



INSTITUTE OF ACTUARIAL
& QUANTITATIVE STUDIES

Subject: Business finance 2

Chapter: Unit 3

Category: Practice question

- B. A subsidiary company is largely owned by its parent.
- C. A subsidiary company is influenced by its parent.
- D. A subsidiary company is controlled by its parent.

2. Subject CT2 April 2012 Question 9

Which of the following best explains why investment analysts often calculate Earnings before Interest, Taxation, Depreciation and Amortisation (EBITDA)?

- A. EBITDA is less prone to fluctuations and volatility than net profit.
- B. Depreciation and amortisation are not real costs to the business.
- C. Investment analysts are only interested in performance before tax.
- D. EBITDA is regarded as less prone to manipulation than net profit.

3. CT2 April 2012 Question 10

Net asset value per share is calculated by subtracting intangible assets from ordinary shareholders' equity and dividing the remainder by the number of shares in issue. Which of the following best explains the relevance of net asset value per share?

- A. In the event that the entity is wound up the chances are that its intangible assets will not have any market value, but the shareholders will be certain to receive the value of the remaining net assets after disposal.
- B. In the event that the entity is wound up the net asset value per share is likely to represent the best possible outcome that the shareholders can expect.
- C. The shareholders should monitor the net asset value per share and should insist that the entity be wound up in the event that net asset value per share exceeds the market value of the company's shares.
- D. Net asset value per share is likely to correspond to the value that an unquoted company's shares would have on the open market.

4. CT2 October 2012 Question 8

A company had cash sales of £60 million and credit sales of £150 million during its most recent financial year.

The company had trade receivables of £40 million and £5 million of sundry receivables for rental income and similar balances at the year end.

How long is the trade receivables turnover period?

- A. 70 days
- B. 78 days
- C. 97 days
- D. 110 days

5. CT2 October 2012 Question 9

Which of the following best summarises the relevance of the income (interest) cover ratio?

- A. provides shareholders with an important insight into the risks associated with their investment, but is relatively unimportant to lenders
- B. provides no useful information to either shareholders or lenders
- C. provides lenders with an insight into the short-term risks associated with their loans, but is relatively unimportant to shareholders

Which of the following best describes the process of preparing consolidated financial statements for a group comprising a parent and an 80% subsidiary?

- A. Cancel all relationships between the group members and add the figures for assets and liabilities together.
- B. Cancel all relationships between the group members and add 80% of the subsidiary's assets and liabilities to the parent's.
- C. Cancel 80% of all relationships between the group members and add the remaining figures for assets and liabilities together.
- D. Cancel 20% of all relationships between the group members and add the remaining figures for assets and liabilities together.

7. CT2 September 2013 Question 5

Use the following information to calculate return on capital employed.

Profit before interest and tax	£40m
Interest	£8m
Ordinary shares	£110m
Retained earnings	£300m
Revaluation reserve	£22m
Long term borrowings	£90m

- A. 6.1%
- B. 6.4%
- C. 7.7%
- D. 8.0%

8. CT2 April 2014 Question 8

A parent company owns a 30% holding in an associate. The associate's profit for the year is £8m. The associate paid a dividend of £6m. How much income will appear in the parent's consolidated statement of profit or loss (or income statement) in respect of this associate?

- A. £1.8m
- B. £2.4m
- C. £6.0m
- D. £8.0m

9. CT2 April 2015 Question 10

An 80% controlling interest was acquired in a subsidiary company when it had equity shares with a book value of £800,000 in issue and retained earnings of £600,000. The book value of the subsidiary's equity shares remains unchanged but retained earnings are now worth £900,000. What value should be attributed to the non-controlling interest in this subsidiary?

- A. £60,000
- B. £180,000
- C. £280,000
- D. £340,000

10. CT2 April 2016 Question 10

Which of the following reflects the relationship between a parent and an associate company?

- A. The parent and the associate are linked through a joint venture.

11. CT2 September 2016 Question 10

Which of the following is most likely to occur when a company's trade receivables turnover period, in days, has reduced?

- A. A decrease in trade receivables and a decrease in cash.
- B. A decrease in trade receivables and an increase in cash.
- C. An increase in trade receivables and a decrease in cash.
- D. An increase in trade receivables and an increase in cash.

