INSTITUTE AND FACULTY OF ACTUARIES

EXAMINERS' REPORT

September 2012 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.

D C Bowie
Chairman of the Board of Examiners

December 2012

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 September 2012 paper

The general performance was slightly poorer than in April 2012 although 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. The main problems were Q14 and 20.

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

Workings

1

A 1.40 × 10/11

B (1.40 × 10/11) + 7%

C present share price – unchanged because the return on each share is expected to remain constant

D 1.40 + 10%

6 Equity = Assets – liabilities

A £25,000 = (100,000 + 7,000) – (82,000) – Ignore WC

B £32,500 = (100,000 + 7,000 + 8,000) – (82,000 + 500) – correct answer

C £40,000 = initial stake

D £52,500 = (100,000 + 7,000 + 8,000) – (82,000 + 500 – 20,000) – ignore initial loan

8

A 40/(150 + 60) × 365 = 70 days – total sales
B (40 + 5)/(150 + 60) x 365 = 78 days – total sales and sundry debtors
C 40/150 × 365 = 97 days – correct answer
D (40 + 5)/150 × 365 = 110 days – includes sundry debtors

The MCQs were done well as usual.

11 The company will offer greater flexibility in the future. Admitting fresh capital will require only the sale of shares to one or more new principals. The company will probably be easier to sell in the future because there will be greater clarity over its assets and liabilities. There will be fewer matters that have to be agreed or decided at the early stages of the business' existence because the company will have to be incorporated and managed in accordance with the requirements of company law. The company will have to prepare its accounts in accordance with specific accounting standards and that will give the company a more credible track record when dealing with third parties. The partners' personal liability will be restricted to the guaranteed loan, so the other creditors will not be able to seek compensation from their personal assets.

This question was done well by most candidates.

12 The directors will be aware that any inefficiency could lead to the shares becoming devalued. In that case it will have the effect of encouraging a third party to make an offer to buy a controlling interest. Such bids usually involve the payment of a premium over the market price and so they will only make commercial sense if the direction of the company is changed and refocused in the aftermath of the takeover. That usually means replacing the management team and so the existing directors will be made redundant. If the takeover is contested then there is likely to be a public argument about the company's ineffective management and so the directors' reputation will be damaged and they will be less marketable in terms of their careers. On the other hand, the directors have a responsibility to act in the interests of the company's current shareholders, and if the existing shareholders were going to take cash then any overvaluation is in their interest and they should not be concerned about the future direction of the company.

This question was done badly by some candidates with very few candidates mentioned replacing the management team or ensuring the management team was effective.

13 The most obvious advantage is that management costs will be substantially reduced compared to a more proactive fund. The fund's managers do not need to conduct extensive research because they are actively trying to "buy the market" and so there is no need to spend time and incur cost in identifying "good" investments. That will also mean that there are likely to be fewer agency issues because the fund's managers do not need to deliver performance that exceeds the market rate. If the index has a weak return then the fund will mirror that, but the managers will still have performed in accordance with expectations. Dealing costs will also be reduced because the only transactions that will be necessary will be the very occasional purchase or sale to refocus the balance of the fund if it starts to fall out of line with the index that it is tracking. Such funds will also be attractive to investors who wish to diversify in a particular direction that is served by a fund, into such investments as Singaporean securities or whatever.

Investing in this fund will offer investors a degree of diversification, which may be less risky for those investors who would otherwise buy a narrow range of securities.

This question was done very well by many candidates.

14 The uncertainty will create a distraction for management because they will have to agree an interpretation with the tax authorities. That will increase legal and accountancy fees because the directors have a duty to resolve any disagreement in the company's favour. This could prove expensive because the tax authorities have the backing of government and are likely to afford to spend more in the pursuit of an increased tax payment than the company can spend in defence. The tax authorities could be motivated by the desire to establish a precedent and that could mean the case gets blown out of all proportion.

The uncertainty will make it far more difficult for the company to budget and plan its cash flows. There is also a risk that the company will base major decisions on assumptions about tax planning that could prove to be invalid if the tax authorities press for a different interpretation.

This question was done very badly which was disappointing.
Many candidates did not answer what was asked in the question but discussed tax in general.

