ACCA Think Ahead

Foundations in Financial Management (FFM) December 2023 Examiner's report

The examining team share their observations from the marking process to highlight strengths and weaknesses in candidates' performance, and to offer constructive advice for those sitting the exam in the future.

Contents

General Comments

The two-hour examination was divided into two sections.

Section A consisted of 15 multiple choice questions (MCQs) each worth two marks. Each MCQ had four possible answers, of which only one was correct. Section A was weighted at 30% of the total marks and marked by computer.

Section B consisted of seven questions: one worth 20 marks, two worth 15 marks each, and four worth five marks each. Section B was weighted at 70% of the total marks and marked by a specialist team of markers.

All questions in this examination were compulsory, but it was noticed that as in previous sittings, not all questions were attempted by some candidates.

An increasing number of candidates used the technology provided for the CBE efficiently and effectively, which is pleasing to see. However, as mentioned in the previous examiner's report, a number of candidates are still typing their final numerical answer into the spreadsheet cell, rather than the formula. This approach is risky, as marks can then only be awarded if the answer is 100% correct. It is easier and faster if the workings are performed within the spreadsheet cell. The marking team check all workings within a candidate's answer and will reward all correct follow-through marks (known as "own figure rule"). This can make the difference between a safe pass, and failure on a numerical question. Candidates should be aware that the majority of marks for the calculative elements of section B are for method. **Failing to show workings is likely to lead to minimal marks**. The marking team cannot assume a correct methodology without workings. It is the candidate's responsibility to show all workings.

In section B, the calculative elements were answered better than the discussive elements. Although there were some good written answers, there were a high number of answers where the calculations had been attempted, but NOT the discursive part. Candidates MUST attempt all parts of a question to maximise chances of achieving a pass mark.

In the June and December exam sessions, as in previous exam sessions, there were a large number of candidates who appeared to answer a different discursive question to the one set. While these answers demonstrated some knowledge, it is difficult to award marks as they do not answer the specific question set.

There was no strong evidence in December that candidates ran out of time during this examination, and it appears that the use of the spreadsheet and word processing applications significantly helped with this aspect of examination pressure.

Section A

The vast majority of candidates answered all of the questions in Section A. The few that did not should be reminded that guessing is better examination technique than leaving a MCQ unanswered. There is no negative marking for any part of this examination, and all MCQs score either 0 or 2 marks.

This section should take candidates no longer than 36 minutes to answer the 15 multiple choice questions. On average, candidates completed their answers to this section in less time than allowed.

Success in this section can be achieved by not only possessing good knowledge and understanding, but also from good exam technique. Good examination technique in answering MCQs is only possible if a candidate takes time to practise prior to the live examination. In this section, questions often cover a wide range of subjects with plausible answers options and therefore answering questions correctly requires an agile mind, as well as an attention to detail.

When reading an MCQ, candidates should always read the requirement first - this will be in bold. Candidates should be sure of what is being asked of them before they read the body of the question (if there is one) or the answer options. If the question is a narrative MCQ, candidates should eliminate any obviously wrong options then, read the requirement again carefully, before selecting the most likely option. If the question is a calculation question, candidates should perform the calculation and then look at the options.

The three options that are not the correct answer are called distracters; they are designed to be plausible and are based on errors candidates may be expected to make. For this reason, candidates should always double check their answers. Just because your answer is one of the answer options does not mean it is correct!

Let us now look at four example section A questions All four questions had low pass rates.

Example 1

Which of the following concerning a project's internal rate of return (IRR) is/ are TRUE?

(1) The project should be accepted if the IRR is positive.
(2) The IRR will be affected by the company's cost of capital.

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2 (correct answer)

This question is all about IRR knowledge, with no calculation or application required. The correct answer here was D, as neither statement is correct.

The two most popular answers picked were B and C.

Statement 1 is incorrect, as it is explaining the decision rule with NPV, not IRR. Just because the IRR is positive, does not mean the project should be accepted. Only if the IRR is greater than the cost of capital should it be accepted.

