

**NOVEMBER 2017 PROFESSIONAL EXAMINATIONS
ADVANCED FINANCIAL MANAGEMENT (PAPER 3.3)
CHIEF EXAMINER'S REPORT, QUESTIONS AND MARKING SCHEME**

STANDARD OF THE PAPER

The questions were standard for level 3 students and therefore within the reach of well-prepared candidates. Marks allocation was skewed to the theory questions, accounting for 57% of total marks.

PERFORMANCE OF CANDIDATES

A total of 1317 candidates wrote the November 2017 Advanced Financial Management paper as against 1138 candidates, thereby showing an increase of 15.73%. Total number of candidates who passed was 338, registering pass rate of 25.66%, against pass rate of 21.97% for May 2017. For a final level paper, a pass rate of 25.66% is considered satisfactory.

Exemption of level 2 Financial Management is contributory to low performance at the level 3.

NOTABLE STRENGTHS AND WEAKNESSES OF CANDIDATES

Strengths

Performance in the theory questions exceeded that of the computation questions. The reason is simple; Most of the theory questions require knowledge on macro-economic factors and most candidates read extensively along those lines.

Weakness

This bothers on the common weakness of accurate expression or explanations of points raised. Poor expression was quite general.

QUESTION ONE

- a) Under conditions of inflation, it is common for *interest rates* to rise possibly at a rate different from those applicable to goods and services.

Required:

- i) Explain **TWO** possible reasons for this phenomenon. **(3 marks)**
- ii) Discuss the implications of *high or fluctuating interest rates* for:
- Business financing; and **(3 marks)**
 - Assets-holding decisions. **(3 marks)**
- (Give examples of the types of actions that a company might take)*
- b) Abbot Ltd needs to increase its working capital by GH¢100,000. It has decided that there are essentially three alternatives of financing available. They are:
- i) Borrow from bank at 8%. This alternative would necessitate maintaining a 25% compensation balance.
- ii) Issue promissory notes at 7.5%. The cost of placing the issue would be GH¢500 each six months.
- iii) Forego cash discount, granted on the basis of 3/10, net 30.

The firm prefers the flexibility of bank financing, and has provided an additional cost of this flexibility to be 1%.

Required:

Assess which alternative financing method should be selected. **(6 marks)**

- c) Your Uncle has won lotteries and has decided to invest the funds in various Securities. His financial advisor advised him to invest 40% of the proceeds into Government Securities (Treasury Bills) and the balance invested in the Stock Market, with funds spread equally among the Securities listed on the market.

Required:

Advise your Uncle's Portfolio risk (beta coefficient). **(2 marks)**

- d) In the last couple of years the Cedi has depreciated substantially against the US Dollar. It is also noticed that the Cedi has had volatile movements against the Pounds Sterling since the beginning of year 2017.

Required:

As a Finance director of your organization, a multinational company which is involved in the export trade, recommend **THREE** actions to be taken to minimize the loss on *foreign currency transactions*. **(3 marks)**

(Total: 20 marks)

QUESTION TWO

Animal Farm Product Ltd, (AFP), a manufacturer of veterinary medicines for farm animals, wishes to estimate its current cost of capital.

The following figures have been extracted from their most recent accounts:

	GH¢000	GH¢000
Fixed assets		17,000
Investments		3,500
Current Assets	11,400	
Less – current liabilities	<u>9,500</u>	
		<u>1,900</u>
		<u>22,400</u>
Ordinary Share Capital:		
Issued – 1,000,000 @ GH¢1		1,000
Reserves		<u>9,550</u>
Shareholders' funds		10,550
8% irredeemable Debentures		6,000
6% Preference Shares		5,000
Deferred taxation		250
Corporation Tax		<u>600</u>
		<u>22,400</u>

The current market value of AFP's ordinary shares is GH¢12.50 per share cum-dividend. AFP's beta is 1.4, the risk-free rate is 3%, and the return on the SEC index (the market proxy) is 8%. An annual dividend of GH¢800,000 is due for payment shortly. The 8% debentures are irredeemable and are trading at a current market value of GH¢106.00, a GH¢6.00 above their issue price of GH¢100.00. Semi-annual interest of GH¢4 million has just been paid on the debentures.

The 6% preference shares are trading at a current market value of GH¢6.00, a GH¢1 above their issue price of GH¢5.00. Interest has just been paid on these preference shares. There have been no issues or redemptions of ordinary shares or debentures during the past five years and corporation tax rate remains at 12.5%. Assume that tax relief on the debenture interest arises at the same time as the interest payment.

