INSTITUTE AND FACULTY OF ACTUARIES

EXAMINERS' REPORT

September 2018

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.

Mike Hammer
Chair of the Board of Examiners
December 2018

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, 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 of where insufficient working is shown.

B. General comments on *student performance in this diet of the examination*

1. Many of the questions were answered very well. Question 19 in particular was excellent with many candidates scoring full marks for the preparation of the set of financial statements. There were one or two questions where the performance was poor most noticeably question 20.

C. Pass Mark

The Pass Mark for this exam was 60 .

Solutions

1	C	[2]
2	A	[2]
3	A	[2]
4	D	[2]
5	A	[2]
6	B	[2]
7	B	[2]
8	C	[2]

9 B [2]

- Correct answer = 30.0/ (80.0+140.0+20.0) = 12.5%
- No loans = 30.0/ (80.0+140.0) = 13.6%
- Deduct interest = (30.0-1.6)/ (80.0+140.0+20.0) = 12.9%
- Deduct tax = (30.0-2.5)/ (80.0+140.0+20.0) = 11.5%

10 A [2]

- Correct answer = (10,000 – 3,000)/10 = 700
- No residual value = 10,000/10 = 1,000
- Add residual value = (10,000 + 3,000)/10 = 1,300
- Net book value = 10,000 – (700 x 8) = 4,400

In general the questions 1-10 were answered well by most candidates.

11 Company directors will generally wish to maintain strong market prices for shares and also bonds and other debt [1]
If the company is not as well managed as it could be then market prices can be expected to drop. [1]
Price falls could signal the market's dissatisfaction with the directors and could result in a change to the directors' behaviour in response. [1]
For example, if the shareholders are concerned that the directors will abuse their positions as agents, the directors could view that as an incentive to send out a positive signal. [1]
The directors could, for example, hire a more expensive and more credible audit firm in order to demonstrate a commitment to transparency and honest [1]
Market prices may also give the directors an incentive to maximise shareholder wealth. [1]
If, for example, they waste money on unnecessary expenses then the share price will fall, creating the opportunity for a bidder to offer a premium in order to acquire a controlling interest and correct matters. [1]
[Max 5]

This question was answered well with many candidates scoring a high mark.

12 Margin payments are used to protect market participants from the effects of default. [1]
There is no reason for cash to change hands at the time of entering into a futures contract until the contract's maturity. [1]
The margin will always be sufficient to settle any liability and so participants can be certain that they will receive everything that they are entitled to at maturity. [1]
The margin payments will tie up cash, which could be a problem if a company is an active player in the derivatives markets and has a number of positions outstanding. [1]
No interest is paid on this deposit and so there could be a cost to tying up cash. [1]
Derivatives can be volatile and so the margin can increase significantly and unexpectedly. [1]
That could lead to difficulties in managing cash flows. [1]
[Max 5]

This question was done badly by most candidates. Most candidates failed to demonstrate sufficient knowledge of derivatives and margin calls. These finance questions are often the questions that are not done very well.

13 Opportunity costs are relevant to any decision because they suggest that there could have been benefits from an alternative course of action that is no longer available. [1]
The most obvious example would be in choosing between two mutually exclusive projects. [1]
Both could have positive NPVs, but one could have a higher NPV than the other and so the lost opportunity could be a significant matter. [1]
Opportunity costs can be difficult to evaluate. [1]
First of all, there is no guarantee that all opportunities have been identified and measured. [1]
Also, an accurate estimate could involve a significant cost in terms of time and effort. [1]
Concerns that there could be unexplored opportunities could mean that projects are delayed unnecessarily in order to further explore for alternatives. [1]
[Max 5]

This question was not done very well but some candidates did score high marks. Candidates were struggling to think of reasonable examples and quoted examples that were not relevant.

14 The reason that gearing matters is that debt is cheaper than equity, but it has the effect of enhancing the impact of any volatility in operating profit. [1]
The line of business will play a part in determining the underlying volatility and so could make debt more or less attractive. [1]
A stable business with steady revenue has far less to be concerned about with regard to gearing and so it can borrow more. [1]
Stability will also affect the availability of taxable profits against which to offset the costs of additional debt. [1]
If a company risks making operating losses then there will be less scope for benefitting from the tax relief available on debt. [1]
The line of business can also affect the availability of collateral. [1]
Debt will be even cheaper if it can be secured against readily realisable assets. [1]
For example, a property company may own valuable real estate that generates steady rental income. [1]
That business could afford to be far more highly geared. [1]
[Max 5]

This question was reasonable with many candidates giving good answers. Some candidates struggled to come up with more than two or three points.

