Examiner's report
F9 Financial Management
June 2018

General comments
The F9 Financial Management exam is offered in both computer-based exam (CBE) and paper-based exam (PBE) formats. The structure is the same in both formats, but the CBE delivery model means that candidates do not all receive the same set of questions. In this report, the examining team share observations from the marking process, highlight strengths and weaknesses in candidates' performance, and offer constructive advice for future candidates.

- Section A objective test questions – we focus on two specific questions that caused difficulty in this sitting of the exam.
- Section B case-based objective test questions – here we look at the key challenge areas for this section in the exam.
- Section C constructed response questions - here we provide commentary around some of the main themes that have affected candidates' performance in this section of the exam, identifying common knowledge gaps and offering guidance on where exam technique could be improved, including using CBE functionality in answering these questions.

Performance in the June 2018 examination diet was acceptable and there were some good individual performances. Congratulations to those candidates who were successful in this examination diet. If you were not successful, we hope that you will study the content of this report carefully as part of your preparation for your next attempt.

Unfortunately, there were some candidates who seemed underprepared for an examination in Financial Management at this level. It is worth emphasising that candidates sitting this examination must study the whole of the syllabus to prepare themselves adequately for this assessment of Financial Management skills.

Overall, candidates appeared to be better prepared in some areas of the syllabus that have featured regularly, such as calculating WACC or NPV, but less well prepared in others. In addition, while candidates continued to be well prepared in techniques requiring calculation, they were less well-prepared in the Section C requirements for discussing knowledge and explaining terms and concepts.

<u>Section A</u>

The objective test questions in Section A aim for a broad coverage of the syllabus, hence all areas of the syllabus must be studied. Candidates preparing for the examination are therefore advised to work through as many practice objective test questions as possible, reviewing carefully how correct answers were derived in any areas where they have uncertainty.

The following questions are reviewed with the aim of giving future candidates an indication of the types of questions asked and guidance on dealing with such exam questions.

Example 1 is numerical and tests understanding of a forward rate agreement.

Example 2 is a question testing knowledge of the difference between overcapitalisation and overtrading, an area of difficulty for a number of students.

Example 1

A company that has a $10m loan with a variable rate of interest, has acquired a forward rate agreement (FRA) with a financial institution that offered a 3-6, 3.2% - 2.7% spread.

What would be the payment made to the financial institution under the terms of the FRA if the actual rate of interest was 3% (to the nearest dollar)?

The correct answer is $5,000.

The FRA effectively fixes the interest at the upper end of the spread of 3.2%.
The total interest charge is therefore
$10m x 3.2% x 3/12 = $80,000
The actual interest charge on the variable-rate loan is
$10m x 3% x 3/12 = $75,000
Therefore the payment to the financial institution will be the difference of
$80,000 – $75,000 = $5,000

Example 2

Which TWO of the following statements about overcapitalisation and overtrading are correct?

A Overtrading often arises from a rapid increase in sales revenue
B Overcapitalisation results in a relatively low current ratio
C Overtrading may result in a relatively high accounts payable turnover period
D Overcapitalisation is the result of too much short-term capital

The correct responses are A and C. These statements about overtrading are correct.

Statement B is incorrect as overcapitalisation results in a relatively high current ratio.
Statement D is incorrect as overcapitalisation is the result of an organisation having too much long-term capital

<u>Section B</u>

Similarly to Section A, questions can come from any area of the syllabus.

General comments

Candidates should read the question carefully and follow the instructions on how to answer the question, for example if a question asks the candidate to select two correct statements, then marks can only be awarded if two statements have been selected. There is no partial marking, so an answer which only selects one statement will be awarded no marks. A candidate who selects three statements will also receive no marks.

In addition, when answering a number entry question, candidates must ensure they are entering their answer in the correct format as stated in the requirement.

Issues that were noted under specific syllabus areas are as set out below.

Investment appraisal

There remain some typically common errors across examination sessions which are being made by some candidates on numerical investment appraisal questions. For example, some candidates did not identify correctly relevant cash flows for an investment project, or made mistakes with respect to the timing of future cash flows, particularly where payments are made in advance.