Required:

- a) Calculate the *cost of capital* that AFP should use as a discount rate when appraising new marginal investment opportunities. **(11 marks)**

- b) Explain when firms should discount projects using:
 - i) The cost of equity;
 - ii) The WACC instead; and

iii) When should they use neither? You may use the information and your results in parts (a) as examples. (6 marks)

c) Discuss what *type of covenants* might be attached to bonds? (3 marks)

(Total: 20 marks)

QUESTION THREE

Zed Ltd is considering the immediate purchase of some, or all, of the share capital of one of two firms-Fasco Ltd and Boscan Ltd. Both Fasco Ltd and Boscan Ltd have one million ordinary shares issued and neither company has any debt capital outstanding

Both firms are expected to pay a dividend in one year's time-Fasco expected dividend amounting to 30p per share and Boscan's being 27p per share. Dividends will be paid annually and are expected to increase over time. Fasco's dividends are expected to display perpetual growth at a compound rate of 6% per annum. Boscan's dividend will grow at the high annual compound rate of 33 $\frac{1}{3}$ % until a dividend of 64p per share is reached in year 4. Thereafter Boscan's dividend will remain constant.

If Zed is able to purchase all the equity capital of either firm then the reduced competition would enable Zed to save some advertising and administrative costs which would amount to GH¢225,000 per annum indefinitely and, in year 2, to sell some office space for GH¢800,000. These benefits and savings will only occur if a complete takeover were to be carried out. Zed would change some operations of any company completely taken over, the details are:

- Fasco – No dividend would be paid until year 3. Year 3 dividend would be 25p per share and dividends would then grow at 10% per annum indefinitely.
- Boscan – No change in total dividends in years 1 to 4, but after year 4 dividend growth would be 25% per annum compound until year 7. Thereafter annual dividends would remain constant at the year 7 amount per share.

An appropriate discount rate for the risk inherent in all the cash flows mentioned is 15%

Required:

- a) Calculate the *valuation per share* for a minority investment in each of the firms, Fasco and Boscan, which would provide the investor with a 15% rate of return. (6 marks)
- b) Calculate the *maximum amount per share* which Zed should consider paying for each company in the event of a complete takeover. (8 marks)

- c) Comment on any *limitation of the approach* used in part (a) and specify the other *major factors* which would be important to consider if the proposed valuations were being undertaken as a practical exercise. **(6 marks)**

(Total: 20 marks)

QUESTION FOUR

- a) The economic environment within which the Financial Manager must operate is subject to a variety of influence, a major one is from the government,

Required:

Explain **FIVE** areas in which government action might affect the problem solving and decision making roles of a Finance Manager. **(10 marks)**

- b) A company manufacturing specialized electronic equipment has so far sold only inside the country where it is established. It has considerable surplus capacity and the Chairman has asked you, as his Finance Director, to prepare a draft memorandum for the board on his proposal to open up export business to a number of countries.

Required:

Draft this memorandum, setting out the main points that would need to be considered before arriving at a final decision, under the following headings:

- i) Export pricing and profitability;
- ii) Credit terms and methods of obtaining payment;
- iii) Risks and methods of avoiding them;
- iv) Forms of representation or local organization in export markets.

(Where appropriate, indicate advantages, disadvantages or your own recommendations).

(10 marks)

(Total: 20 marks)

QUESTION FIVE

- a) Paakro Limited, based in Ghana, is the parent company of a group that contains 3 subsidiaries: Mangoase Limited based in Munich, Germany; Asaman Limited based in the Atlanta, USA; and Nsawam Limited based in Tokyo, Japan. The following cash flows are due in 3 months' time between Paakro Limited and its subsidiaries:

Owed by	Owed to	Amount
Paakro Ltd	Nsawam Ltd	¥ 3 million
Paakro ltd	Asaman Ltd	\$ 5 million
Mangoase ltd	Asaman Ltd	\$ 4 million
Mangoase Ltd	Nsawam Ltd	¥ 7 million
Asaman Ltd	Nsawam Ltd	¥ 2 million
Asaman Ltd	Paakro Ltd	\$ 6 million
Nsawam Ltd	Mangoase Ltd	€ 12 million
Nsawam Ltd	Paakro Ltd	¥ 5 million

Mid-rate exchange rates in three months' time are expected to be:

GH¢4.0 = \$1

GH¢3.0 = €1

GH¢3.5 = ¥1

Required:

Calculate, using a tabular format (transaction matrix), the impact of undertaking *multilateral netting* by Paakro Limited and its three subsidiary companies for the cash flows due in three months. **(8 marks)**

- b) The amount of dividends subsidiaries pay to the parent company depend on the parent company's dividend policies. Again, dividend repatriation represent significant flow for parent companies and contribute to dividend payments.

