Institute of Incorporated Public Accountants

Final Admitting Examination

Module 14: Financial Management

Thursday 29th. August 2013

2pm – 5pm

Instructions: **Answer five questions**

Section A

All three questions to be attempted

Section B

Two of the three questions to be attempted

Present Value Tables are attached to this paper.

Time Allowed: **3 Hours**

Section A: All three questions to be attempted

Section A (70 marks in Total)

Question 1

Alwico Ltd. is an aluminium window company supplying the West of Ireland. Having secured the franchise for the South West they are planning how they will expand their business.

They plan to invest an additional €120,000 in non-current assets. As a result they estimate:

- the profit before interest and tax will increase by 20%
- the volume of stocks, debtors and creditors will increase by 10%

They also note that:

- the profit before interest and tax for year end 31/12/2012 was €50,000
- the corporation tax on profits is 12.5%
- dividends recently paid amount to €10,000 and it is expected that the same dividend per share will be paid next year

Alwico Ltd. balance sheet is set out below:

			31/12/2012
Non Current Assets			
Tangibles			€200,000
Current Assets			
Inventories		€80,000	
Receivables		€60,000	
		€0	
			€140,000
			€340,000
Equity			
Ordinary share capital	€0.50	€200,000	
Retained Profits		€50,000	
			€250,000
Non Current Liabilities			
Loans			
Current Liabilities			
Payables	€90,000		
	€0		
			€90,000
			€340,000

P.T.O.

The directors of Alwico Ltd. have estimated that the total amount of new funds to be raised should amount to €150,000. This could be done in one of the following ways:

(i) A rights issue of 3 for 10 at €1.25. **OR**

(ii) By issuing €150,000 convertible debentures at a rate of 9.00% with €1,000 of debentures convertible into 600 ordinary shares in 5 years' time.

You may assume that debentures or rights issue were made on the 01/01/2013 and any funds raised will be kept in the form of non-interest bearing cash.

The Managing Director of Alwico Ltd. has noticed that the current ratio is decreasing and would prefer a more conservative or as she calls it a "prudential" approach to working capital. The Finance Director has argued that as a growing company this is quite appropriate and is quite happy to take a matching or "hedging" approach. The Sales Director says that he would prefer Alwico Ltd. to take an "aggressive" approach!

Required

a) The directors of Alwico Ltd. have asked you to consider the effect of each of these two long term financing methods. In your answer you should:

(i) Discuss the advantages and disadvantages of these two methods of raising long term finance

(ii) Calculate the effects on future earnings per share of existing shareholders

(iii) Calculate the effects on the balance sheet of the company.

(18 marks)

b) In addition the directors would like you to outline the three approaches advocated by the Managing Director, the Finance Director and the Sales Director to short term finance and in particular working capital. They would also like you to explain the trade-off that must be made between maintaining liquidity and remaining profitable in the context of the three approaches. **(7 marks)**

(25 marks in Total)

Question 2

Big Gate Ltd., (BGL) a manufacturer of iron and steel products is considering a merger with a drug manufacturer Alfa-Medicine Ltd., (AML). BGL have developed world class products but recently suffered with the drop in activity in the construction industry. AML are a world leader in the production of generic pharmaceuticals products, a steady but competitive market. AML is expected to continue to produce low steady returns for investors. As BGL sales are linked to the construction industry their revenues are quite erratic.

Currently the expected return on BGL shares is 16%, the standard deviation of returns is 20% while for AML the expected return on its shares is 10%, the standard deviation of returns is 15%. 70% of shares in the combined group will be allocated to BGL with the remaining 30% allocated to AML. No synergies are expected to result from the merger.

BGL's management realise that by merging with AML the groups expected returns would be less than they are currently enjoying. But given their recent setbacks BGL's management would consider the merger a success if the groups expected return and risk was similar to what AML enjoys now. AML's management simply hope that the merger will increase the return to AML shareholders while not significantly increasing their risk.

Independent consultants have calculated that BGL has a beta of 1.5, AML has a beta of 0.8 while there is no correlation between returns on BGL and AML, i.e. the correlation is zero i.e. (ρ_{AB} is 0). They have further calculated that the risk free return is 2%; the expected return on the market is 12% while the Standard Deviation of the market is 20%.

Required:

a) Find the expected return and standard deviation of the merged group and using standard deviation as a measure of risk, comment on whether the objectives of the two groups from the merger would be achieved. State and explain what would be your recommendation to the management of both groups as to the advisability of the merger? **(4 marks)**

b) Assuming the consultant's calculations are correct, find the beta of the merged group. Then using beta as a measure of risk, calculate the expected return for AML and BGL separately and as a merged group. Comment on whether the objectives of the two groups from the merger would be achieved. **(5 marks)**

c) If CAPM holds in the long run what does this predict about the future price movements of AML and BGL, individually if they do not merge or for the group if they do merge? Draw the Security Market line, (SML). Show on your diagram and explain what you expect would happen to the share price and return if AML and BGL merge and if they did not. **(10 marks)**

d) Discuss the strategic issues that arise from pursuing growth through mergers and acquisitions. **(6 marks)**

(25 marks in total)

Question 3

Matcorn Ltd., is an Irish based agricultural supplies company. Matcorn is considering two new foreign investments. As much of it sales are to former Eastern Bloc countries it is considering launching a subsidiary there. While the country of North Zarcky would be ideal from a geographic point of view it was not traditionally very foreign investment friendly. However, following approaches from the government of North Zarcky, Matcorn has been informed that should it choose to invest there then many of its barriers to trade would be reduced and that there would be a reduction in its capital controls and greater freedom and exchangeability of its currency the North Zarcky Sloty.

