

# **INSTITUTE AND FACULTY OF ACTUARIES**

## **EXAMINERS' REPORT**

April 2014 examinations

### **Subject CT2 – Finance and Financial Reporting Core Technical**

#### **Introduction**

The Examiners' Report is written by the Principal 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.

D C Bowie  
Chairman of the Board of Examiners

June 2014

## **General comments on Subject CT2**

This paper examines basic finance including raising funds by a variety of methods, taxation, 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.

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 be penalised where excessive rounding has been used or where insufficient working is shown.

## **Comments on the April 2014 paper**

The general performance was similar to results in the past; well-prepared candidates scored well across the whole paper. As in previous diets, overseas candidates did not perform quite so well as UK candidates. The comments that follow the questions concentrate on areas where candidates could have improved their performance. Candidates are advised to include these areas in their revision. The main problems were Q19 and 20; however many candidates scored high marks in all questions.

- 1 A
- 2 C
- 3 B
- 4 C
- 5 D
- 6 D
- 7 C
- 8 B
- 9 C
- 10 C

6

$$11.6\% = (17 \times 10/25) + (8 \times 15/25)$$
$$14\% = (17 \times 30/45) + (8 \times 15/45)$$
$$14.27\% = (17 \times 30/45) + (7 \times 15/45)$$
$$14.55\% = (17 \times 48/66) + (8 \times 18/66)$$

8

$$£1.8m = 30\% \times £6m$$
$$£2.4m = 30\% \times £8m$$

9

$$€150,000 = €50,000 - 850,000$$
$$€200,000 = \text{cancelled depreciation}$$
$$€350,000 = €50,000 - (800,000 - 200,000)$$
$$€750,000 = €50,000 - 750,000$$

*Generally questions 1–10 were answered reasonably well by most candidates.*

- 11 The value of the debt will depend on the likelihood that the company will meet its commitments to pay the interest and the capital. The decline in the equity shows that the market believes that the company is less profitable. That loss appears to have been borne by the shareholders only, whose equity acts as a safeguard to protect the lenders. The shareholders are entitled to all residual profits and so any setback will affect their future cash flows. The lenders do not receive any benefit from the entity's profit, at best they will receive their agreed payments on time. Thus, the lenders are not necessarily affected in the same way as the shareholders.

The lenders may have taken care to impose an upper limit on borrowing so that there is very little realistic probability of their repayments being affected .

*This question was not done especially well. Some answers were very confused and it was not clear exactly what was meant in their answer. Some candidates did not discuss the lenders at all.*

- 12** Ron will be able to buy the shares at a discount and resell them immediately for their full market price.

If Ron invests in his employer then he may be motivated and take a greater interest in his work.

It sounds as if Ron may not have a properly diversified portfolio. The markets will not reward him for retaining the diversifiable unsystematic risks. Furthermore, in the event that the company declines Ron may lose both his job and his investment, so he is even more exposed to the company's performance.

Ron may be better placed as an employee to determine whether Global is performing well and so he may be able to mitigate these risks by being sufficiently well informed to sell before information becomes generally available. The observations of individual employees are unlikely to comprise insider trading.

*This question was done very well by many candidates.*

- 13** It would be impractical to permit depreciation as a taxable expense because of the discretion that is available in estimating the charge. The owner could easily manipulate depreciation in order to reduce profits or avoid making large tax losses. The tax authorities would be unable to do very much to prevent such behaviour provided the rates being used for depreciation could be justified.

It is incorrect to say that no benefit is given. UK tax law gives a capital allowance in lieu of depreciation. Capital allowances are essentially just depreciation that has been determined in a very consistent and systematic manner.

*This question had a mixed response from candidates with many candidates failing to mention capital allowances or the possibility of manipulating depreciation.*

- 14** Seven shares held before the issue will be worth  $7 \times £5.20 = £36.40$ .

The new project will increase market capitalisation by 20%, so seven shares will increase in value to  $£36.40 + 20\% = £43.68$ .

The cash injection will add a further £4.50 per seven shares  
 $= £43.68 + £4.50 = £48.18$ .

Each share will be worth  $£48.18/8 = £6.02$ .

*This question was done well by many candidates.*

- 15** The scrip issue offers the investor a choice between £0.50 cash and  $2 \times £2.70/9 = £0.60$  of equity. At face value, the scrip dividend appears more value, although there will be some dilution. Transaction costs will probably mean that it is not cost-effective to take the scrip dividend with a view to the immediate resale of the shares.

The investor will have to pay tax on the scrip dividend but there is no cash coming in and so this will have to be settled out of existing cash balances.

The shareholder will have to consider whether the scrip issue will leave the portfolio unbalanced.

*This question was done well by many candidates.*

- 16** Very few assets have free and transparent markets that make it possible to observe fair values. Fair values generally require subjective decisions, perhaps based on transactions that are not necessarily indicative of the values that would be obtained for a particular asset. For example, the fair value of an office block could be estimated using selling prices for similar offices in similar locations, but those will not necessarily establish the actual price that will be obtained for a specific building. Transactions used for comparison may be slightly out of date. Comparisons may be based on transactions that are not at arm's length.

Ultimately, an asset's fair value can only be established by actually putting the asset up for sale and waiting until a firm offer to buy it has been received.

*This question had a mixed response. Some candidates did this well and others badly. Application of knowledge seemed to be the main problem.*

- 17** The IASB develops high quality accounting standards (IFRS). IFRS provide a basis for comparison between companies, with consistent treatments of similar items. Thus, the IASB promotes confidence in the financial statements.