Additionally a number of candidates appear to not be aware of how to maximise shareholder wealth in a situation of capital rationing and that it may not be appropriate to undertake the project with the highest NPV if this uses up too much of the scarce capital.

Other areas which caused difficulty for some candidates include the selection of the correct discount rate for a lease versus buy evaluation.

Business valuation

Overall questions were answered better in this area than in previous exam sessions. One common error was that some candidates believed that earnings valuations used the values of non-current assets.

Price earnings ratio questions caused difficulties for some candidates, one particular issue being the need to use profit after tax and preference dividends, before applying a price earnings multiple.

Risk management

In this session there appeared to be a better understanding of the features of risk management derivatives when compared to previous sessions.

Errors from candidates were seen in questions testing lead payments. A number of candidates did not appreciate that when evaluating a lead payment in a situation where the funds would need to be borrowed, that the borrowing rate needs to be factored into the total cost. Additionally a number of candidates were unable to identify in what situation a lead payment would be attractive for a company.

A number of candidates also demonstrated a lack of conceptual understanding of the interest rate parity formula.

A further question which caused difficulty was to recommend which hedging methods would be effective for a situation in which there were foreign currency inflows but no outflows.

<u>Section C</u>

The main issue arising from candidates' responses to Section C questions is that, in general, candidates perform much better on calculation-based questions than they do on discursive (discussion-based) questions.

Section C of the examination offers candidates the opportunity to display deeper knowledge of topics. While there were many good or reasonable answers to most parts of questions, there were too many answers to discursive questions that displayed little or no knowledge of Financial Management. Discursive questions can be worth up to 10 marks and it is a matter of concern that some candidates simply did not attempt them.

It is essential that question requirements are read carefully and that candidates directly address these requirements. Candidates must address the requirements in front of them and avoid answering the question they would have preferred to have been asked. Candidates should regularly check back to the requirement in front of them to ensure their answer continues to address it.

For example, if the requirement is to calculate and comment, then candidates must make a comment based on the calculations they have made. A comment need be no more than a few words, but it should be justified or explained. If calculations show a positive NPV, for example, simply writing 'accept' will not gain a mark, while writing 'accept the investment project because it has a positive NPV' will be rewarded, as this answer shows understanding of the NPV decision rule. Furthermore, if the requirement is to comment, writing more than a few words is likely to be wasting valuable examination time. Making no comment at all will, naturally, not gain any marks.

If the requirement is to discuss, then candidates must do more than simply list a few key words or phrases. In addition, a topic might need to be discussed from more than one perspective, or arguments for and against might need to be offered.

Candidates must exercise good time management in the examination, which at this level can be a challenge to complete in the time allowed. For example, candidates must allow enough time to for a good attempt at the discursive parts of questions in section C. Some candidates simply did not write enough for the marks on offer.

One important point is that candidates must use the information given in a question. If a question specifies that the tax liability is settled in the year in which it arises, then it is an error to delay tax liabilities by one year or to delay tax-allowable depreciation (TAD) benefits by one year. Note also that the timing of tax liabilities and TAD benefits must be consistent, so that they have the same timing treatment. Similarly, if a question specifies TAD on a 25% reducing balance basis, it is incorrect to use a 30% reducing balance basis or a straight-line basis instead. These are examples of avoidable errors, which might be the difference between passing and failing the examination.

In this examination diet candidates were presented with Section C questions drawn mainly from the syllabus areas of:

- Management of inventories, accounts receivable, accounts payable and cash
- Determining working capital needs and funding strategies
- Allowing for inflation and taxation in DCF

- Adjusting for risk and uncertainty in investment appraisal
- Specific investment decisions
- Sources of and raising business finance
- Estimating the cost of capital

Management of inventories, accounts receivable, accounts payable and cash
One part-question in this examination diet required candidates to analyse and discuss the working capital investment policy of a company, comparing it with industry averages. Candidates gained less than full marks for the following reasons:

- Incomplete understanding of how to calculate accounting ratios, for example not knowing that inventory days uses cost of sales, or that receivables days uses credit sales and being unable to calculate the cash conversion cycle.
- Comments on calculated ratios were often weak, saying little more than that a ratio was higher or lower than its industry counterpart without quantifying the difference and not backing up comments with Financial Management knowledge.