Statement 2 is also incorrect as a project's IRR is determined by the project's cash flow pattern. The company's cost of capital has no impact on IRR.

Example 2

Siti has set up a 10-year investment plan yielding 10% return per year, which is automatically added to the plan at the end of each year. Payments into the plan are as follows:

1. $10,000 initial investment.
2. Nine further payments of $1,500 at the end of each year (last payment made at end of year nine).

What is the total value of the investment plan at the end of 10 years?

A. $23,500
B. $48,343 (correct answer)
C. $49,845
D. $60,952

This question is testing future value (FV) calculation, which needs careful thought, as there is a lot of detail here. Key things to spot are:

- We need the value at the end of year 10
- $10,000 is paid in at the start
- $1,500 will paid in at the end of years 1 to 9 (9 in total)
- Interest at 10% will be earned

When performing a FV calculation with complicated cash flows, work out the present value (PV) of all the cash flows first, and then compound it forward at the interest rate to get a FV.

The initial $10,000 investment is already a PV.

The only other cash flow is the $1,500 a year for nine years. This is a simple perpetuity:

PV = $1,500 x 9-year annuity factor @ 10% (5.759 from tables) = $8,638.5

Total PV of the cash flows is $18,638.5 ($10,000 + $8,638.5)

To get the value of this in 10 years' time, we just need to compound the figure at 10% to get:
FV = $18,638.5 x 1.1^10 = $48,343 (answer B)

Distracters

A – This was the most common answer chosen. This answer takes no account of time value, ie the yield of 10% as it is just the simple addition of all the cash flows:

10,000 + 8 x 1,500 = $23,500

This is a good example of "if you don't know, guess!" but guess sensibly. Of all the distracters "A" should have been the one that candidates would have been expected to eliminate, as it is obviously wrong for the above reason.

C – Use a 10-year annuity factor for the $1,500 per year instead of a 9-year factor.

D – Do not discount the nine annual payments of $1,500 to a PV before compounding

Example 3
A company has been offered an early payment discount of 0.9% from one of its suppliers if it pays them 30 days earlier.

The company uses a bank overdraft to finance in the short-term at a cost of 11% per year.

What is the discount's equivalent compound annual % and should the company accept or reject the offer? (Assume a 360-day year)

A. 10.8%, accept
B. 10.8%, reject
C. 11.5%, accept (correct answer)
D. 11.5%, reject

This is an evaluation of an early settlement discount. There are no other costs or savings other than the discount % itself so we can just use the formula:

Annual % cost = (100/(100- disc%)) ^ (360/days reduction) – 1

This will give: (100/99.1)^(360/30) - 1 = 0.115 or 11.5%

We must now consider whether this is good (accept) or bad (reject). By paying a supplier early, we are effectively lending money to them. The % worked out is effectively interest income to us therefore we are earning 11.5% return by paying them early. Compared with the overdraft rate of 11%, we can see that we earn more by lending to the supplier than we have to pay the bank by paying early so it is worthwhile doing – Accept.

Distracters

A and B – A was the most common answer chosen, but 10.8% is just a simple rate, not compounded as asked for.

0.9% for 30 days (1/12 of a year) so for a whole year = 0.9% x 12 = 10.8%.

The question clearly asked for the compound annual rate, not the simple annual rate. Again, by seeing that 10.8% was just the simple rate, options A and B could have been eliminated.

D – Correct rate of 11.5% but incorrect decision.

Example 4

A company has an operating profit for the year of $120m and pays tax at 20%.

It has paid the following in the year:

Interest on bank loan	$20m
Preference share dividend	$30m
Ordinary share dividend	$40m

The company has in issue 500m ordinary shares and 400m preference shares.

What is the company's earnings per share (EPS)?

A. $0.10 (correct answer)
B. $0.16
C. $0.06
D. $0.02

Only 29% of candidates achieved the correct answer to this question.

EPS is always calculated in relation to the ordinary shareholders. The preference shares in this question complicates it slightly as candidates must realise that the profit figure must be after preference dividend and only the number of ordinary shares is used.

