
- b) DAX
- c) FTSE 100
- d) Amex Oil Index

Q10. Use the following table to calculate the expected return for the asset.

| Return | Probability |
|--------|-------------|
| 0.10   | 0.25        |
| 0.20   | 0.50        |
| 0.25   | 0.25        |

What is the asset's expected return?

- a) 20.00%
- b) 18.75%
- c) 17.50%
- d) 15.00%
- e)

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Q11. Evaluate the two *mutually exclusive* capital budgeting projects that have the following characteristics:

| Year | Cash Flows |           |
|------|------------|-----------|
|      | Project Q  | Project R |
| 0    | \$(4,000)  | \$(4,000) |
| 1    | 0          | 3,500     |
| 2    | 5,000      | 1,100     |
| IRR  | 11.8%      | 12.0%     |

If the firm's required rate of return ( $k$ ) is 10 percent, which project should be purchased?

- a. Both projects should be purchased, because the IRRs for both projects exceed the firm's required rate of return.
- b. Neither project should be accepted, because the IRRs for both projects exceed the firm's required rate of return.
- c. Project Q should be accepted, because its net present value (NPV) is higher than Project R's NPV.
- d. Project R should be accepted, because its net present value (NPV) is higher than Project Q's NPV.
- e. None of the above is a correct answer.

Q12. Which of the following statements is false?

- a. The NPV will be positive if the IRR is less than the required rate of return.
- b. If the multiple IRR problem does not exist, any independent project acceptable by the NPV method will also be acceptable by the IRR method.
- c. When  $IRR = k$  (the required rate of return),  $NPV = 0$ .
- d. The IRR can be positive even if the NPV is negative.
- e. The NPV method is not affected by the multiple IRR problem.

Q13. Two projects being considered are mutually exclusive and have the following cash flows:

| <u>Year</u> | <u>Project A</u> | <u>Project B</u> |
|-------------|------------------|------------------|
| 0           | -\$50,000        | -\$50,000        |
| 1           | 15,625           | 0                |
| 2           | 15,625           | 0                |
| 3           | 15,625           | 0                |
| 4           | 15,625           | 0                |
| 5           | 15,625           | 99,500           |

If the required rate of return on these projects is 10 percent, which would be chosen and why?

- a. Project B because of higher NPV.
- b. Project B because of higher IRR.
- c. Project A because of higher NPV.
- d. Project A because of higher IRR.
- e. Neither, because both have IRRs less than the cost of capital.

Q14. Which of the following is correct? In computing the NPV of a capital budgeting project, one should **NOT**

- a) estimate the cost of the project.
- b) ignore the salvage value.
- c) make a decision based on the project's NPV.
- d) discount the future cash flows over the project's expected life.

Q15. Which of the following is most correct? The modified IRR (MIRR) method:

- a. Always leads to the same ranking decision as NPV for independent projects.
- b. Overcomes the problem of multiple rates of return.
- c. Compounds cash flows at the required rate of return.
- d. Overcomes the problem of cash flow timing and the problem of project size that leads to criticism of the regular IRR method.
- e. Answers b and c are both correct.

Q16. Which of the following is correct? Disadvantages of the payback method include the following.

- a) It ignores the time value of money.
- b) It is inconsistent with the goal of maximising shareholder wealth.
- c) It ignores cash flows beyond the payback period.
- d) All of these.

Q17. Which one of the following statements about IRR is **NOT** true?

- a) The IRR is the discount rate that makes the NPV greater than zero.
- b) The IRR is a discounted cash flow method.
- c) The IRR is an expected rate of return.
- d) None of these.

Q18. Which of the following is correct? When estimating the cost of debt capital for the firm we are primarily interested in

- a) the cost of short-term debt.
- b) the cost of long-term debt.
- c) the coupon rate of the debt.
- d) None of these.

Q19 A corporation has been presented with an investment opportunity which will yield cash flows of \$30,000 per year in Years 1 through 4, \$35,000 per year in Years 5 through 9, and \$40,000 in Year 10. This investment will cost the firm \$150,000 today, and the firm's required rate of return is 10 percent. Assume cash flows occur evenly during the year,  $1/365$ th each day. What is the payback period for this investment?

- a. 5.23 years
- b. 4.86 years
- c. 4.00 years
- d. 6.12 years
- e. 4.35 years

Q20. Which of the following is correct? Disadvantages of going public include all **EXCEPT**

- a) The transparency that results from this compliance can be costly for some firms.
- b) The costs of complying with ongoing listing and disclosure requirements.
- c) The high cost of the IPO itself.
- d) Managers' tendency to focus on long-term profits.