Required:

Discuss **FOUR** factors that affect *dividend repatriation policies* of Multinational Companies. **(8 marks)**

- c) Management Buy-Outs can be the best way of maintaining links with a subsidiary, and can ensure the co-operation of management if a disposal is inevitable. However, there are a lot of problems in the management buy-out process.

Required:

Explain **FOUR** problems associated with Management Buy-Outs. **(4 marks)**

(Total: 20 marks)

SOLUTION TO QUESTIONS

QUESTION ONE

a)

i) **Interest rates may rise in periods of inflation for the following reasons:**

- Because of Government monetary policy. Interest rates may be increased to reduce the flow of money in the economy.
- Because of Government exchange control policy. If inflation is making it more difficult to export, and encouraging an increase in imports, the Governments may intervene by raising domestic interest rates. This would encourage a flow of foreign investment into the domestic market and improve the exchange rate.
- Because of a reduced propensity to save – at a time when inflation is eroding the value of any funds not consumed immediately. This could lead banks and other financial institutions to raise their interest rates so as to attract more deposits.

(Any 2 points for 3 marks)

ii)

High or fluctuating interest rate cause difficulties in business financing for the following reasons:

- They make it more difficult to obtain funds. In particular, companies will be reluctant to raise fixed interest borrowing if they fear that interest rates are likely to fall. Even overdraft finance will be expensive though still preferable since the interest rate is not fixed;
- They may cause liquidity problems. High interest rates make business operations difficult throughout the economy. Consequently, debtors are more slow to pay, while creditors increase the pressure for quick settlement of their accounts;
- They make it more difficult to draw up plans and budgets. Cash flow becomes more uncertain and interest charges vary, not only with fluctuations in interest rates, but also a consequence of there being less liquid funds available.

(Any 2 points for 3 marks)

Asset holding decisions are also influenced by high or fluctuating

- Liquidity problems will make it necessary to look carefully at the level of current assets held. This may involve reducing the amount of buffer stocks, tightening credit terms and even realizing investments.
- The difficulties of obtaining long-term finance may make it impossible to replace fixed assets. It may even be necessary to dispose of fixed assets to generate liquid funds.

(2 points for 3 marks)

b) The costs of the three alternatives are:

i) **Borrowing from the bank at 8%**

Since this requires on holding of 25% of the balance at bank in effect the 8% is payable on 75%:

$$= \frac{8}{75} \times 100$$

$$= 10.6\%$$

OR

$$\text{Interest payment} = 0.08 * \text{GH}\text{c}100,000 = \text{GH}\text{c}8000$$

$$\text{Usable amount } (100-25)\% * \text{GH}\text{c}100,000 = \text{GH}\text{c}75,000$$

$$\text{Effective Interest Rate} = 8000 / 75000 * 100$$

$$= 10.67\%$$

ii) **Issue Promissory notes**

$$= 500 + 500 + (7\frac{1}{2} \text{ of } 1,000)$$

$$= \text{GH}\text{c}8,500$$

$$= 8.5\%$$

OR

$$\text{Interest payment} = 0.075 * \text{GH}\text{c}100,000 = \text{GH}\text{c}7500$$

$$\text{Cost of placement} = \text{GH}\text{c}500 * 2 = \underline{\text{GH}\text{c}1000}$$

$$\underline{\text{GH}\text{c}8500}$$

$$\text{Effective Interest Rate} = 8,500 / 100,000 * 100$$

$$= 8.5\%$$

iii) **Forfeit cash discounts**

$$\text{Effective Interest} = \frac{CD}{100-CD} \times \frac{365}{N}$$

CD=Discount Rate =3%

N= Number of days to delay after forfeiting discount, 30-10=20 days

$$= \frac{3}{97} \times \frac{365}{20}$$

$$= 56.4\%$$

Issuing promissory notes is the cheapest source and should be selected

(2 marks each for every cost computed= 6 marks)

c) Portfolio Risk (β)
 Beta of (Treasury Bills) = 0
 Beta of Market = 1
 Hence Portfolio = $\{40\% \times 0\} + \{60\% \times 1\}$
 $= 0.6$