15 It is possible that management will have a change of heart in the course of an extensive loan period. For example, a fixed rate loan could have been taken out at a time when it was felt that interest rates were likely to rise, but that threat could have passed. Switching to a variable rate loan could prove cheaper. Swaps provide a far cheaper alternative to facing the penalties associated with early repayment and the replacement of one loan with another.

Some entities have a specific advantage in a particular area of finance. For example, banks often raise funds at variable rates by taking customer deposits. It is attractive to diversify by mixing fixed rate with variable rate liabilities. Banks can offer a variable rate loan via a swap arrangement at a rate that would be more attractive to many borrowers than a straightforward variable rate loan arranged in the traditional way.

This question was done very well by many candidates.

16 Issuing fresh shares can undermine the interests of existing shareholders. For example, the shares will normally have to be issued at a discount and that will dilute the existing shareholders' investments. Also, the directors could place shares in such a way as to interfere with the ability of particular groups to exercise control.

Rights issues mean that there can be no dilution effect because the shareholders can either buy the shares and take advantage of the discounted price or they can compensate themselves by selling the rights. There is also no question of passing control to a particular group by placing shares with them or of excluding a powerful group of shareholders from a placement. Existing shareholders can continue to hold their present proportion of the company provided they can afford to take up their rights.

The stock exchange rules or the company's articles may require the use of rights issues.

This question was answered very well by most candidates.

17 Simulation copes with the mathematical problems associated with more traditional modelling of investment decisions. Provided the probability distributions are reasonably realistic then there is no need to solve all of the equations that are implied by a more traditional model. Computing power is cheap and readily available and so the simulation can be run as frequently as necessary to be confident that the results are robust. The output is relatively easy to understand because the results can be expressed in terms of the probabilities of achieving a result that is better or worse than a given target.

The advantages must be discussed in terms of the potential drawbacks. The fact that there is no mathematical solution means that the results could be very misleading if the model is incorrectly specified. Such errors may not come to light until it is too late. The technique is reliant on the quality of inputs and assumptions and by increasing the number of assumptions about probability distributions or project outcomes, you increase the risk that some of them are invalid.

This question was answered reasonably well; some candidates did not discuss that the results could perhaps be misleading.

18 One problem is that businesses are complex entities and their accounting issues are often difficult to understand. The interests of shareholders and other users are also complex and it is difficult to know exactly what information is required, especially given the possibility that shareholders have access to information from sources other than the annual report.

The fact that the standard setting process is international means that standard setters have to cope with cultural problems in terms of different business practices. Even the translation of standards into other languages will affect the standard setter's task.

Historically, standards have been set in response to problems with accounting and that has made the standard-setting process reactive. Preparers of financial statements can also interfere with the standard setter's ability to enforce unpopular standards.

This question was answered reasonably well by many candidates. Many candidates gave good answers that included good discussion of international standards and the problems associated with translation.

19 (i) Foxton is considerably smaller than Echo in terms of revenue and would not impact Dayton's revenue to the same extent. Echo has the higher return on capital employed of the two alternatives, but both are lower than Dayton. Dayton will take a reduction on ROCE in either case, but it is not necessarily clear which of the two will have the greater impact when size is taken into account. The following could be used to estimate the impact:

	Dayton	*Echo*	*Foxton*
Profit = profit margin × revenue	£130m	£55m	£46m
Capital employed = profit/ROCE	£722m	£393m	£418m
Revenue	£500m	£250m	£140m
Dayton's revised ROCE when combined		17%	15%

Foxton has a higher profit margin and so it will enhance Dayton's margin when the two businesses are combined. Dayton will appear to be a better trader when combining the figures

Both Echo and Foxton have lower gearing ratios than Dayton. Unfortunately, both will be forced to cancel preacquisition equity if they are consolidated and so both will simply add liabilities to Dayton's statement of financial position. Thus, in the short term, Dayton's gearing will increase even further. In the longer term, Foxton can generate £140m × 33% = £46.2m of profit every year and Echo £250m × 22% = £55m and so both will start to accrue retained earnings for the group, thereby diminishing gearing.

The P/E ratios suggest that Echo will be the more expensive acquisition because the markets presently value the company at a higher multiple of earnings and the company is also larger to begin with. It may be that Foxton will be the better investment because the same industrial and commercial logic applies to each company and so Dayton can build its entry into that niche just as easily from Foxton as from Echo.

