

Examiner's report

F9 Financial Management

June 2012



General Comments

The overall performance in June 2012 was not as good as had been hoped. Most candidates answered the four compulsory questions and there was little evidence of anyone being time-pressured. Congratulations to all those candidates who were successful! If you were not able to pass at this diet, these detailed guidance notes should help you to prepare for your next examination, where I hope you will gain the pass you desire.

Overall, the highest marks were usually gained on question 1, while the lowest marks were usually gained on question 4.

Specific Comments

Question One (a)

Candidates were asked here to calculate the net present value (NPV) of a project being evaluated by Ridag Co, taking account of inflation and taxation, and to comment on its financial acceptability. Most answers gained good marks on this question.

Some student encountered difficulty including inflation in their NPV calculation. Inflation, like interest, compounds forward through time, with a compounding effect. One year's inflation is therefore to be applied to year 1 figures, two years' inflation is to be applied to year 2 figures and so on. Too often, answers applied one year's inflation to every year's figures.

Most answers handled correctly the instruction to pay profit tax one year in arrears. Capital allowances and their tax benefits were usually handled well also, although not all answers handled correctly the capital allowance/balancing allowance for the final year of operation. Some answers used a different timing for the tax liabilities compared to the capital allowance tax benefits, but this was not correct.

Since nominal after-tax cash flows were being discounted in the NPV calculation, the nominal after-tax weighted average cost of capital of 7% had to be used as the discount rate. The rule to remember here is "discount like with like"

The mark for the comment on financial acceptability was a relatively easy mark to earn, and most answers made a suitable comment following the NPV calculation.

Question One(b)

The requirement here was to calculate the equivalent annual cost (EAC) of each of two machines and discuss which machine should be purchased. Very few answers gained few marks.

Weaker answers attempted to calculate the NPV of a conventional investment project, with a series of cash inflow following an initial investment. This of course was not possible, since the majority of cash flows were costs: only scrap value was a cash inflow.

Once the amount and the timing of the cash flows had been determined, the correct discount rate had to be selected. The question stated that taxation and capital allowances had to be ignored, and that all information relating to the two projects had already been adjusted for the effects of taxation, i.e. the cash flows relating to the two machines were nominal cash flows. The correct approach, therefore, was to discount nominal before-tax cash flows with the nominal before-tax weighted average cost of capital of 12%. Answers that inflated the cash flows or answers that used the nominal after-tax weighted average cost of capital were not correct.

To calculate the EAC, the present value (PV) of costs had to be divided by the annuity factor for 12% corresponding to the life of the machine. Weaker answers divided the PV of costs by the number of years or by the initial investment, demonstrating a lack of understanding of the investment appraisal technique being used.



Where the correct approach was used, answers approached the required discussion with an EAC for each machine.

Most answers stated that machine 1 should be bought as it gave lowest EAC. While this was correct and earned a mark, better answers explained that this recommendation could be made because the EAC approach had taken account of the different operating lives of the two machines. Simply comparing the PV of costs, which some answers did, would have incorrectly led to a recommendation of machine 2.

Question One(c)

The question asked for a critical discussion of sensitivity analysis and probability analysis as ways of including risk in the investment appraisal process, commenting also on the relative effectiveness of each method. Many answers were either not very critical or showed a lack of understanding of this part of the syllabus.

Although the topic of risk and investment appraisal has been examined before, many answers were not of a good standard. A good point from which to start an answer would be explaining the difference between risk and uncertainty. Risk can be quantified (using probabilities) while uncertainty cannot. Sensitivity analysis does not consider risk, since it does not consider probabilities, and is therefore a less effective way of including risk in the investment appraisal process than probability analysis, which seeks to assign probabilities to project variable values or to future investment outcomes. Some answers claimed incorrectly that probability analysis employed the profitability index. Please see the suggested answer for a discussion of sensitivity analysis and profitability analysis.

Question Two(a)

This question asked whether a company (Wobnig Co) was overtrading and a good place to start an answer would be to state what overtrading was and how it could be recognised. This would then provide a basis for financial analysis of the information provided and a discussion of the findings. Most answer to this question gained good marks.