(2 marks)

d) Actions to be taken to minimize the Loss on Foreign Currency Transactions

- **The usage of a forward exchange contract:** This is a contract, usually between a bank and its customers, for the purchase/sale of a specified amount of a stated foreign currency at an exchange rate fixed at the time the contract is made for performance at a future date agreed upon at the time of the contract.
- **To borrow foreign currency:** A Ghanaian company that has recognized the need to pay a certain amount of US dollars in two months' time, can borrow that amount of US dollars now, thereby avoiding and reducing translation/conversion risks.
- **To insert protection clauses:** The exporter can incorporate a clause in the contract of sale, to adjust the selling price, if the exchange rate moves outside an agreed range. Also additional charges may be made as a result of conversion or translation changes which may be agreed to be borne by the importer.
- **Export factoring:** where the exporter raises foreign finance through the usage of an international factor.
- **To operate a domiciliary account:** The company in this case maintains an account in a Ghanaian bank, but denominated in the desired foreign currency. Proceeds of export sales can then be used through this account to settle future commitments.
- **To match currencies:** The idea here is to match receipts and payments in the foreign currency. In this case related amounts are offset in foreign currency if they fall due to within the same time period.
- Incorporating a clause in the export contract which will specifically allow or disallow fluctuations in exchange rates: This is slightly different from protection clauses, since the adjustment is done on the exchange rate for payment especially in local currency.
- Discounting export bills or invoices with foreign finance houses.
- Negotiating of bills of exchange payable or discountable abroad.

(Any 3 points for 3 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Question 1

(ai) This question was meant to ask candidates to explain causes of rising interest rates. However, most candidates were lost.

ii) Question was clear and candidates were able to think through.

(b) and (c) most candidates could not handle these questions, though very good for level 3.

(d) This question was properly handled by the candidates.

Except for the calculation questions, question 1 was fairly answered. Questions (b) and (a) could be repeated in subsequent sittings.

QUESTION TWO

a) Cost of capital AFP should use

For costs of the components of capital	4 marks
Market value of the components of capital	4 marks
For WACC	3 marks
Total	11 marks

Animal Farm Product, (AFP), wishes to estimate its current cost of capital.

Cost of Capital

Cost of Equity (using CAPM) = $R_f + [B_a \times (R_m - R_f)]$

$R_f = 3\%$

$R_m = 8\%$

$B_a = 1.4\%$

Cost of Equity (using CAPM) = $3\% + [1.4 \times (8\% - 3\%)]$
= $3\% + [1.4 \times (5\%)]$
= $3\% + [0.070]$
= 10.00%

OR

$$K_e = \frac{d(1+g)}{P_o} + g$$

$$d = \frac{\text{GHS}800,000}{\text{GHS}1,000,000} = \text{GHS}0.80$$

$$=0.8/11.7= 0.068 \quad g= 0$$

$$=6.8\%$$

We can find the average of the two methods or use any of the answers.

$$\text{Average} = (6.8+10)/2 = 8.4\%$$

The 8% irredeemable debentures:

The yield on this can be estimated solving for K_d in the following perpetuity formula: $P_0 = 1$

K_d = the after tax cost of debt

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

I.e. interest is GH¢4.00 per nominal GH¢100, every six months

Hence after tax payment = GH¢4.00 = $(1-0.125) =$ GH¢3.5 per nominal GH¢100,

$P_0 = 1 / K_d$ where: $P_0 =$ GH¢106.00 and $I =$ GH¢3.50

$$\Rightarrow K_d = I / P_0 = 3.5 / 106 = 3.30\% \text{ semiannual} = 6.60\% \text{ annually}$$

Cost of preference shares

Its preference shares has a GH¢5.00 nominal value

Dividend on the preference shares is 6%

Current market price of the preference shares is GH¢6.00

$$\begin{aligned} \text{Cost of preference shares is} &= \text{Actual Dividend} / \text{current market price} \\ &= (6\% \times \text{GH}\text{¢}5.00) / \text{GH}\text{¢}6.00 \\ &= (\text{GH}\text{¢}0.30) / \text{GH}\text{¢}6.00 \\ &= 0.05 = 5.00\% \end{aligned}$$

Market Value of the capital Structure

The market value of Equity

Current cum div share price	GH¢12.50
Current numbers of shares	1,000,000
Expected dividend	GH¢800,000
Expected dividend per share	GH¢0.80
Current Ex div share price	GH¢11.70
Current equity market value	GH¢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

$$= \text{GH}\text{¢}106.00 \times (6,000,000 / 100)$$

$$= \text{GH}\text{¢}106.00 \times (60,000)$$

$$= \text{GH}\text{¢}6,360,000$$

The market value of the Preference shares

= the current market price, (ex div) per share x # of shares issued
 = GH¢6.00 x (5,000,000 / GH¢5.00)
 = GH¢6.00 x (1,000,000)
 = GH¢6,000,000