The IASB also demonstrates the accountancy profession's commitment to ensuring high quality accounting statements. There have been issues in the past with concerns about accounting scandals and the IASB's existence is clear evidence that such behaviour cannot be tolerated.

The IASB's standards facilitate global investment and trading.

*This question was done well by many candidates.*

- 18** The going concern concept effectively requires consideration of the long-term future. A company's ability to survive may depend on many different factors, each of which is very difficult to predict. For example, the market for the entity's products could decline or there could be a problem with cash flows and the availability of finance to deal with that.

Another difficulty is that preparers will only ever be challenged when the company has actually run into difficulties. Users of financial statements may claim that the going concern status was inappropriate on the basis of actual outcomes rather than expectations based on the information that was available at the time. Many users, such as buyers, will place a great deal of emphasis on going concern.

*This question was done very badly by most candidates. Candidates could briefly quote what the going concern concept was but then stopped. There was a lack of ability to apply knowledge from the core reading to a question.*

- 19** (i)  $\text{EBITDA} = 58.2 + 62.0 + 40.0 = \text{£}160.2\text{m}$

Analysts are generally concerned that any subjective decisions will be used to manipulate the financial statements. The figure for EBITDA excludes two of the biggest sources of subjectivity in the financial statements: depreciation and amortisation.

It may be difficult to restate figures to make these comparable. For example, Lomax's accounting policy on depreciation does not make it possible to establish whether the company is more or less conservative than similar businesses.

Analysts prefer pre-tax figures because those are generally more comparable with other income sources, and it avoids the subjective estimate of the tax liability.

(ii)	Book value of rights	360,000,000
	Amortisation based on 15 years	24,000,000
	Increase in earnings	16,000,000
	Revised earnings attributable to the shareholders	49,500,000
	Revised EPS	0.99
	Expected share price based on present	10.72
	Expected share price based on revised	15.84

We are assuming the straight line basis for the amortisation of the intangible.

We are assuming that the P/E ratio of 16 is robust and that the market will multiply the earnings figures by 16.

We are assuming that the P/E ratio will not change during the period from 31 March 2014 until the date when the financial statements will be published.

That assumption implies, further, that nothing in the financial statements themselves will affect the market's view of future cash flows.

- (iii) The share price is determined in terms of future cash flows. The amortisation of an intangible asset is not a cash flow and so the figure has no direct relevance to determining the share price.

The capital markets might be influenced by the information implied by management estimates. Extending the projected life of the asset may imply that additional costs will not be incurred in developing new products and so the share price might increase.

The capital markets might interpret these changes as evidence that Lomax's directors feel that it is necessary to overstate accounting profits. That might lead to a decrease in confidence and a decline in the share price.

*Part (i) – This question was not done very well, many candidates could attempt the calculation but did not answer the written part well. It seems that candidates have the knowledge from the core reading but have difficulty applying it in some of these questions.*

*Part (ii) – This part of the question was done reasonably well by some candidates but many candidates did not achieve a high mark in this section of the question.*

*The calculation was done quite well by a number of candidates but many candidates did not state their assumptions.*

*Part (iii) – This part of the question was done badly as candidates could not apply the knowledge learned from the core reading material.*

## 20 (i)

	Year ended 30 June 2015 £	Year ended 30 June 2016 £	Year ended 30 June 2017 £	
Revenue	40,000	50,000	60,000	
Fuel, boat repairs and mooring	(14,000)	(17,500)	(21,000)	
Working capital	(2,000)		2,000	
	<hr/> 24,000	<hr/> 32,500	<hr/> 41,000	
Sally's share	12,000	16,250	20,500	
Discount factor	0.893	0.797	0.712	
PV	<hr/> 10,716	<hr/> 12,951	<hr/> 14,596	<hr/> 38,263

The net present value of Sally's cash flows = £38,263 – 21,000 = £17,263

Sally should accept this project on a net present value basis. This is a major investment for her, though, and so it may not be appropriate to risk such an amount.

- (ii) The first step would be for Sally to estimate how much she would accept as a guaranteed sum in place of each of the cash flows in her forecast. For example, she anticipates a cash inflow of £12,000 at the end of year 1. That amount is subject to the risks associated with the running of the business and so it would be logical for her to accept less in return for a guarantee that the lesser sum would be paid. The estimates that she uses will be highly subjective and they really have to be decided by her, although she might start by considering the likely ranges of outcomes and taking those into account. She might also consider her need for cash inflows at each of those dates.

Once she has determined the certainty equivalents then they should be discounted at a risk-free rate. The 12% rate includes an element to compensate for the risks attached to the project.

- S (iii) Tom is clearly attempting to make the project appear more attractive so that Sally will invest.

This project involves Sally risking a significant part of her wealth, more than she can afford to lose. She needs to evaluate the risk on the basis that the change in the law might lead to the boat being scrapped as worthless before she has received any revenue from the project. She should actually decide on the basis of a discount rate that ignores the possibility of the change in the law. She should then make a subjective decision as to whether that revised net present value is sufficient incentive to risk the loss of her savings.

It might be appropriate to adjust the discount rate for a decision maker who has a large number of projects to consider. That would mean that the “all or nothing” aspect of these risks would not apply because of the portfolio effect.

*Part (i) – This question was done badly with very few candidates making a good attempt.*

*Part (ii) – This part of the question was done very badly. Very few candidates made a reasonable attempt at this question and many missed it out. Those who did attempt the question found it very difficult to clearly express an answer and even more just wrote a brief explanation of certainty equivalents. It is important to think of application of knowledge when revising.*

*Part (iii) – Unfortunately this part of the question was not done well. Again it seems to be an area where candidates found it difficult to apply knowledge learned from the core reading.*

## **END OF EXAMINERS' REPORT**