12. CT2 April 2017 Question 6

A company's diluted earnings per share is significantly lower than its basic earnings per share. How should that be interpreted?

- A. Heavy losses are expected.
- B. The company has a large number of warrants in issue.
- C. The company is a poor investment.
- D. There is an active market in traded options on the company's shares.

13. CT2 April 2017 Question 8

A company has a low profit margin but a high return on capital employed when compared to its main competitors. Which of the following interpretations is most likely to explain this combination?

- A. The company's selling prices are at an optimal level.
- B. The company's selling prices are at an optimal level, but the company is spending too much on other operating activities.
- C. The company's selling prices are too high.
- D. The company's selling prices are too low.

14. CT2 April 2017 Question 10

A company's operating profit is €2 million. Its finance charges were €0.5 million. Shareholder equity is €20 million and long term borrowings are €6 million. What is the company's return on capital employed?

- A. 5.8%
- B. 7.7%
- C. 9.6%
- D. 10.0%

Short Answers:**1. CT2 October 2011 Question 15**

- a) Explain what is meant by the term "associate company".
- b) Explain how associates are treated on consolidation.

2. CT2 October 2011 Question 18 (updated)

Describe the process by which a parent will construct a set of consolidated financial statements.

3. CT2 October 2011 Question 16

- a) Discuss the reasons for requiring quoted companies to publish their diluted earnings per share (EPS) in addition to their basic EPS.

Dayton is a manufacturing company that is planning to expand by acquiring a business that operates in a complementary area. Dayton has identified two potential acquisitions, Echo and Foxton, that both appear to be suitable for consideration. Dayton will acquire only one company.

The following financial indicators have been gathered in order to assist with the decision:

	Dayton	Echo	Foxton
Revenue	£500m	£250m	£140m
Return on capital employed	18%	14%	11%
Profit margin	26%	22%	33%
Gearing	52%	44%	28%
Price/Earnings ratio	12.3	16.2	14.1

- Discuss the impact that the acquisition of each entity would have on Dayton's financial indicators.
- Discuss the suitability of a typical set of published financial statements for the purpose of deciding a price for a controlling interest in a target company.
A subsequent analysis of the two potential target companies indicates that the purchase of Echo will lead to the recognition of a much larger amount for goodwill on consolidation than the purchase of Foxton.
- Explain the significance of this difference between the goodwill figures.

5. CT2 September 2013 Question 18

Alpha is reviewing bids for the construction of a major civil engineering project. One of the shortlisted bidders is Global (Midlands) PLC ("Global"). Alpha is concerned that Global may not have the necessary financial resources to complete this project and has asked for reassurance. Global's response is that the company is part of the Mega Group, whose parent company is quoted and is based in Alpha's home country. Global has submitted the Mega Group's latest consolidated financial statements to demonstrate the solvency of the group. Discuss the extent to which Alpha should rely on the Mega Group's consolidated financial statements in determining Global's ability to service this contract.

6. CT2 September 2015 Question 18

Discuss the proposition that none of a company's profitability ratios matter provided the return on capital employed ratio is satisfactory.

7. CT2 April 2015 Question 19

The directors of Vapor receive a set of financial statements every month for discussion at their regular board meetings.

The report for the month of February has just been prepared, along with comparative figures for the month of January.

(All figures in £000s)

Profit or loss statements for the month of:

	February	January
Revenue	900	700
Cost of goods sold	(368)	(175)
	532	525
Operating costs	(240)	(250)
Profit for the month	292	275

PRACTICE QUESTION 3

	1,898	1,500
Inventory	32	220
Trade receivables	1,010	720

8. CT2 April 2016 Question 14

Suggest possible reasons why acceptable gearing ratios often vary between countries.

9. CT2 September 2016 Question 13

Describe the advantages and disadvantages of comparing the profitability of two competing companies in terms of their earnings before interest, taxation, depreciation and amortisation (EBITDA) rather than their profit for the year.

10. CT2 September 2016 Question 12

A potential customer asserts that it is safe for a company to grant it trade credit because the customer is a wholly-owned subsidiary of a major group of companies.

Discuss the validity of the customer's claim.

