INSTITUTE AND FACULTY OF ACTUARIES

EXAMINERS' REPORT

April 2013 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

July 2013

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 2013 paper

The general performance was slightly improved than in September 2012 well-prepared candidates scored well across the whole paper. The comments that follow the questions concentrate on areas where candidates could have improved their performance. Candidates approaching the subject for the first time are advised to include revision of these areas in their preparation. The main problems were Q19 and 20; however many candidates scored excellent marks in all questions.

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

None of the multiple choice questions caused problems and the marks were good for questions 1–10.

11 Companies should take the effect of tax into account when determining the cost of finance. Most companies will find that debt reduces taxable profit, which will also reduce the cost of debt compared to equity. If the company is making losses then the use of debt will simply increase the loss for tax purposes and so there will be no tax benefit.

It may be that losses can be carried forward and offset against future taxable profits, so that should be considered as part of the overall analysis.

Perceptions could also be important. If the directors act in a manner that suggests they do not see a return to profit in the foreseeable future then the shareholders may view that as a lack of confidence.

The tax effects of certain borrowing schemes can be relevant even to loss making companies. For example, lessors can often claim the tax benefits associated with buying assets into account in setting lease payments. Those can be passed on to the borrower in the form of a lower lease payment.

The answers to this question were weaker than for many others. Many candidates did not seem to know much about taxation and why it might be considered in financing decisions.

12 The first risk is that Sarah could lose everything. As a partner she will not be reimbursed her capital in the event of failure unless all of the creditors have been paid in full.

If the business makes a loss then her capital will be eroded.

In the event that she finds Tom difficult to work with she will have to either persuade him to buy her stake or she will have to have his agreement to sell her stake to a third party. In any case, it may be difficult to find an interested potential buyer.

Sarah's liability will be joint and several. She will be liable for all of the debts incurred by the business, not just the 30% implied by her stake. Creditors could pursue her personal property in the event that they are left unpaid.

There were some excellent answers to this question.

13 From a financial point of view, the issue of redeemable preference shares may be very similar to issuing debt. The directors will be able to suspend the preference dividend in the event that they could not afford to pay it so there is a little more flexibility than borrowing. However, there will be a penalty, almost certainly involving the suspension of the ordinary dividend while the preference dividend remains unpaid.

The rate of preference dividend is fixed, which means that the impact on the volatility of earnings per share is equivalent to making fixed interest payments. In some ways, preference shares may be worse because the preference shareholder will want a significant rate of dividend to account for the risk that is being taken relative to lending.

The redemption of the share imposes exactly the same financial burden as a loan that is to be repaid in a lump sum at the end of the loan period.

Candidates will be awarded marks if they write about the accounting treatment of redeemable preference shares as set out in IAS 32.
Candidates were slightly weak at this question. There were few very good answers. There seemed to be a general lack of understanding of this topic.

14 The definition of an asset hinges on the question of control. That can sometimes be distinguished on the basis of holding the risks and rewards of ownership. The nature of a finance lease is that the lessee enjoys the risks and rewards of ownership because the lease grants the lessee the use of the asset for most or even all of the asset's expected useful life.

If the asset is recognised in the financial statements then it will be necessary to show the associated liability arising from the lease. If the lessor has purchased the asset for the lessee's exclusive use then it follows that the lessee must be committed to repaying the value of that asset through the lease payments.

Legal ownership is not a material element of the definitions of assets or liabilities.

This question was done very well by most candidates.

15 The swap itself may lead to a negative net present value. Presumably, the company signed the swap in the expectation that interest rates will fall, in which case, the swap would effectively lower the cost of borrowing. If rates rise then the swap will cost the company money.

The two parties do not actually exchange their commitments, so the failure by the counterparty would not leave the company committed to both sets of payments. The default of the counterparty could leave the company with an uncollectable receivable if the cash flows were in the company's favour.

The counterparty may be at risk in either scenario. If rates fall then the counterparty may be at a commercial disadvantage to competitors with floating rate liabilities, who can pass the reduction in interest rates on to customers in the form of lower prices. If rates rise then the counterparty's customers may reduce their spending in response.

This question had some very mixed answers; some candidates did very well and others lacked understanding of swaps.

16 Simulation is an excellent way to deal with complicated projects where there are many interactions between variables. The success or otherwise of this investment will be affected by the economy and demand for power. Fuel prices will affect the cost of conventional power generation and the ability of the competition to undercut wind power. Those factors may affect costs such as interest (e.g. higher energy prices will increase inflation and so boost interest rates).

Simulation will make it possible to model such links in a detailed manner and to run the model frequently until an equilibrium is reached. This can be combined with unrelated variables, such as the weather – which will again affect demand and also the ability of wind power to generate electricity.

This question was done very well by most candidates. This question has been asked in a slightly different format in previous diets and it was not surprising that it was done well.

17 In the worst possible case the directors will create the risks associated with borrowing without any corresponding disclosures. That could lead to shares being purchased and sold at inflated prices. It could also lead to shareholders accepting risks that they would normally refuse.

The company could fail unexpectedly if it fails to keep up with the commitments imposed by this arrangement.

The shareholders are likely to suffer greater borrowing costs than would arise from traditional loans. The investment banks tend to charge a fee for their services in providing this type of arrangement.

