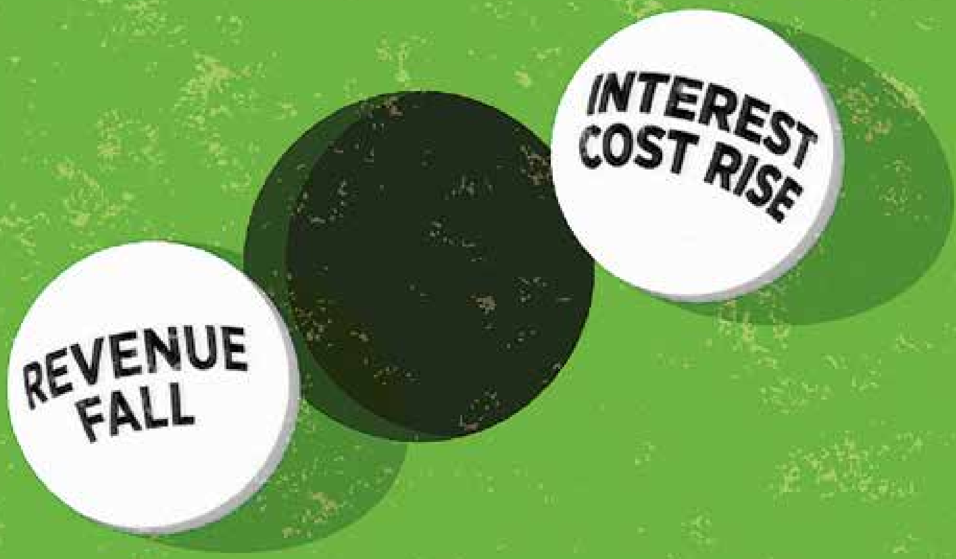
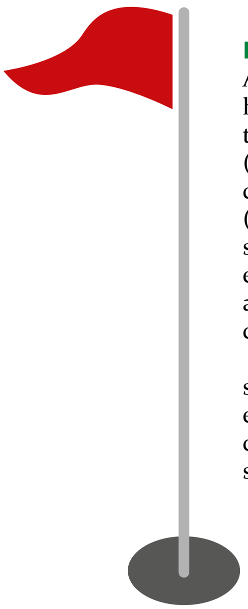


Double trouble

Interest rate rises can increase our costs and shrink our revenues simultaneously. Doug Williamson shares tips on how to evaluate this common problem and boost your exam score

An important skill in your treasurer's toolkit is being able to recognise, calculate and comment on interest rate risk. So if your examiner asks you to 'evaluate', they require your words of explanation. Correct calculations on their own are not enough. To pass your exam, you need to practise writing commentaries as well.



Rate rise risks

A rise in interest rates could hurt your business in at least two important ways:

(1) Any floating-rate interest costs will rise.

(2) General demand weakens, shrinking our revenues at exactly the time we can least afford it, since greater interest costs are biting us.

This 'double whammy' scenario was tested in a recent exam. We will look at this question in detail, to discover some important tips to help you pass your own exam.

Extracts are set out here:

Tee up

TEE operates a chain of petrol stations in the UK. You have recently been appointed as treasurer and one of your first tasks is to review the financial risks that the company faces.

TEE has only floating-rate debt consisting exclusively of bank borrowings:

- Revenue and cost of sales are considered to be directly correlated to interest rate levels, with an estimated reduction of 1% for each 1% rise in interest rates.
- Bank borrowings are subject to a debt covenant specifying profit before interest and tax (PBIT)/interest of at least 4.0x.
- At the previous interest-fixing date, six-month Libor was 3% and the forecast finance charge was based on that Libor rate.
- £10m of cash and cash equivalents are invested in a mixture of money market deposits, ranging from overnight deposits to one month, with another £10m invested in instruments such as commercial paper and certificates of deposit, with an average modified duration of two months.

No interest rate hedging is currently in place.

Required:

Evaluate the extent of TEE's exposure to a rise in interest rates. Your answer should include calculations of the impact of a 2% rise in interest rates on TEE's interest cost, revenue and cost of sales; value of cash and cash equivalents; profit after tax; and ability to meet the debt covenant.

Certificate in Risk Management (CertRM), October 2013, Q1(a), extracts

EVALUATE
= often calculate
+ always comment

Great drive

Most candidates drove off by producing substantially correct and complete calculations based on further data in the question that is not reproduced above.

The examiner reported happily[1]: "The sensitivity analysis was generally well attempted."

Key correctly calculated figures are set out in the table below:

£m	3% Libor	5% Libor	Adverse change
PBIT (operating profit)	30.0	28.6	1.4
Interest cost	5.4	7.8	2.4
PBIT ÷ interest covenant	5.6x	3.7x	

Lousy putting

Following that excellent tee shot, candidates were well placed to achieve a match-winning score. Sadly, they didn't.

The examiner continued disappointedly: "However, many answers simply contained numerical analysis, without commenting on the significance of the results and identifying the key risks in the given scenario."

'Evaluate' is more than 'calculate'

It's not clear why so many candidates didn't write any commentaries. Perhaps they interpreted the requirement to 'evaluate' as meaning the same as 'calculate'. That is never the case. It's quite true that evaluation does indeed normally include calculating. But evaluation importantly, and always, includes writing words.

Simple story

The words the examiner wanted were not complicated. To plan any commentary, a good place to start is always with the largest monetary effects. Then move on to write about their consequences.

Look again at the key calculated figures in the table above. Which adverse change is the largest? Now, the following outline evaluation is quick to write, and it scores marks very efficiently:

Outline evaluation comments

(1) The interest cost rise is the biggest single effect, £2.4m adverse. This is nearly double the next largest effect (of £1.4m).

(2) We suffer a 'double whammy' because the effect on our operating profit is also adverse, at £1.4m. So the total adverse effect on profit before tax is:
£2.4m + £1.4m = £3.8m.

(3) There is a potential breach of our debt covenant. The ratio falls to 3.7x, below the trigger level of 4.0x. Any breach of covenant could have serious adverse consequences for the borrower TEE.

(4) The potential loss on the fall in value of short-term investments is immaterial in this case, due largely to their short average maturity.

1 CertRM Examiner's Report, October 2013

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This kind of outline can, of course, be expanded further, as your exam timing allows.

Alternative endings

To finish, let's think briefly about potential variations on our TEE petrol stations scenario. There are two important factors that might differ in another case:
(1) The correlation between revenues and interest rates.
(2) Longer-term investments or liabilities.

(1) Revenue correlations

TEE's petrol station revenues go down when interest rates go up. This is the most usual relationship between operating revenues and interest rates. In different business sectors, this relationship might be weaker, time-lagged or even reversed.

(2) Longer-term investments or liabilities

In TEE's case, the value of fixed-rate investments was not sensitive to changes in interest rates, because of their short-term nature. In another case, longer-term investments and liabilities would be much more sensitive to changes in interest rates. Long-term pension liabilities, for example, are often a substantial source of interest rate risk for employers. This is a major reason for the closure of so many defined benefit pension plans.

Keep your eye on the ball

Stay out of the 'no words' sand trap by reading your question requirements carefully, and practise writing evaluations. Keeping your eye on the question ball will take you a fair way towards grand slam success in your exams.

Conclude with confidence

"Strong numerical skills are insufficient to pass this paper. It is also important to be able to explain and draw conclusions from the results of any numerical analysis undertaken."
CertRM Examiner's Report, October 2013

Doug Williamson FCT, is an experienced coach and tutor. As a former chief examiner, he is uniquely qualified to help you to ace your ACT exams, having read and carefully marked great numbers of exam scripts