

# **INSTITUTE AND FACULTY OF ACTUARIES**

## **EXAMINATION**

01 October 2020 (am)

### **Subject CB1 – Business Finance Core Principles**

Time allowed: Three hours and fifteen minutes

In addition to this paper you should have available the 2002 edition of the Formulae and Tables and your own electronic calculator from the approved list.

If you encounter any issues during the examination please contact the Examination Team on

T. 0044 (0) 1865 268 873.

CB1 S2020

© Institute and Faculty of Actuaries

**1** Which of the following best summarises the attitude that the directors of a quoted company should take towards social responsibility?

- A Social responsibility can and should constrain the creation of wealth.
- B Social responsibility is just as important as the maximisation of shareholder wealth.
- C The directors should place social responsibility before their own interests.
- D The directors should take care to ensure that they are seen to be socially responsible, even if they are not.

[2]

**2** How should the directors of a quoted company view agency problems?

- A Agency problems are inevitable and so they should be ignored.
- B Agency problems are perceived, but do not exist in reality.
- C Agency problems concern the shareholders and not the directors.
- D Agency problems may be reduced through transparency and accountability.

[2]

**3** In many countries, capital gains are not taxed until the assets on which the gain has arisen are sold. Which of the following is the most logical explanation of this practice?

- A It assists taxpayers in their tax planning.
- B It ensures the maximum possible revenue into government funds.
- C It is easier to determine an objective tax expense.
- D It is unfair to tax capital gains.

[2]

**4** Which of the following best explains why many countries do not allow depreciation to be treated as an expense for tax purposes?

- A Depreciation is not a real expense.
- B The calculation of depreciation allows too much discretion.
- C The tax treatment of depreciation maximises the revenue from corporate tax.
- D There is no relationship between depreciation and cash flows.

[2]

**5** Why might a manufacturing company's return on capital employed be overstated during times of inflation?

- A Competitors will increase selling prices.
- B Depreciation on property, plant and equipment may be understated.
- C Employee wages will decline in spending power.
- D Sales revenue will be overstated.

[2]



**6** A wholesaling company has “prebooked” sales by recording revenues that will not be earned until the first month of the following financial year. Which of the following statements best describes the impact that this will have on the analysis of the company’s financial statements for this year?

- A Both sales and cost of sales will be overstated, so the accounting ratios will not be affected.
- B Inventory will be understated and trade receivables overstated.
- C Profit and cash will be overstated.
- D Profit will be overstated, but return on capital employed will be unaffected.

[2]

**7** An insurance company’s financial statements show a conservatively high valuation of liabilities in respect of insured risks. Which of the following best explains this?

- A The directors wish to manipulate future profits.
- B The external auditor has been negligent.
- C The directors wish to manipulate the company’s tax bill.
- D The nature of the industry makes such a valuation prudent.

[2]

**8** You are reviewing the financial statements of several major retailers. One company has a relatively high asset utilisation ratio and a relatively low profit margin. How should this be interpreted?

- A The company has a relatively high return on capital employed.
- B The company has a relatively low return on capital employed.
- C The company sets high prices in order to maximise profit.
- D The company sets low prices in order to increase sales volume.

[2]

**9** What is implied by a beta of zero on a potential investment?

- A The investment is high risk.
- B The investment is risk free.
- C The investment will make a diversified portfolio less sensitive to movements on the market.
- D The investment will make a diversified portfolio more sensitive to movements on the market.

[2]



- 10** In times of inflation:
- A both real and nominal rates required from projects will be increased.
  - B both real and nominal rates required from projects will be unaffected.
  - C real rates required from projects will be increased, but nominal rates will be unaffected.
  - D real rates required from projects will be unaffected, but nominal rates will be increased.
- [2]
- 11** Describe how guidance such as that contained in the UK Corporate Governance Code might reduce concerns arising from agency theory. [5]
- 12** Describe how a company might determine whether it has the necessary “significant influence” required to classify another company as an associate. [5]
- 13** A company has traditionally evaluated projects on the basis of their net present value (NPV).  
Discuss the advantages of extending project evaluation to include strategic fit as an additional factor in investment appraisal. [5]
- 14** A commercial bank recently rejected a loan application from a large company. The loan would have been secured by a specific charge against property that was worth at least twice the amount borrowed, but the bank rejected the application on the grounds that the risk of default on the loan was too high.  
Discuss the bank’s decision to reject the loan application in these circumstances. [5]
- 15** A quoted company bases investment decisions on the internal rates of return (IRR) offered by potential projects. In order to be accepted, a project’s IRR must be greater than 12% per annum.  
Discuss this investment criterion. [5]



