

**International Accounting Standard IAS 39**

# Financial Instruments: Recognition and Measurement

**January 2010**

*(incorporating amendments from IFRSs issued up to 31 December 2009 with an effective date no later than 1 January 2010)*

## **IMPLEMENTATION GUIDANCE**

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## **Guidance on implementing IAS 39 *Financial Instruments: Recognition and Measurement***

*This guidance accompanies, but is not part of, IAS 39.*

### **Section A Scope**

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#### **A.1 Practice of settling net: forward contract to purchase a commodity**

**Entity XYZ enters into a fixed price forward contract to purchase one million kilograms of copper in accordance with its expected usage requirements. The contract permits XYZ to take physical delivery of the copper at the end of twelve months or to pay or receive a net settlement in cash, based on the change in fair value of copper. Is the contract accounted for as a derivative?**

While such a contract meets the definition of a derivative, it is not necessarily accounted for as a derivative. The contract is a derivative instrument because there is no initial net investment, the contract is based on the price of copper, and it is to be settled at a future date. However, if XYZ intends to settle the contract by taking delivery and has no history for similar contracts of settling net in cash or of taking delivery of the copper and selling it within a short period after delivery for the purpose of generating a profit from short-term fluctuations in price or dealer's margin, the contract is not accounted for as a derivative under IAS 39. Instead, it is accounted for as an executory contract.

## A.2 Option to put a non-financial asset

**Entity XYZ owns an office building. XYZ enters into a put option with an investor that permits XYZ to put the building to the investor for CU150 million. The current value of the building is CU175 million. The option expires in five years. The option, if exercised, may be settled through physical delivery or net cash, at XYZ's option. How do both XYZ and the investor account for the option?**

XYZ's accounting depends on XYZ's intention and past practice for settlement. Although the contract meets the definition of a derivative, XYZ does not account for it as a derivative if XYZ intends to settle the contract by delivering the building if XYZ exercises its option and there is no past practice of settling net (IAS 39.5 and IAS 39.AG10).

The investor, however, cannot conclude that the option was entered into to meet the investor's expected purchase, sale or usage requirements because the investor does not have the ability to require delivery (IAS 39.7). In addition, the option may be settled net in cash. Therefore, the investor has to account for the contract as a derivative. Regardless of past practices, the investor's intention does not affect whether settlement is by delivery or in cash. The investor has written an option, and a written option in which the holder has a choice of physical settlement or net cash settlement can never satisfy the normal delivery requirement for the exemption from IAS 39 because the option writer does not have the ability to require delivery.

However, if the contract were a forward contract rather than an option, and if the contract required physical delivery and the reporting entity had no past practice of settling net in cash or of taking delivery of the building and selling it within a short period after delivery for the purpose of generating a profit from short-term fluctuations in price or dealer's margin, the contract would not be accounted for as a derivative.

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\* In this guidance, monetary amounts are denominated in 'currency units (CU)'.



## Section B Definitions

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### B.1 Definition of a financial instrument: gold bullion

**Is gold bullion a financial instrument (like cash) or is it a commodity?**

It is a commodity. Although bullion is highly liquid, there is no contractual right to receive cash or another financial asset inherent in bullion.

### B.2 Definition of a derivative: examples of derivatives and underlyings

**What are examples of common derivative contracts and the identified underlying?**

IAS 39 defines a derivative as follows:

**A derivative is a financial instrument or other contract within the scope of this Standard with all three of the following characteristics:**

- (a) **its value changes in response to the change in a specified interest rate, financial instrument price, commodity price, foreign exchange rate, index of prices or rates, credit rating or credit index, or other variable, provided in the case of a non-financial variable that the variable is not specific to a party to the contract (sometimes called the 'underlying');**
- (b) **it requires no initial net investment or an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors; and**
- (c) **it is settled at a future date.**

<b>Type of contract</b>	<b>Main pricing-settlement variable (underlying variable)</b>
Interest rate swap	Interest rates
Currency swap (foreign exchange swap)	Currency rates
Commodity swap	Commodity prices
Equity swap	Equity prices (equity of another entity)
Credit swap	Credit rating, credit index or credit price
Total return swap	Total fair value of the reference asset and interest rates
Purchased or written treasury bond option (call or put)	Interest rates
Purchased or written currency option (call or put)	Currency rates
Purchased or written commodity option (call or put)	Commodity prices
Purchased or written stock option (call or put)	Equity prices (equity of another entity)

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<b>Type of contract</b>	<b>Main pricing-settlement variable (underlying variable)</b>
Interest rate futures linked to government debt (treasury futures)	Interest rates
Currency futures	Currency rates
Commodity futures	Commodity prices
Interest rate forward linked to government debt (treasury forward)	Interest rates
Currency forward	Currency rates
Commodity forward	Commodity prices
Equity forward	Equity prices (equity of another entity)

The above list provides examples of contracts that normally qualify as derivatives under IAS 39. The list is not exhaustive. Any contract that has an underlying may be a derivative. Moreover, even if an instrument meets the definition of a derivative contract, special provisions of IAS 39 may apply, for example, if it is a weather derivative (see IAS 39.AG1), a contract to buy or sell a non-financial item such as commodity (see IAS 39.5 and IAS 39.AG10) or a contract settled in an entity's own shares (see IAS 32.21–IAS 32.24). Therefore, an entity must evaluate the contract to determine whether the other characteristics of a derivative are present and whether special provisions apply.

