INSTITUTE AND FACULTY OF ACTUARIES

EXAMINERS' REPORT

September 2010 examinations

Subject CT2 — Finance and Financial Reporting
Core Technical

Introduction

The attached subject report has been written by the Principal Examiner with the aim of helping candidates. The questions and comments are based around Core Reading as the interpretation of the syllabus to which the examiners are working. They have however given credit for any alternative approach or interpretation which they consider to be reasonable.

T J Birse
Chairman of the Board of Examiners

December 2010

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

11 Overdraft facilities are repayable on demand. If the facility is not managed properly then there is a risk that the bank will demand immediate repayment and that could have severe consequences for the company. The bank might also use the overdraft facility as a means of monitoring the business' financial health and any excessive reliance could undermine the business' credit rating. It is also undesirable to use overdrafts extensively because they are very expensive. It would be preferable to use a short term loan to replace the overdraft. Doing so would also free some of the overdraft facility to provide cover for contingencies.

12 Tax systems often focus more heavily on income rather than wealth, which means that taxpayers are more likely to be asked to pay a tax bill that is based on cash flows rather than other assets that might not be liquid. Tax charges are usually levied in arrears, so that the income has been earned before it is taxed. Tax systems often attempt to ensure that income is taxed only once, for example double tax relief reduces the chances of the same income being taxed by two separate regimes and similarly imputation systems are often designed to ensure that income tax is not paid on dividends that are paid out of profits on which corporate tax has been paid.
Tax systems also tend to feature tax free allowances and also accelerating rates, which makes them progressive and means that those who can afford to pay at a higher rate actually do so.

13 The main reason for paying a higher rate is that Eurobonds are issued outside of any legal jurisdiction. That lack of regulation increases the risk to the lender. Eurobonds tend to be unsecured, which increases the risk even further. Eurobonds are traded through banks rather than stock exchanges, which further reduces the scope for regulation. Eurobonds tend to be used to raise large amounts of money, and so a higher rate will make it easier to ensure that the issue is taken up.

14 There are qualitative factors that should be considered. For example, the life of borrowing should ideally be matched to the maturity of the associated assets. A medium term loan taken out to finance long term assets might have to be serviced out of cash flows from other projects.

Some companies need to have the flexibility to draw down funds when needed but repay loans when activity tails off. That type of facility will also be a factor in deciding whether the debt that has been borrowed is of the correct nature for the business.

There may be times when the risks associated with gearing are dwarfed by the risks of standing still and not borrowing in order to adapt to changing circumstances. The gearing ratio does not necessarily reflect the company's appetite for funds.

15 Managing project risks should take account of far more than the expected value of the risks. For example, the 20% risk is fairly likely to occur and its effects will not be catastrophic if they do. In that case, it would make more sense to accept the risk provided the NPV from the project offers sufficient compensation for the risk of losing £1m. The high probability of occurrence probably means that any alternative approach would be too expensive to consider.

The 1% risk is potentially catastrophic because it would erode 20% of the company's capitalisation. The low probability of occurrence probably means that it would be possible to hedge or insure in some way so that the risk can be avoided. If that is the case then the cost of the insurance will be taken on board in evaluating the project.

16 (a) If the share price falls then the market is effectively demanding that the profits earned by the company are capitalised at a higher rate of return. In other words, the cost of equity is increasing.

(b) If the share price is declining then there is a need to find positive NPV projects in order to halt the decline, but the board has to ensure that the cost of equity is at least met by these prospective investments. It may be that the directors have to cancel some projects that had previously been planned or reject proposals that would once have been funded.

The communication of the risks and rewards may also have to be managed more carefully. Management may have to convince shareholders that they are achieving good value from their investments.

17 The most immediate implication might be that market forces would discipline the company quite severely. Shareholders and other users might feel that the use of unacceptable accounting policies meant that the directors had something to hide, which would push share prices down and could push up interest rates. Some lenders might argue that the company is technically in default of debt covenants based on accounting numbers and they might even foreclose on the company.

There could be more direct action by regulators such as the stock exchange or other regulators.

18 The stock market sifts information carefully to ensure that it does not misprice securities. If shares are overpriced then there will be opportunities for astute market participants to make profits by identifying the overpriced companies and selling shares (possibly short). Market forces would push the shares down and these activities would also draw attention to the distortion.

Much of the optimism in making accounting choices is quite visible. For example, companies publish their accounting policies and so it is possible to tell whether a particular approach has been followed.