Answers that did not focus on the question asked, which was whether or not the company was overtrading, lost marks as a result. For example, some answer discussed, often in detail, how the company could improve its working capital position. These answers were wasting time, because this was not the question that was asked. So discussing the possibility of offering discounts for early settlement, the loss of goodwill from trade suppliers, and the need to look for obsolete stock was a waste of time and not the way to gain marks in this question.

The question provided a list of average ratios for companies similar to Wobnig Co. Most answers calculated these ratios for each of the two years of financial statement data provided by the question, using the average ratios for similar companies to assist in commenting on the trend showed by Wobnig's ratios. Since overtrading (undercapitalisation) refers to an increased level of business activity that is supported by too small a capital base, answers needed to look at how long-term finance had not kept pace with the increased need for finance, leading to increased reliance on short-term finance such as an overdraft or trade credit. This and other signs of overtrading are discussed in detail in the suggested answer.

Question Two(b)

The requirement here was to discuss the similarities and differences between working capital investment policy and working capital financing policy. Many answers struggled to gain good marks with this question, and yet the topics of working capital investment policy (the level of investment in current assets) and working capital financing policy (the balance between short-term and long-term funds in financing current assets) have been examined a number of times in recent years.

Some answers ignored the words "working capital" and "policy", and discussed investment and financing in some detail. These answers did not offer what was being looked for and, for example, discussed investment appraisal



techniques (investment) and equity, bonds and leasing (financing). If you look at the question as a whole, you will see that it focuses on that part of the syllabus relating to working capital.

While many answers showed good understanding of working capital financing policy, fewer answers showed understanding of working capital investment policy, and fewer answers still could discuss the similarities and differences between the two policy areas. Both policies are characterised by an assessment of their risk (conservative, moderate or matching, and aggressive), but working capital investment policy is comparative (one company is conservative or aggressive compared to another), while working capital financing policy looks only at the long-term/short-term finance balance in a given company (for example, using mainly short-term financing for permanent current assets is an aggressive policy).

Many answers seemed to be unaware that it is possible for an aggressive working capital investment policy to occur in a given company at the same time as a conservative working capital financing policy, and vice versa. These answers assumed that a company was either aggressive in both kinds of policy, or not, for example.

Question Two(c)

This question asked for a calculation of the upper limit and the return point for the Miller-Orr model, and the majority of answers did this successfully. Most answers indicated the need to invest cash at the upper limit and to generate cash at the lower limit, but the use of short-term securities in this respect was less frequently explained. Few answers went on to discuss or explain the objective of keeping the cash balance between the two limits, i.e. the importance of the return point.

Question Three(a)

The requirement here was to discuss the reasons why small and medium-sized enterprises (SMEs) might experience less conflict between the objectives of shareholders and directors than large listed companies. The question was therefore looking for an understanding of why conflicts arise between the objectives of shareholders and directors.

One approach is look at why directors may not maximise shareholder wealth in the case of large listed companies (the agency problem) and why this failure might arise (for example, through the separation of ownership and control). Considering an SME, it can be argued that there is less conflict between the objectives of the two parties because the extent of the separation of ownership and control is smaller, or eliminated altogether in the case of owner-managed SMEs.

Question Three(b)

This question asked for a discussion of the factors to be considered by a company when choosing a source of debt finance, and the factors to be considered by a provider of finance when deciding how much to lend. Many answers gained high marks here.

Where answers did not gain high marks, it was usually because they did not focus on “the factors to be considered”, such as interest rate, security, maturity, risk, profitability and so on, but discussed instead different sources of finance (including equity, even though the question asked about debt). Given the question, a balanced answer was being looked for, i.e. one that discussed factors from a borrower perspective and a lender perspective.

Question Three(c)

This part of question 3 asked for an explanation of the nature of a mudaraba (equity) contract and a brief discussion of how this could finance a planned business expansion. This was the first time that Islamic finance had appeared in an F9 examination and many answers were of a good standard, identifying correctly some of the key features of a mudaraba contract, such as the absence of interest (riba), the establishment of a partnership



between the provider of finance and the provider of business expertise, the sharing of profit at a rate agreed in the contract, and so on.