### **B.3 Definition of a derivative: settlement at a future date, interest rate swap with net or gross settlement**

**For the purpose of determining whether an interest rate swap is a derivative financial instrument under IAS 39, does it make a difference whether the parties pay the interest payments to each other (gross settlement) or settle on a net basis?**

No. The definition of a derivative does not depend on gross or net settlement.

To illustrate: Entity ABC enters into an interest rate swap with a counterparty (XYZ) that requires ABC to pay a fixed rate of 8 per cent and receive a variable amount based on three-month LIBOR, reset on a quarterly basis. The fixed and variable amounts are determined based on a CU100 million notional amount. ABC and XYZ do not exchange the notional amount. ABC pays or receives a net cash amount each quarter based on the difference between 8 per cent and three-month LIBOR. Alternatively, settlement may be on a gross basis.

The contract meets the definition of a derivative regardless of whether there is net or gross settlement because its value changes in response to changes in an underlying variable (LIBOR), there is no initial net investment, and settlements occur at future dates.

#### **B.4 Definition of a derivative: prepaid interest rate swap (fixed rate payment obligation prepaid at inception or subsequently)**

**If a party prepays its obligation under a pay-fixed, receive-variable interest rate swap at inception, is the swap a derivative financial instrument?**

Yes.

To illustrate: Entity S enters into a CU100 million notional amount five-year pay-fixed, receive-variable interest rate swap with Counterparty C. The interest rate of the variable part of the swap is reset on a quarterly basis to three-month LIBOR. The interest rate of the fixed part of the swap is 10 per cent per year. Entity S prepays its fixed obligation under the swap of CU50 million (CU100 million × 10 per cent × 5 years) at inception, discounted using market interest rates, while retaining the right to receive interest payments on the CU100 million reset quarterly based on three-month LIBOR over the life of the swap.

The initial net investment in the interest rate swap is significantly less than the notional amount on which the variable payments under the variable leg will be calculated. The contract requires an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors, such as a variable rate bond. Therefore, the contract fulfils the 'no initial net investment or an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors' provision of IAS 39. Even though Entity S has no future performance obligation, the ultimate settlement of the contract is at a future date and the value of the contract changes in response to changes in the LIBOR index. Accordingly, the contract is regarded as a derivative contract.

**Would the answer change if the fixed rate payment obligation is prepaid subsequent to initial recognition?**

If the fixed leg is prepaid during the term, that would be regarded as a termination of the old swap and an origination of a new instrument that is evaluated under IAS 39.

#### **B.5 Definition of a derivative: prepaid pay-variable, receive-fixed interest rate swap**

**If a party prepays its obligation under a pay-variable, receive-fixed interest rate swap at inception of the contract or subsequently, is the swap a derivative financial instrument?**

No. A prepaid pay-variable, receive-fixed interest rate swap is not a derivative if it is prepaid at inception and it is no longer a derivative if it is prepaid after inception because it provides a return on the prepaid (invested) amount comparable to the return on a debt instrument with fixed cash flows. The prepaid amount fails the 'no initial net investment or an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors' criterion of a derivative.

To illustrate: Entity S enters into a CU100 million notional amount five-year pay-variable, receive-fixed interest rate swap with Counterparty C. The variable leg of the swap is reset on a quarterly basis to three-month LIBOR. The fixed interest payments under the swap are calculated as 10 per cent times the swap's notional amount, ie CU10 million per year. Entity S prepays its obligation under the variable leg of the swap at inception at current market rates, while retaining the right to receive fixed interest payments of 10 per cent on CU100 million per year.

The cash inflows under the contract are equivalent to those of a financial instrument with a fixed annuity stream since Entity S knows it will receive CU10 million per year over the life of the swap. Therefore, all else being equal, the initial investment in the contract should equal that of other financial instruments that consist of fixed annuities. Thus, the initial net investment in the pay-variable, receive-fixed interest rate swap is equal to the investment required in a non-derivative contract that has a similar response to changes in market conditions. For this reason, the instrument fails the 'no initial net investment or an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors' criterion of IAS 39. Therefore, the contract is not accounted for as a derivative under IAS 39. By discharging the obligation to pay variable interest rate payments, Entity S in effect provides a loan to Counterparty C.

## **B.6 Definition of a derivative: offsetting loans**

**Entity A makes a five-year fixed rate loan to Entity B, while B at the same time makes a five-year variable rate loan for the same amount to A. There are no transfers of principal at inception of the two loans, since A and B have a netting agreement. Is this a derivative under IAS 39?**

Yes. This meets the definition of a derivative (that is to say, there is an underlying variable, no initial net investment or an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors, and future settlement). The contractual effect of the loans is the equivalent of an interest rate swap arrangement with no initial net investment. Non-derivative transactions are aggregated and treated as a derivative when the transactions result, in substance, in a derivative. Indicators of this would include:

- they are entered into at the same time and in contemplation of one another
- they have the same counterparty
- they relate to the same risk
- there is no apparent economic need or substantive business purpose for structuring the transactions separately that could not also have been accomplished in a single transaction.