- 16** Discuss the proposition that the cost of equity is zero for an unquoted company because there is no observable share price. [5]
- 17** Discuss the proposition that the needs of all users of financial statements can be satisfied by a single set of financial statements. [5]
- 18** Explain the relevance of a qualified audit opinion in which the external audit report stated that the financial statements gave a true and fair view, except for a specified disagreement over an accounting choice made by the company's board. [5]

CB1 S2020-

**PLEASE TURN OVER**

- 19** The information provided below was obtained from Dosco plc's bookkeeping records on 31 March 2020.

- (i) Prepare Dosco plc's financial statements in a form suitable for publication:
- statement of profit or loss [9]
  - statement of changes in equity [2]
  - statement of financial position. [4]
- (ii) Discuss the implications of the loss on revaluation of property for Dosco's shareholders. [5]
- [Total 20]

**Dosco plc**

**List of balances as at 31 March 2020**

	\$000
Administrative expenses	939
Cash at bank	155
Borrowings (long term)	361
Directors' remuneration	1,366
Dividends paid	101
Interest on borrowings	44
Manufacturing costs	1,734
Manufacturing materials – inventory at start of year	614
Manufacturing purchases	4,003
Manufacturing wages	1,120
Plant and equipment – accumulated depreciation	939
Plant and equipment – cost	7,081
Property – accumulated depreciation	1,543
Property – cost	3,251
Retained earnings	1,610
Revenue	16,927
Sales salaries	890
Selling expenses	888
Share capital	1,626
Share premium	434
Trade payables	184
Trade receivables	1,438

*Further information:*

- (1) Inventory was counted at 31 March 2020 and was valued at \$740,000.
- (2) Manufacturing costs exclude \$50,000 of compensation that will be paid in June 2020 to employees who were injured in an industrial accident.
- (3) Property was valued at \$1,500,000 on 31 March 2020. That valuation is to be incorporated into the financial statements.
- (4) Corporation tax of \$1,337,000 is to be provided for the year.

CB1 S2020-

- 20** Pantro manufactures laptop computers. The company was established 20 years ago and has always had its factory in its home country. Pantro exports its products worldwide.

Pantro's directors are considering relocating production to a developing country that has suitable infrastructure, including excellent transport links, but much lower labour costs than the company's home country. The potential host country's government is prepared to offer generous grants and tax incentives to encourage Pantro to relocate.

Much of Pantro's production is mechanised, although the final assembly and packing of laptops is labour-intensive.

- (i) Identify the two most significant risks arising from the relocation of production, giving reasons for their selection and recommending a suitable mitigation for each. [10]
  - (ii) Suggest the two most significant problems that will arise in budgeting for labour costs at the new factory, giving reasons for their selection and recommending a response to each. [10]
- [Total 20]

**END OF PAPER**



# **INSTITUTE AND FACULTY OF ACTUARIES**

## **EXAMINERS' REPORT**

September 2020

### **Subject CB1 – Business Finance Core Principles**

#### **Introduction**

The Examiners' Report is written by the Chief Examiner with the aim of helping candidates, both those who are sitting the examination for the first time and using past papers as a revision aid and also those who have previously failed the subject.

The Examiners are charged by Council with examining the published syllabus. The Examiners have access to the Core Reading, which is designed to interpret the syllabus, and will generally base questions around it but are not required to examine the content of Core Reading specifically or exclusively.

For numerical questions the Examiners' preferred approach to the solution is reproduced in this report; other valid approaches are given appropriate credit. For essay-style questions, particularly the open-ended questions in the later subjects, the report may contain more points than the Examiners will expect from a solution that scores full marks.

The report is written based on the legislative and regulatory context pertaining to the date that the examination was set. Candidates should take into account the possibility that circumstances may have changed if using these reports for revision.

