
Project	Financial Instruments (Replacement of IAS 39) – Hedge Accounting
Topic	Illustrative examples of net position hedges

Introduction

Background

1. In September, the Board discussed the types of group hedges (including hedges of net positions) that should be eligible for hedge accounting under the new general hedge accounting model.
2. At that meeting, Board members expressed various views regarding the types of net position hedges that should be eligible. Board members were most concerned about allowing net positions of forecast transactions to be eligible for hedge accounting.
3. Board members requested to see further examples of net position hedges.

Purpose of this paper

4. The purpose of this paper is to
 - (a) provide examples of net positions that the staff propose should be eligible for hedge accounting (see Appendix A – C);
 - (b) provide examples of net positions that are not in the scope of the staff's proposals (see Appendix D); and
 - (c) ask the board to decide which types of net positions of hedged items should be eligible for hedge accounting (see question to the Board after paragraph 15).

This paper has been prepared by the technical staff of the IASCF for discussion at a public meeting of the IASB. The views expressed in this paper are those of the staff preparing the paper. They do not purport to represent the views of any individual members of the IASB.

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The issue

5. The following issues are the main reasons why some board members are concerned about permitting net positions of forecast transactions to be eligible hedged items:
 - (a) The change in value (from inception of the hedge) of a forecast transaction is not a gain or loss arising from a contractual arrangement and hence should not be recognised in profit or loss or OCI.
 - (b) The mechanics required for cash flow hedge accounting of net positions are too complex.
 - (c) For net position cash flow hedges, the hedging instrument gains/losses are shown in a separate income statement line. This could result in too many additional lines in the statement of comprehensive income.
 - (d) If the first forecast transaction in a net position hedge of forecast transactions does not occur, hedge ineffectiveness may not be recorded.

Staff Analysis

6. The staff's response to concerns in 5(a) to 5(c) were discussed in the September 2010 Board meeting (see agenda paper 14A).
7. At the request of the Board (to address point 5(d)), this paper provides numerical analysis of the accounting outcome that arises when a forecast transaction in a net position hedge does not occur as originally expected (see example A3 in Appendix A).
8. In summary, the non-occurrence of a hedged forecast transaction, in a net position hedge, results in hedge ineffectiveness being recorded in respect of the hedging instrument, only if the hedge ends up in an over-hedged position. Ineffectiveness does not arise if the hedge results in an under-hedged position. This measurement of hedge ineffectiveness is the same as that which arises in a gross cash flow hedge. Hence, the staff do not believe this to be a valid reason not to allow forecast transactions to be eligible hedging instruments.

Summary of examples presented

9. The appendices to this paper include the following examples of net positions. The main examples are in Appendix A (with supporting numbers in Appendix B).

10. **In Appendix A**, the following three examples are presented:

- (a) Example A1: Fair value hedge of interest rate risk on a net position of two fixed rate debt instruments;
- (b) Example A2: Fair value hedge of FX risk on a net position of two firm commitments;
- (c) Example A3: Cash flow hedge of FX risk on a net position of two forecast transactions with the following four scenarios:
 - (i) Scenario 1: transactions occur as originally expected;
 - (ii) Scenario 2: the first hedged forecast transaction does not occur;
 - (iii) Scenario 3: the second hedged forecast transaction is no longer expected to occur (as at 12 months into the hedge);
 - (iv) Scenario 4: the second hedged forecast transaction is no longer expected to occur (as at 18 months into the hedge)

Numerical analyses for these four scenarios are provided in **Appendix B**.

11. **In Appendix C**, the following three examples are presented (without numerical analysis). Note that these examples are simply variations of the examples presented in Appendix A and are provided for further background only.

- (a) Example C1: Partial term, fair value hedge of interest rate risk on a net position of two fixed rate debt instruments;
- (b) Example C2: Cash flow hedge of (basis) interest rate risk on a net position of two floating rate debt instruments;
- (c) Example C3: Cash flow hedge of FX risk on a net position of a forecast transaction and firm commitment.

12. **In Appendix D**, the following three examples of hedge relationships that would not benefit from the staff's proposals on net position¹ hedging are presented:
- (a) Example D1: Hedge of FX risk on a net position of linked forecast transactions;
 - (b) Example D2: Hedge of interest rate risk on a net position of two floating rate debt instruments;
 - (c) Example D3: Mixed cash flow and fair value hedge of FX and interest rate risk on two debt instruments.

Alternatives for the Board

13. At the board discussion in September 2010, from the three alternatives below, there was support for both Alternative 2 with the restriction in paragraph 14(a)(i) and Alternative 3.
- (a) **Alternative 1:** carry over from IAS 39, all of the existing restrictive criteria that apply to groups of hedged items; or
 - (b) **Alternative 2:** include some restrictive criteria that apply to groups of hedged items, including net positions (see paragraph 14); or
 - (c) **Alternative 3:** do not carry over from IAS 39 any of the existing restrictive criteria that apply to groups of hedged items and instead incorporate the criteria and principles summarised in agenda paper 14A from the September 2010 meeting.
14. **Under Alternative 2** one or more restrictions could apply. These were discussed at the September 2010 meeting. From that list, below are the restrictions that the Board contemplated:
- (a) A net position cannot be an eligible hedged item in a *cash flow hedge*:

¹ Although technically, example D1 and D2 would be eligible net positions, hedge accounting on a net basis gives rise to the same net result as hedge accounting on a gross basis.

- (i) in situations where it is necessary to defer in OCI, value changes of forecast transactions; or
- (ii) in all cases.

Staff recommendation

15. From the above, Alternative 3 would be consistent with the staff recommendations in the individual papers presented on this topic to date. However, the staff acknowledges the concerns raised with the proposed mechanics of cash flow hedging for net positions in paragraph 5. Given the Board's concerns, the staff recommend Alternative 2 with the restriction in paragraph 14(a)(i).