15 A low P/E ratio implies a lack of confidence on the part of the stock market. [1]
That means that the share price is depressed in comparison to similar businesses because shareholders will pay a smaller multiple of earnings. [1]
The directors will be concerned that the shareholders may be dissatisfied with the return on their investment and so they may contemplate replacing the board. [1]
It may be difficult for the directors to do much with respect to the P/E ratio. If they can improve profits and financial performance then that might boost the share price and the P/E. [1]
The only difficulty with that strategy is that it is to be hoped that the directors are already doing their best to maximise profit. [1]
The share price will take account of management's likely performance and so there may be very little scope for improving the P/E ratio. [1]
A low P/E ratio may make it difficult to raise fresh equity. [1]
The shareholders may believe that issuing additional shares at a discount to the current price will cause an unrealistic dilution of their shares. [1]
[Max 5]

There were some weak answers in this question. Again, candidates struggled to make more than one or two points. Some explanations were confused and candidates seemed unsure whether a low or a high P/E ratio was good and what the P/E ratio showed.

16 The first thing that Kate should consider is that Contro has had low liquidity ratios for at last the previous year and possibly even longer. [1]
If the company survived a low liquidity ratio for more than a year then perhaps it is reasonable to expect that it will continue to do so. [1]
The same argument could be applied to the fact that Contro is still in existence and operating despite posting financial statements that suggest weak liquidity two or more months ago. [1]
Liquidity merely has to be sufficient. Once working capital is large enough to sustain operations there is no real advantage in it being even larger. [1]
Tying funds up in working capital is actually undesirable because it generates no return. [1]
A further complication is that the working capital position can become distorted at the year end because of creating accounting schemes such as window-dressing. [1]
The company could have organised its payable and receivables so that they appear to be well managed and that could have distorted the impression created by the liquidity ratio. [1]
[Max 5]

This question was done well. Most candidates came up with good points about working capital.

17 The cash flow statement reconciles the increase or decrease in cash for the year to show the effects of inflows and outflows. [1]
Without the cash flow statement the increase or decrease in cash would be potentially misleading. [1]
For example, it would always be possible to create a significant increase in cash by taking out additional loans year after year. [1]
The cash flow statement highlights cash from operations, which is a significant element of whether the company's operations are sustainable. [1]
If the company cannot generate a surplus from operations then the business itself will need to raise cash in unsustainable ways such as selling productive assets. [1]
The cash flow statement also highlights the ways in which additional funds raised during the year have been applied in terms of investment and expansion. [1]
[Max 5]

This question was not done as well as some other questions. A significant number of candidates got confused about whether it was the same as the cash flow statement.

18 The external audit is necessary because the directors are responsible for the preparation of the annual report. The shareholders rely on the financial statements that it contains in order to evaluate the directors' stewardship. [1]
In the absence of an audit, the financial statements would have little or no credibility because the directors could be suspected of manipulating the financial statements in order to give the shareholders a false reassurance. [1]
If the shareholders cannot trust the financial statements then there is a very real sense in which they cannot trust the directors. [1]
The external audit addresses these concerns by expressing an opinion on the truth and fairness of the financial statements. [1]
The auditor gathers evidence concerning the accounts and studies the resulting figures in the financial statements. [1]
The auditor evaluates the accounting policies that have been applied in order to decide whether they are acceptable. [1]
The audit report expresses a clear statement of the auditor's opinion on the truth and fairness of the financial statements. [1]
If that opinion is unmodified then the shareholders can rely on the figures [1]
[Max 5]

This question was not done very well, there were some very weak answers. Few candidates came up with any ideas apart from the shareholders would not be able to rely on the audit report. That is the main problem but there are other stakeholders as well which could have been mentioned as could misstatement of the financial statements.

19 (i)

Nolton plc
Statement of Comprehensive Income
for the year ended 30 June 2018

	$000	
Revenue	135,418	[0.5]
Cost of Sales	(54,491)	[2.5]
Gross profit	80,927	
Distribution Costs	(14,219)	[1.0]
Administrative Expenses	(18,438)	[1.0]
Operating profit	48,270	
Finance costs	(355)	[0.5]
Profit before tax	47,915	
Income Tax Expense	(5,700)	[0.5]

Profit for the year	42,215	
Other comprehensive income		
Revaluation gain	2,330	
Total comprehensive income	44,545	
Format		[1.0]
Revaluation (either separate statement or simply in statement of changes in equity		[1.5]

Nolton plc
Statement of Changes in Equity
for the year ended 30 June 2018

	Share capital	Share premium	Revaluation reserve	Retained Earnings	Total	
	$000	$000	$000	$000	$000	
Opening balance	13,005	3,468	3,000	9,879	29,352	[0.5]
Profit for the year				42,215	42,215	[1.0]
Dividends				(809)	(809)	[0.5]
Gain on revaluation			2,330		2,330	
Closing balance	13,005	3,468	5,330	51,285	73,088	