Mike Hammer  
Chair of the Board of Examiners  
December 2020



**A. General comments on the *aims of this subject and how it is marked***

1. The aim of the Finance and Financial Reporting subject is to provide a basic understanding of corporate finance including a knowledge of the instruments used by companies to raise finance and manage financial risk and to provide the ability to interpret the accounts and financial statements of companies and financial institutions.
2. This paper examines basic finance including raising funds by a variety of methods, taxation, basic management accounting, net present value and project appraisal and other topics, it has both calculations and essay type questions on these topics. The paper also examines financial reporting including preparation of the main financial statements and interpretation of financial statements. It also considers the basis of the preparation of statements and the information needs of a variety of end users of financial statements.
3. Different numerical answers may be obtained to those shown in these solutions depending on whether figures obtained from tables or from calculators are used in the calculations but candidates are not penalised for this. However, candidates may lose marks where excessive rounding has been used or where insufficient working is shown.

**B. Comments on candidates’ performance in this diet of the examination.**

Many candidates performed very well in this exam. The Multiple Choice Questions (MCQs) were done reasonably well. The short response questions were reasonable, some were answered very well and others, usually where application was required, were answered not that well. Performance in Question 19 was very good with many candidates scoring a high mark, the question was on preparing financial statements. Performance in Question 20 was a little weaker than 19. The question was divided into two parts, part i on risk was done quite well but part ii was on budgeting for labour for a new venture overseas and was done not that well by most candidates.

The area in which candidates’ performance was the weakest was finance, this is often the case with this exam.

Candidates were good at questions which mainly tested knowledge but were a little weak on application of knowledge to scenarios.

Having said that, the results were in line with previous diets and many candidates performed very well.

**C. Pass Mark**

The Pass Mark CB1 was 58.

1037 presented themselves and 634 passed.



## Solutions for Subject CB1 September 2020

<b>Q1</b>	A	[2]
<b>Q2</b>	D	[2]
<b>Q3</b>	C	[2]
<b>Q4</b>	B	[2]
<b>Q5</b>	B	[2]
<b>Q6</b>	B	[2]
<b>Q7</b>	D	[2]
<b>Q8</b>	D	[2]
<b>Q9</b>	C	[2]
<b>Q10</b>	D	[2]

*Questions 1-10 were generally well answered by candidates. Many candidates achieved a high mark.*

### **Q11**

- Codified statements demonstrate the commitment of regulators to addressing governance Issues [1]  
Stakeholders should be reassured that agency problems have been identified as a problem and will be dealt with through regulation [1]  
Setting the standard requires a public debate about the extent to which rules should be imposed. Interested parties can contribute to that debate [1]  
The statements also provide an easily understood benchmark against which the quality of governance can be measured. If a company claims to be compliant then that claim can be verified [1]  
Codified statements set a minimum acceptable standard for behaviour, or require companies to explain explicitly to shareholders why they are taking a different approach. [1]  
Stakeholders can be reassured that the directors are sufficiently committed to sound governance to meet, or even exceed, the codified rules [1]  
Codified guides can address common areas where agency problems might arise, such as directors taking excessive remuneration. [1]

**[Marks available 7, maximum 5]**

*This question was generally well answered by many candidates. Some discussed the governance guidance in detail which was awarded marks. The main problem with some weaker answers was candidates quoting the governance guidance and not really answering the question.*

### **Q12**

- Significant influence can be difficult to identify because, by definition, it is less definite than control [1]



If an entity is under the control of another then it is a subsidiary [1]

Significant influence implies more than simply having the right to vote at general meetings, because that relationship would imply a simple investment [1]

In general, significant influence is implied by ownership of between 20% and 50% of equity [1]

That is not, however, sufficient in itself to determine significant influence. The shareholder must also be able to demonstrate that it has some influence over strategic decisions [1]

One way to do that would be to have the right to appoint a director, who can speak during board meetings and can vote, but who does not have outright control [1]

**[Marks available 6, maximum 5]**

*This question was answered badly by most candidates. Candidates could not discuss significant influence in any depth and tended to discuss subsidiaries and consolidations in general terms and did not really answer what was asked.*

### **Q13**

The biggest advantage of adding strategic fit would be that the company would be more open to projects that could have the potential to increase wealth, even if that cannot be demonstrated through NPV calculations [1]