In summary	Cost %	Market value GH¢
Ordinary Shares	10.00	11,700,000
Irredeemable Debt	6.60	6,360,000
Preference Shares	5.00	<u>6,000,000</u>
		<u>24,060,000</u>

Hence the WACC (Using CAPM) = $K_{eg} \times \{E / (E + D + PS)\} + K_d \times \{D / (E + D + PS)\} + K_{ps} \times \{PS / (E + D + PS)\}$

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

Alternatively	After Tax Cost %	Market Value GH¢	Number Issued	Total Value GH¢	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	6.00	6.00	1,000,000	6,000,000	25	1.25
				<u>24,060,000</u>	<u>100</u>	<u>7.85</u>

WACC using Constant Dividend

= $\frac{(0.068 \times 11,700,000) + (0.066 \times 6,360,000) + (0.05 \times 6,000,000)}{24,060,000} \times 100$
 = $\frac{795,600 + 419,760 + 300,000}{24,060,000} \times 100$
 = 6.3%

WACC using Average of Dividend & CAPM

= $\frac{(0.084 \times 11,700,000) + (0.066 \times 6,360,000) + (0.05 \times 6,000,000)}{24,060,000} \times 100$

$$\frac{=982,800+419760+300000}{24,060,000} \times 100$$

$$=7.1\%$$

b)

for when firms should discounts projects using the cost of equity	1 mark
for when they should use the WACC	2 marks
for when they should use neither	1 mark
for applying it to APP	2 marks
Total	6 marks

i) Cost of Equity

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 exiting assets should be discounted using that rate.

ii) WACC

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 sold use as a discount rate when appraising new marginal investment opportunities. In this case the original WACC of 7.85% is appropriate.

iii) Neither WACC nor Cost of Equity

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 it's WACC. Similarly if a firm is considering major investment that is expected to change its operating and financial leverage, then it shouldn't use the company's cost of equity or it's 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%

c)

For explaining types of covenants	3 marks
Total	3 marks

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 covenant 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 able to meet all its financial commitments, (a financial 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 reinvested covenant)
- Limit the values for key financial ratios in the firm, e.g. a minimum ratio of tangible assets 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).

(Any 3 points for 3 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Question 2a was too loaded for the marks. It could stand alone for 20 marks. Question 2b and c were quite straight forward and performance was good. However, question b (iii) confused most candidates.

Performance in the theory questions was better than that of the computation question.

QUESTION THREE

a) Using the dividend valuation model the value of ordinary shares is given by

$$V_e = \frac{d_e(1+g)}{k_e-g}$$

Where $d_e(1+g)$ is the dividend due in one year

K_e is the cost of equity or required return

g is the anticipated growth in dividends

This model can be used to calculate the value of Fasco's shares as follows:

$$V_e = \frac{30}{.15-.06} = \frac{30}{.09} = 3.33$$

(2 marks)

The model must be modified slightly to estimate the value of a Boscan share as follows:

$$V_y = \frac{27}{1.15} + \frac{27(1.33)}{(1.15)^2} + \frac{27(1.33)^2}{(1.15)^3} + \frac{64}{1.15} - 64 \times \text{cdf (3 years)}$$

$$\begin{aligned} V_e &= 27(.87) + 36(.76) + 48(.66) + 64 \times 4.38 \\ &= 23.5 + 27.4 + 31.7 + 28.16 \\ &= \underline{3.64} \end{aligned}$$

(4 marks)

b) Maximum price in the event of a complete take-over

Present value of cost savings

$$\text{Administrative costs} = \frac{225,000}{.15} = 1,500$$

$$\text{Sale of office space} = 800,000 \times .76 = \underline{\underline{608}}$$

Value of Fasco (with change in operations)

$$V_R = \frac{25}{.15-.1} (0.76) = 3.80$$

$$\begin{aligned} \text{Number of shares} &= 1 \text{ million} \\ \text{Total value (Fasco)} &= 3.8 \text{ million} \end{aligned}$$

(4 marks)

Value of Boscan

$$V_y = \frac{27}{1.15} + \frac{36}{(1.15)^2} + \frac{48}{(1.15)^3} + \frac{64}{(1.15)^4} + \frac{80}{(1.15)^5} + \frac{100}{(1.15)^6} + \frac{125}{(.15)} - 125 \times \text{cdf (16yrs)}$$

$$V_y = 27(.87) + 36(.76) + 48(.66) + 64(.57) + 80(.50) + 100(.43) + \frac{125}{.15}(.43)$$

$$V_y = \underline{\underline{5.60}}$$

(4 marks)

c) Limitations in the approach used in part (a)