Question to the Board

Does the Board agree with the staff recommendation in paragraph 15?
If not, what does the Board propose instead and why?

Appendix A – Illustrative examples of net positions

Example A1 – Fair value hedge of interest rate risk on two fixed rate debt instruments

Date: 1/1/X0

Hedging entity functional currency: EUR

Description of hedge: Fair value hedge of interest rate risk on net position of hedged item 1 and hedged item 2.

Hedged item 1: 5 year fixed rate loan **liability**, issued at par of €100m, on 1/1/X0, rate of 4% (includes credit spread of 120bps).

Hedged item 2: 5 year fixed rate bond **asset**, issued at par of €10m, on 1/1/X0, rate of 3% (includes credit spread of 20bps).

Hedging instrument: 5-year interest rate swap, notional €90m, receive fixed 4%, pay EURIBOR + 120bps.

Term of hedge: 5 years.

Assumptions: Assume matched terms and 100% effective hedge.

Effect of applying hedge accounting: A fair value hedge adjustment (FVHA) is posted to the balance sheet in respect of both hedged item 1 and hedged item 2. If either hedged item is derecognised before maturity (eg sale of bond asset), no profit or loss volatility would arise from changes in interest rate risk (because fair value changes of both hedged items and the hedging instrument, due to interest rate risk, have already been matched in OCI). In profit or loss the net interest accrual is equivalent to the net interest that would arise if both hedged item 1 and hedged item 2 were floating rate (ie EURIBOR plus spread).

Illustrative numbers: Illustrative balance sheet, profit or loss statement and OCI are shown below for the first two years of the five-year hedge (note that calculations have been rounded to one decimal place).

Values²:

For the hedged items, the values in the table below only include changes in fair value due to changes in interest rate risk - these values are used to derive the fair value hedge adjustment (FVHA). For the hedging instruments, the table illustrates full fair values.

€m	1/1/X0	31/12/X0	31/12/X1	...
Hedged item 1	(100)	(102)	(105)	...
Cumulative FVHA	0	(2)	(5)	
Hedged item 2	10	10.2	10.5	...
Cumulative FVHA	0	0.2	0.5	
Hedging instrument	0	1.8	4.5	...
Net	(90)	(90)	(90)	...

Interest rate swap (IRS) cash flows/accrual

	31/12/X0	31/12/X1	...
EURIBOR	2.5%	2.2%	
<i>Pay</i> EURIBOR + 120bps	(3.7)%	(3.4)%	...
<i>Receive</i> fixed 4%	4%	4%	...
Difference	0.3%	0.6%	...
IRS Notional	€90m	€90m	
IRS cash flow and accrual	€0.3m	€0.5m	
	[0.3% * 90m]	[0.6% * 90m]	

² Note that full details have not been provided for these fair values to be recalculated, they should be taken as given.

Balance sheet

€m	31/12/X0	31/12/X1	...
<i>Assets</i>			
Cash	86.6 ³	83.4 ⁴	
Interest rate swap	1.8	4.5	...
Bond	10	10	...
FVHA	0.2	0.5	...
Total assets	98.6	98.4	...
<i>Liabilities</i>			
Loan	(100)	(100)	...
FVHA	(2)	(5)	...
Total liabilities	(102)	(105)	...
NET LIABILITIES	(3.4)	(6.6)	
Equity	3.4	6.6	

³ Net cash proceeds from loan and bond issuance of €0m, less net interest payment of €3.4m.

⁴ Brought forward cash balance of €86.6m, less net interest payment of €3.2m.

Profit or loss and OCI

€m	31/12/X0	31/12/X1	...
Profit or loss			
Interest income ⁵	0.3	0.3	...
Interest expense ⁶	(4)	(4)	...
Hedging IRS interest accrual ⁷	0.3	0.5	...
Hedge ineffectiveness	0	0	...
Net profit/(loss)	(3.4)⁸	(3.2)	...
OCI			
Net hedged item gain/(loss)	(1.8) ⁹	(4.5) ¹⁰	...
Hedging instrument gain/(loss)	1.8	4.5	...
Hedge ineffectiveness	0	0	...
Net OCI	0	0	

⁵ 3% * €10m.

⁶ 4% * €100m.

⁷ For a fair value hedge of interest rate risk, the net interest accrual is shown in a separate line as it represents a single cash flow (ie to avoid grossing up of a single cash flow).

⁸ Net profit or loss is equivalent to both the **bond** asset and **loan** liability being floating rate instruments (ie bond = EURIBOR+ 20bps & loan = EURIBOR + 120bps). If they were floating rate the interest cash flows would have been: Yr 1: **Bond** rate = 2.5% + 0.2% = 2.7%; 2.7%*€10m = **0.3m**; **Loan** rate = 2.5% + 1.2% = 3.7%; 3.7% * €100m = **(3.7)m**; Net interest = 0.3 – 3.7 = **(3.4)m** (equals net interest after hedge accounting).

⁹ 0.2m - 2.0m = -1.8m.

¹⁰ 0.5m - 5.0m = -4.5m.

Example A2 – Fair value hedge of FX risk on two firm commitments

Date: 1/1/X0

Hedging entity functional currency: USD

Description of hedge: Fair value hedge for spot FX risk on net position of hedged item 1 and hedged item 2.

Hedged item 1: Firm commitment to pay for advertising expense of €80k, in 12 months' time (on 31/12/X0).

Hedged item 2: Firm commitment to sell finished goods at €100k, in 18 months' time (on 30/06/X1).