For example, a potential investment could have a negative NPV, but it could also create scope for the entity to exploit potential opportunities that might arise in the future [1]

One example might be the acquisition of a supplier of an important material. If that material becomes scarce in the future then the company will have a guaranteed supply [1]

Strategic fit would also help with capital rationing decisions [1]

If the company cannot afford to finance all of the positive NPV projects that are available to it then it might make sense to focus on those that might offer synergies that can have a wider value across the entity [1]

It will also make it more difficult for managers to seek investments that are intended to use up capital investment budgets if they have to show that there is a strategic value beyond NPV [1]

**[Marks available 6, maximum 5]**

*This question was answered very well by many candidates. Candidates demonstrated a good knowledge of NPV and understood that sometimes strategic fit could also be taken into account when assessing projects.*

### **Q14**

The specific security against the property means that the bank would not be subject to any risk of the loss of principal [1]

In that case, it could be argued that it would be short-sighted to turn down the lending opportunity [1]



- Having said that, the bank would not wish to be responsible for the foreclosure of a loan that could put a customer out of business [1]
- Doing so would create the impression that the bank is greedy and uncaring [1]
- The availability of security cannot ever be the only consideration. Apart from anything else, if the customer could not be expected to make all payments on time there will be costs associated with managing the account [1]
- Payments will have to be chased and negotiated [1]
- The foreclosure itself would also leave the bank holding the asset pledged as security and having to find a buyer [1]
- There is also a risk that the property will decline in value, leaving the bank with insufficient to recover its loss [1]

**[Marks available 8, maximum 5]**

*This question was not answered as well as other questions. Candidates did not have many ideas as to what would put a lender off lending to a business.*

### **Q15**

- The first thing is that IRR does make allowance for the time value of money, which is a key consideration in terms of linking the investment decision to shareholder wealth [1]
- IRR is a valid basis for accepting or rejecting projects provided it can be established that the IRR is greater than the cost of capital [1]
- IRR is not, however, an ideal basis for choosing between mutually exclusive projects [1]
- A project with a higher IRR could be limited by a short life or a low initial investment and so it may not be the one to maximise shareholder wealth [1]
- Setting a fixed IRR target of 12% ignores the possibility that different projects have different risk characteristics [1]
- It is possible that 12% is too low a target for some projects and too high for others [1]
- That could be taken into account by considering qualitative issues associated with risks and non-financial criteria such as strategic fit [1]

**[Marks available 7, maximum 5]**

*This question was one of the questions which was answered not very well. Candidates found it difficult to write much for this question. Candidates often moved on to discuss NPV which was not required.*

### **Q16**

- The company’s shares will have a value that will be affected by the returns on offer to the shareholders, regardless of whether the shares are quoted or not [1]
- The directors must offer the shareholders an adequate return on their shares, otherwise the shareholders will respond adversely [1]
- For example, the shareholders may be more open to offers to buy a controlling interest in the event that the company offers a poor return [1]



With quoted companies, an inadequate rate of return will lead to a decline in the share price so that the market obtains the rate that it deems appropriate. With unquoted companies, the shareholders may have to take slightly more extreme measures. For example, they may penalise the directors for failing to offer an adequate return [1]  
They may vote against salary increases or may even vote directors out of office [1]  
Overall, the required rate of return is implicit in every company’s equity finance but it is more difficult to observe it directly in the case of an unquoted company [1]

**[Marks available 6, maximum 5]**

*This question was answered badly by many candidates but very well by others. There were some reasonable marks for this question as well as some very low marks. Candidates wrote very short answers which tended to discuss quoted companies rather than small unquoted companies.*

### **Q17**

Different users are interested in different matters relating to the company. For example, lenders are primarily interested in the security of their loans and so they need to have a clear understanding of the financial position and the cash flows [1]  
Shareholders are in a slightly different position, being interested primarily in profitability and the ability to pay dividends [1]  
The differences between users may be open to exaggeration. For example, the shareholders are likely to be interested in most of the issues that concern the lenders, even if some of those issues are less important to them [1]  
A set of financial statements that was drafted with the shareholders in mind would probably offer sufficient information to meet the lenders’ needs too [1]  
Many users are also in a position to interact with the company and to supplement the information that is published [1]  
For example, lenders can make the provision of specific information a condition of advancing a loan, so they will not be affected by setting accounting requirements that are primarily directed at other users’ needs [1]

