Financial Management
Module 14
August 2011
SOLUTIONS

IIPA Financial Management Repeat 2011 Solutions

Question 1 Part a)

5 marks for costs of the components of capital, 5 marks market value of the components of capital and 3 mark for WACC = 13 marks in total.

AnimalPharma Plc, (APP), wishes to estimate its current cost of capital.

Costs of Capital

Cost of Equity (using CAPM) = Rf + [Ba x (Rm - Rf)]

   Rf = 3%

  Rm = 8%

  Ba = 1.4

   Cost of Equity (using CAPM) = 3% +[1.4 x(8% - 3%)]

                               = 3% +[1.4 x(5%)]

                               = 3% +[0.070]

                               = **10.00%**

The 8% irredeemable debentures:

The yield on this can be estimated solving for Kd in the following perpetuity formula: Po = I /

Kd = the <u>after tax</u> cost of debt

Note: tax of 12.5% must be deducted from the interest payments.

 i.e. interest is €4.00 per nominal €100, every six months

  Hence after tax payment = €4.00 = (1-0.125) = €3.50 per nominal €100,

Po = I / Kd where: Po = €106.0 and I = €3.50

   => Kd = I / Po = 3.5 / 106 = 3.30% semiannual = **6.60 % annually**

Cost of preference shares

  Its preference shares has a €5.00 nominal value

   Dividend on the preference shares is 6%

Current market price of the preference shares is €6.00

 Cost of preference shares is = Actual Dividend / current market price

                       = (6% x €5.00) / €6.00

                       = (€0.30) / €6.00

                       = 0.05 = **5.00%**

Market Values of the capital Structure
The market value of Equity

Current cum div share price	€12.50
Current numbers of shares	1,000,000
Expected dividend	€800,000
Expected dividend per share	€0.80
Current Ex div share price	€11.70
Current Equity Market value	**€11,700,000**

The market value of the irredeemable Debt
= the current market price, (ex interest) per bond x # of bonds issued
The   8% irredeemable debentures
=   €106.00   x (€6,000,000   / 100) =
=   €106.00   x (60,000   ) =   **€6,360,000**

The market value of the Preference Shares
= the current market price, (ex div) per share x # of shares issued
=   €6.00   x (5,000,000   /   €5.00   )
=   €6.00   x (1,000,000   )
=   **€6,000,000**

In Summary	Cost	Market Value
Ordinary Shares	10.00%	€11,700,000
Irredeemable Debt	6.60%	€6,360,000
Preference Shares	5.00%	€6,000,000
		€24,060,000

Hence the WACC = Ke_g x {E / (E + D+PS)} + Kd x {D / (E + D+PS)}+ Kps x {PS / (E + D+PS)}

=   10.00%   x (€11,700,000   /   €24,060,000)
+   6.60%   x (€6,360,000   /   €24,060,000)
+   5.00%   x (€6,000,000   /   €24,060,000)
=   0.04863   +   0.01745   +   0.01247
=   0.07854   =   **7.85%**

Alternatively	After Tax Cost	Market Value	Number Issued	Total Value	Proportion	% Return
Ordinary Shares	10.00%	€11.70	1,000,000	€11,700,000	49%	4.86%
Irredeemable Debt	6.60%	€106.00	60,000	€6,360,000	26%	1.74%
Preference Shares	5.00%	€6.00	1,000,000	€6,000,000	25%	1.25%
				€24,060,000	100%	7.85%

Question 1 Part b)
1 marks for when firms should discount projects using the cost of equity, 2 marks for when they should they use the WACC, 1 mark for when they should use neither and 2 marks for applying it to APP = 6 marks in total.

Only firms with no debt in their capital structure should use the cost of equity to discount project cash flows, and only those projects that are very similar to a firm's existing assets should be discounted using that rate.

Firms with both debt and equity should use the WACC as long as they are evaluating a project that is similar to their existing assets. In part (a) we were asked to calculate the cost of capital that APP should use as a discount rate when appraising new marginal investment opportunities. In this case the original WACC of 7.85% is appropriate.