Hedging instrument 1: Forward foreign currency (FX) derivative, entered into on 1/1/X0, with 12 month term (settles on 31/12/X0), pay €20k, receive \$10k (ie rate of €:\$).

Hedging instrument 2: Forward foreign currency (FX) derivative, entered into on 1/1/X1, with 6 month term (settles on 30/6/X1), pay €100k, receive \$100k (ie rate of €:\$).

Term of hedge: 18 months.

Assumptions: Assume interest rates = 0% (hence spot rates = forward rates) and hedge is 100% effective.

Effect of applying hedge accounting: Hedged item 1 is recorded in profit or loss on 31/12/X0 at the hedged spot rate (ie €:\$). Hedged item 2 is recorded in profit or loss on 30/06/X1 at the hedged spot rate (ie €:\$). Hence, net cash at end of 18 months is €10k (net €20 translated at €:\$). Note that if either transaction is derecognised early due to cancellation, ineffectiveness will arise to the extent that the cancellation is not executed at fair value.

Illustrative numbers: Illustrative balance sheet, profit or loss statement and OCI are shown for full the 18 month term of the hedge.

Fair values (immediately before any settlement):

For the hedged items, the table below illustrates changes in fair value due to changes in FX risk. These values are used to derive the fair value hedge adjustments. For the hedging instruments, the table illustrates full fair value.

\$k	1/1/X0	31/12/X0	30/06/X1
€/\$ exchange rates	2:1	1:1	1.6:1
Hedged item 1	0	(40) ¹¹	n/a
Hedged item 2	0	50 ¹²	12.5 ¹³
Hedging instrument 1	0	(10) ¹⁴	n/a
Hedging instrument 2	0	0	37.5 ¹⁵

¹¹ $(80)/1 - (80)/2 = (40)$.

¹² $100/1 - 100/2 = 50$.

¹³ $100/1.6 - 100/2 = 12.5$.

¹⁴ $(20)/1 - (20)/2 = (10)$.

¹⁵ $(100)/1.6 - (100)/1 = 37.5$.

Balance sheet (post any settlements that arise on the balance sheet date):

\$k	31/12/X0	30/06/X1
Assets		
Cash	0	10 ¹⁶
Hedged item 1	0	0
Hedged item 2	50	0
Hedging instruments ¹⁷	0	0
Liabilities		
Overdraft	(90) ¹⁸	0
NET ASSETS/(LIABILITIES)	(40)	10
Equity	40	(10)

¹⁶ Opening overdraft balance of \$90k, plus revenue of \$62.5 (€100k at spot rate of \$1.6:€), plus net receipt of 37.5 on hedging instrument 2.

¹⁷ Note that hedging instruments have settled at the balance sheet date and hence no longer exist.

¹⁸ Payment of \$80k (€80 at spot rate of €1:\$), plus net payment of \$10k on hedging instrument 1 = \$90k overdraft.

Profit or loss account and OCI

\$m	31/12/X0	30/06/X1
Profit or loss		
Sales	-	50 ¹⁹
Expenses	(40) ²⁰	-
Hedge ineffectiveness	0	0
Net profit/(loss)	(40)	50
OCI		
Hedged item gain/(loss)	10 ²¹	(37.5) ²²
Hedging instrument gain/(loss)	(10)	37.5
Hedge ineffectiveness	0	0
Net OCI	0	0

¹⁹ Sales at spot rate, less FVHA = $100/1.6 - 12.5 = 50$.

²⁰ Expenses at spot rate, less FVHA = $(80) - (40) = (40)$.

²¹ Fair value change for FX risk on both hedged item 1 and hedged item 2 = $50 - 40 = 10$.

²² Fair value change for FX risk on hedged item 2 = $12.5 - 50 = (37.5)$.

Example A3: Cash flow hedge for FX risk on two forecast transactions

Date: 1/1/X0

Hedging entity functional currency: EUR

Description of hedge: Cash flow hedge for spot FX risk on net position of hedged item 1 and hedged item 2.

Hedged item 1: Forecast transaction to pay for advertising expense of \$200k, in 12 months' time (on 31/12/X0).

Hedged item 2: Forecast transaction to sell finished goods at \$300k, in 24 months' time (on 31/12/X1).

Hedging instrument 1: Forward foreign currency (FX) derivative, entered into on 1/1/X0, with 24 month term, pay \$100k, receive €50k (exchange rate = 2:1). This is to hedge the net position of \$100k.

Hedging instrument 2: Forward foreign currency (FX) derivative, entered into on 1/1/X1, with 12 month term, pay \$200k, receive €50k (exchange rate = 4:1). This is to hedge, in combination with hedging instrument 1, the revised open position of \$300k.

Term of hedge: 24 months.

Assumptions: Assume interest rates = 0% (hence spot rates = forward rates) and assume 100% effective hedge.

Effect of applying hedge accounting (scenario 1): Hedging instrument gain/loss shown in separate line item. In combination with this line, hedged item 1 and hedged item 2 are both recorded in profit or loss at the hedged spot rate. In other words, on a net basis, both transactions are presented as fully hedged.

Illustrative numbers: Illustrative balance sheet, profit or loss statement and OCI are shown in Appendix B for scenario 1 (above) and scenarios 2-4 (below).

Effect of changes in hedged items: The following scenarios were considered to analyse the effect (see also Appendix B for numerical illustration).

Scenario 2: Hedged item 1 no longer occurs as originally expected. The change in expectation arises on 31/12/X0. The effect of this is that no hedge ineffectiveness is recorded, because it results in an under-hedge, however, hedge ineffectiveness is implicitly recorded because when Hedged item 2 is recorded it is not at the original hedged rate but at another part-hedged rate.

