Examiner's report

F9 Financial Management
December 2009

General Comments

Congratulations to those candidates who passed Paper F9 in December 2009! Those candidates who were successful showed that they had studied all of the syllabus, rather than focusing on a small number of key areas, which appeared to be the case with many candidates who were not successful. The pass rate was, unfortunately, not as high as was hoped.

Specific Comments

Question One

Many students were able to do well in this question, especially in parts (b) and (d).

In part (a), candidates were asked to calculate and determine whether a company should lease or buy new technology. Since this was a financing decision, candidates were instructed to use only financing cash flows. The lease versus borrowing to buy decision is covered in the Study Texts that support students studying Paper F9.

From a leasing perspective, candidates needed to calculate the present value of correctly-timed annual lease rental payments and their tax benefits, discounted by the after-tax cost of debt.

From a buying perspective, candidates needed to calculate the present value of the purchase price of the new technology and related capital allowance tax benefits, and the annual licence fees and their associated tax benefits, discounted by the after-tax cost of debt.

Many candidates did not follow the instruction to use financing cash flows only and included in their evaluation the reduced operating costs arising from using the new technology.

Common errors were splitting the licence fee out of the lease rental payments: using the weighted average cost of capital of the company as the discount rate, rather than the after-tax cost of debt; including interest payments in the evaluation, when these are taken account of by the discount rate: omitting the tax benefit arising on lease rental payments; incorrect timing of lease rental payments or tax benefits; including loan repayments or repayment of principal; and not using a present value approach to comparing the two financing choices. The correct approach can be found in the suggested answers to this examination.

Part (b) required calculating the net present value of buying the new technology using a nominal terms approach, and offering advice on the acceptability of the investment.

The net present value calculation included the nominal value of the operating cost reductions and their associated tax benefits, discounted by the weighted average cost of capital of the company, less the present value of the financing cash flows. Some candidates used the Fisher equation and the inflation rate of the costs savings to calculate a 'nominal' discount rate, but specific inflation cannot be used in this way and no other inflation rate was given in the question. The weighted average cost of capital could therefore be assumed to be in nominal terms.

While some answers included the net present value calculation with the financing evaluation by combining parts (a) and (b) of the question, many answers to this part of question one were of a good standard.

Part (c) asked candidates to discuss and illustrate how equivalent annual cost or equivalent annual benefit could be used to choose between technologies with different expected lives. Candidates who had studied the equivalent annual cost method were able to gain full marks on this part of question one.

Weaker answers discussed new technology or the need for cost-benefit analysis rather than meeting the requirement of the question.

While many answers gave a suitable illustration, such as dividing the net present value calculated in part (b) by a suitable annuity factor, some answers provided illustrations that were much longer than necessary and therefore wasted valuable time, given that this part of question 1 was worth only three marks.

Part (d) asked how an optimal investment schedule could be formulated when capital was rationed and investment projects were either divisible or non-divisible.

Some students discussed hard and soft capital rationing and the reasons for capital rationing, but the question did not ask for this.

Good answers focused on the need to maximise the return per dollar invested by using the profitability index as a way of ranking divisible projects. The optimal investment schedule could then be formulated by working down the rankings. Where investment projects were non-divisible, the procedure would be to determine by trial and error which combination of projects would give the highest net present value. While the profitability index could be helpful here, there was no guarantee it would provide the correct answer in every case.

Weaker answers suggested that ranking by net present value would lead to the optimum investment schedule, which is not true when capital is rationed. Some answers discussed mutually exclusive projects, which was not required.

Question Two

Many students gained good marks on parts (a) and (b) of this question, while not performing as well on parts (b) and (d).

Part (a) of this question asked candidates to calculate the cost of debt of a redeemable bond.

Many candidates gained full marks here by using linear interpolation to find the internal rate of return (cost of debt) that produced an equilibrium between the present value of future cash flows (interest payments and redemption value) and the given market value.

Weaker answers treated the debt as irredeemable by dividing the annual interest by the market value of the bond. Some candidates calculated the after-tax cost of debt, even though the question said to ignore taxation and did not provide a tax rate. It is clearly essential to follow the instructions given in the question.

Part (b) asked students to discuss the reasons why different bonds of the same company might have different costs of debt. Many students failed to gain full marks here because they did not appear to understand the link between risk and return.

Candidates who discussed reasons that related to the company, rather than to the bonds, failed to recognise that reasons had to relate specifically to differences between the bonds. One such difference was the duration of each bond, linking to a discussion of the term structure of interest rates and the theories that can be used to explain it (liquidity preference theory, expectations theory and market segmentation theory). Other differences could relate to the relative features of each bond, such as convertibility, currency or security. Risk was therefore an underlying theme here.

Part (c) required candidates to calculate the weighted average cost of capital of a company following preliminary calculations of the cost of equity (using the capital asset pricing model), the ex div share price (using the dividend growth model), and the market value-based capital gearing (defined as debt divided by debt plus equity).

Most candidates calculated correctly the cost of equity using the capital asset pricing model, although occasional arithmetical errors were made.

In order to use the dividend growth model, candidates had to calculate a dividend growth rate. The question gave next year's dividend and this year's dividend: simply dividing the former by the latter gave a growth rate of 4% per year. Using the dividend growth model then gave an ex div share price of $6.19. Common errors found here were taking the square root of the ratio of the two dividends, leading to a growth rate of 2% per year: using next year's dividend as the current dividend; multiplying the dividend per share by the dividend payout ratio to give the dividend per share; and re-arranging the dividend growth model to calculate the cost of equity, but calling the result of the calculation the ex div share price.

Many students had difficulty in calculating the capital gearing on a market value basis. Some students calculated capital gearing using book values: others calculated the market values of the two bonds, but used the book value of equity; some students incorrectly added the value of reserves to the equity market value of the company.

