

Ollscoil na hÉireann, Gaillimh
National University of Ireland, Galway

Semester One Examinations 1999/2000

MBA Degree Examination

Advanced Financial Management (AY 513)

Professor R. W. Scapens
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Time Allowed: Two Hours.

Answer the Question in Section A, and Two Questions from Section B.
(Separate answer books are not required for each section)

Present Value and Annuity Tables are attached.

Section A
(This Question is Compulsory)

Question 1:

- (a) Explain the “homemade dividends” argument for the irrelevance of corporate dividend policy, and identify the critical assumptions underlying this argument.

(15 Marks)

- (b) “Irrelevance of dividend policy” means that dividend policy does not affect share values. Is this inconsistent with the dividend valuation model, which suggests that the value of a share is the discounted present value of all future dividends? Explain.

(7 Marks)

- (c) Critically evaluate each of the following separate suggestions in relation to the dividend policy of a quoted public company:

- ☐ Each year, total dividends paid should equal the residual earnings after providing for investment needs;
- ☐ The board of directors ought to carry out a survey of shareholders to identify their tax status, so that dividend policy may be designed to minimise their tax exposures;
- ☐ The company should pay generous dividends, since the market responds positively to announcements of dividend increases.

(18 Marks)

(Total: 40 Marks)

(Section B begins on the next page)

Section B
(Answer TWO Questions)

Question 2:

- (a) Explain how a finance lease agreement can have a positive NPV for both the lessor and the lessee. (10 Marks)
- (b) *Western Community Hospitals Ltd.* is a private healthcare organisation, which owns and operates a number of hospitals and clinics in the West of Ireland. The Board has decided in principle to acquire an MRI scanner to improve its capacity to serve the community, and more particularly, to add a new and highly profitable medical procedure to its existing range of services. As Financial Director of the company, you have been asked to prepare a recommendation on the financing of the new equipment. The central issue is whether lease financing or a bank loan should be used.

The following information is available:

- ❑ The MRI equipment costs £250,000, and it has an estimated useful life of five years. Depreciation is allowed for tax purposes using the straight-line method, based on original cost, over the five-year life of the asset. The supplier guarantees a residual value of £40,000 for the equipment at the end of five years.
- ❑ As a private sector healthcare provider, Western Community Hospitals pays taxes on profits at a rate of 30%. Taxes are payable immediately at the end of the year in which the liability arises, and the company has sufficient taxable profits to absorb any losses for tax purposes arising from the leasing or the purchase of the MRI equipment.
- ❑ Galvia Financial Services has offered a five-year finance lease on the MRI equipment. The lease requires annual lease payments of £54,000, payable in advance, the first payment becoming due when the equipment is installed. The First National Bank of Oranmore has offered a five-year loan at a fixed interest rate of 10% per annum.
- ❑ Maintenance costs on the MRI equipment are estimated at £20,000 per year. However, since the maintenance is very specialised, Galvia Financial Services will not include a maintenance service with the lease.

Required:

Prepare suitable calculations to determine whether the MRI equipment should be financed using the lease offered by Galvia Financial Services, or using the bank loan offered by The First National Bank of Oranmore. (20 Marks)

(Total: 30 Marks)

(Question 3 begins on the next page)

Question 3:

Bogearraí Teo., an Information Technology company based in Ireland, specialises in supplying and installing customised software for export customers.

The company was recently awarded a major Hungarian contract worth 1 million U.S. dollars (\$). **Bogearraí Teo.** will receive the proceeds of the contract, in dollars, three months from today's date. The company has a policy of hedging currency exposures and is considering its alternatives in respect of the Hungarian contract.

Exchange rates and interest rates are as follows:

Exchange Rates:

Spot \$1.3000 to £1

Three-month Forward: \$1.3050 to £1

Interest Rates:

£: 4% per annum

\$: 6% per annum

A merchant bank has offered the company a put option on dollars expiring in three months time at a premium of £500 per \$100,000 at an option (exercise) rate of \$1.30 to £1.

Required:

- (a) Calculate the outcome of three alternatives available to **Bogearraí Teo.** to hedge the exchange risk in respect of the proceeds of the Hungarian contract and, on the basis of your findings, recommend a course of action to the company.

(20 Marks)

- (b) Suppose **Bogearraí Teo.** is about to submit a bid for a software contract in Scotland, which is priced in sterling. Recommend a hedging strategy to the company, and explain why you believe it to be superior to other possible strategies.

(10 Marks)

(Total: 30 Marks)

(Question 4 begins on the next page)

Question 4:

- (a) Explain why the Capital Asset Pricing Model (CAPM) does not include non-systematic risk as a factor which affects the expected returns on risky asset investments.

(7 Marks)

- (b) Assume the CAPM is descriptive of the market valuation process. The risk-free rate of return (R_F) is 4%, and the expected market return (ER_M) is 12%. Oldmarket Plc., a listed company with diversified shareholders, is considering the following independent projects:

<u>Project</u>	<u>Beta</u>	<u>Expected Return %</u>
A	0.6	9%
B	0.9	10%
C	1.3	15%

Which project(s) should Oldmarket Plc. accept? Explain the reasons for your choice.

(8 Marks)

- (c) Oldmarket's equity beta prior to consideration of the three projects is estimated at 0.8. Each of the three projects represents 10% of the present value of Oldmarket. Calculate the revised beta of the company assuming it follows your recommendations on project acceptance.

(5 Marks)

- (d) Is it always the case that, for all investment decisions, the focus should be on beta rather than on the standard deviation risk a project contributes to a company? Explain your answer.

(10 Marks)

(Total: 30 Marks)

(End of Question Paper)