Scenario 3: Hedged item 2 no longer occurs as originally expected. The change in expectation arises on 31/12/X0. The effect of this is that hedge ineffectiveness is recorded in the period because the entity is in an over-hedged position. Note that the hedge is terminated at this point as no future transactions remain.

Scenario 4: Hedged item 2 will no longer occur as originally expected. The change in expectation arises on 30/6/X1. The effect of this is that hedge ineffectiveness is recorded in the period because the entity is in an over-hedged position. Note that the hedge is terminated at this point as no future transactions remain.

Appendix B – Illustrative numerical example for example A3

This appendix provides a numerical illustration for scenarios 1 – 4 of example A3.

The following summary of originally expected transactions applies to all four scenarios:

minus = Credit

	T0	T1	T2	T3	T4
\$/€	1/1/X0	30/6/X0	31/12/X0	30/6/X1	31/12/X1
Exchange rate	2	2.5	4	3.2	2.5
Forward 1:					
Pay \$					-100,000
Receive €					50,000
Forward 2:					
Pay \$					-200,000
Receive €					50,000
Forecast expense \$			200,000		
Forecast sale \$					-300,000

Scenario 1 – transactions arise as originally expected**Overview**

- A1. The following illustration is intended to show how the mechanics of cash flow hedge accounting for a net position would work in practice. A summary of the steps involved for each scenario is provided below.
- A2. At T0 a hedge relationship is designated between the two forecast transactions (net position = \$100k) and Forward 1.
- A3. During T1 and T2, the fair value change of Forward 1 is deferred in equity as the hedge is 100% effective
- A4. At the end of T2 the following three things happen:
- (a) the hedged purchase occurs and is recorded in profit or loss;
 - (b) the value change of the hedged purchase is deferred in OCI – this results in the net profit or loss reflecting the purchase at the initial hedged rate of 2:1.
 - (c) Forward 2 is transacted to cover the revised open position (the net position changed because the purchase occurred).
- A5. During T3 and T4, the hedge is equivalent to a gross hedge of the sale that occurs at the end of T4. The gain/loss of Forward 1 and Forward 2 is deferred in equity as the hedge is 100% effective.
- A6. At the end of T4, the sale occurs and affects profit or loss. Amounts deferred in OCI are reclassified to profit or loss. On a net basis the sales are recorded at the initial hedged rate of 2:1.

Profit or loss and OCI

	30/6/X0	31/12/X0	30/6/X1	31/12/X1
Profit or loss				
Forecast Sale	-	-	-	-120,000
Forecast expense	-	50,000	-	-
Net hedge gain/loss	-	50,000	-	-30,000
Net	-	100,000	-	-150,000
OCI				
Cash flow hedge reserve	-10,000	-65,000	18,750	56,250

Balance sheet

	30/6/X0	31/12/X0	30/6/X1	31/12/X1
Assets				
Forward 1	10,000	25,000	18,750	
Forward 2				-
Cash				50,000
Liabilities				
Forward 1				-
Forward 2			- 12,500	
Overdraft		- 50,000	- 50,000	
Equity				
Cash flow hedge reserve	-10,000	- 75,000	- 56,250	-
P/L reserve	-	100,000	100,000	- 50,000

Double entry

30/6/X0			
Dr		Forward 1(B/S)	10,000
	Cr	Cash flow hedge reserve (OCI)	10,000
		To recognise Forward 1 at FV on balance sheet, recognise effective gain/loss in OCI and ineffective gain/loss in P/L.	

31/12/X0			
Dr		Forward 1(B/S)	15,000
Dr		Forecast expense (P/L)	50,000
Dr		Net hedge gain/loss (P/L)	50,000
	Cr	Cash (B/S)	50,000
	Cr	Cash flow hedge reserve (OCI)	65,000
		To recognise Forward 1 at FV on balance sheet, recognise \$200,000 expense in P/L, and defer effective (1) gain on Forward 1 (Cr 15,000) and (2) favourable value change on expense (Cr 50,000) in OCI (net = Cr 65,000).	

30/6/X1			
Dr		Cash flow hedge reserve (OCI)	18,750
	Cr	Forward 1(B/S)	6,250
	Cr	Forward 2 (B/S)	12,500
		To recognise Forward 1 and Forward 2 at FV on balance sheet, recognise effective gain/loss in OCI and ineffective gain/loss in P/L.	

31/12/X1			
Dr		Cash flow hedge reserve (OCI)	26,250
	Cr	Forward 1 (B/S)	8,750
	Cr	Forward 2 (B/S)	17,500
		To recognise Forward 1 and Forward 2 at FV on balance sheet, recognise effective gain/loss in OCI and ineffective gain/loss in P/L.	
Dr		Cash (B/S)	120,000
	Cr	Forecast sale (P/L)	120,000
		To recognise \$300,000 sale	
Dr		Cash flow hedge reserve (OCI)	30,000
	Cr	Net hedge gain/loss (P/L)	30,000
		To reclassify remaining gains/losses from OCI.	
Dr		Forward 2 (BS)	30,000
	Cr	Forward 1 (BS)	10,000
	Cr	Cash	20,000
		To recognise cash settlement of Forward 1 and Forward 2	

<u>LOWER OF TEST FOR 30/6/X0</u>				
<u>cumulative</u> FV movements				
Forward 1	-10,000	<i>treated in T1 as hedging instrument</i>		
Forecast sale	30,000	<i>treated in T1 as hedged item</i>		
Forecast expense	-20,000	<i>treated in T1 as hedged item</i>		
<u>Cumulative</u> FV movement of hedging instrument =	-10,000			
<u>Cumulative</u> FV movement of hedged item =	10,000			
Cumulative (absolute) lower of =	-10,000			
Amounts already recognised in OCI	-			
Cumulative lower of amount of hedging instrument	-10,000			
Amount to recognise in OCI in T1	-10,000			