(ii) The financial statements are not designed for this purpose. The accounts are prepared to assist the shareholders with stewardship decisions concerning the actions of the directors and are not intended to stand alone as the basis for an investment decision. For example, the information in the financial statements is historical whereas valuation is always forward-looking. Also published accounts value assets on the basis of going concern and ignore some adjustments that a buyer would insist upon. For example, the valuation of inventories and receivables may be relatively rough and may overlook overstated figures that would concern a buyer.

There is also the possibility that the preparers of financial statements have taken advantage of the flexibility in accounting to push the reporting earnings in a desired direction. The directors may wish the shares to change hands at the highest possible price and profit could be influenced so as to bring that about.

(iii) Goodwill is the difference between identifiable net assets and the price paid. That suggests that Echo's likely selling price will be affected to a greater extent by unrecognised intangibles such as brand names and human assets. That goodwill will drive down the ROCE in the consolidated financial statements. It will also leave the group exposed to a greater threat of impairment adjustments because there is more goodwill to be impaired.

Generally all parts of this question were answered reasonably well. Part (iii) was the poorest with candidates not demonstrating much knowledge of intangible assets. Candidates were unsure of the effect on ROCE.

20 (i) Banks impose restrictive covenants on further borrowing because they do not wish to risk their principal being left unpaid if the company is forced into liquidation. If a company fails then lenders are paid out of its assets before the shareholders receive anything. Limiting the proportion of assets financed by borrowing should ensure that here are sufficient assets to pay all creditors in full. If there are not then many lenders will be forced to settle for just a percentage of the amount that is owed to them.

Lenders will also wish to restrict total borrowings because high gearing increases the risk that a company will fail because of the need to raise cash in order to service debt. Even if the company has sufficient funds to pay lenders, there will be costs (e.g. legal expenses) if the loan defaults. It will also leave lenders with cash that they have no immediate use for and so it will cost them interest if they are repaid early and without much advance warning.

Limiting gearing might also make the shareholders more risk averse. If the company has been financed largely from borrowings then the shareholders might feel rather reckless because much more of the risk is being borne by lenders. Making the shareholders commit a significant amount of their own money to the venture means that the business should be managed more responsibly.

(ii) Allowing borrowings to come close to the maximum means that the company's finances will be less flexible and less responsive in the face of new opportunities. It can be difficult to raise equity quickly and it is often uneconomical to raise equity in relatively small amounts. Loans can be raised relatively quickly and for comparatively short periods. This makes it desirable for a company to have some borrowing capacity free.

If the gearing ratio is close to the maximum then any losses might reduce equity and that could create problems with meeting loan conditions. Similarly, downward revaluations of fixed assets could reduce equity and increase gearing to unacceptable levels.

Banks might be reluctant to continue short-term overdraft facilities if the company is viewed as highly geared. They might decide to reduce the overdraft limit at a time when the gearing ratio would make it difficult to raise fresh debt from other sources.

There is always a risk that new accounting standards will be introduced that will have the effect of reducing the book value of equity or increasing the book value of debt. The closer the company is to its borrowing limits, the greater the risk that any new standard will cause problems.

(iii) (a) The capital markets will not be aware of the decision to turn down a positive NPV project and so the assertion may be true in the short term. The problem that arises is when the company passes on so many opportunities that reported earnings start to decline. Ongoing investments are generally necessary in order to maintain a competitive edge and keep the company on track to meet investor expectations. Investors will also start to benchmark the company against similar businesses and will see the effects of the competitors' investments in terms of revenues and profits. This is clearly going to be a significant issue in an industry such as entertainment where companies are constantly announcing new products and fresh directions.

(b) This ignores the fact that the shareholders can diversify for themselves. The CAPM suggests that shareholders evaluate risk on the basis of diversified portfolios and the specific risks associated with, say, specific industry characteristics, disappear because of diversification. The shareholders are more likely to be confused by an investment that takes Hatton away from the core business that the board clearly understands. Diversification by the company will create inefficiencies that are likely to reduce the share price. On the other hand, diversification within the company may help avoid the costs of possible financial distress and so be of value to the shareholders.

This question was done badly. Part (iii) was poor especially part (b). Part (i) was not too bad and part (ii) was poorer. Generally candidates understood that high gearing was risky and why but in part (ii) they did not do well.
In part (iii)(b) candidates generally could not answer this question and did not discuss diversification.

END OF EXAMINERS' REPORT