In addition but separately Matcorn is also considering an investment in the USA. While there are some trade barriers, there are no exchange controls and there is freedom of movement for capital between Ireland and the USA.

To assist Matcorn in calculating the correct cost of Equity and WACC rates to use the following table has been produced by Matcorn's Finance Director. She calculated the World Average rates using rates which apply to countries that allow free movement of capital and do not use exchange controls to significantly inhibit the free movement of capital.

	Ireland	N. Zarcky	USA	World Ave.
Risk Free Rate (%)	1.0	5.0	1.5	2.0
Market Return (%)	12	15	13.5	11
Equivalent Industry Equity Beta	1.1	1.6	0.8	1.2
Corporate Profit Tax Rate (%)	12.5	38	30	32
Pre-tax Cost of Debt (%)	7	10	6	8

She has also informed Matcorn that should the investments be made then the debt/equity ratio of the group would become 30/70 by book values and 40/60 by market values.

It would be expected that all the necessary finance for the projects would be raised in the relevant local capital market.

Required:

a) Calculate (i) the cost of equity capital and (ii) the WACC for both possible investments. In your answers clearly show your workings and explain any assumptions you have made in the choice of figures (rates and betas) you have used. **(10 marks)**

b) Discuss practical and/or theoretical reasons for you to question your answers in part (a). **(4 marks)**

c) Explain when firms should discount international investment projects using the cost of equity. When should they use the WACC instead? When should they use neither? You should use the information above and your results in parts (a) and (b) as examples. **(6 marks)**

(20 marks in total)

Section B: two (2) of the following three (3) questions to be attempted

Section B (30 marks in Total)

Question 4
"Time to ditch the CEO as chairman … There is a compelling logic to splitting the senior roles at global financial institutions", Andrew Hill, Financial Times, March 25, 2013.

a) Discuss why the separation of the roles of the Chief Executive Officer and the Chairman is considered desirable. **(6 marks)**

b) Outline the main provisions of the Sarbanes-Oxley Act and explain how its approach differs from that adopted in the UK (and hence in Ireland). In your answer explain which approach you think will be more effective and why. **(9 marks)**

(15 marks in total)

Question 5
"Educational publisher HMH eyes IPO … Houghton Mifflin Harcourt, the US educational publisher that emerged from bankruptcy proceedings last year, is preparing to file for an initial public offering that could raise $250m, people familiar with its plans said. … An IPO would cap a tumultuous period for the company that was put together by Irish entrepreneur Barry O'Callaghan through two leveraged buyouts in the middle of the last decade", Arash Massoudi and Andrew Edgecliffe-Johnson, Financial Times, July 25, 2013.

a) Discuss the potential effects of a leveraged buyout (LBO) on four of the relevant stakeholder groups in a firm. **(7 marks)**

b) Discuss why empirical studies might seem to suggest that returns to the firm that engages in a takeover is value destructive to its original shareholders. **(8 marks)**

Question 6
Write short notes on three (3) of the following six (6) topics:

a) Options contracts and how they are used to hedge a position.

b) Financial future contracts and how they are used to hedge a position.

c) The advantages of using currency swaps.

d) The disadvantages of using currency swaps

e) The difference between transaction and translation risk in international trade.

f) The difference between economic risk and political risk in international trade.

(3 x 5 marks)
(15 marks in total)

Formulas:

For a two asset portfolio, the expected return of a portfolio = $E(r_p) = (X_A.r_A) + (X_B.r_B)$

Where: X_A = the proportion invested in asset A
X_B = the proportion invested in asset B
r_A = the expected return of asset A and
r_B = the expected return of asset B

For a two asset portfolio, the Beta of a portfolio = $\beta p = (X_A.\beta_A) + (X_B.\beta_B)$

Where: X_A = the proportion invested in asset A
X_B = the proportion invested in asset B
β_A = the beta of asset A and
β_B = the beta of asset B

For a two asset portfolio, the standard deviation of the portfolio is =

$$\boldsymbol{\sigma_P = \sqrt{}\{(X_A^2.\sigma_A^2) + (X_B^2.\sigma_B^2) + 2(X_A.X_B\rho_{AB}.\sigma_B.\sigma_B)\}}$$

Where: X_A = the proportion invested in asset A
X_B = the proportion invested in asset B
ρ_{AB} = the correlation of asset A with asset B
σ_A = the standard deviation of asset A and
σ_B = the standard deviation of asset B

CAPM Expected return on Asset A = $E(r_A) = rf + \beta A\,(E(rm) - rf)$

Where: rf = the risk free rate
βA = the Beta of asset A
E(rm) = the expected return on the market

$$\text{The WACC} = ke\,\frac{E}{E + D} + kd\,(1 - t)\,\frac{D}{E + D}$$

Where: Ke = the cost of equity capital
Kd = the pretax cost of debt capital
E = the value of Equity in the firm
D = the value of Debt in the firm
t = the tax on corporate profits on the firm