11. CT2 September 2016 Question 18

Derek has a substantial shareholding in a quoted company. The company issued its latest financial statements recently.

There is a significant difference between the basic and the diluted earnings per share (EPS) figures. Explain which EPS figure is more likely to be of interest to Derek.

12. CT2 April 2017 Question 16

Explain why the maximum acceptable level of gearing ratio might vary from country to country.

13. CT2 September 2017 Question 12

Describe the relevance of the non-controlling interest in a set of consolidated financial statements to the shareholders of the parent company.

14. CT2 September 2017 Question 19

The following figures have been extracted from the financial statements of Fratton, a manufacturing company.

Extracts from income statement for the year ended 31 August

	2015	2016	2017
	<i>\$000</i>	<i>\$000</i>	<i>\$000</i>
Revenue	800	900	1,000
Purchases	480	513	520
Cost of sales	476	506	515

Trade receivables	67	86	105
Cash at Bank	16	8	2
	123	141	159
<u>Current liabilities</u>			
Trade payables	72	90	104
Tax	14	20	28
	86	110	132

The following liquidity ratios have been calculated for the first two sets of figures:

	2015	2016
Current ratio	1.4 :1	1.3 :1
Quick ratio	1.0 :1	0.9 :1
Inventory turnover	31 days	34 days
Trade receivables turnover	31 days	35 days
Trade payables turnover	55 days	64 days

- (i) Calculate the liquidity ratios for 2017.
- (ii) Explain why it may be important to consider trends in liquidity ratios rather than the figures as at a single point in time.
- (iii) Discuss Fratton's liquidity.
- (iv) Explain Fratton's treatment of its trade payables.

15. CT2 April 2018 Question 13

Describe why quoted companies are required to disclose their diluted earnings per share (EPS). [5] 14

16. CT2 April 2018 Question 14

Describe why users of financial statements should be careful not to place too much emphasis on accounting ratios

17. CT2 April 2018 Question 18

A parent company has two subsidiary companies, both in distant foreign countries.

Explain the difficulties associated with interpreting this parent company's consolidated financial statements.

18. CT2 September 2018 Question 14

Discuss the assertion that a company's optimal gearing ratio could be affected by its line of business.

19. CT2 September 2018 Question 15

The directors of Fentron plc, a major quoted company, are concerned that the company's price earning (P/E) ratio is low.

Explain the significance of the low P/E ratio to Fentron plc's directors.

20. CT2 September 2018 Question 16

Kate has invested her savings in equities issued by quoted companies. In September 2018 she received the annual report for the year ended 30 June 2018 of Contro plc, a major manufacturing company.

21. CB1 April 2019 Question 12

Describe whether preference shares should be treated as debt rather than equity when evaluating a company's gearing.

22. CB1 April 2019 Question 19

Jill is the chief executive of Gearworks, a small company which manufactures components for the car industry. Gearworks is a member of a trade association. The latest issue of the trade association's journal contains an article that summarises the averages of the accounting ratios of 20 companies which are members of the trade association. The article includes the following table of accounting ratios:

	<i>Average</i>
Return on capital employed, excluding debt	26%
Return on capital employed, including debt	22%
Gross profit margin %	25%
Current ratio	2.1:1
Inventory turnover	42 days
Receivables turnover	50 days

The latest draft financial statements for Gearworks are summarised below:

Gearworks**Statement of profit or loss for the year ended 31 March 2019**

	<i>€000</i>
Revenue	1,200
Cost of sales	(840)
Gross profit	360
Administrative expenses	(22)
Distribution costs	(14)
Operating profit	324
Finance charges	(54)
Profit for the year	270

Gearworks**Statement of financial position as at 31 March 2019**

	<i>€000</i>
Non-current assets	1,800
<u>Current assets</u>	
Inventory	76
Trade receivables	150
Cash at bank	11
	237
Total assets	2,037
Share capital	500
Retained earnings	862
	1,362
<u>Non-current liabilities</u>	
Loans	600
<u>Current liabilities</u>	
Trade payables	75
Total equity and liabilities	2,037

(i) Calculate each of the six ratios listed in the magazine article using Gearworks' financial statements. You can assume that Revenue consists of credit sales.