When a firm is making an investment that is very different from its existing investments, then it shouldn't use the company's cost of equity or its WACC. Similarly if a firm is considering a major investment that is expected to change its operating and financial leverage, then it shouldn't use the company's cost of equity or its WACC.

In this case only if APP is making an investment that is similar to its existing investments and will not significantly change its operating and financial leverage should it use the company's original WACC of 7.85%.

Question 1 Part c)
3 marks for explaining types of covenants = 3 marks in total.

Covenants to bondholders limit the scope of shareholders / managers to confiscate wealth from bondholders for themselves. Such covenants would include agreements to refrain from, (a negative covenant) certain activities or to engage in certain activities (a positive covenant).

Types of bond covenants include:
- Regularly provide bondholders with audited statement of the firm's financial position and any material changes to it, (a bonding covenant)
- Not disposing / selling off the assets of the company, (an asset covenant),
- Not subordinating their existing debt by issuing new debt or borrowing additional funds that rank above claims by existing bondholders if the firm was in financial distress and unable to meet all its financial commitments, (a financing covenant),
- Not paying out large dividends to themselves (or engaging in a share repurchase scheme), (a dividend covenant) and / or ensuring that a sufficient levels of profit are reinvested back into the firm to finance future growth, (a reinvestment covenant),
- Limit the values for key financial ratios in the firm, e.g. a minimum ratio of tangible assets to total debt, interest cover, gearing level, net working capital etc., (financial ratio covenants),
- Preventing the firm from engaging in merger and takeover activities (a merger covenant),

Question 1 Part d)
1 mark for companies perspective, 1 mark for advantages and 1 mark for disadvantages = 3 marks in total.

Advantages: as Jensen and Meckling, (1976), in their seminal paper on Agency Theory show, ultimately it is shareholders who bear the Agency Costs of debt in terms of paying higher costs on debt if it is available to them at all. It is in the interests of shareholders to try to minimise such Agency Costs of debt. Covenants therefore reduce the cost of borrowing for a firm. Thus it is ultimately cheaper for the shareholders to give covenants to bondholders that limit the scope of shareholders to confiscate wealth from bondholders for themselves.

Disadvantages: covenants restrict the scope of allowable activities of shareholders / managers. Potentially profitable projects may not be allowable under the terms of the covenants due for example to borrowing constraints. Similarly a potentially profitable merger or takeover that is good for the shareholders may also be ruled out by restrictive covenants. Covenants can also require considerable expense of time, money and management effort to ensure that all aspects of the covenants are being met, including so called monitoring and bonding covenants.

Question 2
5 marks for calculating nominal rates and expected future exchange rates, 7 marks for calculating the after-tax remittance values in Doung pounds, 7 marks for calculating the NPV in Carti Dollars, 6 marks for explanations / discussions = 25 marks in all.

Note: in lines 6 and 7, students should use either Interest Rate Parity (IRP) or Purchasing Power Parity, (PPP). There is no need to use both.