Evaluation of early settlement discounts and using factoring were examined by several part-questions in this diet. Candidates gained less than full marks for the following reasons:

- Not calculating changes in trade receivables arising from an early settlement discount (ESD) or not calculating the related changes in interest costs.
- Calculating a cost for the current position and a cost for the ESD position but failing to calculate a difference between these costs, and hence not satisfying the requirement to evaluate the financial effect of the ESD. A similar issue arose with evaluating factoring.
- Not recognising that as well as introducing a new interest charge, factoring also reduced existing interest charges: in other words, ignoring the interest cost of the existing policy.
- Incorrectly treating trade receivables balances as savings or costs, for example by adding them to, or subtracting them from, revenue.

Candidates were required in one part-question in this examination diet to discuss two cash management models used in financial management. Many candidates correctly identified the Baumol model and the Miller-Orr model as the models for discussion. There were several reasons why candidates failed to gain full marks here:

- Identifying the variables in the formulae of the two models given in the formulae sheet, without discussing the models themselves.
- Identifying the relationship between the Baumol model and the EOQ model but following this up with incorrect explanation.
- Stating that the Baumol model calculates the optimal level of cash to hold, when in fact it calculates the optimal amount of short-term securities to convert into cash.
- Describing the need to buy and sell short-term securities at the upper limit and the lower limit respectively in the Miller-Orr model, but offering nothing more than that comment.
- Thinking that cash management models meant working capital financing policies, e.g. aggressive and conservative financing policies.

Determining working capital needs and funding strategies
Candidates were required by one part-question to discuss working capital financing policies that a company could adopt. Candidates gained less than full marks here by:

- Not answering the question, for example discussing managing working capital, reducing trade receivables, controlling inventory, sources of finance or capital structure.
- Offering brief answers with little Financial Management content.
- Lacking precision in terminology, for example discussing the financing of short- and long-term liabilities, rather than assets.
- Discussing solutions to under-capitalisation or overcapitalisation rather than discussing working capital financing policies.

Allowing for inflation and taxation in DCF

Candidates continue, in general, to do well on investment appraisal questions requiring NPV calculations. Many candidates gain good marks here and sometimes get full marks.

The following errors were made by some candidates:

Relating to inflation:
- Inflating sales revenue, when the question gave nominal selling price per unit.
- Inflating selling price, when the question gave no selling price inflation rate.
- Inflating relevant cash flows incorrectly, for example by applying only one year's inflation to unit prices or unit costs which were more than one year in the future.
- Using the same uninflated variable cost per unit every year as the basis for inflated variable cost, when the question gave different variable costs in different years.
- Omitting initial working capital investment, or calculating incremental working capital investment incorrectly, or failing to correctly recover working capital investment.
- Calculating a nominal cost of capital incorrectly by deflating a real cost of capital or using the general rate of inflation as the discount rate.
- Not justifying comments on financial acceptability.

Relating to taxation:
- Assigning tax-related cash flows to incorrect time-periods.
- Omitting final-year tax-related cash flows which were payable one year in arrears.
- Deducting residual value from investment cost at the start of TAD calculations.
- Making errors in calculating the final year balancing charge or allowance.
- Failing to add back TAD when it was used to calculate a taxable profit figure.

Other issues:
- Incorrectly placing initial investment at year 1 rather than year 0.
- Incorrectly assuming incremental fixed costs were not a relevant cash flow.
- Incorrectly using annual incremental fixed costs as fixed cost per unit.
- Placing residual value in the wrong year, or treating it as a cost rather than a benefit, or not including it at all.

