



“Investing in Africa’s future”

COLLEGE OF BUSINESS PEACE LEADERSHIP GOVERNANCE (CBPLG)

MAC403: FINANCIAL MANAGEMENT I

END OF SECOND SEMESTER FINAL EXAMINATIONS

JAN/MAY 2019

LECTURER: MR. GABRIEL MUZAH

DURATION: 3 HRS

INSTRUCTIONS

The Paper contains four (4) Questions

Answer **all four (4) questions**

All questions carry equal marks (25).

DO NOT repeat material.

Write legibly. Write your answer clearly. Use numbered headings or subheadings to show which part of your answer refers to which question. Example: Question 2 (a)

Question 1

This semester you were requested to choose any listed firm of your choice. With reference to this particular firm:

- a) Who are the top shareholders of your firm? **[7 Marks]**
- b) What are the potential conflicts of interest that you see emerging from this shareholding structure? **[10 Marks]**
- c) Are there any external measures of the quality of corporate governance of your firm? **[8 Marks]**

[Total 25 Marks]

Question 2

Duo Co needs to increase production capacity to meet increasing demand for an existing product, 'Quago', which is used in food processing. A new machine, with a useful life of four years, could be bought for \$800,000, payable immediately. The scrap value of the machine after four years would be \$30,000. Forecast demand and production of Quago over the next four years is as follows:

Year	1	2	3	4
Demand (units)	1.4 million	1.5 million	1.6 million	1.7 million

The current selling price of Quago is \$8.00 per kilogram and the variable cost of materials is \$5.00 per kilogram. Other variable costs of production are \$1.90 per kilogram. Fixed costs of production associated with the new machine would be \$240,000 in the first year of production, increasing by \$20,000 per year in each subsequent year of operation.

Duo Co pays tax one year in arrears at an annual rate of 30% and can claim capital allowances (tax-allowable depreciation) on a 25% reducing balance basis. A balancing allowance is claimed in the final year of operation.

Duo Co uses its after-tax weighted average cost of capital when appraising investment projects. It has a cost of equity of 11% and a before-tax cost of debt of 8.6%. The long-term finance of the company, on a market-value basis, consists of 80% equity and 20% debt.

Required:

- (a) Calculate the net present value of buying the new machine and advise on the acceptability of the proposed purchase (work to the nearest \$1,000). **[15 marks]**
- (b) Calculate the internal rate of return of buying the new machine and advise on the acceptability of the proposed purchase (work to the nearest \$1,000).

[10 marks]
(Total 25 marks)

Question 3

You are given the following information about Jordan plc:

Balance sheet at January 2010

	\$000	\$000
Fixed assets		1511
Current assets	672	
Current liabilities	<u>323</u>	<u>349</u>
Total assets less current liabilities		1860
7% preference shares (\$1)	300	
9% debentures (redeemable January 2018)	650	
9% bank loans	<u>560</u>	<u>1510</u>
		<u>350</u>
Ordinary shares (50c)		200
Reserves		150
		<u>350</u>

You are also given the following information:

Yield on government Treasury bills	7%
Company equity beta	1.21
Market risk premium	9.1%
Current ex-div ordinary share price	\$2.35
Current ex-div preference share price	66c
Current ex-interest debenture market value	\$105
Corporation tax rate	30%

Required:

- Calculate the company's WACC using market weightings. **[20 Marks]**
- Discuss the application of Weighted Average Cost of Capital in investment appraisal **[5 Marks]**

[Total 25Marks]

Question 4

Dividend policy is a very important aspect of corporate finance that involves the decision making about the dividends to pay out to shareholders. The dividend policy of a business affects the total shareholder return and therefore shareholder wealth and one of the main considerations of the directors will be the amount of earnings they wish to retain to meet financing needs.

REQUIRED:

- a) Outline **five** factors that influence the dividend policy of a company. **[10 Marks]**
- b) Explain the meaning and significance of the three (3) theories of dividend policy in corporate finance. **[15 Marks]**

Total marks [25]

~END OF EXAM~

FORMULAE

$$NPV = CF_0 + \frac{CF_1}{(1+r)} + \frac{CF_2}{(1+r)^2} + \frac{CF_3}{(1+r)^3} + \frac{CF_4}{(1+r)^4} + \dots$$

$$PV \text{ of an annuity} = C \times \left[\frac{1}{r} - \frac{1}{r(1+r)^T} \right]$$

$$PV \text{ of a perpetuity} = \frac{C}{r}$$

$$PV \text{ of a growing perpetuity} = \frac{C}{r - g}$$

$$\text{Real risk free rate } (R_f) = \frac{(1 + \text{nominal risk-free rate})}{(1 + \text{inflation rate})} - 1$$

$$\text{Nominal risk-free rate} = (1 + \text{risk-free rate}) \times (1 + \text{rate of inflation}) - 1$$

$$IRR (\%) = A + [(B-A) * (a / (a+b))]$$

$$A.R.R. = \frac{\text{Average profits}}{\text{Average Investment}}$$

$$WACC = \left(\frac{V_e}{V_e + V_d + V_p} \right) k_e + \left(\frac{V_d}{V_e + V_d + V_p} \right) k_d(1 - T) + \left(\frac{V_p}{V_e + V_d + V_p} \right) k_{pref}$$

$$K_e = \frac{D_0(1+g)}{P_0} + g$$

$$K_e = CAPM = R_f + \beta(R_f - R_m)$$

$$K_{pref} = \frac{d}{P_0}$$

$$K_d = \frac{i(1 - t)}{P_0}$$

$$\text{Approximate Yield to Maturity} = \frac{I + (Fd - Vd)/n}{[(Fd + 2Vd)]/3}$$