Calculations on next page

Row		Inflation	Real rate of interest	Nominal rate of interest	Real required rate of return	Nominal required rate of return
1	Country B; Doung	15%	4%	19.6%		
2	Country A; Carti	10%	4%	14.40%	6%	16.60%
3	Year	0	1	2	3	
4	Nominal Compound rates; Doung	1.711	1.430	1.196	1.000	
5	current spot, (units of A per 1 unit of B)	0.70				
6	IRP Expected Future Exchange Rate at Time t =	0.700	0.670	0.640	0.613	
7	PPP Expected Future Exchange Rate at Time t =	0.700	0.670	0.640	0.613	
8	CURRENCY B (15% INFLATION) \ Year	0	1	2	3	
9	Fixed Investment	250.00				
10	Variable Costs	25.00	28.50	32.49	37.04	
11	Revenue		200.00	206.00	212.18	
12	Net incremental cash flow	- 275.00	171.50	173.51	175.14	
13	CURRENCY B (15% INFLATION)	0	1	2	3	
14	Net incremental cash flow	- 275.00	171.50	173.51	175.14	
15	Estimated taxable income		88.17	90.18	91.81	
16	Country B corporate taxes at 30%		26.45	27.05	27.54	
17	After-tax cash flows	- 275.00	145.05	146.46	147.60	
18	Remitted Cash flows		108.79	109.84	110.70	
19	Postponed remittances, (PPR's)		36.26	36.61		
20	PPR's compounded at 19.6% (see rows 2 and 4)		1.430	1.196		
21	Compounded values of PPR's		51.87	43.79		
22	= Yr 3 value of PPR's in yrs 1-2				206.36	
23	Withholding taxes at 20%		21.76	21.97	70.79	
24	Remittance after-tax	- 275.00	87.03	87.87	246.27	
25	Expected Future Exchange Rate at Time t; (from IRP, row 6 or PPP, row 7)	0.700	0.670	0.640	0.613	
26	CURRENCY A (10% INFLATION)					
27	Remittances received	- 192.50	58.27	56.28	150.87	
28	Estimated taxable income		59.03	57.75	56.24	
29	Corporate tax at 35%		- 20.66	- 20.21	- 19.68	
30	Foreign tax credit		32.28	31.40	60.24	
31	After-tax cash flow	- 192.50	69.89	67.46	191.42	
32	Discount factor, r = 16.6%, (see Row 2)	1.000	0.858	0.736	0.631	
33	Present Values	- 192.50	59.94	49.62	120.75	
34	Net present value at 16.6% =	37.81	As NPV >0 implies accept Project.			

Question 3 part a)
1 mark for cost of capital, 3 marks for PV benefits, 3 marks for PV costs, 1 mark for NPV A, 1 mark for NPV B, 3 marks for IRR B, 1 marks for NPV A > NPV B = 13 marks in all.

The cost of capital, r, can be found by rearranging the terms in the dividend growth model,
    $P_o = D_1 / (r - g)$ so:
    $r = (D_1/P_o) + g = (0.80 / 10) + 0.06 = 0.08 + 0.06 = 0.14 = 14\%$ = the cost of capital.

Investment A
NPV = PV of Benefits – PV of costs
PV of **benefits** = €300,000 x PVIFA (10yrs, 14%) + PVIF (3yrs, 14%) {CF /(r-g)}
            = €300,000 x 5.216 + 0.675{750,000 / (.14 - .04)}
            = €1,564,800 + 0.675{750,000 / .1}
            = €1,564,800 + 0.675{€7.5m}
            = €1,564,800 + €5,062,500 = **€6,627,300**

PV of **Costs** (note: as the NPV of the film = 0, we can ignore it in our NPV calculations!)
            = [PVIF (2yrs, 14%) x {€1.5m x PVIFA (6yrs, 14%)}]
            = [0.769 x {€1.5m x 3.889}]
            = [0.769 x {€5,833,500}] = **€4,485,961.50**

Thus **NPV** = €6,627,300- €4,485,961.50 = **+€2,141,338.50**

Thus as NPV of Investment A > 0 using the NPV decision criteria alone the firm should undertake the project.

However as Investments A and B are mutually exclusive, (as in "Alternatively your old record company has offered you the following deal"), therefore we must look at Investment B and see which has the highest NPV.

Investment B

Year	Cash Flows	r = 14% Discount Factor	Present Value	r = 20% Discount Factor	Present Value	r = 16% Discount Factor	Present Value	r = 18% Discount Factor	Present Value
€m	€m		€m		€m		€m		€m
1	-5	1	-5	1	-5	1	-5	1	-5
1 -20	0.5	6.623	3.3115	4.8696	2.4348	5.929	2.9645	5.353	2.6765
20	50	0.073	3.65	0.0261	1.305	0.051	2.55	0.037	1.85
		NPV =	1.9615	NPV =	-1.2602	NPV =	0.5145	NPV =	-0.4735

IRR = A $\underline{\quad a \quad}$ x (B - A)   where:

A =	14%	1.9615 = a
B =	20%	-1.2602 = b

IRR = 14% + 1.9615 / (1.9615 - -1.2602) x (0.2 - 0.14)
IRR = 14% + 1.9615 / (3.2217) x (0.06)
IRR = 14% + 0.6088 x (0.06)
IRR = 14% + 0.0365
IRR = 17.65%

Therefore the IRR lies around 17% so choose a discount rate 1% either side

IRR = A $\underline{\quad a \quad}$ x (B - A)   where:

A =	16%	0.5145 = a
B =	18%	-0.4735 = b

IRR = 16% + 0.5145 / (0.5145 - -0.4735) x (0.18 - 0.16)
IRR = 16% + 0.5145 / (0.988) x (0.02)
IRR = 16% + 0.5207 x (0.02)
IRR = 16% + 0.0104
IRR = 17.04%

{Actual IRR Found by Excel = 16.957%}

At 14%, the NPV of Investment B is also > 0. Using the NPV decision criteria alone the firm should undertake the Investment B.

