# EXAMINATION

September 2006

## Subject CT2 — Finance and Financial Reporting Core Technical

## EXAMINERS' REPORT

**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.

M A Stocker
Chairman of the Board of Examiners

November 2006

**General Comments**

The results in this diet were disappointing. The marks were lower than usual and the level of knowledge shown was poorer than in the past.

Many of the questions were similar to previous diets and were answered poorly.

One of the problems was that some candidates did not answer the questions that were asked. Reading the questions carefully and making sure the answer is relevant is vital.

There were however some excellent candidates who gave good answers and it was heartening to see the high level of knowledge demonstrated by them.

**Other Comments**

Individual comments are shown after each question.

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

***Comments on questions 1–10:*** *These questions were reasonably well answered though few candidates got full marks.*

**11** If the company paid a dividend then the shareholders would have to pay income tax on the whole amount. Any profit made when shares are sold will be subject to capital gains tax. Capital gains tax only becomes payable once the shares have been sold and the gain realised. That provides taxpayers with more flexibility in managing their tax affairs because they have discretion over when they take the gain. Individual taxpayers have both income tax and capital gains tax allowances. Many taxpayers will pay income tax on their dividend income because their other income has exhausted these allowances. The effective tax rate on capital gains may be reduced or even zero on the basis that they use their annual exemptions.

***Comments on question 11:*** *This question was answered reasonably well. Some candidates concentrated on discussing franked investment income and got poor marks. It was good to see so many candidates understood Capital Gains tax.*

**12** Two methods of medium term finance could be bank loans or leasing. Under a finance lease, the lessee has the right to use the asset over a period of time, in return for a regular series of payments. The lessee takes on most of the risks associated with owning the asset e.g. insuring and repairing the asset. The present value of the payments under the leasing agreement will be shown as an asset in the lessee's balance sheet and as a corresponding liability. A 3–5 year bank loan is also a form of medium term borrowing. The amount of the loan is paid into the borrower's bank account and the borrower will repay capital and interest in regular instalments. The borrower is then free to purchase the asset of his choice and to seek discounts for paying in cash. Legal ownership of the asset changes hands immediately.
The interest rate implicit in a lease will usually be fixed and can be higher than a bank loan. The interest rate on a bank loan is usually variable. A bank loan may lead to a floating charge over all the assets of the company and the asset would form part of this security. The asset itself usually provides its own security in the case of a lease, thereby leaving the other assets available as collateral for other purposes.

***Comments on question 12:*** *This question was answered well by most candidates. It is important to make sure the question is answered, some candidates discussed short and long term finance which got zero marks.*

**13** The first problem is in measuring shareholder wealth. This is clearly indicated by the share price, but that can be a volatile indicator, that is not necessarily affected by just the company's efforts to manage the shareholders' wealth. Furthermore, management decisions that enhance shareholder wealth will only be recognised in the share price once the decision itself is announced. This information might be withheld for commercial reasons.

The second problem is that the directors are often perceived as having their own interests that are at odds with those of the shareholders. They might have an interest in enhancing their own rewards at the expense of the shareholders or of avoiding acceptable risks in order to put their job security before the wellbeing of the shareholders.

***Comments on question 13:*** *This question was not done as well as expected. The question was straightforward but many candidates only discussed the agency problem and so did not get as high a mark as they could have.*

**14** The principal reason for issuing futures is to enable entities to buy and sell risk, as a commodity. Futures make it possible to eliminate risk by agreeing to a fixed price for the acquisition of an asset or the settlement of a liability at a future date. The counter party to this transaction will benefit by taking the risk in return for a return. Futures also make it possible to speculate on the size and nature of the volatility in the underlying commodities. Market participants who believe that they can predict price movements can often "gear up" such fluctuations by buying or selling futures rather than the commodities or instruments themselves.

Futures are themselves designed to be traded as financial instruments in their own right. This facility creates further trading strategies to enable parties to contracts to modify their positions in a regulated market, with standardised contracts.

***Comments on question 14:*** *This question was poorly answered. A significant number of candidates wrote about different kinds of futures which was not required.*

**15** Underwriting is a form of insurance and so one important consideration is the exposure faced by the company if the issue should fail. The directors should consider the reasons for raising the finance. Withdrawal from a discretionary investment is less of a problem than withdrawal from one to which the company has made a public commitment .