<u>LOWER OF TEST FOR 31/12/X0</u>				
In the period where the hedged item is recognised in profit or loss, it is treated as a hedging instrument for the purpose of applying the 'lower of test'.				
<u>cumulative</u> FV movements				
Forward 1	-25,000	<i>treated in T2 as hedging instrument</i>		
Forecast sale	75,000	<i>treated in T2 as hedged item</i>		
Forecast expense	-50,000	<i>treated in T2 as hedging instrument</i>		
<u>Cumulative</u> FV movement of hedging instrument =	-75,000			
<u>Cumulative</u> FV movement of hedged item =	75,000			
Cumulative (absolute) lower of =	-75,000			
Amounts already recognised in OCI	-10,000			
Cumulative lower of amount of hedging instrument	-75,000			
Amount to recognise in OCI in T2	-65,000			

Note that the lower of test for T3 is performed, but has not been presented here.

Scenario 2 – the first forecast transaction does not occur**Overview**

- A7. The following illustration is intended to show how the mechanics of cash flow hedge accounting for a net position would work in practice when the first forecast transaction does not occur as expected. A summary of the steps involved for each scenario is provided below.
- A8. At T0 a hedge relationship is designated between the two forecast transactions (net position = \$100k) and Forward 1.
- A9. During T1 and T2, the fair value change of Forward 1 is deferred in equity as the hedge is 100% effective.
- A10. At the end of T2 the following three things happen:
- (a) the hedged purchase does not occur and is no longer expected to occur;
 - (b) the hedge is measured for effectiveness and the effective portion of the fair value change of Forward 1 is deferred in OCI. Note that in this case it is 100% of the fair value change because it resulted in an under-hedge. This would not always be the case; and
 - (c) Forward 2 is transacted to cover the revised open position (the net position has changed because the purchase is no longer expected to occur).
- A11. During T3 and T4, the hedge is equivalent to a gross hedge of the sale that occurs at the end of T4. The gain/loss of Forward 1 and Forward 2 is deferred in equity as the hedge is 100% effective.
- A12. At the end of T4, the sale occurs and affects profit or loss. Amounts deferred in OCI are reclassified to profit or loss. On a net basis the sales are not recorded at the initial hedged rate of 2:1 because the offsetting effect of the hedged purchase was never recorded (because it never happened).

Profit or loss and OCI

	30/6/X0	31/12/X0	30/6/X1	31/12/X1
Profit or loss				
Forecast Sale	-	-	-	-120,000
Forecast expense	-		-	-
Net hedge gain/loss				20,000
Net	-	-	-	-100,000
OCI				
Cash flow hedge reserve	- 10,000	- 15,000	18,750	6,250

Balance sheet

	30/6/X0	31/12/X0	30/6/X1	31/12/X1
<u>Assets</u>				
Forward 1	10,000	25,000	18,750	
Forward 2				-
Cash				100,000
<u>Liabilities</u>				
Forward 1				-
Forward 2			-12,500	
Overdraft			-	
<u>Equity</u>				
Cash flow hedge reserve	-10,000	- 25,000	-6,250	-
P/L reserve	-	-	-	-100,000

Double entry

30/6/X0			
Dr		Forward 1(B/S)	10,000
	Cr	Cash flow hedge reserve (OCI)	10,000
		To recognise Forward 1 at FV on balance sheet, recognise effective gain/loss in OCI and ineffective gain/loss in P/L.	

31/12/X0			
Dr		Forward 1(B/S)	15,000
	Cr	Cash flow hedge reserve (OCI)	15,000
		To recognise Forward 1 at FV on balance sheet, and recognise effective gain/loss in OCI. Note that the outcome is an under-hedge, hence no hedge ineffectiveness is recognised. However, the non-occurrence of the first forecast transaction results in the need to rebalance the hedge going forward (which would have been the case anyway because the first forecast transaction was expected to occur at the end of 31/12/X0).	

30/6/X1			
Dr		Cash flow hedge reserve (OCI)	18,750
	Cr	Forward 1(B/S)	6,250
	Cr	Forward 2 (B/S)	12,500
		To recognise Forward 1 and Forward 2 at FV on balance sheet, recognise effective gain/loss in OCI and ineffective gain/loss in P/L.	

31/12/X1			
Dr	Cash flow hedge reserve (OCI)	26,250	
	Cr Forward 1 (B/S)		8,750
	Cr Forward 2 (B/S)		17,500
	To recognise Forward 1 and Forward 2 at FV on balance sheet, recognise effective gain/loss in OCI and ineffective gain/loss in P/L.		
Dr	Cash (B/S)	120,000	
	Cr Forecast sale (P/L)		120,000
	To recognise \$300,000 sale		
Dr	Cash flow hedge reserve (OCI)	- 20,000	
	Cr Net hedge gain/loss (P/L)		- 20,000
	To reclassify remaining gains/losses from OCI.		
Dr	Forward 2 (BS)	30,000	
	Cr Forward 1 (BS)		10,000
	Cr Cash		20,000
	To recognise cash settlement of Forward 1 and Forward 2		

LOWER OF TEST FOR 30/6/X0			
<u>cumulative</u> FV movements			
Forward 1	-10,000	<i>treated in T1 as hedging instrument</i>	
Forecast sale	30,000	<i>treated in T1 as hedged item</i>	
Forecast expense	-20,000	<i>treated in T1 as hedged item</i>	
<u>Cumulative</u> FV movement of hedging instrument =	-10,000		
<u>Cumulative</u> FV movement of hedged item =	10,000		
Cumulative (absolute) lower of =	-10,000		
Amounts already recognised in OCI	-		
Cumulative lower of amount of hedging instrument	-10,000		
Amount to recognise in OCI in T1	-10,000		