Although the IRR for Investment B at 17.04% is bigger than the discount rate in Investment A, the NPV of Investment A at +€2,141,338.50 is greater than the NPV of Investment B at +€1,961,500.

Hence as Investment A and B are mutually exclusive, Investment A should be chosen over Investment B.

Question 3 part b)
2 marks each for NPV = 0 project, NPV and IRR and 1 marks for discussion on choice = 7 marks in all

An NPV = 0 project simply means that the PV Benefits – PV costs = 0. Hence the PV Benefits = the PV costs. The important variable here which will make the NPV = 0 is the discount rate which is the opportunity cost of funds. If the IRR from putting your money in a one year bank account was 3.5%, then it is very likely that the opportunity cost of funds will be greater than 3.5% and therefore you would choose an NPV = zero one year project instead.

E.g. if the opportunity cost of funds was 10% then if you invest in a one year NPV = 0 project for every €100 you invest in year zero, you will receive €110 in year one.

I.e. the NPV = -100 + (110 / (1 + 0.1)) = 0.

If you had put your money in a bank you would only get €103 in year one for every €100 you save. If your opportunity cost of funds was 10% then this would be a negative NPV project.

I.e. NPV = -100 + (103 / (1 + 0.1)) < 0.

NPV is considered the academically preferred investment appraisal method.
- The NPV method works out the present values of all cash inflows & outflows of an investment at a target rate of return, & calculates out a net total.
- Projects with a positive NPV are deemed acceptable or viable. Projects that exhibit a negative NPV are considered to be unacceptable or not viable.

Strengths:
- The NPV takes into account the time value of money.
- It is expressed in today's money terms.
- It uses cash flow rather than accounting profits over the entire life of the project.
- It is the academically preferred method.

Weaknesses:
- It is not as easily understood as pay-back or ARR.
- The discount factor that is appropriate can be a complex decision.

The NPV Criterion Decision rule states that to maximise shareholder wealth, all positive NPV projects should be accepted and all negative NPV projects should be rejected. If mutually exclusive choose the project with the highest (positive) NPV.

Internal rate of return, used more often by accountants than NPV
- Attempts to find the discount factor where NPV = 0.
- If the IRR > the company's target rate of return/cost of capital, then the project is viable.
- Manual calculation involves finding two NPV's at two discount rates and using a linear interpolation technique to find an approximate IRR.
Otherwise use a spreadsheet to find IRR

Strengths:
- It considers both the magnitude and the timing of the project's cash flows over the entire life of the project.
- IRR is measured as a percentage, which is easy to understand.

Weaknesses:
- It ignores the relative size or scale of investments.
- More than one IRR may result if the cash flows from projects are 'not conventional'.
- IRR should not be used to assess mutually exclusive projects.
- When projects are mutually exclusive, the NPV is a better criterion for making investment decisions.
- IRR assumes cash flows related to a project can be re-invested elsewhere at the IRR.

Discuss choice, students should say that NPV is superior to IRR because:
- Mutually exclusive projects can lead to total vs. average returns problem
- If projects are mot independent it can lead to capital constrained problem, (soft or hard rationing)
- Lending or borrowing, (investing or financing)?
- Multiple rates of return problem
- Term structure; (IRR assumes r does not change).

Question 4 Part a)
1 mark for explanation, 3 marks for correct diagnosis, 2 marks for misdiagnosis, and 2 marks for possible cures = 8 marks

Explanation: overtrading refers to a situation where turnover is increased without a matching increase in equity or other long-term sources of funds; as a result, a company which is earning good profits can run into a liquidity crisis and default in payment of its current liabilities.

