Financial Management
Module 14
Monday 20th June 2011
10am – 1pm

Section A: All three questions to be attempted.
Section B: Two of the following three questions to be attempted.

Present Value tables are attached at the end of this paper.

Section A: All three questions to be attempted, (70 marks in Total).

Question 1

Pet-Fit-Walkers Ltd. is a Donegal based importer of exercise walkers for lazy dog owners. It has forecast that in November 2011, five months time, it will receive €1,500,000 (Euro, which is its unit of account) from a Dublin based retailer but it will have to pay $1m (US dollar) to an American supplier.

The following exchange rates are available to Pet-Fit- Walkers Ltd.:

Exchange rates:	$/€
Spot	1.4100 – 1.4110
3 months forward	1.4050 – 1.4060
1 year forward	1.4000 – 1.4010

The following annual borrowing and saving rates are available to Pet-Fit- Walkers Ltd.:

	Borrowing	Saving
Euro up to 6 months	6%	3%
Dollar up to 6 months	5%	2%

The managing director of Pet-Fit-Walkers Ltd. wishes to hedge any foreign exchange risk using only either a forward market hedge or a money market hedge. He is against using currency options or currency futures as he has heard that these derivative instruments are very risky and he wishes to "avoid risk not take it on!"

Required:

a) Prepare a short report outlining the costs, advantages and disadvantages of both a forward market hedge and a money market hedge. In your report show all relevant calculations relating to the two alternative types of currency hedge methods. **(12 Marks)**

b) Outline the advantages and disadvantages of using currency options or currency futures, (no need to use calculations). **(7 Marks)**

c) A competitor of Pet-Fit-Walkers Ltd. naively says "as all our supplies come from and all our sales are in the Euro zone, all our costs and revenue are in Euro, so we have no foreign exchange risk exposure". Discuss this statement with a particular emphasis on "economic exposure". **(6 Marks)**

(25 Marks in Total)

Question 2

Breffni-Games Ltd., (BGL) is considering a merger with Advance-Meds Ltd., (AML). BGL are a game developer who has had a few big hits but recently many misses and 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 sales of a “creative” product their revenues are quite erratic.

Currently the expected return on BGL shares is 15%, the standard deviation of returns is 18% while for AML the expected return on its shares is 11%, the standard deviation of returns is 12%. Only 40% of shares in the combined group will be allocated to BGL with the remaining 60% 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 1.2, AML has a beta of 0.7 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 5%; the expected return on the market is 15% 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)**

Please note: for a two asset portfolio, the standard deviation of the portfolio is:

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

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

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) The key result in Modern (or Markowitz) portfolio theory is that the volatility of a portfolio is less than the weighted average of the volatilities of the securities it contains. Discuss, (you may use the formula given above in your answer). **(6 Marks)**

(25 Marks in total)

Question 3

After a careful examination of his business, Max Phibbs has decided to reduce the number of divisions within his group. Each division is autonomous with no synergies at divisional level. However the maximum investment allowed in each division is shown for the five divisions, whose returns may treated as perpetuities.

Investment	Maximum allowed Investment	Expected return in Year 1	Expected annual growth	Appropriate discount rate
A	€ 9,000,000	€400,000	11.0%	15%
B	€ 7,500,000	€350,000	10.0%	15%
C	€ 7,000,000	€300,000	8.0%	12%
D	€ 3,500,000	€300,000	8.0%	14%
E	€ 2,500,000	€150,000	6.0%	10%

Required:

a) If there are no capital constraints, what would be the NPV of the projects, and which divisions should he continue with, if any? **(6 Marks)**

b) Assume the most Max has to invest is €14m and any money not invested, (from the €14m), in any of the five projects (A – E) above must be invested in NPV = 0 projects. With the help of a Profitability Index, recommend which investments he should recommend, if any, and the expected payoffs in each situation, if:

(i) investments are “divisible”, and
(ii) if projects are “not divisible”. **(5 Marks)**

(Note: by “divisible” it means that it is possible to invest in a project in whole or in part, e.g. investing only half of the initial maximum allowed, €4.5m in project A will result in only half the maximum NPV of that project. “Non divisible” implies that a project must be accepted in whole or not at all, e.g. one must invest €9m in Project A or not invest in A at all).

c) Discuss the reasons for your recommendations in (b), explaining capital rationing and the Profitability Index in your answer. **(3 Marks)**

d) Explain why the Fisher separation theory is fundamental to the theory of finance, i.e. why given efficient capital markets, firms should concentrate on maximising their NPV rather than focusing on the cash flows needs of investors. **(6 Marks)**

(20 Marks in Total)

Section B: Two of the following three questions to be attempted, (30 marks in Total).

Question 4

"*Shareholders are now more likely to press boards to demonstrate the value of mergers and hold them accountable if they fail.*" Financial Times, February 21 2011.

a) Other than synergy briefly outline other possible motives for a merger or a takeover. **(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)**

(15 Marks in Total)

Question 5

"*Companies have been forced to reassess plans for stock market listings in coming weeks, as investors take fright.*" Financial Times, March 18 2011.

a) In the light of the current turmoil in the international financial markets discuss the long term sources of finance from a strategic point of view. **(8 Marks)**

b) In the light of the current turmoil in the international financial markets discuss why there appears to be a renewed emphasis on companies paying dividends. **(7 Marks)**

(15 Marks in Total)

Question 6

From the perspective of a corporate financial manager, explain and write short notes on **three** (3) of the following **six** (6) topics:

a) The difference between Internal Rate of Return (IRR) and Return on Capital Employed (ROCE).

b) The difference between earnings yield and dividend yield as company valuation methods.

c) The difference between a bond with a warrant and a convertible bond.

d) The difference between exchange traded options versus Over The Counter (OTC) options.

e) The difference between the approaches to corporate governance in the UK (same as Ireland) and the US.

f) The difference between Beta and Standard Deviation as measures of risk in a portfolio.

(3 x 5 Marks)

(15 Marks in total)