(ii) Comment on Gearworks' performance in comparison to the industrial averages.

23. CB1 September 2019 Question 17

Describe the purpose of the non-controlling interest figure in a consolidated statement of financial position.

24. CB1 September 2019 Question 19

Roundspar, a manufacturing company, needs a new piece of equipment that will cost \$10m. A potential lender has requested the following asset cover ratios:

$$\begin{aligned} & \frac{\text{Total assets less current liabilities less intangible assets}}{\text{Loan capital plus prior ranking debt}} \\ &= \frac{\$60\text{m} - 2\text{m} - 11\text{m}}{\$10\text{m} + 12\text{m}} \\ &= 2.1 \text{ times} \end{aligned}$$

And

$$\begin{aligned} & \frac{\text{Total assets less current liabilities less intangible assets}}{\text{Total loan capital}} \\ &= \frac{\$60\text{m} - 2\text{m} - 11\text{m}}{\$44\text{m}} \\ &= 1.1 \text{ times} \end{aligned}$$

Both ratios take account of the increased assets and additional debt arising from the transaction. Roundspar currently has a \$12m mortgage loan that is secured against property valued at \$18m. The new loan will be secured by a floating charge.

- (i) Explain why each ratio would be relevant to the potential lender.
- (ii) Discuss the advantages and disadvantages to the lender of excluding intangible assets from the asset cover ratio.
- (iii) Discuss the potential agency conflicts that might arise between the interests of Roundspar's shareholders and the providers of debt finance.

25. CB1 September 2019 Question 20

Tarvale is a major quoted company that manufactures timber products. The company has suffered a major setback during the past few months. The company's largest supplier was unable to meet Tarvale's timber requirements because volcanic activity close to the supplier's forests caused forest fires which severely disrupted transport routes. Tarvale was able to purchase timber from alternative sources, but paid much more than usual because Tarvale receives a substantial discount from its usual supplier.

Most of Tarvale's board members are concerned that the shareholders will blame them for allowing the company to become so heavily dependent on a single supplier. The Production Director disagrees, though, on the basis that the Capital Asset Pricing Model (CAPM) suggests that shareholders diversify, which protects them from unsystematic risks. The volcanic disruption is an unsystematic risk and so the shareholders were protected. In any case, the Production Director had considered the risk of

return on their investment, despite the costs associated with the volcano.

- (i) Discuss the Production Director's argument that holding diversified portfolios would have protected Tarvale's shareholders from the volcanic disruption and so the shareholders will not blame the board.
- (ii) Discuss the Production Director's proposition that the risk had been evaluated and so the board should not be criticised. .
- (iii) Discuss the respective relevance of Tarvale's geared and ungeared betas to its shareholders.

26. CB1 April 2020 Question 20

Vonder is a major quoted company that manufactures tyres. The company's annual report for the year ended 30 June 2020 was released yesterday. The following summary was included in the business pages of this morning's newspapers:

	<i>Current year \$ billion</i>	<i>Last year \$ billion</i>
Operating profit	48	44
Book value of equity	362	351
Market capitalisation of equity	447	427
Non-current liabilities	350	240

The newspaper article referred to the fact that the figures take account of a new factory that cost Vonder \$150 billion when it took possession in May 2020. The purchase was paid for using debt that was raised on the date of acquisition.

Vonder's CEO is concerned that the company's shareholders will misunderstand the company's Return On Capital Employed (ROCE) for the year ended 30 June 2020.

- (i) Explain the relevance of the book value and the market capitalisation of equity for the calculation of Vonder's ROCE.
- (ii) Discuss the implications of the investment in the new factory for Vonder's ROCE.
- (iii) Discuss the implications of a misunderstanding of ROCE for Vonder's share price.

27. CB1 April 2021 Question 19

The information provided below was obtained from Hopplo plc's financial statements for the year ended 31 March 2021.

- (i) Calculate the following ratios for the two accounting years:
 - (a) Return on Capital Employed (ROCE)
 - (b) Gross profit percentage
 - (c) Distribution costs as a percentage of revenue.
- (ii) Assess Hopplo's performance for the year ended 31 March 2021.
- (iii) Discuss the difficulties in assessing Hopplo's performance on the basis of the information provided.