Nolton plc
Statement of Financial Position
as at 30 June 2018

	Notes	$000	
Non-current assets			
Property, plant and equipment	[1]	65,130	[2.0]
Current Assets			
Inventory		5,274	[0.5]
Trade receivables		11,507	[0.5]
Cash at bank		1,238	[0.5]
		18,019	
Total assets		83,149	
EQUITY AND LIABILITIES			
Equity			[0.5]
Called-up share capital		13,005	
Share premium account		3,468	
Revaluation reserve		5,330	
Retained earnings		51,285	
Total equity		73,088	

Non-current liabilties		
Loans	2,890	[0.5]
Current liabilties		
Trade payables	1,471	[0.5]
Tax	5,700	[0.5]
	7,171	
Total of equity and liabilities	83,149	
Format		[1.0]

Notes

1. Property, plant and equipment

	Property $000	Plant and equipment $000	Total $000
Cost or valuation			
At 30 June 2018	16,000	56,644	72,644
Depreciation			
At 30 June 2018	-	7,514	7,514
Net book value			
At 30 June 2018	16,000	49,130	65,130

Workings

Cost of sales	
Manufacturing costs	13,872
Opening inventory	4,913
Purchases	32,021
Wages	8,959
Closing inventory	(5,274)
	54,491
Distribution	
Commissions	7,118
Expenses	7,101
	14,219
Admin	
Expenses	7,514

Salaries	10,924
	18,438

Revaluation

Cost	26,010
Depreciation	(12,340)
	13,670
Gain	2,330
	16,000

[Max 15]

(ii) The revaluation gain does reflect an increase in the shareholders' wealth and, as such, it could be taxed when the gain is realised. [1]
The problem with taxing the gain at the moment is that the gain itself is uncertain and could change over time. [1]
In principle, the gain could reverse if the value of the property decreases. [1]
In that event, it would be necessary for the tax authorities to refund the tax already paid on the gain. [1]
If the gains come and go then the tax system could become difficult to manage with tax gains and losses being recognised as

[Total 20]

> *Part i was excellent many candidates achieved full marks. Part ii was less well done but many candidates scored a pass. Very few candidates mentioned taxation.*

20 (i) Geared beta for comparative company = 1.4 [1]

Ungeared beta = B_U = B_g / [1 + ((1 - Tax Rate) x Debt/Equity)]

1.4/1+(1-0.2)x0.6/1)

=1.4/1+ 0.8x 0.6)

= 1.4/(1+0.48)

= 0.946 [3]

Cost of equity = 4 + (0.946 x 10 = 13.46% [2]

[Max 6]

(ii) The rate reflects the systematic risks of this investment. [1]
As such, it takes account of the risks associated with this investment. [1]
The investment itself is really just an expansion of the business and so the project's risks are essentially the same as for the entity as a whole. [1]
The required rate of return on this project has been determined by observing the rate required for similar equity investments. [1]
The starting point is the geared beta coefficient for a similar company that is quoted and so has an observable beta. [1]

That beta is then adjusted to remove the effects of gearing in order to ensure that it reflects only the equity risks. [1]
The resulting rate may not be entirely appropriate. For example, the beta calculation is based on historical observations. [1]
Expectations of risk may be different moving forward. [1]
[Max 7]

(iii) The rate resulting from these calculations reflects the return required by a shareholder who holds a well-diversified portfolio. [1]
The three founders have put all of their wealth into this company and their family homes, so their portfolios are not at all well diversified. [1]
The rate that we have determined ignored the effects of unsystematic risks and so it understates the required rate of return that should be sought by the founders. [1]
Typically shareholders hold a range of investments and so the unsystematic risks can be ignored because of the impact of diversification. [1]
For example, a change in selling prices might harm Doron, but it should, hopefully, benefit at least one other company in the portfolio. [1]
The three founders each have only one other asset, namely their family homes. [1]
Even if their homes increase in value to offset any loss in Doron, they cannot realise those gains without selling their homes or borrowing against them. [1]
The danger is that Doron could invest in projects that offer insufficient return for the risks that are being accepted by the founders. [1]
[Max 7]
[Total 20]

Part i was reasonably well done with many candidates scoring full marks. Calculations are always done well and this was no exception. Part ii and iii were very poor a number of candidates got confused about systematic and unsystematic risk. This area is always very weak, it would be good if candidates looked more closely at it during revision.

END OF EXAMINERS' REPORT