Many candidates did this question well.

18 The statement of financial position shows a snapshot of liquidity at a point in time.

The figures are determined annually at the same time of year. That may give an insight into changes, but it also ignores the possibility that the year-end position is at the very end of the annual business cycle and is not representative of the year as a whole.

The liquidity position can be distorted by window-dressing and so it may understate any liquidity risks.

The statements are not published immediately after the year end and so there could have been a massive change in the liquidity picture since the year end. The company could have looked solvent six weeks ago but that could mean very little with respect to current trade payables.

This question was done extremely well.

19 (a)

Holder
Income statement
for the year ended 31 March 2013

	£000
Revenue	1,686,000
Cost of sales	(782,200)
Gross profit	903,800
Administration expenses	(3,600)
Distribution costs	(231,000)
	669,200
Interest paid	(38,400)
Profit for year	630,800

(b)

Holder
Statement of changes in equity
for the year ended 31 March 2013

	Share capital £000	*Revaluation reserve*	*Retained earnings £000*	*Total £000*
Opening balance	210,000	240,000	262,350	712,350
Revaluation		255,000		255,000
Profit for year			630,800	630,800
Dividends			(150,000)	(150,000)
Closing balance	210,000	495,000	743,150	1,448,150

(c)

Holder
Statement of financial position
as at 31 March 2013

	Notes	*£000*
Non-current assets		
Property, plant and equipment	**(1)**	1,644,800
Current Assets		
Inventory		36,000
Trade receivables		126,000
		162,000
Total assets		1,806,800
Equity and liabilities		
Equity		
Share capital		210,000
Revaluation reserve		495,000
Retained earnings		743,150
		1,448,150
Non-current liability		
Loan		300,000
Current liabilities		
Trade payables		57,000
Bank		1,650
		58,650
		1,806,800

Notes

(1) Property, plant and equipment

Cost or valuation	*Land*	*Buildings*	*Machinery*	*Vehicles*	*Total*
	£000	*£000*	*£000*	*£000*	*£000*
Opening balance	840,000	450,000	186,000	375,000	1,851,000
Revaluation	160,000	50,000			210,000
Closing balance	1,000,000	500,000	186,000	375,000	2,061,000

Depreciation					
	£000	*£000*	*£000*	*£000*	*£000*
Opening balance		45,000	84,000	255,000	384,000
Revaluation		(45,000)			(45,000)
Charge for year		10,000	37,200	30,000	77,200
		10,000	121,200	285,000	416,200
Net book value	1,000,000	490,000	64,800	90,000	1,644,800

Workings

Cost of sales	
cost of inventory consumed	435,000
factory running costs	105,000
manufacturing wages	195,000
depreciation of buildings	10,000
depreciation of machinery	37,200
	782,200

Distribution	
advertising	66,000
delivery vehicle running costs	51,000
sales salaries	84,000
depreciation of vehicles	30,000
	231,000

Candidates generally demonstrated a good understanding of the basic issues of accounts preparation. There were some excellent attempts at this question but also some very weak attempts.
There are many places that errors can occur and it is very easy to make careless mistakes.

20 (i) Geared beta = ungeared beta × (1 + debt:equity ratio × (1 − tax rate))
= 1.3 × (1 + 220/600 × (1 − 0.23))
= 1.667

k_e = 4 + (1.667 × (9 − 4))
= 12.335

(ii) Coupon payment on debt = 250 × 5% = 12.5

NPV of debt at 6% = −220 + (12.5 × 4.212) + (250 × 0.747) = 19.4

NPV of debt at 10% = −220 + (12.5 × 3.791) + (250 × 0.621) = −17.36

Yield is approximately half way between 6% and 10% = 8% (to nearest whole %)

k_d = 8% × (1 – 0.23) = 6.16

(iii) WACC = (220/(220 + 600) × 6.16) + (600/(220 + 600) × 12.335) = 10.678%

(iv) It is very unlikely that the capital markets will be swayed by promotional material that simply describes Partan in a positive way. Advertising can create an emotional response to a product, but that is unlikely to be effective in the development of a company's financial instruments. Market participants will be keen to see evidence that the company can generate a cash surplus and have already formed a view on the extent to which that will happen. The information that is already in the public domain will have been incorporated into the share price and simply restating that information in the form of a sales promotion is unlikely to change anything.

It is possible that the directors will have a more positive view on the company's prospects because they have inside knowledge and will be better informed. It may be that they can communicate some of that additional information in order to correct any under-pricing. If the markets believe the directors then the cost of capital may be re-evaluated and reduced.

The fact that the directors have an incentive to argue for a lower cost of capital may mean that the shareholders will be suspicious of this initiative. The directors will almost certainly have to release commercially sensitive information that is open to verification. The cost of capital may then decline slowly when the initial disclosures are shown to be valid and the markets start to trust the board. If the company develops a reputation for keeping the markets informed in a timely and accurate manner then the directors will develop a reputation for honesty and the cost of capital may remain at a lower level.

This question was possibly the least well done question of the paper. Parts (i) and (iii) were badly done with candidates making a variety of mistakes. The theory part of the question was *done badly by a number of candidates, with some of the explanations given showing very little understanding of the subject.*

END OF EXAMINERS' REPORT