Earnings to ordinary shareholders (profit after interest, tax and preference dividend) needs to be calculated as follows:

Earnings = (120 – 20) x (1 – 0.2) – 30 = $50m

Note that only the preference dividend is deducted as earnings for EPS purposes is before **ordinary** dividend.

Number of ordinary shares is 500m (we ignore the number of preference shares)

That give EPS = $50m/500m = $0.10

Distracters

B – This was the most common answer, but is incorrect, as the preference dividend has not been deducted, using just profit after interest and tax. If there had been no preference shares, this would have been the correct figure.

C – Includes the number of preference shares as well as ordinary shares

D – Deducts both dividends from the earnings figure

Section B

Section B consisted of seven questions, and the requirements were a combination of calculation and discussion, with both knowledge and application being tested. As in previous sittings, it was clear that candidates preferred answering the numerical aspects of questions, compared to the written ones, as the numerical answers tended to be fuller with more time having been spent on them.

The long-form questions

The calculations required for these questions included cash budgeting, investment appraisal, economic order quantity, and factoring/early settlement discount.

These subjects are regularly examined, and it is expected that candidates have a thorough understanding of them. Completion of all these calculations was very mixed, indicating that candidates were, perhaps, not as well prepared as expected.

Each question contained a written element that tested either the underlying understanding of the calculations, or other aspects of the syllabus area. Answers to these written parts were also very mixed.

Example long-form question

The following question involves the assessment of whether the company should offer an early settlement discount or engage in a factoring arrangement with its bank.

Factoring questions tend to be quite “challenging” for candidates, and this particular question was poorly answered, with many not attempting at all. Even when an attempt was made, the standard overall was generally poor.

This scenario relates to four requirements.

Ernesto Co is a company with the following information:

Annual credit sales	$10,200,000
Trade receivable collection period	65 days
Standard credit account terms	30 days
Bad debts as a % of credit sales	2%
Overdraft cost per year	8%
Cost of credit control department per year	$25,000

Ernesto Co's management is unhappy about the high trade receivables collection period and is considering two options to reduce it.

Option 1: early settlement discount

Ernesto Co will offer an early settlement discount to all credit customers, as follows:

1. 0.9% discount to credit customers paying within 10 days
2. 60% of credit customers (by value) are expected to take the discount
3. The level of bad debts will be unaffected
4. 30% of the credit control departmental costs will be saved

Option 2: factoring arrangement

Ernesto Co's bank has offered it a full factoring arrangement with the following terms:

1. Non-recourse arrangement with annual fee of 2.75% of credit sales
2. Advance payment of 80% of trade receivable balance
3. Balance paid after 30 days
4. Interest cost of 7.5% per year on advance

If the factoring arrangement option is accepted, the credit control department will be closed and the full departmental cost saved.

Assume 365 days in a year.

(a) With regards to the two options:

(i) Calculate the net financial benefit/cost of option 1.

(4 marks)

(ii) Calculate the net financial benefit/cost of option 2.

(6 marks)

(iii) Using your results from part (a)(i) and (a)(ii) recommend which option, if any, Ernesto Co should adopt.

(1 mark)

(b) Explain TWO differences between factoring and invoice discounting.

(4 marks)

(15 marks)

General approach

(a)(i) and (ii) are asking for the net financial benefit/cost of each option. This means looking at the individual costs and savings of each option.

A far too common mistake was to treat the trade receivables balance as a cost. **Trade receivables is an asset, not a cost**! Trade receivables represents cash that has not been received yet but will be eventually (apart from bad debts). The cost associated with trade receivables is the interest cost. Assuming that trade receivables is constant, that means there will be an annual (12 month) cost of:

Interest cost = trade receivables x overdraft interest %

Understanding this is key to then approaching the calculations required for both (a)(i) and (ii)

(a)(i) Early settlement discount (ESD)

When evaluating an ESD it is important to firstly determine the type of calculation to perform. We can calculate either:

1. The annual % cost of the ESD using the formula:

   Annual % cost = (100 / (100 – disc%)) ^ (365/day reduction) – 1

or

2. The net annual $ cash cost/saving

Approach 1 can be taken only if there are no other costs/savings to consider other than the discount % itself. This is more likely to be the case in a simple MCQ in section A, such as the one demonstrated previously.