19 (i)

Real PLC
Forecast Income statement for the year ended 31 December 2010

	£000
Revenue	20,000
Cost of sales	(12,600)
Gross profit	7,400
Distribution costs	(1,200)
Administrative expenses	(400)
Operating profit	5,800
Finance costs	(712)
Net profit before tax	5,088
Tax expense	(1,500)
Profit for the year	3,588

Real PLC
Forecast balance sheet as at 31 December 2010

	£000
ASSETS	
Non-current assets	
Property	10,000
Plant and equipment	13,400
Total non-current assets	23,400
Current assets	
Inventories	1,500
Trade receivables	1,667
Bank	10
	3,177
Total assets	26,577
EQUITY AND LIABILITIES	
Equity	
Share capital	10,000
Retained earnings	3,997
Total equity	13,997
Non-current liabilities	
Long-term borrowings	10,000
Current liabilities	
Trade payables	1,000
Accrued interest	80
Current tax payable	1,500
	2,580
Total liabilities	12,580
Total equity and liabilities	26,577

(ii)

	Original figures	**With investment**
Profitability		
Return on capital employed	6,400/(14,677+6,000) = 31%	5,800/(13,997+10,000) = 24%
Gross profit percent	8,000/20,000 = 40%	7,400/20,000 = 37%
Liquidity		
Current ratio	2,177/2,500 = 0.9:1	3,177/2,580 = 1.2:1
Quick ratio	1,677/2,500 = 0.7:1	1,677/2,580 = 0.7:1
Efficiency		
Inventory turnover	500/12,000 × 365 = 15 days	1,500/12,600 × 365 = 43 days

Making this initial investment will increase the recorded cost of depreciation because of the company's policy of charging a whole year's cost when an asset is new and also increase the cost of interest because of three months' interest on the new loan. The reduced profit combines with the increased capital employed to yield a much lower return on capital employed. Overall, the company seems much less profitable than it would without the investment.

The company's liquidity will be affected by the increase in inventory, which has the effect of making the current ratio appear higher and less efficient. That combines with the much slower apparent inventory turnover to make the directors look as if they are not properly managing inventory.

If the directors do undertake this investment then they will have to ensure that the shareholders are adequately informed that the figures have been affected by the need to put the funding in place for the new project and also by the decision to install equipment and stockpile inventory ready for the start.

(iii) A year can be a very short period for a business that has a profit cycle of several years. For example, it might take three years to research a new product, which will then sell strongly for five years before becoming less popular. The danger is that profits will be depressed during the research phase of that cycle. If the directors do not trust the shareholders to appreciate the reasons for that then there is a risk that they will not invest adequately in development.

The same problem can arise with any investment programme. If the initial investment is made part of the way through the year then the balance sheet will show the closing position on capital employed and the directors will appear to have had those resources at their disposal when returns are being evaluated. The project may not have started during the year or it may have been in operation for only a short part of the year and so ratios such as return on capital employed will make the company seem inefficient.

20 (i) The venture capitalist will have a very similar interest in the survival of the company as the founder. A lender might be prepared to put the company out of business, but a venture capitalist may lose everything in that case. The venture capitalist's equity will also leave scope for borrowing if required, thereby providing scope for greater flexibility in seeking fresh funding.

The venture capitalist is likely to seek an exit route in the medium term to release funds that can be reinvested elsewhere. That could mean that the company has to fund a major outflow at a crucial stage of its development.

The other major problem is that the venture capitalist will be looking for a realistic price for the shares when they are bought out. If the company has prospered then the cost of releasing the equity may be prohibitive.

(ii) Share options give the directors an incentive to maximise the share price. That may have the effect of bringing their interests into line with those of the shareholders. The directors will have an incentive to work hard and use their ingenuity in order to create wealth for the company.

There are some dangers with options, though. The directors will need the share price to exceed the strike price before the options expire. That could give them an incentive to push the company's growth too quickly or even to distort the share price by manipulating the financial statements. The options also expire worthless, so the directors will have very little to lose if the options are out of the money and they decide to take a major risk. If the risk pays off then the options will be in the money and if not then the options would have been worthless anyway, but that will be of no consequence to the shareholders.

The value of the options will be enhanced if the company's share price becomes more volatile. The shareholders might prefer a less volatile (i.e. less risky) investment.

(iii) The auditor is appointed by the shareholders and reports to the shareholders. The external auditor has no specific duty to protect the shareholders interests. The auditor forms an opinion on the truth and fairness of the financial statements and reports that to the shareholders. If there are material concerns about the financial statements then they should be reported to the shareholders in the audit report.

The purpose of the audit is to ensure that the shareholders have a credible source of accounting information that they can use to make stewardship decisions. The auditors do not claim to identify badly run or unprofitable companies. It is up to the shareholders to make such decisions for themselves, informed by the audited financial statements as they deem appropriate.

END OF EXAMINERS' REPORT