The financial backers of the tenanted-pub firms might have noticed the following symptoms;

- The increased investment in current assets needed to support the increased sales are financed mainly from short-term sources like creditors and bank overdraft, resulting in a declining current ratio and quick ratio.
- Sales tend to increase very quickly in relation to equity, resulting in sharp increases in the ratio of sales to equity.
- The increase in debt would lead to higher gearing ratios.
- The net working capital will tend to decline, and may even become negative. A negative net working capital implies a current ratio less than unity (current assets less than current liabilities), and a business in such a position is likely to face considerable difficulty in meeting its current liabilities. Even where the current ratio is satisfactory, any erosion of net working capital would worsen the liquidity of the business and make it more vulnerable to cyclical risk.

However over trading is not the only cause of these symptoms:
Situations similar to overtrading can be caused due to other reasons as well:

- It is not only physical increase in sales that can strain liquidity. In periods of high inflation, sales turnover and the corresponding working capital requirements can increase very sharply in nominal terms, resulting in the symptoms of overtrading.
- Repayment of a loan without raising sufficient long-term funds (either in the form of profit accruals or a fresh loan) can drain cash from the firm, creating the symptoms.
- Excessive dividend payout can result in depressing the equity and creating similar symptoms.
- Using short-term sources of funds to finance long-term investments will depress net working capital, resulting in overtrading symptoms.

However if the management of the tenanted-pub firms feel that overtrading is the root cause of their condition then they must as a mater of urgency tackle the situation.
The instant solution for an overtrading situation is to take more trade credit and bank overdraft finance; however this is likely to be only a short-tern fix that ultimately exacerbates the situation and worsens the liquidity crisis.
Better short-term solutions would be to either restrict the growth in turnover to manageable proportions; or improve working capital management so that the investment in current assets required to support the level of sales is reduced (i.e. better inventory control, credit policy and debt collection).
The long-term solution is to provide more long-term funds for working capital purposes - i.e. improve the Net Working Capital position of the firm.

Question 4 Part b)
3 marks for basic types of leases, 2 marks each for advantages and disadvantages = 7 marks

The two basic types of leases available to a business are operating leases and financial leases.

An operating lease is typically a contractual arrangement whereby the lessee agrees to make periodic payments to the lessor, often for five years or less, to obtain an asset's services. The lessee generally receives an option to cancel the lease by paying a cancellation fee.

A financial (or capital) lease is longer term than an operating lease. Financial leases are non-cancellable and therefore obligate the lessee to make payments over a predefined period.

The advantages of leasing are
- the ability of the lessee to depreciate land, which is prohibited if the land were purchased,
- the use of sale-leaseback arrangements may permit the firm to increase its liquidity by converting an asset into cash, which can then be used as working capital,
- leasing provides 100 percent financing,
- the maximum claim of lessors if a lessee becomes bankrupt is three years of lease payments along with reclaiming the asset,
- the lessee may avoid the cost of obsolescence if the lessor fails to accurately anticipate the obsolescence of assets and sets the lease payment too low,
- the lessee avoids many of the restrictive covenants that are usually included as part of a long-term loan, and
- in the case of low-cost assets leasing may provide the firm with needed financing flexibility.

The disadvantages of leasing are
- a lease does not have a stated interest cost,
- at the end of the term of the lease agreement, the lessor realizes the salvage value,
- the lessee is generally prohibited from making improvements on the leased property or asset without the approval of the lessor, and
- if a lessee leases an asset that subsequently becomes obsolete, it still must make lease payments over the remaining term of the lease.

Question 5 Part a)
4 marks for background, 4 marks for advantages and disadvantages = 8 marks in all.

A firm might develop horizontally in different countries, replicating its existing operations on a global basis. Vertical integration might have an international dimension through FDI to acquire raw material or component sources overseas (backwards integration) or to establish final production and distribution in other countries (forward integration). Diversification might alternatively provide the impetus to developing international interests.
Methods to diversify abroad:
- Joint ventures
- Licensing
- Exporting
- Management contracts
- Overseas subsidiaries
- Branch

Joint ventures
The two distinct types of joint venture are industrial co-operation (contractual) and joint-equity. A contractual joint venture is for a fixed period and the duties and responsibility of the parties are contractually defined. A joint-equity venture involves investment, is of no fixed duration and continually evolves. Depending on government regulations, joint ventures may be the only means of access to a particular market.