The terms of the share issue are important. If the shares are issued at a large discount to current market prices then there is less risk that demand will fail and so there is less need for an underwriter. If share prices are volatile then there is a greater risk that prices will fall below the issue price, thereby rendering the issue a failure and increasing the need for underwriting.

The cost of the underwriters' facilities are also an issue. These are likely to be linked to the risks considered by the directors and so the greater the need for an underwriter the more expensive the service is likely to be.

***Comments on question 15:*** *This question was answered well by most candidates.*

**16** The simplest way to create this model would be to identify the variables that might affect the cash flows from the project. These would be modelled in terms of probability distributions, which could be represented by random numbers. Where factors are independent of one another then there will be a separate series of random numbers for each, otherwise relationships between factors will be built into the model. The simulation could then be run many times, with different sets of numbers, until a consistent average outcome and range of good and bad outcomes starts to emerge.

The cash flows themselves would have to be modelled. The cost structure might have to be modelled in terms of costs associated with different geological or other problems that might arise with the contract. The probability of each could be linked to random number tables. The discount rate will also have to be factored in. Discount rates and costs might be linked via inflation and so the model might have to use one set of core random numbers.

***Comments on question 16:*** *This question was answered well by many candidates, however some candidates discussed modelling in general and did not appear to know anything about Monte Carlo simulation. It is vital that candidates answer the question.*

**17** The biggest area for estimates and assumptions is with respect to determining the depreciation charge. The company must estimate the expected useful life of the asset and its estimated residual value. The company must also make assumptions about the manner in which the value decreases from original cost to the residual value — more rapid depreciation in the early years requires the use of the reducing balance approach.

There are also estimates and assumptions implicit in the capitalisation of costs in fixed assets. There can be some doubt as to whether expenditure is an ongoing operating cost (e.g. a repair) or part of the cost of acquiring or improving an asset. Some specific costs, such as the capitalisation of interest, require assumptions about the progress being made on the asset at any given time.

Many tangible fixed assets are shown at their market values. Such valuations are almost always a matter for professional judgement because there is rarely an observable market price for any particular asset or property.

Assets must also be subject to impairment reviews.

***Comments on question 17:***

*This question was straight from the Core Reading and high marks were anticipated. However many candidates gave disappointing answers. It was surprising to note that many candidates appeared to find depreciation confusing.*

*Some revision in this area would be advisable.*

**18** The principal test is of whether a company is a subsidiary of another is whether Company A can control Company B. There are some guidelines for the measurement of control in the Companies Act and accounting standards. This could happen if Company A has purchased more than 50% of the voting shares. Control might also arise if Company A can appoint or remove directors to or from the board of Company B, particularly if it could control more than 50% of the votes at board meetings in this way. Company A might also be able to exercise a dominant influence over Company B, for example by entering into a contract that gives Company A the ability to exercise control. A holding company would normally have between 20% and 50% ownership and significant interest to be an associate. These terms are difficult to apply in practice because control can be difficult to measure and to demonstrate.

***Comments on question 18:*** *This question was really well answered by almost all candidates. Well done!*

**19** (i) In theory, debt is cheaper than equity because lenders take fewer risks. In theory, borrowing will reduce WACC because of the higher proportion of debt. In practice, this might be slightly more complicated because borrowing will affect the gearing levels and that will affect the risk characteristics of existing equity. Borrowing will increase the risk of holding shares and that could increase the cost of equity. At higher levels of gearing the risk attached to debt might also increase and that could increase the cost of borrowing too. These additional costs will offset the savings from using the cheaper source of finance.

Borrowing also carries a tax advantage because interest can be offset against profit whereas dividends cannot.

The Modigliani and Miller argument suggests that the reduction in WACC due to borrowing will be exactly offset by overall increases in the cost of equity. This means that there is no particular cost advantage in using debt or equity. This argument ignores taxation, though.

