



Examiners' report

F9 Financial Management

December 2008

Congratulations to those candidates who were successful in passing Paper F9 in December 2008! If you were not successful, I hope that you will be rewarded at your next attempt.

The examination paper was seen to have a good balance between calculation and discussion, as well as a good coverage of the syllabus. The pass rate was in line with previous examination diets and almost all candidates answered four questions.

Unsuccessful candidates may have prepared poorly for the examination. This examination paper covered many areas of the syllabus and tended to be difficult for candidates who had omitted some sections of the syllabus from their study.

Most answers were reasonably well presented, with very few scripts being drawn to the examiner's attention as difficult to read or difficult to follow.

Question 1

In part (a), candidates were asked to calculate a theoretical ex rights price per share. Many candidates gain full marks for their calculations. Weaker answers made errors as regards the form of the issue (it was 1 for 4, not 4 for 1), or thought the theoretical ex rights price was the rights issue price, or calculated the value of the rights.

Part (b) required the calculation of the share price after the business expansion, using the price/earnings ratio method. The first step was to calculate the current price/earnings ratio. The second step was to calculate the earnings per share (EPS) after the proposed business expansion. The final step was to calculate the future share price by multiplying the two together.

A number of candidates were not able to calculate the price/earnings ratio by dividing the current share price by the current EPS. Calculating the EPS after the expansion by multiplying the current EPS by the average historic EPS growth rate was also a problem for some candidates, who were unable to calculate average historic growth rate, or who applied the growth rate to the average EPS rather than the current EPS.

Some students were also unfamiliar with the PER valuation method, even though this is discussed in the study texts.

Part (c) asked for a discussion of whether the business expansion was an acceptable use of the rights issue funds, and an evaluation of the effect of the expansion on the wealth of shareholders. The two parts of the question are linked, since the question of whether the use made of the finance is acceptable depends on the effect on the wealth of shareholders.

If shareholder wealth increases, the proposed use of the finance is acceptable. Better answers therefore looked to compare the theoretical rights price per share (the share price before the rights issue funds were invested) with the share price after the investment had taken place (for example the share price calculated in part (b)), or to compare the return from the investment (for example, total shareholder return, which is the sum of capital gain and dividend yield) with the cost of equity.

Part (d) required candidates to calculate the share price predicted by the dividend growth model and compare it with the current share price, explaining any difference that might be found. Many candidates gained full marks for their answer to this question. Marks were lost where candidates used EPS rather than dividend per share in the dividend growth model, or were not able to calculate the dividend growth rate, or used incorrect values in the dividend growth model. A surprising number of candidates did not use the dividend growth model given in the

formula sheet, but used the rearranged version of the formula that is used to calculate the cost of equity. Some candidates mistakenly thought that the cost of equity calculated by this formula was the same as the share price.

Part (e) required candidates to explain the nature of the agency problem and to discuss using share option schemes to reduce it in a stock-market listed company. The agency problem is that managers may act in ways that do not lead to the maximisation of shareholder wealth. Shareholder wealth increases through receiving dividends and through capital gains in share prices, and is usually assessed through changes in share prices. Better answers referred to these key financial management concepts.

Share option schemes, in making managers into shareholders, lead to convergence of objectives, if only on a shared focus on increased wealth through increasing share prices. Unfortunately, while share prices increases can arise from good managerial decisions, share price changes can arise for other reasons as well. There was scope here for candidates to discuss a range of issues relating to the difficulty of designing a share option scheme that rewarded managers for good performance, but not for poor performance.

Question 2

Part (a) asked for a discussion, with supporting calculations, of the possible effects on a company of an increase in interest rates, and advice on how to protect against interest rate risk.

Some candidates were not aware of the difference between interest rate and interest payment, and consequently discussed how the company's finance costs (interest payments) had increased from one year to the next. Analysis would have shown that the increase in the finance cost was due to the increase in the overdraft and that the interest rate applied to the overdraft was 5% in each year, i.e. the interest rate had not changed. The bonds were fixed-rate in nature, as they were given in the balance sheet as 8% bonds. As the question asked about hedging interest rate risk, looking at the balance between fixed rate debt (bonds) and floating rate debt (overdraft) was also relevant here, as was a consideration of gearing and interest cover.

The question was, in fact, very open in nature, and a discussion of the effects of an increase in interest rates could look at an increase in financial risk, a decrease in sales due to a fall in demand, an increase in operating costs and a cutting back of investment plans.

Many answers offered a number of ways of protecting (hedging) against interest rate risk, including matching and smoothing: using forward rate agreements, interest rate futures, interest rate options and interest rates swaps; and taking steps to decrease the dependency on variable-rate overdraft finance and hence the exposure to interest rate increases, for example by improving working capital management.

In part (b), the requirement was to discuss, with supporting calculations, whether a company was overtrading (undercapitalised). Relevant financial analysis, including ratio analysis, therefore needed to look at the level of business activity and the area of working capital management.

Better answers calculated a series of accounting ratios, perhaps adding some growth rates and changes in financial statement entries, and used this analysis to look at the increasing dependence of the company on short-term sources of finance while sales were expanding at a high rate. Some answers noted that short-term finance had been used to acquire additional non-current assets, that inventory growth exceeded sales growth, and so on. Weaker answers often did little more than repeat in words the financial ratios that had been already calculated, without explaining how or why the identified changes supported the idea that the company was overtrading.

Part (c) required the evaluation of an offer from a factor using cost-benefit analysis.