Candidates were required by one part-question in this examination diet to discuss how DCF investment appraisal methods could be adjusted to take account of specific and general inflation. Candidates lost marks here by not discussing the nominal-terms and real terms approaches to investment appraisal, discussing instead:

- The variables in the Fisher equation (given in the formulae sheet).
- How to inflate a current value to a future value, sometimes with a numerical example.
- The difference between general and specific inflation.

Some candidates were confused by the difference between the two approaches and how to apply them. Even when candidates knew there was a difference, it was often stated (incorrectly) that a real-terms approach ignores inflation. Candidates must understand that in a nominal-terms approach, nominal cash flows are discounted by a nominal cost of capital, while in in a real-terms approach, real cash flows are discounted by a real cost of capital. Nominal cash flows are produced by inflating current-price terms cash flows by either specific or general rates of inflation. Real cash flows are either nominal cash flows deflated by the general rate of inflation, or current price-terms cash flows that have not been inflated because a general rate of inflation applies to all project cash flows and specific inflation is not present. Ignoring, for example, tax effects, the two approaches produce the same NPV.

Studying previous questions on this topic such as Pelta Co from September/December 2017 can aid understanding of the calculations needed by these investment appraisal techniques.

Adjusting for risk and uncertainty in investment appraisal

Candidates were required by more than one part-question to calculate the sensitivity of NPV to a change in a key variable, such as sales volume or discount rate.

Candidates gained less than full marks in relation to sales volume sensitivity by:

- Calculating the present value (PV) of contribution but ignoring taxation.
- Including a PV of contribution tax effect but ignoring that tax was paid in arrears.
- Assuming incorrectly that contribution included fixed costs.
- Calculating contribution but not discounting it.
- Using NPV as the denominator instead of the numerator in calculating sensitivity.

Candidates gained less than full marks in relation to discount rate sensitivity by:

- Not recognising the need to calculate internal rate of return (IRR) in order find the discount rate that made the NPV zero.
- Stopping after calculating the IRR in the belief that the IRR was the sensitivity.
- Calculating the absolute difference between the existing discount rate and the IRR and discussing this as though it were the relative difference, that is, the sensitivity.

Candidates were required by one part-question to discuss the benefits and drawbacks of using sensitivity analysis in assisting investment decisions. Well-prepared candidates could gain full marks here, although answers sometimes lacked clarity and depth.

Candidates must be able to apply probability analysis to investment projects and one part-question required candidates to calculate an expected net present value (ENPV). Most answers were able to calculate correctly the mean demand levels for each of four years of operation and progress through to calculating an ENPV.

One part-question asked candidates to discuss how a simulation could be used to appraise an investment. Candidates were prevented from gaining full marks here by:

- A lack of understanding of the nature of simulation. Some candidates, for example, thought that simulation was a kind of market research.
- A lack of knowledge of how simulation was set up, for example using probability analysis of project variables, assigning random numbers to probabilities and using computer runs to develop an NPV probability distribution and an ENPV.
- Not addressing the question requirement to compare a simulation with an ENPV calculation, for example by not contrasting the repetition required by a simulation with the one-off nature of an ENPV calculation.

Specific investment decisions
In one part-question, candidates were required to define hard and soft capital rationing and to discuss the causes of, and solutions to, divisional capital rationing. Most candidates gained good marks here, even if some answers were brief: a list of points is not acceptable as a discussion at this level. Common errors were:

- Not offering any solutions to hard capital rationing.
- Not referring to a division, even though this was part of the question requirement.
- Suggesting that calculating profitability indexes or using linear programming were solutions to capital rationing

Sources of and raising business finance
One part-question asked candidates to discuss the main benefits that leasing assets, rather than buying them using debt finance, could give a company. Candidates gained less than full marks here by:

- Not being aware that the distinction between operating leases and finance leases in the financial statements of the lessee was basically removed by the new leasing standard and as a result is no longer relevant in the qualification.
- Discussing leasing or discussing borrowing but not linking the two finance sources.
- Adopting a list or bullet-point approach when the requirement was for discussion.
- Making generic comments that were not backed up by Financial Management knowledge, such as ‘leasing is cheaper than borrowing’ or ‘borrowing makes share prices fall’.