LOWER OF TEST FOR 31/12/X0			
In the period where the hedged item is recognised in profit or loss, it is treated as a hedging instrument for the purpose of applying the 'lower of test'.			
<u>cumulative</u> FV movements			
Forward 1	-25,000	<i>treated in T2 as hedging instrument</i>	
Forecast sale	75,000	<i>treated in T2 as hedged item</i>	
Forecast expense	-	<i>as at end of T2, no longer expected to occur</i>	
<u>Cumulative</u> FV movement of hedging instrument =	-25,000		
<u>Cumulative</u> FV movement of hedged item =	75,000		
Cumulative (absolute) lower of =	25,000		
Amounts already recognised in OCI	-10,000		
Cumulative lower of amount of hedging instrument	-25,000		
Amount to recognise in OCI in T2	-15,000		

Scenario 3 – Hedged item 2 no longer expected to occur (determined at 31/12/X0)**Overview**

- A13. The following illustration is intended to show how the mechanics of cash flow hedge accounting for a net position would work in practice when the second forecast transaction does not occur as expected. A summary of the steps involved for each scenario is provided below.
- A14. At T0 a hedge relationship is designated between the two forecast transactions (net position = \$100k) and Forward 1.
- A15. During T1 and T2, the fair value change of Forward 1 is deferred in equity as the hedge is 100% effective.
- A16. At the end of T2 the following three things happen:
- (a) the hedged purchase occurs and is recorded in profit or loss;
 - (b) the hedge is terminated as sale transaction is no longer expected to occur;
 - (c) any remaining amounts deferred in OCI are reclassified to profit or loss.
- A17. The net effect in profit or loss in T2 is that the forecast expense is not recorded at the hedged rate. This is because the entity ended up in an over-hedged position because the sale transaction did not occur.

Profit or loss and OCI

	30/6/X0	31/12/X0	30/6/X1	31/12/X1
Profit or loss				
Forecast Sale	-	-	-	-
Forecast expense	-	50,000	-	-
Hedge ineffectiveness		- 25,000		-
Net	-	25,000	-	-
OCI				
Cash flow hedge reserve	- 10,000	10,000	-	-

Balance sheet

	30/6/X0	31/12/X0	30/6/X1	31/12/X1
<u>Assets</u>				
Forward 1	10,000			
<u>Liabilities</u>				
Overdraft		- 25,000	- 25,000	- 25,000
<u>Equity</u>				
Cash flow hedge reserve	-10,000	-	-	-
P/L reserve	-	25,000	25,000	25,000

Double entry

30/6/X0			
Dr		Forward 1(B/S)	10,000
	Cr	Cash flow hedge reserve (OCI)	10,000
		To recognise Forward 1 at FV on balance sheet, recognise effective gain/loss in OCI and ineffective gain/loss in P/L.	

31/12/X0			
Dr		Forward 1(B/S)	15,000
Dr		Forecast expense (P/L)	50,000
Dr		Cash flow hedge reserve (OCI)	10,000
	Cr	Cash (B/S)	50,000
	Cr	Hedge ineffectiveness	25,000
		To recognise Forward 1 at FV on balance sheet, recognise \$200,000 expense in P/L, and reclassify amounts deferred in OCI as hedge is now terminated as there are no further future transactions to recognise. Hedge ineffectiveness is recognised.	
Dr		Cash (B/S)	25,000
	Cr	Forward 1 (B/S)	25,000
		To early settle Forward 1 as no longer required because second forecast transaction no longer expected to occur.	

<u>LOWER OF TEST FOR 30/6/X0</u>				
cumulative FV movements				
Forward 1	-10,000	<i>treated in T1 as hedging instrument</i>		
Forecast sale	30,000	<i>treated in T1 as hedged item</i>		
Forecast expense	-20,000	<i>treated in T1 as hedged item</i>		
Cumulative FV movement of hedging instrument =				
Cumulative FV movement of hedged item =	10,000			
Cumulative (absolute) lower of =				
	-10,000			
Amounts already recognised in OCI				
	-			
Cumulative lower of amount of hedging instrument				
	-10,000			
Amount to recognise in OCI in T1				
	-10,000			

Scenario 4 – Hedged item 2 no longer expected to occur (determined at 30/6/X1)**Overview**

- A18. The following illustration is intended to show how the mechanics of cash flow hedge accounting for a net position would work in practice when the second forecast transaction does not occur as expected. A summary of the steps involved for each scenario is provided below.
- A19. At T0 a hedge relationship is designated between the two forecast transactions (net position = \$100k) and Forward 1.
- A20. During T1 and T2, the fair value change of Forward 1 is deferred in equity as the hedge is 100% effective.
- A21. At the end of T2 the following three things happen:
- (a) the hedged purchase occurs and is recorded in profit or loss;
 - (b) the value change of the hedged purchase is deferred in OCI – this results in the net profit or loss reflecting the purchase at the initial hedged rate of 2:1; and
 - (c) Forward 2 is transacted to cover the revised open position (the net position changed because the purchase occurred).
- A22. During T3, the hedge is equivalent to a gross hedge of the sale that occurs at the end of T4. The gain/loss of Forward 1 and Forward 2 is deferred in equity as the hedge is 100% effective.
- A23. At the end of T3, the sale is no longer expected to occur. Hence the hedge is terminated and any amounts remaining in OCI are reclassified to profit or loss immediately. This results in hedge ineffectiveness in profit or loss because the entity ended up in an over-hedged position because the sale never occurred as expected.