(ii) The cost of equity is the rate at which the stock market discounts the cash flows that are expected from the company. It is impossible to observe market expectations of cash flows. Most models for arriving at the cost of equity use past information about dividends and the like to estimate a cost of capital. Each of those models will generate a different answer and will also require assumptions about anticipated dividends.

The cost of capital model is also based on share prices which are themselves quite volatile and might be affected by short term speculative and other market forces. The cost of equity is likely to be a long-term, underlying factor that is implicit in the short-term sequence of share price movements.

(iii) Every project should be discounted at a rate that reflects the risks to the shareholders of making the investment. The WACC might be a suitable surrogate if the project is a straightforward expansion of the business and is subject to the same risks.

The most appropriate basis for the discount rate is to view the project as a separate investment within a diversified portfolio held by investors. The beta coefficient of the returns should be estimated and the CAPM should then be used to determine an appropriate discount rate.

The directors should also consider the stock market's understanding of the project . If the stock market thinks that an investment is highly risky then the share price could go down if the estimated cash flows are subject to a high implicit discount rate.

***Comments on question 19:*** *The first part of the question was answered really well. Parts 2 and 3 were poor. Many candidates just put down the formula for cost of equity and wrote a very short explanation. Very poor understanding was demonstrated in part 3. Again an area for revision.*

**20**

Report to: Mr Able
Report from: XYZ Financial Advisors
Re: Analysis of Evolution plc's performance and financial position
Date: X.X.XX

**Introduction**

In accordance with your instructions we report on the performance and financial position of Evolution plc for the last two years. Our findings are primarily based on an analysis of accounting ratios. We would point out that the analysis has several limitations, since it is based only upon key historical financial information.

**Profitability**

The profitability of the company improved over the past two years, with a high return on shareholders' equity, and a higher return on investment. The return on equity has increased from 16% to 21% over the two years, and the return on investment has increased from 15% to 18%. This shows that the company is very profitable, as the returns are far better than those offered by risk-free investments.

The gross profit margin is also healthy and improving, moving from 24% to 25% over the two years. This shows the company is managing its selling prices and purchasing costs well.

Evolution plc is also controlling its expenses well, having improved its net profit percentage from 6% in 2004 to 7% in 2005.

**Efficiency**

Despite the substantial increase in fixed assets during the period (34%), there is very little change in the fixed asset turnover ratio for the period, both being around 4 times. The increased investment may reflect replacement of existing assets or acquisition of additional assets, either of which has given rise to increased turnover. There may be a further increase in turnover if these assets have not yet been fully realised.

The net current asset turnover has increased from 4.9 times in 2004 to 7.9 times in 2005. This indicates a substantial increase in the level of activity being funded by current assets.

**Liquidity**

The liquidity position of the company deteriorated over the two year period. The current ratio fell from 2.1:1 to 1.6:1, and the acid test ratio fell from 1:1 to 0.6:1. This provides further indication that the 30% increase in sales and the acquisition of fixed assets was funded from working capital.

The company should raise additional long term finance to ease the company's liquidity problems.

There was no change in stock turnover (both years 4.1 times), which suggests that the expansion in sales did not lead to a deterioration in the company's stock controls.

**Gearing**
The company is low geared. The debt /equity ratio was .63 in 2004 and .54 in 2005. This is attractive to an equity investor as it is an indicator of low risk.

The interest cover is very satisfactory at 6 times in 2004 and 8.8 times in 2005. This is also attractive to an investor, as it indicates that the company has not fully utilised its potential debt facilities.

**Return on investment**
The company's earnings per share rose from 26.7 to 40p over the two years, as a result of Evolution plc's increased profitability.

The dividend per share remained constant at 10p per share in both years, despite the increased profitability. This is an indication that the company will be in a position to pay higher dividends in future years.

**Conclusion**
Given the high return being offered by Evolution plc and its low gearing, the company appears to be well managed.

***Comments on question 20:***

*This question was very badly done.*

*Candidates showed a poor level of knowledge and could not apply that knowledge to the question. The bulk of the marks available were for commenting on the ratios. Some candidates did not comment at all and others wrote very brief answers. In these questions it is the report that is important and is where the candidates can apply their knowledge to a scenario.*

*Candidates should revise this area for the future.*

## END OF EXAMINERS' REPORT