	2021	2020
	\$000	\$000
Revenue	22,427	19,502
Cost of sales	(7,177)	(7,411)
Gross profit	15,250	12,091
Distribution costs	(2,467)	(1,365)
Administrative expenses	(1,121)	(1,170)
Operating profit	11,662	9,556
Finance costs	(6,080)	(3,360)
Profit before tax	5,582	6,196
Income tax expense	(1,228)	(1,363)
Profit for the year	4,354	4,833

Hopplo plc

Statement of Financial Position as at 31 March

	2021	2020
	\$000	\$000

ASSETS

Non-current assets

Property, plant and equipment	181,000	146,000
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Current Assets

Inventory	658	680
Trade receivables	1,869	1,625
Cash at bank	43	340
	2,570	2,645

Total assets	183,570	148,645
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Retained earnings	15,792	14,706
Total equity	105,792	104,706

Non-current liabilities

Borrowings	76,000	42,000
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Current liabilities

Trade payables	598	618
Tax	1,180	1,321
	<u>1,778</u>	<u>1,939</u>

Total of equity and liabilities	183,570	148,645
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28. CB1 September 2021 Question 14

Describe the usefulness of the Earnings Before Interest, Tax, Depreciation and Amortisation (EBITDA) figure to financial analysts.

29. CB1 April 2023 Question 17

An investment analyst wishes to compare the profitability of two airlines that have very different returns on capital employed (ROCE).

Explain why it would be helpful for the analyst to evaluate the components of the ratio as follows:

$$\text{ROCE} = \text{asset utilisation ratio} \times \text{profit margin}$$

30. CB1 April 2023 Question 19

The information provided below has been obtained from R's draft financial statements, which have not yet been finalised.

R

Statement of changes in equity for the year ended 30 June 2022

	Share capital	Retained earnings	Total
	\$000	\$000	\$000
Opening balance	1,000	480	1,480
Loss for year		(211)	(211)
Closing balance	<u>1,000</u>	<u>269</u>	<u>1,269</u>

equipment	1,004	2,010
Current assets	60	49
	<u>1,924</u>	<u>2,127</u>
Share capital	1,000	1,000
Retained earnings	269	480
Total equity	<u>1,269</u>	<u>1,480</u>
Non-current liability	600	600
Current liabilities	55	47
	<u>1,924</u>	<u>2,127</u>

R is an unquoted company.

The non-current liability is a loan that falls due in seven years. However, there is a restrictive covenant on the loan entitling the lender to seek immediate repayment if the gearing ratio, calculated as debt/(debt + equity), ever exceeds 30%. R's board is concerned because this ratio has increased from 29% last year to 32%, which breaches the covenant.

R's property, plant and equipment include a large office building in the business district of a major city. The building was purchased 12 years ago for \$1,100,000 and has never been revalued. The building has been depreciated at 2% of cost each year since its acquisition. The board is considering revaluing the office in order to reduce the gearing ratio.

- Calculate the value that would have to be attached to the office building to reduce R's gearing to 30% as at 30 June 2022.
- Explain whether it would be acceptable to revalue the office building in order to reduce the gearing ratio to less than 30%.
- Explain how R's board should manage the breached debt covenant, assuming that the office building is not revalued.
- Explain the implications for R's shareholders of continuing reported losses.

31. CB1 September 2023 Question 19

The following information has been extracted from Q's financial statements as published during the last 6 years to 31 March:

	2018	2019	2020	2021	2022	2023	Average for 2018–2023
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
Profit/(loss) for the year	1,900	1,600	1,300	(200)	(400)	(900)	550
Equity	15,480	16,760	17,800	17,600	17,200	16,300	16,857
Loans	6,000	8,000	8,000	11,000	11,000	12,000	9,333
Interest (included in calculation of profit for the year)	840	1,120	1,120	1,540	1,540	1,680	1,307

	%	%	%	%	%
Return on equity	12.3	9.5	7.3	(1.1)	(2.3)
Return on capital employed	12.8	11.0	9.4	4.7	4.0
Gearing	27.9	32.3	31.0	38.5	39.0

- Calculate Q's return on equity, return on capital employed, and gearing for:
• 2023

gearing ratio under review.



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