Advantages of joint ventures
- Relatively low cost access to new markets
- Easier access to local capital markets, possibly with accompanying tax incentives or grants
- Use of joint venture partner's existing management expertise, local knowledge, distribution network, technology, brands, patents and marketing or other skills
- Sharing of risks
- Sharing of costs, providing economies of scale

Disadvantages of joint ventures
- Managerial freedom may be restricted by the need to take account of the views of all the joint venture partners.
- There may be problems in agreeing on partners' percentage ownership, transfer prices, reinvestment decisions, nationality of key personnel, remuneration and sourcing of raw materials and components.
- Finding a reliable joint venture partner may take a long time.
- Joint ventures are difficult to value, particularly where one or more partners have made intangible contributions.

Licensing is an alternative to FDI. It involves conferring rights to make use of the licensor company's production process to producers located in the overseas market in return for royalty payments.
Advantages of licensing
- It can allow fairly rapid penetration of overseas markets.
- It does not require substantial financial resources.
- Political risks are reduced since the licensee is likely to be a local company.
- Licensing may be a possibility where direct investment is restricted or prevented by a country.
- For a multinational company, licensing agreements provide a way for funds to be remitted to the parent company in the form of licence fees.

Disadvantages of licensing
- The arrangement may give to the licensee know-how and technology which it can use in competing with the licensor after the license agreement has expired.
- It may be more difficult to maintain quality standards, and lower quality might affect the standing of a brand name in international markets.

- It might be possible for the licensee to compete with the licensor by exporting the product to markets outside the licensee's area.
- Although relatively insubstantial financial resources are required, on the other hand relatively small cash inflows will be generated.

In addition firms could also have expanded abroad by:
Like Licensing exporting is also an alternative to FDI. Exporting may be direct selling by the firm's own export division into the overseas markets, or it may be indirect through agents, distributors, trading companies and various other such channels. Exporting may be unattractive because of tariffs, quotas or other import restrictions in overseas markets and local production may be the only feasible option in the case of bulky products such as cement and flat glass.

Management contracts whereby a firm agrees to sell management skills are sometimes used in combination with licensing. Such contracts can serve as a means of obtaining funds from subsidiaries, and may be a useful way of maintaining cash flows where other remittance restrictions apply. Many multinationals use a combination of various methods of servicing international markets, depending on the particular circumstances.

Overseas subsidiaries often form the basic structure of many multinationals. They consist of a parent company (a holding company) with subsidiaries in several countries. The subsidiaries may be wholly owned or just partly owned, and some may be owned through other subsidiaries.

Rather than a subsidiary, firms may choose to establish a branch to create a definite presence in an overseas country. Key elements in this choice are, taxation, legal and accounting formalities and sales and marketing purposes.

Question 5 Part b)
2 mark for context and 5 marks for reasons, = 7 marks in all.
Eiteman, Stonehill and Moffett (Multinational Business Finance, 1992) set out five main strategic reasons for engaging in FDI, as follows.

1 Market seeking
'Market seeking' firms engage in FDI either to meet local demand or as a way of exporting to markets other than the home market. Examples of this are the manufacturing operations of US and Japanese car producers in Europe. Some FDI is undertaken to provide a sales and market organisation in the overseas economy for the exporter's goods.

2 Raw material seeking
Firms in industries such as oil, mining, plantation and forestry will extract raw materials in the places where they can be found, whether for export or for further processing and sale in the host country.

3 Production efficiency seeking
The labour-intensive manufacture of electronic components in Taiwan, Malaysia and Mexico is an example of locating production where one or more factors of production are cheap relative to their productivity.

4 Knowledge seeking
Knowledge seeking firms choose to set up operations in countries in which they can gain access to technology or management expertise. For example, German, Japanese and Dutch companies have acquired technology by buying US-based electronics companies.