When there are other costs/savings, approach 1 is too simplistic as it does not incorporate the other costs/savings. In the scenario, in addition to the discount itself, there is also a saving in administration costs, therefore we must use approach 2.

We now need to think about what the costs/savings are with an ESD therefore we are looking for the following:

- Finance cost of the trade receivables
- Administration costs
- Discount cost
- Bad debt impact

We are told that there will be no impact on the level of bad debts with the ESD, so bad debts can be ignored here.

Finance cost of the trade receivables

The approach here is to work out the trade receivables balance before and after, and then calculate the overdraft interest saving on the difference. We are given the total credit sales for the year ($10.2m) and the current receivable days figure (65) so…

Trade receivables (before) = $10,200,000 x 65/365 = $1,816,438

Only 60% of our trade receivables will take up the discount and pay within 10 days. This means that the new trade receivables will be 60% for 10 days and 40% for 65 days, giving:

Average receivable days = 0.6 x 10 + 0.4 x 65 = 32 days

New trade receivables (after) = $10,200,000 x 32/365 = $894,247

Reduction in trade receivables = $1,816,438 - $894,247 = $922,191

We now have the impact on trade receivables, however remember, this is **NOT** a cost or saving. Trade receivables reducing by this amount means that there is an extra $922,191 in the bank account – it is the interest saved at the overdraft rate of 8% that we need:

Interest saved = $922,191 x 8% = $73,775

Now we have the first saving figure going towards the overall net financial cost/saving of the ESD.

Note: The above has ignored the effect of the 0.9% discount on the trade receivables figure but it would be perfectly acceptable (and correct) to incorporate that to give the following figures:

Average receivable days = 0.6 x 10 x (1 – 0.009) + 0.4 x 65 = 31.95 days

New trade receivables = $10,200,000 x 31.95/365 = $892,849

Reduction in trade receivables = $1,816,438 - $892,849 = $923,589

Interest saved = $923,589 x 8% = $73,887

As can be seen, the difference in the figures is marginal, but either approach would gain full marks. For the purposes of this report, the first approach with the saving of $73,775 will be used.

Administration costs

This is a simple calculation as we are told that 30% of the administration costs will be saved:

Admin saving = 30% x $25,000 = $7,500

Discount cost

This is also a relatively simple calculation, although often missed by a significant number of candidates. Remember, only 60% of the credit sales will attract the discount:

Discount costs = $10,200,000 x 60% x 0.9% = $55,080

Overall net effect (ESD)

Now we can bring all the elements together, being careful with the +/- signs:

	$
Cost of discount	(55,080)
Administration saving	7,500
Interest saving	73,775
Net saving	**26,195**

(a)(ii) Factoring arrangement

Factoring arrangements can have more elements to them than a simple ESD. The first step is to know exactly what the arrangement incorporates. The usual elements are:

- Quicker debt collection (reduced receivable days)
- Factoring fee
- Administration savings
- Credit insurance
- Cash advance

All of the above elements are relevant here:

- Debt collection – will reduce from 65 days to 30 days (when balance paid)
- Factoring fee – 2.75% of credit sales
- Administration savings – whole department closed saving $25,000 a year
- Credit insurance – non-recourse arrangement so factor takes on the risk of bad debts
- Cash advance - 80% of trade receivables at a rate of 7.75%

The approach to the calculation here is broadly the same as with the ESD, where the individual costs/savings are required?

Debt collection

Impact here is the same as ESD – trade receivables will decrease, giving us more cash in the bank and saving overdraft interest.

Trade receivables (before) = $1,816,438 (from (a)(i))

Trade receivables (after) = $10,200,000 x 30/365 = $838,356

Reduction in trade receivables = $1,816,438 - $838,356 = $978,082

Interest saved = $978,082 x 8% = $78,247 per year

Factoring fee

A simple calculation:

Fee = 2.75% x $10,200,000 = $280,500 per year

Administration saving

Saving = $25,000

Credit insurance

Unlike the ESD, there is now a saving in bad debts as the bank will now take on the risk of these.