Many students made a good attempt at calculating the market value weighted average cost of capital (WACC) of the company. Even though the cost of debt of the second bond was given in the question, some students wasted time by calculating it again using linear interpolation. Other students calculated a WACC that was higher than the highest cost of capital, or used an average cost of debt by adding together the costs of debt of the two bonds and dividing by two.

Part (d) asked for a discussion of whether a change in dividend policy would affect the share price of the company. A significant number of students showed that they had not studied well this part of the syllabus as they were simply stating that if the dividend went up, the share price went up, and vice versa. Answers that gained higher credit referred to a number of key issues in the debate on dividend relevance and dividend irrelevance, such as the clientele effect, the bird-in-the-hand theory, the signalling properties of dividends and the perfect capital market-based view of Miller and Modigliani.

Question Three
Many students found parts (a) and (b) of question 3 to be challenging, while gaining high marks on parts (c) and (d).

Part (a) required candidates to calculate the theoretical ex rights price per share for a new equity issue.

The question stated that the rights issue needed to provide €6.5 million. Since the issue was in dollars and the exchange rate was 1.3000 €/$, the rights issue needed to raise $5 million. Since issue costs were $312,000 the rights issue needed to raise $5.312 million. The rights issue price was $3.32 per share meaning that 1.6 million shares needed to be issued.

The errors that candidates made here are instructive for students who are studying Paper F9, such as: not converting euros into dollars: using the exchange rate incorrectly, so that the dollar amount was greater than the euro amount; being unable to calculate the number of new shares to be issued and assuming a form for the rights issue (such as a 1 for 1 issue); ignoring issue costs; and using a rights issue to raise all of the finance needed, even though the question said that 50% of funding was through debt.

Part (b) asked candidates to evaluate the effect of the European investment on the earnings per share of the company and on the wealth of its shareholders.

Many candidates ignored the 20% return on investment before interest and tax and discussed the position of the company after the rights issue; many were also unable to calculate the current earnings per share of the company, even though the question gave its current price earnings ratio and its current share price.

In order to make progress in answering the question, candidates needed to calculate the earnings per share after the new funds had been raised, taking into account the return on the new funds raised. This evaluation could be done in euros or in dollars, provided that the revised earnings per share was expressed in the home currency of the company, which was dollars. Once the revised earnings per share had been calculated, multiplying by the price earnings ratio gave the revised share price.

The poor standard of answers here (in general) shows that candidates need to study the suggested answer with care and reflect on the areas where their own answers ran into difficulty.

Part (c) asked candidates to explain the difference between transaction risk and translation risk, illustrating their answers using the information given in the question. Many candidates gained full marks here and seemed to be well-prepared for this question and for the hedging question in part (d).

Candidates who lost marks were unable to distinguish clearly between the two forms of risk, or did not provide the illustrations required by the question.

Part (d) asked candidates to identify and briefly discuss hedging methods that could be used by the company, and provide illustrations of two of the hedging methods. In general answers were of an acceptable standard and many students gained good marks here. There were several reasons why marks were lost, such as confusing exchange rates with interest rates: discussing forward rate

agreements, rather than forward exchange contracts; providing illustrations using calculations, but not giving an explanation of the calculations; and listing hedging methods (futures, options, swaps, leading and lagging, and so on) without explaining how these could help the company in question.

Question Four

Candidates often gained high marks in part (b) of this question, but answers to part (a) were usually of a poor standard, while answers to parts (c) and (d) lacked focus.

Part (a) asked candidates to discuss the role of financial intermediaries in providing short-term finance for business organisations. Better answers discussed providing a link between investors and borrowers, aggregation of invested funds, maturity transformation and risk transformation.

Rather than discussing the role of financial intermediaries, weaker answers tended to discuss short-term sources of finance (products) and the range and type of financial intermediaries (providers).

Part (b) required candidates to prepare a forecast income statement and a forecast statement of financial position. Many answers were of a very good standard and gained full marks.

Some candidates ignored the forecast financial ratios and applied the expected turnover growth rate to cost of sales and other expenses. Other candidates showed a lack of knowledge of the structure of the income statement by calculating the tax liability before subtracting the interest payments. Candidates should recognise that a good understanding of accounting ratios is needed if they expect to achieve a pass standard and they are advised to study the suggested answer carefully in comparison to the question set in the question paper.

Part (c) asked for an analysis and discussion of the working capital financing policy of the company in the question. Many students were not aware of the conservative, aggressive and matching approaches to working capital financing policy, and so were ill-prepared for this question.

Analysis of the statement of financial position shows that 89% of the current assets of the company are financed from a short-term source, while only 11% are financed from a long-term source. Noting this, good answers discussed the aggressive nature of the company's working capital financing policy and the risks to which it gave rise.

Weaker answers discussed conservative and aggressive approaches to the level of investment in working capital, or focused on the cash conversion cycle (operating cycle) of the company, or combined part (c) with part (d).

Part (d) asked for a discussion of the forecast financial performance of the company in terms of working capital management. Comparing the current position with the forecast position showed that a deterioration in financial performance was expected. Better answers recognised this and made appropriate comments. Weaker answers failed to focus on working capital ratios (for example by calculating and discussing ratios such as interest coverage, debt/equity ratio and dividend per share), or offered only general discussions of areas of working capital management (such as explaining ways in which inventory control or credit management could be improved).

Overall Performance

Overall performance in December 2009 showed that while many candidates had prepared well, a large number of candidates had taken the examination without adequate preparation. There is no substitute for studying the whole syllabus carefully and in depth. During revision, candidates need to test their degree of preparation by sitting past papers, under examination conditions if possible, and then taking action to strengthen areas where they find a need for more skill, knowledge or understanding.