5 Political safety seekers
Firms which are seeking 'political safety' will acquire or set up new operations in those countries which are thought to be unlikely to expropriate or interfere with private enterprise or impose import controls. More positively these countries may offer grants and tax concessions.

Question 6: part i):
Why the combining of the roles of the Chairman and the Chief Executive is considered undesirable.
1 mark for role of the Chairman, 1 mark for role of the CEO and 3 mark for why it's inappropriate to combine roles = 5 marks in all.

The role of the Chairman is to act as the leader of the board of directors and to be responsible for the successful carrying out of the policies set by the board. The Chairman has the most important role in external relations with all the stakeholders and investors in the company.

As a direct employee of the company, the Chief Executive Officer (CEO) is the highest ranking executive director. The CEO is therefore personally accountable to the board for both all decisions made by all the executive management and the results of those decisions.

Thus these two positions are the most dominant on the board of directors. Should these two positions be held by the same person then that person could have such a powerful influence on decision-making that other board members would not feel comfortable to confront or call to account such a strong director. Likewise it may also be easier said than done for all aspects of an issue to be well thought-out before decisions are made.

Should the dominant director also play a key role in selecting non-executive directors, these NEDs may feel compromised in vigorously offering the challenge needed for long-term success. It would not be unreasonable to suspect that maximising shareholder value might be sacrificed and that they might manage the company for their own personal benefit rather than in the interests of all shareholders. Many examples of Poor corporate governance that led to the setting up of the Cadbury Committee were in companies run by domineering chairmen and chief executives, such as Asil Nadir (Polly Peck) and Robert Maxwell (Mirror Group).

Reasons given by listed companies for defying the code include that given by Morrisons in the UK, that basically no one understood the supermarket business better their CEO who they also made chairman. While that was somewhat acceptable while the group was performing strongly once the results began to slip this blatant breach of the Combined Code was no longer deemed acceptable and the company followed the code and separated out the roles of CEO and Chairman to two different people.

Question 6 Part ii):
The difference between transaction and translation risk in international trade.
2 marks for transactions risk, 2 marks for translation risk and 1 mark for contrast = 5 marks in all.

Transactions risk is that exposure to exchange rate risk faced by a firm that is vulnerable to an adverse change in the value of any of its cash flows as a result of exchange rate movements. Almost every firm is exposed to exchange rate risk to some degree, even if it operates strictly in one country and has cash flows in only one currency. Such a firm will face exchange rate risk if (1) it produces a good or service that competes with imports in the home market, or (2) it uses as a production input an imported product or service. This exchange rate risk cannot be eliminated, but it can be hedged (transferred to a third party) using financial contracts.

Translation and economic risks relate to those additional complexities involved with operating internationally if they have affiliates or subsidiaries on the ground in a foreign country. One such complication arises when MNCs translate costs and revenues denominated in foreign currencies to report on their financial statements, which, of course, are denominated in the home currency. This type of risk is called translation exposure or accounting exposure. In other words, foreign exchange rate fluctuations affect individual accounts in the financial statements.

Question 6: Part iii):
Equivalent Annual Cost Approach to Asset Replacement:
4 marks for outlining the approach, 1 mark for explaining decision criteria = 5 marks in all.
After an organisation has decided to replace an asset it needs to consider two issues, namely:
- should the replacement be an identical asset or not?
- what is the optimum time/cycle to replace the asset?

In each case there may be different life spans attaching to each possible replacement asset/identical replacement cycle.

To compare the options consistently the analyst will first determine the NPV of each option. Thereafter, the equivalent annual cost approach to asset replacement will be used to equate on a consistent basis the annual cost of each option regardless of duration.

This is achieved as follows:
Equivalent Annual Cost = NPV of each option/Annuity factor for duration of option.

The option with the lowest equivalent annual cost will be the optimal choice.

Question 6: Part iv)
Co-efficient of Correlation as it relates to the two stock portfolio:
1 marks for outlining the co-efficient of correlation, 1 mark for effects on return and 3 marks for effects on risk and in a 2 stock portfolio = 5 marks in all.
The co-efficient of correlation, "r" or in Greek "ρ" "Rho", is a measure of the strength and type (positive or inverse) of the relationship between two variables. For a two stock portfolio the co-efficient of correlation shows how the returns on each of the stocks co vary with each other. It is determined by a mathematical analysis of past returns on the two shares.