- The calculations in part (a) are based on the dividend valuation model which depends on the belief that share prices are the discounted present value of the future dividend stream. There are strong theoretical justifications for this model in the context of a perfect capital market. However, in a less than perfect market the failure of the model to take any account of short run earnings (i.e. accounting profits) or underlying asset values, may limit its usefulness. There are further practical problems in applying the model which relates to determining the values of the constituent variables. Of these 'g' the anticipated growth rate and Ke, the cost of capital or required return, present particular problems. 'g' the anticipated future dividend growth. It is usually estimated by extrapolating past growth or by using the Gordon Growth Model. Whichever approach is taken the resulting estimate is inevitably suspect.
- **Selecting an appropriate discount rate to convert future cash flows to a capital value also present special difficulty.** Generally the appropriate rate reflects the risk-free rate and a premium for risk suitable for the share being valued. It is obviously difficult to determine such a rate. In this question the required return is given as 15%. This is used for both Red and Yellow and for all time periods. This in turn assumes that the risks associated with both companies over all relevant time periods are identical. This seems unlikely, particularly in view of the differences in growth rates for Red and Yellow. It would be more usual to assume that the very high growth in Yellow's dividends during the first four years would result in riskier cash flows.
- Further practical difficulties would include the management organization of the post-merger company, competitive response and arranging the finance for the takeover.
- Finally, in transactions of this type there are inevitably tax consequences that would have to be carefully considered.

(6 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

This question appeared to be the most difficult as performance was abysmal.

QUESTION FOUR

a) Areas in which Government Action Affects Financial Management

- **Credit controls**

This could be achieved through legislation and through the guidelines of the Central Bank of Ghana. The amount of funds available to the banks for commercial credit and the interest rates are directly regulated by the government through CBN. The effects will be to make borrowing more difficult since credit controls will affect the cost and availability of funds, the share values, and the profit levels.

- **Taxation**

Government policies on taxation will have an impact on the company's cash flow by way of withholding tax on interest, dividends etc, sales tax, capital allowances claimable and balancing charges.

Company taxation via allowances claimable could restrict or encourage investment in fixed assets (qualifying capital expenditure) and will determine the acceptance or rejection of certain projects as well as the method of financing such ventures.

Personal income taxation affects corporate funds since it reduces personal disposable income or may encourage savings/investments. Both personal income and capital gains taxes affect shareholders preference for dividends against retentions and vice versa, hence posing dividend decision problems for the financial manager especially where the company has a wide spread of shareholders.

- **Custom duties, tariffs and other trade barriers**

These can encourage or discourage imports/exports. Complete ban of products or high custom duties or tariffs will affect investment decisions covering these products and their close substitutes. This may also encourage backward integration and local sourcing of imported raw materials and spare parts.

- **Control of income, prices, dividends etc**

The effect of Productivity Prices and Incomes Boards guidelines through restriction of dividends and wage/price increases is a shortage of funds otherwise available for increase in cost of capital, and diversion of income seeking investors' funds into non-equity stocks.

- **Exchange controls**

For a country like ours that is heavily dependent on overseas trade, exchange controls will have serious effects on foreign exchange available and the prevailing exchange rates. With the second - tier foreign exchange market, most financial managers are finding it extremely difficult to plan adequately for purchase of foreign exchange. In

addition, the rationing of foreign exchange in IFEM has restricted investment in projects that require imported heavy duty machinery and equipment.

b)

MEMORANDUM

To : Board of Directors
From : Finance Director
Date : August 14th 2017
Subject : Proposed Export Business

It has been proposed that the company should utilize its surplus capacity by opening up export business to a number of countries. The following are some of the main points which will need consideration before a final decision is made.

i) Export Pricing and Profitability

First, extensive market research will have to be carried out in the countries under consideration to ascertain:

- Whether there is a demand for our products;
- Whether we would have any direct competition for our goods;
- The quality and price of competitors' products;
- Whether the price we could charge for our products in that country would achieve the profit margin the company requires.

Depending upon the outcome of these initial investigations, consideration would then have to be given to the pricing and invoicing of the products abroad.

The export price would obviously not only have to cover our normal costs, overheads and profit margin, but also take into consideration any further costs associated with selling goods abroad such as transport, distribution, shipping and insurance costs. However, as there exists some surplus capacity, the items for export may be priced on variable or marginal cost basis.