Many candidates seemed to be unfamiliar with the relationship between credit sales, the level of trade receivables in the balance sheet, trade receivables days (the trade receivables collection period), and the cost of

financing trade receivables. This unfamiliarity led to applying the revised trade receivables days to the current level of receivables instead of to credit sales: calculating the factor's advance on the current level of receivables rather than on the revised level of receivables: and calculating the factor's fee on the level of receivables rather than on credit sales.

Since marks were available for each element of the cost-benefit analysis, most candidates were able to obtain reasonable marks on this part of question 3, even where answers were incomplete or contained some of the errors identified above.

Question 3

Part (a) required candidates to calculate the weighted average cost of capital of a company and many students scored full marks. There were a number of areas where marks were lost. Some candidates mistook the equity risk premium for the return on the market. Another error was to calculate the cost of debt by linear interpolation when, since the market value and the par value of the bond were the same, the cost of debt was equal to the bond interest rate. Some answers were unable to calculate the market values of equity and debt.

Part (b) asked candidates to calculate the net present value of an investment after preparing a forecast of its nominal after-tax cash flows.

Many candidates were not able to deal correctly with initial investment, incremental investment and recovery of working capital. The initial investment was frequently mistimed, being placed in year one rather than at the start of the investment. The recovery of working capital was often omitted. Working capital was sometimes invested every year at its initial amount, or the inflated total investment in working capital was invested in full every year. Better candidates including in their cash flow forecast only the incremental annual investment.

Although the question specified straight-line capital allowances or tax-allowable depreciation, some candidates used the 25% reducing balance method. Credit cannot be given where the requirements of the question are ignored. Common errors with the treatment of tax included ignoring the fact that tax liabilities were one year in arrears: treating working capital investment as a tax-allowable deduction (it is not); giving tax benefits on the initial investment in addition to the benefit received through capital allowances; including capital allowances as a cash flow; and treating capital allowance tax benefits as a cost rather than a benefit.

Although the weighted average cost of capital from part (a) was already in nominal terms, some candidates treated as a real discount rate and used the Fisher equation to calculate a nominal discount rate. A clear understanding of the distinction between real and nominal terms approaches is required in investment appraisal.

In part (c), candidates were asked to explain how the capital asset pricing model (CAPM) could be used to calculate a project-specific discount rate, and to discuss the weaknesses of using the CAPM in investment appraisal. This topic was covered in a series of articles in the student accountant.

Although many candidates were able to identify and discuss some limitation of the CAPM, these discussion often were very general in nature, rather than focussing on using the CAPM in investment appraisal. This reflected the inability of a number of candidates to explain correctly how the CAPM could be used to calculate a project-specific discount rate. Better answers referred to proxy companies, ungearing equity betas to give proxy asset betas, averaging asset betas, regearing, and calculating a project-specific discount rate using the CAPM formula. Some discussion of business risk and financial risk was also relevant here. Weaker answers often did little more than identify and describe the variables in the CAPM formula, before stating that these variables were subjective and hard to calculate, or that the CAPM was better than the dividend growth model, which was not relevant to the question asked. Some answers were very brief for the number of marks available.

Question 4

In part (a) of this question, candidates were asked to explain the reasons why a company might choose to finance a new investment by an issue of debt. Answers were of variable quality, with some candidates writing very little while others gained full marks.

Weaker answers discussed other sources of finance, such as leasing or preference shares, or focussed on the disadvantages of equity finance, indicating perhaps that candidates had prepared for a question about equity, but were unprepared for a question about debt. Better answers covered such reasons as the lower cost of debt compared with other sources of finance, due to lower risk of debt finance and its tax efficiency: the relative ease with which debt finance could be raised; the potentially positive effect of the lower cost of debt on the weighted average cost of capital and the market value of the company; the place of debt finance in pecking order theory; and the matching of debt and asset maturity.

Part (b) required candidates to calculate the total market value (in pesos) of a foreign bond (denominated in pesos). The market value of a bond is the present value of future interest payments added to the present value of the future redemption value. Good answers calculated the interest payable in pesos on each bond, the market value of each bond as just described, and then the total market value by multiplying the market value per bond by the number of bonds issued. Weaker answers sought to calculate the internal rate of return of the bond, which was unnecessary as the cost of debt was given in the question. Internal rate of return is not equal to market value.

Part (c) asked for an explanation and an illustration of a money market hedge, and a comparison of the relative costs of a money market hedge and a forward market hedge. Answers were again of very variable quality.

Many candidates were unable to calculate the annual peso interest required by the illustration of the money market hedge. Both the interest rate and the par value of the bond issue were given in the question, and multiplying one by the other gives the amount of interest to be paid. Some candidates invented a cash flow to illustrate the money market hedge: candidates who invented a future peso receipt failed to notice that the interest rates given in the question could not then be used, since the peso rate was a deposit rate and the dollar rate was a borrowing rate. Weaker answers tried to hedge a future dollar payment, when the question stated that the dollar was the home currency.

Many candidates were able to calculate correctly the dollar value of a forward market hedge and indicate whether this hedge would be preferred to a money market hedge.

Many candidates gave good answers to part (d), even if some answers tended to be a list rather a description. The question was open-ended, asking for a description of methods (including derivatives) that could be used to hedge exchange rate risk. Many methods could be and were described, including netting, matching, invoicing in the home currency, leading and lagging, forward exchange contracts, futures, option and swaps.

Overall Performance

Overall performance in December 2008 showed that some candidates had prepared very well and gained very high marks. Other candidates seemed to have studied some parts of the syllabus, but not others, and consequently gave answers showing clear weaknesses in understanding. The examination paper looked across most of the syllabus and so did not reward candidates who had failed to revise adequately. As I have said before, candidates must study all areas of the syllabus if they wish to be successful in the examination, since all areas of the syllabus can be examined.