In a two stock portfolio the co-efficient of correlation does not appear in (and hence does not effect) the equation for the return of the portfolio $E(Rp) = x_1R_1 + x_2R_2$ where x_1 and x_2 are the weights of asset 1 and 2 respectively in the portfolio.

However "r_{12}" "Rho$_{12}$", (the correlation of stock 1 with stock 2), does appear in the equation for the Standard Deviation of a two asset portfolio. The standard deviation is a measure of the total risk of that portfolio. Hence the co-efficient of correlation does affect the risk of that portfolio.
E.g. for a two asset portfolio, the Standard Deviation (= "the total risk of the portfolio")
$$= s_P = \ddot{0} \{x_1{}^2 s_1{}^2 + x_2{}^2 s_2{}^2 + 2\ x_1 x_2\ r_{12}\}$$

The range of values of the co-efficient of correlation is from -1, (perfect negative correlation i.e. if stock 1 increased by 10% then stock 2 would decrease by 10% and vice versa), to +1, (perfect positive correlation i.e. if stock 1 increased by 10% then stock 2 would increase by 10% and vice versa). Zero correlation would imply no correlation between the two stocks. In general most shares tend to be positively correlated to each other to some degree, as the price of stock 1 increase, stock 2 increases too and vice versa.

An example of shares likely to have a strong positive correlation would be those in similar industries e.g. Ryan Air PLC and Aer Lingus PLC. An example of shares likely to have a strong negative correlation would be those in industries that performed best at opposite ends of the economic cycle e.g. a luxury goods manufacturer such as LVMH and a firm that specialises in insolvency work.

Question 6: Part v)
The advantages of using currency swaps:
1 mark for explanation, 1 mark for each advantage, max 4 = 5 marks in all.
Note: if explanation of a currency swap given in part (iii) then 1 mark for each disadvantage, max 5 = 5 marks in all.

A currency swap is the exchange of obligations to repay a loan in one currency for another on a notional loan.

Advantages:
Often a corporate financial manager has a relative funding advantage in one country over another. By using arbitrage, it may be possible to secure cheaper finance than by borrowing directly in the other country.

Where it is not possible for the corporate financial manager to borrow directly in a currency, currency swaps may secure finance in that currency. This could because of not having a credit rating in that market.

They might help to circumvent foreign exchange controls or financial or government restrictions.

With a currency swaps a corporate financial manager can hedge foreign exchange risk, often for longer periods than would be possible using the forward market.

Even when it possible to obtain them, using long term forwards is typically more expensive than using currency swaps.

They may allow the corporate financial manager to restructure the debt profile of the company while not having to actually issuing or redeeming debt.

Question 6: Part vi)
The disadvantages of using currency swaps:
1 mark for explanation, 1 mark for each disadvantage, max 4 = 5 marks in all.
Note: if explanation of a currency swap given in part (ii) then 1 mark for each disadvantage, max 5 = 5 marks in all.
A currency swap is the exchange of obligations to repay a loan in one currency for another on a notional loan.

Disadvantages:
As a currency swap is an exchange of obligations, if the counterparty defaults the corporate financial manager's firm may be obliged to continue to make the original payments in the original currency. It is therefore usually less risky for the corporate financial manager to arrange the currency swap with a bank than with another corporate body, however even banks are not immune to failure. This is often referred to as "counterparty risk"

A currency swap can be on a notional fixed loan in one currency to a floating loan in the other or both could be fixed or both floating. With a floating to floating swap if the two floating rates are not pegged to the same index then what is often referred to as "basis risk" may be present.

Also because the corporate financial manager is obliged to make the payments on the swap, sometimes, due to favourable currency movements, you would have been better off not swapping than swapping. This is often referred to as "exchange rate risk".

It may not be possible to continue to exchange currency obligations due to changes in economic policy in a country. This is often referred to as "sovereign risk".

Where the currency swap is undertaken for hedging rather than speculative reasons, unless it is a perfect hedge there can be "residual risk"