**[Marks available 6, maximum 5]**

*This question was answer quite well by many candidates. Most candidates could discuss the needs of users of financial statements well.*

### **Q18**

In itself, this form of audit report suggests that the users of the financial statements, primarily the shareholders, must decide between two figures [1]  
The qualified report will state the nature of the auditor’s disagreement and will quantify its effects on profit and financial position [1]  
Financial reporting is a professional activity that involves subjective judgement and so there is never a single “correct” set of figures, but the fact that the auditor has offered an alternative to the directors’ estimates suggests that users should take care in reading the financial statements [1]



- It is unusual for auditors to find it necessary to disagree because they usually resolve any differences privately through negotiation with the directors [1]
- The fact that such an agreement could not be reached suggests that there could be concerns about the directors’ motivation [1]
- For example, the company might have been forced to distort its statement of financial position in order to avoid breach of a debt covenant [1]

**[Marks available 6, maximum 5]**

*This question was not answered very well with candidates discussing auditing and audit reports in general rather than the specifics of the question. Many candidates wrote enough to pass but did not achieve a high mark.*

**Q19 (i)**

**Dosco plc**

**Statement of Profit or Loss  
for the year ended 31 March 2020**

	\$000	
Revenue	16,927	[½]
Cost of Sales	<u>(6,989)</u>	
Gross profit	9,938	
Distribution Costs	(1,778)	
Administrative Expenses	<u>(2,305)</u>	
Operating profit	5,855	
Finance costs	<u>(44)</u>	[½]
Profit before tax	5,811	
Income Tax Expense	<u>(1,337)</u>	[½]
Profit for the year	<u><u>4,474</u></u>	

[1]

**Dosco plc**

**Statement of Changes in  
Equity**

**for the year ended 31 March 2020**

	Share capital £000	Share premium £000	Retained Earnings £000	Total £000
Opening balance	1,626	434	1,610	3,670
Profit for the year			4,474	4,474
Dividends			(101)	(101)
Closing balance	<u>1,626</u>	<u>434</u>	<u>5,983</u>	<u>8,043</u>

[½]



**Dosco plc**  
**Statement of Financial Position**  
**as at 31 March 2020**

	Notes	\$000	
<b>Non-current assets</b>			
Property, plant and equipment	[1]	7,642	
<b>Current Assets</b>			
Inventory		740	[½]
Trade receivables		1,438	[½]
Cash at bank		155	[½]
		2,333	
<b>Total assets</b>		<u>9,975</u>	
<b>EQUITY AND LIABILITIES</b>			
<b>Equity</b>			
Called-up share capital		1,626	
Share premium account		434	
Retained earnings		5,983	
<b>Total equity</b>		8,043	
<b>Non-current liabilities</b>			
Borrowings		361	[½]
<b>Current liabilities</b>			
Trade payables		184	[½]
Provision for compensation		50	[½]
Tax		1,337	[½]
		1,571	
<b>Total of equity and liabilities</b>		<u>9,975</u>	
			[1]



## Notes

### 1. Property, plant and equipment

	Property \$000	Plant and equipment \$000	Total \$000	
<b>Cost or valuation</b>				
At 31 March 2020		1,500	7,081	<u>8,581</u> [½]
<b>Depreciation</b>				
At 31 March 2020		-	939	<u>939</u> [½]
<b>Net book value</b>				
At 31 March 2020		1,500	6,142	<u>7,642</u>

### Workings

#### Cost of sales

Manufacturing costs	1,734	[½]
Opening inventory	614	[½]
Purchases	4,003	[½]
Wages	1,120	[½]
 Closing inventory	 (740)	 [½]
Compensation	50	[1]
Loss on revaluation	<u>208</u>	[1]
	<u>6,989</u>	

Property - cost	3,251	
Property - depreciation	<u>(1,543)</u>	
	1,708	
Valuation	<u>1,500</u>	
Loss on valuation	<u>208</u>	

#### Distribution

Sales salaries	890	[½]
Selling expenses	<u>888</u>	[½]
	<u>1,778</u>	



**Administrative expenses**

Expenses	939	[½]
Directors' remuneration	<u>1,366</u>	[½]
	<u>2,305</u>	

**[Total 15]**

(ii)