Profit or loss and OCI

	30/6/X0	31/12/X0	30/6/X1	31/12/X1
Profit or loss				
Forecast Sale	-	-	-	-
Forecast expense	-	50,000	-	-
Hedge ineffectiveness	-	-	- 56,250	-
Net hedge gain/loss		50,000		-
Net	-	100,000	- 56,250	-
OCI				
Cash flow hedge reserve	- 10,000	- 65,000	75,000	-

Balance sheet

	30/6/X0	31/12/X0	30/6/X1	31/12/X1
<u>Assets</u>				
Forward 1	10,000	25,000	-	-
Forward 2	-	-	-	-
Cash	-	-	-	-
<u>Liabilities</u>				
Forward 1	-	-	-	-
Forward 2	-	-	-	-
Overdraft	-	- 50,000	-43,750	-43,750
<u>Equity</u>				
Cash flow hedge reserve	-10,000	- 75,000	-	-
P/L reserve	-	100,000	43,750	43,750

Double entry

30/6/X0			
Dr	Forward 1(B/S)	10,000	
	Cr	Cash flow hedge reserve (OCI)	10,000
		To recognise Forward 1 at FV on balance sheet, recognise effective gain/loss in OCI and ineffective gain/loss in P/L.	

31/12/X0			
Dr	Forward 1(B/S)	15,000	
Dr	Forecast expense (P/L)	50,000	
Dr	Net hedge gain/loss (P/L)	50,000	
	Cr	Cash (B/S)	50,000
	Cr	Cash flow hedge reserve (OCI)	65,000
		To recognise Forward 1 at FV on balance sheet, recognise \$200,000 expense in P/L, and defer effective (1) gain on Forward 1 (Cr 15,000) and (2) favourable value change on expense (Cr 50,000) in OCI (net = Cr 65,000).	

30/6/X1			
Dr	Cash flow hedge reserve (OCI)	75,000	
	Cr	Forward 1(B/S)	6,250
	Cr	Forward 2 (B/S)	12,500
	Cr	Net hedge gain/loss (P/L)	56,250
		To recognise Forward 1 and Forward 2 at FV on balance sheet, reclassify all amounts deferred in OCI to date as no future transactions expected to occur, recognise balance in P/L as 'net hedge gain/loss'.	
Dr	Cash (B/S)	6,250	
Dr	Forward 2 (B/S)	12,500	
	Cr	Forward 1(B/S)	18,750
		To early settle Forward 1 and Forward 2 as neither are required anymore because second forecast transaction no longer expected to occur.	

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<u>LOWER OF TEST FOR 30/6/X0</u>				
<u>cumulative</u> FV movements				
Forward 1	-10,000	<i>treated in T1 as hedging instrument</i>		
Forecast sale	30,000	<i>treated in T1 as hedged item</i>		
Forecast expense	-20,000	<i>treated in T1 as hedged item</i>		
Cumulative FV movement of hedging instrument =				
Cumulative FV movement of hedged item =	10,000			
Cumulative (absolute) lower of =				
	-10,000			
Amounts already recognised in OCI				
	-			
Cumulative lower of amount of hedging instrument				
	-10,000			
Amount to recognise in OCI in T1				
	-10,000			

<u>LOWER OF TEST FOR 31/12/X0</u>				
In the period where the hedged item is recognised in profit or loss, it is treated as a hedging instrument for the purpose of applying the 'lower of test'.				
<u>cumulative</u> FV movements				
Forward 1	-25,000	<i>treated in T2 as hedging instrument</i>		
Forecast sale	75,000	<i>treated in T2 as hedged item</i>		
Forecast expense	-50,000	<i>treated in T2 as hedging instrument</i>		
Cumulative FV movement of hedging instrument =				
Cumulative FV movement of hedged item =	75,000			
Cumulative (absolute) lower of =				
	-75,000			
Amounts already recognised in OCI				
	-10,000			
Cumulative lower of amount of hedging instrument				
	-75,000			
Amount to recognise in OCI in T2				
	-65,000			

Appendix C - Other similar examples (without numerical illustration)

Example C1 – Partial term, fair value hedge of interest rate risk on two debt instruments

Date: 1/1/X0

Hedging entity functional currency: EUR

Description of hedge: Partial term, fair value hedge for net interest rate risk on net position of hedged item 1 and hedged item 2.

Hedged item 1: 5 year fixed rate loan **liability**, issued at par of €100m, on 1/1/X0, rate of 4%.

Hedged item 2: 2 year fixed rate bond **asset**, issued at par of €20m, on 1/1/X0, rate of 2%.

Hedging instrument: 2-year interest rate swap, notional €80m, receive fixed 3%, pay EURIBOR + 120bps.

Term of hedge: 2 years.

Assumptions: Assume 100% effective hedge.

Effect of applying hedge accounting: A fair value hedge adjustment (FVHA) is posted to the balance sheet in respect of both hedged item 1 and hedged item 2. If either hedged item 1 or hedged item 2 is derecognised before maturity of the hedge (eg sale of bond asset), no profit or loss volatility would arise from changes in interest rate risk (because fair value changes of hedged items and hedging instruments, due to interest rate risk have already been matched in OCI).

Example C2: Cash flow hedge of interest rate risk on two floating rate debt instruments

Date: 31/3/X0

Hedging entity functional currency: GBP

Description of hedge: cash flow hedge of interest rate risk on hedged item 1 and hedged item 2.

Hedged item 1: 2 year floating rate (6-month LIBOR) loan **liability**, issued at par of £100m, on 31/3/X0.

Hedged item 2: 5 year floating rate (3-month LIBOR) bond **asset**, issued at par of £100m, on 1/1/X0.

Hedging instrument: 2-year interest basis swap, notional £100m, pay 3m LIBOR, receive 6m LIBOR.

