

THINK INSIDE THE BOX

Tables are the fastest and most efficient way to organise exam information and structure your answer. Doug Williamson urges you to use them

Tables are great tools for managing time, structuring comprehensive answers and calculating missing numbers. This article applies time management and answer-structuring tables to get you through the big (and potentially exam-failing) 30-mark question below – with time to spare.

QUESTION 1 Extracts from Risk Management paper, October 2011

Assume today is 1 October 2011.

WIRED plc has two divisions. The components division manufactures computer components and the consultancy division undertakes IT consultancy. The directors of WIRED intend to dispose of the consultancy division for an estimated £10m in approximately three months' time. They then intend to reinvest these proceeds in a factory for the components division, with payment due nine months from now.

As treasurer of WIRED, you are considering how best to manage the interest risk arising on the investment of the disposal proceeds until such time as they are needed to pay for the factory.

Hedging instruments being considered are the best match of:

- A** Forward rate agreement (FRA);
- B** At-the-money over-the-counter (OTC) interest rate option; and
- C** Out-of-the-money OTC interest rate option.

Assume that WIRED can invest at Libor minus 1.00% and that six-month Libor is currently 2.00%.

Market rates as at 1 October 2011 for hedging instruments available to WIRED:

FRAs	
	Price
3v6 FRA	1.85-1.95
3v9 FRA	2.05-2.15
6v9 FRA	2.25-2.35

OTC interest rate options (182 days) for the period 1 January to 1 July 2012		
Strike price	Put premium % per annum	Call premium % per annum
1.50%	0.025	0.625
2.00%	0.195	0.295
2.50%	0.540	0.140

Required:

- (a) Compare and contrast the features and risks arising from the use of:
 - (i) FRAs versus interest rate options.
 - (ii) OTC contracts versus exchange traded instruments. (7 marks)
 - (b) [Short generic narrative.] (3 marks)
 - (c)(i) [Hedge construction.] (3 marks)
 - (c)(ii) [Cash flow calculations.] (6 marks)
 - (d)(i) [Hedged rate calculation and illustration.] (5 marks)
 - (d)(ii) Discuss what factors WIRED might take into account when deciding which hedging instrument to use. (6 marks)
- (Total 30 marks)**

Your timetable

The most important words in this question are the final three: 'Total 30 marks'. Allowing 1.5 marks per minute (in a 100-mark three-hour exam), we have 45 minutes to respond, and move on.

It's impossible to pass the exam on this question alone. However brilliant our

answer, we can never score enough marks. But it's entirely possible to fail the exam right here, through a time overrun. Because then we'd rob ourselves of the time we need to score enough of the many easy marks in the rest of the paper. (Sadly, many past candidates have done exactly that. Usually on big questions like this one.)

Assuming we start answering at 9.45am, our minutes per sub-part and our end times should be:

	Marks	Minutes	End time
(a)(i)	3.5	5	9.50
(a)(ii)	3.5	5	9.55
(b)	3	4	9.59
(c)(i)	3	4	10.03
(c)(ii)	6	9	10.12
(d)(i)	5	7	10.19
(d)(ii)	6	9	10.28
Planning		2	10.30
Total	30	45	10.30

You could note your scheduled minutes and end times on the question paper, where they will remain fully visible to you as you write in your answer booklet. Your time to make these time-planning notes is also built in, by rounding down all your scheduled minutes. For example, (b) 3 marks x 1.5 = just 4 scheduled minutes, rather than 4.5 minutes. (This is additional to the planning and contingency time of 30 minutes, which is already allowed for in a three-hour exam by allocating just 1.5 minutes per mark x 100 marks (a total of 150 minutes), out of the total exam time of three hours (180 minutes).

Tables for narratives

Three quick and fairly standard tables will score easy marks fast for the longest narrative parts, (a) and (d)(ii).



The six key phrases in the Required Q1(a) (i) are: “Compare... contrast... features... risks... FRAs... interest rate options.”

We need to answer all of the elements in the question. There is a really safe way to ensure that – by echoing all of the six key question phrases in our answer.

For example:

Comparison

Both FRAs and interest rate (IR) options hedge IR risk. They both hedge market interest rates only, not credit risk margins.

Contrasting features and risks (below)

Using FRA and IR option as column headings helps us make more good points faster, with less repetition.

Other exam techniques here include:

- ◆ IR, ITM, OTM and ExT are all acceptable abbreviations².
- ◆ Refer to the case study company (abbreviated to ‘W’). This also lifts the generic points we make before and after.

We can then use a similar table framework for Q1(a)(ii), this time using OTC and ExT as our column headings.

Comparison

Both OTC contracts and ExT instruments are derivatives designed to hedge market risk.

Contrasting features and risks

	OTC	ExT
FEATURES		
Margin payments		
Unwinding		
Customisation		
Pricing		
RISKS		
Counterparty risk		
Operational risk		

And fill in the blanks in the answer table.

Ask your own questions

The final longer narrative part is Q1(d)(ii). This part says: “Discuss what factors WIRED

might take into account when deciding which hedging instrument to use.”

A useful discussion structure is to tabulate factors with the impact of each factor.

For example:

W considering:

FRA

ATM option or OTM option.

FACTOR	IMPACT
1. Is W risk averse?	
2. Does board policy allow options?	
3. Is upfront premium payment affordable under present conditions?	
4. Does board policy allow view-taking?	
5. How certain are the (i) occurrence, (ii) amount & (iii) timing of cash inflow?	

Framing a discussion of factors as questions in this way has three benefits:

- 1** It’s easy to ask questions, raising more issues faster;
- 2** We needn’t always answer all our own questions; and
- 3** Asking questions may guide us back to the specifics of the case.

For example, the general impact of the first question “Is W risk averse?” is that a risk-averse hedger would normally prefer a fixing instrument – such as the FRA – for the greatest certainty of cash flow.

W is also in a period of greater operational change and risk (proposed disposal and reinvestment), which might make W more than usually interest rate risk-averse. This application point is hard to identify under exam pressure, but question-and-answer discussion structuring can help.

You don’t need to make all of the points outlined above in order to score full marks on the question. Nor do you need to make all of the same points made in the published solutions. Finally, remember that any other relevant valid points you make – even if not in the published solutions – will also be credited. ♡

	FRA	IR OPTION
FEATURES		
Hedging effect	Effectively fixes: – Net cash flows – Accounts income/expense	Insures v worst case. Eg floor on income for W.
Cash flows	At maturity only.	1. Upfront premium paid by W. 2. Potential receipt at maturity.
Settlement	+/- for difference against reference rate, eg Libor. Discounted at, eg Libor.	Similarly v L & discounted. Only if ITM at maturity.
RISKS		
Counterparty risk	OTC & bilateral. So significant.	If OTC – significant. If ExT – minimised, via exchange.
Regret risk/opportunity loss	If effectively fixed at adverse rate.	If option expires OTM.

¹ Assuming an equal split of marks and time for (a)(i) and (a)(ii)

² IR = interest rate; ITM = in the money; OTM = out of the money; ExT = exchange traded; ATM = at the money; L = Libor

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