Question Three(d)

Candidates were asked here to compare a forward hedge and a money market hedge, and recommend which hedge should be selected. Many answers gained high marks here.

Since a foreign currency receipt (asset) was expected, the money market hedge would create a foreign currency debt (liability) which could be settled by the receipt when it was received. The foreign currency debt had to be converted into a current-value home currency deposit, which could accrue interest until the date of the expected receipt. The future value of the home currency receipt could then be compared with the home currency value of the forward market receipt. The highest value (we were hedging an asset) would then be recommended.

Question Three(e)

The requirement here was to calculate the expected spot rate using purchasing power parity (PPP) and then to discuss briefly the relationship between the expected spot rate and the current forward exchange rate. The current forward rate is an exchange rate available now for future delivery/sale of foreign currency, while the expected spot rate is a prediction of what the spot rate will be at the end of a given period of time.

Most answers calculated correctly the expected spot rate using PPP and then became stuck. The brief discussion required by the question was looking for understanding of expectations theory, which is the relationship between the expected spot rate (provided by PPP) and the forward rate (provided by interest rate parity or IRP) that completes four-way equivalence. This part of the syllabus seeks an understanding of the determinants of exchange rates.

Question Four(a)

The requirement here was to calculate the value of a company (Corhig Co) using the price/earnings ratio (PER) method, discussing the usefulness of the variables used. Many students struggled with this question.

On the face of it, the PER valuation method is simple. Find an earnings figure, or earnings per share (EPS) figure, multiply by a PER and you have either the value of the company (if you used earnings) or a share price (if you used EPS). The number of issued shares of Corhig Co was not given in the question and some answers invented a figure, but as the requirement was to calculate the value of the company, the number of shares was not needed.

In reality, the PER method presents a number of problems, and this was illustrated by the question, which provided forecast earnings for the end of year 1, the end of year 2 and the end of year 3. What earnings figure should be used to give a PER value? It is better to use future earnings than past earnings and as the question shows, a value for future earnings should not be selected mechanically, but after careful thought.

Question Four(b)

This part of question 4 asked for a calculation of the current cost of equity of Corhig Co, and an estimate of the value of the company using the dividend valuation model.

Most answers correctly calculated the current cost of equity using the capital asset pricing model, although some answers confused the equity risk premium of 5% given in the question with the return on the market.

Most answers struggled to use the dividend valuation model to value the company. Simply put, the dividend valuation model holds that the value of a company is equal to the present value of its future dividend. Most answers limited their valuation attempt to using the dividend growth model, ignoring the dividend expected in year 2. The dividend growth model can be used to provide a year 3 present value of the dividend stream



expected after year 3. This year 2 present value then needed to be discounted back to year 0, and added to the present values of the dividend from years 2 and 3, to give the value of the company.

A useful point to remember with questions such as this, is that it is essential to pin down the amount and the timing of future cash flows when calculating present values.

Question Four(c)

The requirement here was to calculate the current weighted average cost of capital (WACC) of Corhig Co, and then the revised WACC following a debt issue, commenting on the difference between the two values. Many answers gained high marks here, although some answers failed to offer a comment. The correct calculations are provided in the suggested answers.

Question Four(d)

The final question in the examination paper asked how shareholders could assess the extent to which they faced business risk, financial risk and systematic risk, and an explanation of the nature of each of these risks.

Shareholders face the risk arising from the variability of their returns, which can be seen as profit after tax or distributable profit. These returns are related to business risk (measured by operational gearing) and financial risk (measured by financial gearing or statement of financial position gearing). Both of these risks are part of the systematic risk faced by shareholders, which can be assessed by the equity beta.

An alternative answer could discuss the asset beta of a company (business risk) and the equity beta of a company (business risk plus financial risk), noting that financial risk can be related to the difference between the asset beta and the equity beta.

Many answers to this question showed the need to think about the nature of the risk faced by shareholders. Better answers gave evidence of an understanding of underlying concepts and used key terms.