The potential effect of the variability of exchange rates on pricing policy must also be considered. These effects could be reduced or eliminated in the following ways:

By invoicing in our own currency. This would eliminate the possibility of loss due to exchange rate fluctuations as it transfers any exchange risk to the buyer. However, this could have a detrimental effect on sales and thereby, profit.

By invoicing in the buyer's own currency but including an 'extra' profit in the invoiced price to cover possible exchange losses. However, this policy has the danger of possibly making our price uncompetitive.

By invoicing in dollars - Fluctuation of the dollar against other currencies would affect our exposure.

(2.5 marks)

ii) Credit terms and methods of obtaining payment

When deciding upon credit terms to be offered to foreign customers, consideration must be made of the additional time lag involved in sales to foreign countries.

In addition to the period of trade credit granted there is also the time involved in the shipment of goods to the country and the time taken to transfer the funds back.

This brings us to the choice of the method of obtaining payment. There are several ways in which payment in foreign currency can be received:

By cheque or bank transfer

By a bill of exchange drawn on the customer by the company

By a documentary credit facility (or letter of credit). The documentary credit system works as follows:

The buyer and seller agree to a sales contract which provides for payment through a documentary credit;

The buyer then requests a bank in his country to issue a letter of credit in favour of the exporter;

This bank guarantees payment to the exporter provided that the exporter complies with the terms and conditions set out in the letter of credit such as presenting a transport document, copies of the invoice, certificate of insurance, etc.

(2.5 marks)

iii) Risk Avoidance

The exchange risk can be avoided by one of three methods.

By selling the currency forward. By this means the exporter can be sure of the exact amount of cedis he will receive. However, as there will be presumably many sales, the numerous foreign currency sales will have to be negotiated.

By borrowing the currency now. By this method the exporter would borrow foreign currency and sell the currency for cedis and then repay the loan from the sale proceeds. In this way short-term assets and liabilities are being matched in the same currency so as to eliminate exchange exposure. By this method one loan can be arranged to cover numerous sales.

By invoicing and receiving payment in our currency. However, as already mentioned this could have a detrimental effect on sales.

(2.5 marks)

iv) Forms of representation or local organization in export markets

If the company is to sell the goods in foreign countries then consideration must be given to how the goods will be sold. It will be necessary for the company to have some form of ground support in the countries concerned probably by selling through an overseas

agent. Such agents might be found through an export organization such as the Ghanaian Export Promotion Board or with the help of a local bank. Consideration should also be given to the remuneration of such agents and the commission that they will be allowed.

(2.5 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

Performance in this question was very good.

QUESTION FIVE

a) Convert all the cash flows into Ghana Cedis (GH¢)

Owed by	Owed to	Local Currency	GH¢
Paakro	Nsawam	¥3m * 3.50	10.50
Paakro	Asaman	\$5m * 4.00	20.00
Mangoase	Asaman	\$4m * 4.00	16.00
Mangoase	Nsawam	¥7m * 3.50	24.50
Asaman	Nsawam	¥2m * 3.50	7.00
Asaman	Paakro	\$6m * 4.00	24.00
Nsawam	Mangoase	€12m * 3.00	36.00
Nsawam	Paakro	¥5m * 3.5	17.50

b) Paid by:

	Paakro	Mangoase	Asaman	Nsawam	Total
Paid to:					
Paakro	-	-	24.00	17.50	41.50
Mangoase	-	-	-	36.00	36.00
Asaman	20.00	16.00	-	-	36.00
Nsawam	<u>10.50</u>	<u>24.50</u>	<u>7.00</u>	<u>-</u>	42.00
Total Payment	(30.50)	(40.50)	(31.00)	(53.50)	
					(3 marks)
Total Receipt	41.50	36.00	36.00	42.00	
					(3.0 marks)

Net Receipt/Payment	11.0	(4.50)	5.0	(11.50)	(1 mark)
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So overall, Nsawam Limited needs to pay amounts equivalent to GH¢11m to Paakro, Receive GH¢4.5m from Mangoase and pay GH¢5m to Asaman Limited. **(1 mark)**

OR

Owed to:

	Paakro	Mangoase	Asaman	Nsawam Owed by	
Owed to:					
Paakro	-	-	20.00	10.50	30.50
Mangoase	-	-	16.00	24.50	40.50
Asaman	24.00	-	-	7.00	31.00
Nsawam	<u>17.50</u>	<u>36.00</u>	<u>-</u>	<u>-</u>	53.50
Owed to	41.50	36.00	36.00	42.00	(3 marks)

Owed by	(30.50)	(40.50)	(31.00)	(53.50)	(3.0 marks)
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	11.0	(4.50)	5.0	(11.50)	(1 mark)
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So overall, Nsawam Limited needs to pay amounts equivalent to GH¢11m to Paakro, Receive GH¢4.5m from Mangoase and pay GH¢5m to Asaman Limited. **(1 mark)**

c) Dividend Repatriation Policies

The choice of whether to repatriate earnings from a foreign subsidiary is one of the most important decisions in multinational financial management.