Assumptions: Interest expense/income is recognised in profit or loss on an accruals basis and is not capitalised. Assume terms match and hedge is 100% effective.

Effect of applying hedge accounting: Interest income/expense is accrued on both instruments as normal. The net interest accrual on the hedging instrument is recorded in a separate line in profit or loss (as a reclassification from OCI of hedging instrument gains/losses). The net effect of this is fixed net interest.

Example C3: Cash flow hedge of FX risk on net position of forecast transaction and a firm commitment

Date: 1/1/X0

Hedging entity functional currency: Yen

Description of hedge: Cash flow hedge for spot FX risk on net position of hedged item 1 and hedged item 2.

Hedged item 1: Forecast transaction to sell goods for \$50k in 12 months' time (on 31/12/X0).

Hedged item 2: Firm commitment to purchase services for \$40k in 18 months' time.

Hedging instrument 1: Forward FX derivative, entered into on 1/1/X0, with a 12-month term, pay \$10k, receive Y800k. This is to hedge the net position of \$10k.

Hedging instrument 2: Forward FX derivative, entered into on 1/1/X1, with a 6-month term, receive \$40k, pay Y3m. This is to hedge the revised open position of \$40k.

Term of hedge: 18 months.

Assumptions: Assume interest rates = 0% (hence spot rates = forward rates) and the hedge is 100% effective.

Effect of applying hedge accounting: Hedging instrument gains/losses are shown in a separate line in profit or loss. In combination with this line, hedged item 1 and hedged item 2 are both recorded in profit or loss at the hedged spot rate. In other words, based on net profit or loss, both transactions would appear as though they were each fully hedged.

Note that the accounting of this transaction is the same as that illustrated for A3.

Furthermore, note that this net position hedge can only operate as a cash flow hedge because one of the hedged items is a forecast transaction (forecast transactions can only be cash flow hedged). As noted in D3, a net position hedge can operate as either a fair value hedge or a cash flow hedge in its entirety.

Appendix D – Net position examples not considered and why

Example D1 – Cash flow hedge of FX risk on a net position of linked forecast transactions

Date: 31/3/X0

Hedging entity functional currency: EUR

Hedged item 1: Forecast transaction to purchase airline tickets for \$100k in 6 months' time (on 30/9/X0). These airline tickets are to be sold as part of hedged item 2. Hence both hedged item 1 and hedged item 2 are linked.

Hedged item 2: Forecast transaction to sell package tours for \$250k in 12 months' time (on 31/3/X1).

Hedging instrument 1: FX Forward contract to sell \$150k, buy €100k, executed on 31/3/X0 to settle in 12 months' time on 31/3/X1. This is to hedge the net position of €150k.

Hedging instrument 2: FX Forward contract to sell \$100k, buy €60k, executed on 30/9/X0 to settle in 6 months' time on 31/3/X1. This is to hedge, in combination with hedging instrument 1, the revised open position of \$250k.

Reason why net position example not considered: Hedged item 1 and hedged item 2 are linked. Hedged item 1 represents cost of sales of hedged item 2. As a result, both items will be recognised in profit or loss at the same time. Therefore, there is no benefit of applying hedge accounting for the net position. Hedge accounting for the gross position of hedged item 2 achieves the same net result.

Example D2 – Cash flow hedge of interest rate risk on floating rate debt instruments

Date: 1/1/X0

Hedging entity functional currency: EUR

Hedged item 1: 2 year floating rate (3-month EURIBOR) loan **liability**, issued at par of €100m, on 1/1/X0.

Hedged item 2: 5 year floating rate (3-month EURIBOR) bond **asset**, issued at par of €10m, on 1/1/X0.

Hedging instrument: 2-year interest rate swap, notional €90m, pay fixed 3%, receive EURIBOR.

Assumptions: interest expense/income is recognised in profit or loss on an accruals basis and is not capitalised. All interest cash flows occur on the same day (ie fully matched terms).

Reason why net position example not considered: Interest income and interest expense on the hedged items is recognised in profit or loss at the same time and so natural offset for the hedged items is achieved in profit or loss. Hedge accounting would be beneficial, on a gross basis, for the hedging instrument and hedged item 1 because these would not otherwise naturally offset in the periods. In other words, no additional benefit arises from applying hedge accounting for both hedged item 1 and hedged item 2 on a net basis in this scenario with one hedging instrument. Note, however, that for large group hedges with multiple, partially offsetting hedging instruments, hedge accounting on a net basis would be beneficial as it would avoid having to separate the hedging instruments and designate them in separate gross hedges.

Example D3 – Mixed cash flow and fair value hedge of FX and interest rate risk on two debt instruments

Date: 1/1/X0

Hedging entity functional currency: GBP

Hedged item 1: 2-year fixed rate loan asset with principal of \$150m, rate of 4%.

Hedged item 2: 2-year floating rate (LIBOR + 100bps) loan liability with principal of £100m.

Hedging instrument: 2-year cross-currency interest rate swap, pay fixed 4% on \$150m notional, receive LIBOR + 100bps on £100m notional.

Reason why net position example not considered: Under the basic hedge accounting concepts, hedged item 1 would be designated as a fair value hedge, whilst hedged item 2 would be designated as a cash flow hedge. The hedge accounting mechanics for each type of hedge are different. Hence, each instrument would need to be designated in its own hedge relationship. In other words, one single hedge relationship cannot cater for both items because the mechanics for hedge accounting are different. As an alternative, the hedging instrument could be bifurcated with one part designated in a fair value hedge of hedged item 1 and the other part designated in a cash flow hedge of hedged item 2. Examples of this are included in the Implementation Guidance of IAS 39.