One part-question in this examination diet required candidates to explain briefly the major prohibitions existing under Islamic finance arrangements. This topic was discussed in *Introduction to Islamic Finance*, an article in the technical articles section of the Financial Management Study Resources area of the ACCA website. This article identifies the prohibitions as charging and receiving interest (Riba), investment in businesses operations that the Shariah considers unlawful or undesirable (Haram), and transactions involving speculation or extreme risk. Some answers, occasionally at great length, discussed Islamic financial instruments available to business (murabaha, ijara, mudaraba, sukuk and musharaka), which did not address the question requirement and hence received no marks.

Estimating the cost of capital

One question in this examination diet required candidates to calculate a company's weighted average cost of capital (WACC) and many candidates gained good marks. Errors that led to candidates scoring less than full marks included:

- Errors in calculating the cost of equity using the capital asset pricing model (CAPM), such as using the equity risk premium as the return on the market, adding the risk-free rate of return to the equity beta before multiplying by the equity risk premium, and multiplying instead of adding and vice versa.
- Some answers incorrectly deducted taxation from the preference dividend in calculating the cost of preference shares.
- Errors in calculating the after-tax cost of debt, for example using the before-tax interest payment, omitting the year 0 market value from the interpolation calculation, exchanging the year 0 market value with the year 5 nominal redemption value, adding interest to the year 5 redemption value, evaluating the cost of debt over four years instead of five years, and making errors when transferring discount factors and annuity factors from tables into calculations, such as using year 4 figures instead of year 5 figures.
- Interpolation errors, for example choosing a higher second discount rate when the first discount rate had yielded a negative NPV and then struggling to extrapolate from two negative NPVs (for example, making a negative NPV positive), and exchanging NPV1 and NPV2 in the interpolation calculation.
- Calculating market value weights incorrectly. Errors included using book values instead of market values, including reserves in market value calculations, calculating the number of ordinary shares incorrectly, treating the preference shares as ordinary shares, treating the preference shares as loan notes, multiplying the after-tax cost of debt by (1 – t) in the WACC calculation or multiplying the calculated WACC by (1 – t).

Spreadsheet and Word Processing Technique

There was a slight improvement in this diet in terms of the way in which candidates presented their CBE answers within spreadsheets. More candidates included workings and labelling of entries in spreadsheets was better. Some candidates simply inserted calculated figures in a spreadsheet, making the marker's task of checking their workings extremely difficult.

Candidates must remember that it is essential for their work to be presented in a way that is easy for the marker to read and understand. For example:

- Cell contents should be readable without the marker needing to increase column width.
- Text in a cell should be fully readable without the marker needing to scroll across the entire spreadsheet.
- Lengthy discussion should not be placed in one cell without appropriate text wrapping.
- A number in a cell should not contain a large number of zeroes with no separators.
- There is usually no need to display more than four decimal places.
- Workings and supporting calculations must be shown and clearly labelled.

While formulae can be used in cells to perform calculations such as NPV and IRR, care must be taken that formulae are entered correctly. If markers can see the formulae in cells, they can apply the own-figure rule where appropriate. However, if cells contain calculated figures with no supporting calculations, rather than formulae, the own-figure rule cannot be applied.

Candidates should note that for word-processed discursive answers, sub headings could be used to give structure and clarity to a discursive answer, with the sub-headings being linked to the question requirement.

Guidance and Learning Support resources to help you succeed in your exam

Preparing for the F9 exam may appear daunting but there are many resources available to help you. There are many technical articles available on the topics in this report. In addition, the past exams referred to, and more, are available for your use. You should refer to these throughout your studies. Please make sure that you visit the ACCA's website and look at everything available to you. There are also plenty of support materials to help you feel confident about taking your exams on CBE.

http://www.accaglobal.com/uk/en/student/exam-support-resources/fundamentals-exams-study-resources/f9.html