The loss on revaluation reflects a decrease in the fair value of the property. That suggests that its market value has decreased [1]

It could be argued that this means very little to the shareholders if the company does not intend to sell the property because it will still retain its ability to generate future cash flows for Dosco [1]

The only immediate concern is that the decrease will reduce the collateral that is available to potential lenders and so Dosco's borrowing capacity may be diminished [1]

The recognition of the loss on revaluation as an expense could confuse the readers of the financial statements [1]

The profit for the year has diminished in order to complete the bookkeeping entries for the loss on valuation, even though that loss does not necessarily reflect Dosco's trading activities [1]

While the loss will reduce this year's profits, it will have the effect of reducing depreciation in future years and so reported profit will increase. That could have the effect of making the shareholders believe that performance has improved [1]

The loss will also reduce equity, which will increase the gearing ratio, even though the cost of servicing existing debts will not be any more onerous [1]

**[Total marks available 7, maximum 5]**

*Part i of this question was answered very well by most candidates.*

*Part ii was done less well and sometimes missed out all together. Usually answers were too brief.*

**Q20 (i)**

There may be adverse social and political consequences to this move [1]

Pantro will be making its workforce redundant and the company will be viewed as severing a significant tie to its home country [1]

That could lead to a decrease in future revenues if buyers feel the need to buy their laptops from an alternative supplier [1]

Pantro might mitigate that risk by focussing on the need to remain competitive, given that laptops are essentially a commodity product and the market is price sensitive [1]

The fact that the company will remain headquartered in its home country means that it will be contributing to its home economy through paying tax [1]

It will also be providing employment opportunities in a developing country where opportunities might otherwise be scarce [1]

There could be concerns about product quality, arising from the fact that a new workforce is being employed in a newly established factory [1]



- That could be due in part to the learning curve in the early stages of production and also to a lack of staff commitment to the company in the early stages [1]
- If Pantro develops a reputation for poor quality then it could lose a great deal of goodwill and its sales volumes could take a very long time to recover [1]
- This risk could be avoided by building up a stockpile of laptops to cover the period immediately after the transition to the new factory [1]
- The new production process could then be subject to the highest possible scrutiny, with extensive testing of all output [1]
- If necessary, sub-standard machines could then be rectified or even scrapped, with feedback to the production staff [1]

**[Marks available 12, maximum 10]**

(ii)

- The most immediate problem may be in establishing the number of employees who will actually be required [1]
- If they lack the necessary skills to operate at the rates that their predecessors from the home country achieved then Pantro may require more employees than they had before [1]
- There may also be a high staff turnover because other employers may be coming into the country and offering better rates of pay or terms and conditions and that could require additional appointments to act as a buffer [1]
- The most immediate response to this would be to develop aptitude tests for potential appointees to ensure that they can master the assembly tasks [1]
- Pantro should monitor the markets carefully and should ensure that it matches the rates and working conditions that are offered by competitors for staff [1]
- Minimising staff losses through avoiding dismissal and resignation will give Pantro a clearer basis for planning and budgeting staff numbers [1]
- The hourly rates paid to staff could be difficult to predict because of changes in the local economy [1]
- An influx of new employers, attracted by the government incentives, could create an unhealthy competition for new starts, forcing up rates [1]
- The potential to save employment costs could be undermined, as has happened with many developing countries in the past [1]
- Pantro could start with its own economic forecasts concerning basics such as rates of unemployment, cost of living, etc [1]
- If the host country has large numbers of potential employees so that there is little immediate prospect of full employment then hourly rates will be easier to predict with some certainty [1]
- If the local economy is likely to see rising living costs because of, say, housing shortages then rates of pay will almost certainly increase because of a rising cost of living [1]

**[Marks available 12, maximum 10]**

*In part i marks were awarded whatever two risks were discussed as long as they were reasonable. Candidates did well in this part of the question.*

*Candidates did not answer very well part ii of this question. Marks were fairly low for this question. Candidates failed to link the idea of budgets and labour costs convincingly. This question required application not just knowledge and candidates always find that difficult.*



**END OF EXAMINERS’ REPORT**