Bad debts saved = $10,200,000 x 2% = $204,000 per year

Cash advance

Cash advance is often the one which causes the most issues, as candidates do not always realise there are two impacts here.

- In having an advance, which is basically a loan from the factor, there is interest to pay to the factor (cost)
- While that cash is in our bank account, we are saving overdraft interest (saving)

One approach is to calculate the two separate elements, and then net off. Firstly, we need to know how much is advanced using the new trade receivables figure (30 days):

Advance = $838,356 x 80% = $670,684

Just like with trade receivables, many candidates mistakenly treated the advance as a cost/saving – it is neither! It is a liability, as we have borrowed from the factor. It is the interest cost and saving we need, being careful not to mix up the two different interest rates.

Interest paid to the factor = $670,684 x 7.5% = $50,301 (cost)

Interest saved on overdraft = $670,684 x 8% = $53,654 (saving)

Net interest saved = $53,654 - $50,301 = $3,353 (saving)

Note: an alternative (and slightly quicker) way to calculate this would be to just use the difference in the interest rates, ie (8% - 7.5%) x $670,684 = $3,353

We now have all the elements so we can now bring them together:

Overall net effect (factoring):

	$
Interest saved by quicker debt collection	78,247
Factoring fee	(280,500)
Administration saving	25,000
Bad debts saved	204,000
Cash advance net interest saved	3,353
Net saving	**30,100**

(a)(iii) Recommendation

This should be an easy mark to pick up, as no matter how incorrect your figures are from the first two parts, you would get 1 mark for your recommendation if it is correctly based on your figures (own figure rule). Key things to check from your figures are (i) is there a saving and (ii) which one gives the highest saving.

A simple answer for one mark would be:

Both options provide a saving, but the factoring arrangement is recommended, as it saves $30,100 compared with only $26,195 with the ESD.

While there were some good attempts at the calculations for part (a), these were in the minority with few, if any, managing to achieve the correct answer. ESD and factoring calculations will always be a key area for the exam and therefore candidates are advised to rework all of the above calculations.

Part (b) - Factoring v invoice discounting

This part of the question was more knowledge based, and generally better answered than part (a). Only two differences were asked for, candidates providing more than two were simply wasting time as extra marks are not gained for providing more than asked for.

Key differences that could have been used include:

Collection responsibility - With invoice discounting, responsibility for the collection of the debt remains with the business. With factoring, the factor takes over the collection of debt.

Whole ledger/individual invoice - Factoring arrangements will usually involve the whole of a business' trade receivables ledger. With invoice discounting, individual invoices are selected for the arrangement rather than the whole ledger.

Recourse/non-recourse - Factoring arrangements can either be with recourse or non-recourse. Invoice discounting arrangements are usually on a with recourse basis only.

Only two were required.

The short-form questions

The four short-form five-mark questions are usually all written, knowledge-based questions although sometimes may include short calculation questions The most common errors in candidate answers to the written questions included:

- Not answering the question set
- No knowledge of the subject.

Not answering the question set appears to be a usual problem with some of the written requirements on this exam. For example, the December exam included a question where candidates were required to explain the weaknesses of using ratio analysis to ascertain credit worthiness. A large number of candidates instead gave examples of ratios and how to calculate them. This was not asked for, and therefore achieved no marks.

A good broad knowledge of the syllabus is essential for the short-form questions, as these will often test some of the more knowledge-based areas of the syllabus.

Conclusion

The FFM exam has a broad syllabus, and it is imperative that candidates study, and prepare well for all learning outcomes in the syllabus, not just a select few. Candidates must bear in mind that questions in the examination will include questions from all areas of the syllabus, and that equipping themselves with adequate knowledge of all topics will maximise their chance of passing future examinations. Thus, candidates are advised to plan their revision timetable in order to ensure they have time to revise the subjects in sufficient breadth and depth. Finally, candidates should do as much question practice as possible, including attempting the specimen exam available on the ACCA website.