Dividend repatriations represent significant financial flows for parent companies and contribute to dividend payments. The factors that affect dividend repatriation policies can be grouped as follows:

- Financing factors
- Dividend policy
- Tax factors
- Managerial control
- Timing factors

- **Financing factors**

Repatriation policies may reflect financing concerns of parents who draw on subsidiary cash flows to finance domestic expenses. Two examples of such domestic expenses are dividend payments to external shareholders and capital expenditures in the home countries.

- **Dividend policy**

Dividend repatriations from foreign affiliates may also offer an attractive source of finance for payments of dividends to common shareholders especially when the parent company may prefer a smooth dividend payment pattern and domestic profitability is in decline.

The dividend payments of a subsidiary may also be affected by the dividend policy of the parent company. For example if the parent company operates a constant payout ratio policy, then the subsidiary will have to adopt a constant payout ratio policy too.

- **Tax regime and dividend payments**

Tax considerations are thought to be the primary reason for the dividend policies inside the multinational firm. For example, the parent company may reduce its overall tax liability by receiving larger amounts of dividends from subsidiaries in countries where undistributed earnings are taxed.

- **Managerial control**

Another reason that may determine repatriation policies is the inability to fully monitor foreign managers, especially when affiliates are partially owned.

The desire to control corporate managers around the world carries implications for dividend policies. A multinational firm's central management can use financial flows within the firm to evaluate the financial prospects and needs of wide-ranging affiliates and to limit the discretion of foreign managers.

It may be sensible to mandate dividend payments to monitor foreign managers, limits their ability to misallocate funds, and to extract returns on investments.

- **Timing of dividend payments**

The timing of payments may also be equally important. For example, a subsidiary may adjust its dividend payments to a parent company in order to benefit from expected movements in exchange rates. A company would like to collect early (lead) payments from currencies vulnerable to depreciation and to collect late (lag) from currencies which are expected to appreciate.

Also given that tax liabilities are triggered by repatriation, these tax liabilities can be deferred by reinvesting earnings abroad rather than remitting dividends to parent companies.

The incentive to defer repatriation is much stronger for affiliates in low-tax countries, whose dividends trigger significant parent tax obligations, than they are for affiliates in high-tax countries – particularly since taxpayers receive net credits for repatriations from affiliates in countries with tax rates that exceed the parent country tax rate.

(2 marks @ any 4 points = 8 marks)

d) Problems associated with Management Buy-Outs

- Difficulties in deciding on a fair price to be paid.
- If the company was sold because it was struggling there could be a lot of work involved in turning it into a successful business. The probability of a successful management buyout will depend on the reason why it was struggling.
- Tax and legal complications.
- The management team may not have the money to buy the company and it may be difficult to secure a loan to buy the business especially if the business is struggling. To secure loans to buy the company the management team may have to provide personal guarantees or remortgage their own properties/homes.
- The success of the buyout is dependant on the strength, skills and vision of the management team buying it. If the business was struggling due to the competence of the current management team is unlikely to improve if the current management team continue to lead it after the management buy-out.
- The loss of key employees if the company moves geographically, or wage rates are decreased too far, or employment conditions are unacceptable in other ways.
- If the business was doing well due to the current owners after the management buy-out the new owners will need to devise a strategy to deal with the departure of the current owners.
- Accepting the board representation requirement that many sources of funds will insist upon.
- Maintaining continuity of relationships with suppliers and customers.

(Any 4 points for 4 marks)

(Total: 20 marks)

EXAMINER'S COMMENTS

(a) Performance was good.

(b) And (c) performance was very good.

CONCLUSION

The following were noted:

- Candidates were ill-prepared in all the computation questions
- Candidates performed creditably in theory questions, partly due to the flexibility of markers.
- Those who did not prepare well failed miserably.

Remedies

- The Institute should recommend to students to prepare for at least one year before writing the examinations. In this regard, the Institute should organize lectures for revision (those who have attempted before) and normal lectures for first times.
- For future exams, questions that were not handled properly in previous sitting should be repeated.