The same answer would apply if Entity A and Entity B did not have a netting agreement, because the definition of a derivative instrument in IAS 39.9 does not require net settlement.

### **B.7 Definition of a derivative: option not expected to be exercised**

**The definition of a derivative in IAS 39.9 requires that the instrument ‘is settled at a future date’. Is this criterion met even if an option is expected not to be exercised, for example, because it is out of the money?**

Yes. An option is settled upon exercise or at its maturity. Expiry at maturity is a form of settlement even though there is no additional exchange of consideration.

### **B.8 Definition of a derivative: foreign currency contract based on sales volume**

**Entity XYZ, whose functional currency is the US dollar, sells products in France denominated in euro. XYZ enters into a contract with an investment bank to convert euro to US dollars at a fixed exchange rate. The contract requires XYZ to remit euro based on its sales volume in France in exchange for US dollars at a fixed exchange rate of 6.00. Is that contract a derivative?**

Yes. The contract has two underlying variables (the foreign exchange rate and the volume of sales), no initial net investment or an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors, and a payment provision. IAS 39 does not exclude from its scope derivatives that are based on sales volume.

### **B.9 Definition of a derivative: prepaid forward**

**An entity enters into a forward contract to purchase shares of stock in one year at the forward price. It prepays at inception based on the current price of the shares. Is the forward contract a derivative?**

No. The forward contract fails the ‘no initial net investment or an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors’ test for a derivative.

To illustrate: Entity XYZ enters into a forward contract to purchase one million T ordinary shares in one year. The current market price of T is CU50 per share; the one-year forward price of T is CU55 per share. XYZ is required to prepay the forward contract at inception with a CU50 million payment. The initial investment in the forward contract of CU50 million is less than the notional amount applied to the underlying, one million shares at the forward price of CU55 per share, ie CU55 million. However, the initial net investment approximates the investment that would be required for other types of contracts that would be expected to have a similar response to changes in market factors because T’s shares could be purchased at inception for the same price of CU50. Accordingly, the prepaid forward contract does not meet the initial net investment criterion of a derivative instrument.

### **B.10 Definition of a derivative: initial net investment**

**Many derivative instruments, such as futures contracts and exchange traded written options, require margin accounts. Is the margin account part of the initial net investment?**

No. The margin account is not part of the initial net investment in a derivative instrument. Margin accounts are a form of collateral for the counterparty or clearing house and may take the form of cash, securities or other specified assets, typically liquid assets. Margin accounts are separate assets that are accounted for separately.

### **B.11 Definition of held for trading: portfolio with a recent actual pattern of short-term profit-taking**

**The definition of a financial asset or financial liability held for trading states that ‘a financial asset or financial liability is classified as held for trading if it is ... part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent actual pattern of short-term profit-taking’. What is a ‘portfolio’ for the purposes of applying this definition?**

Although the term ‘portfolio’ is not explicitly defined in IAS 39, the context in which it is used suggests that a portfolio is a group of financial assets or financial liabilities that are managed as part of that group (IAS 39.9). If there is evidence of a recent actual pattern of short-term profit-taking on financial instruments included in such a portfolio, those financial instruments qualify as held for trading even though an individual financial instrument may in fact be held for a longer period of time.

### **B.12 Definition of held for trading: balancing a portfolio**

**Entity A has an investment portfolio of debt and equity instruments. The documented portfolio management guidelines specify that the equity exposure of the portfolio should be limited to between 30 and 50 per cent of total portfolio value. The investment manager of the portfolio is authorised to balance the portfolio within the designated guidelines by buying and selling equity and debt instruments. Is Entity A permitted to classify the instruments as available for sale?**

It depends on Entity A’s intentions and past practice. If the portfolio manager is authorised to buy and sell instruments to balance the risks in a portfolio, but there is no intention to trade and there is no past practice of trading for short-term profit, the instruments can be classified as available for sale. If the portfolio manager actively buys and sells instruments to generate short-term profits, the financial instruments in the portfolio are classified as held for trading.

### **B.13 Definition of held-to-maturity financial assets: index-linked principal**

**Entity A purchases a five-year equity-index-linked note with an original issue price of CU10 at a market price of CU12 at the time of purchase. The note requires no interest payments before maturity. At maturity, the note requires payment of the original issue price of CU10 plus a supplemental redemption amount that depends on whether a specified share price index exceeds a predetermined level at the maturity date. If the share index does not exceed or is equal to the predetermined level, no supplemental redemption amount is paid. If the share index exceeds the predetermined level, the supplemental redemption**

**amount equals the product of 1.15 and the difference between the level of the share index at maturity and the level of the share index when the note was issued divided by the level of the share index at the time of issue. Entity A has the positive intention and ability to hold the note to maturity. Can Entity A classify the note as a held-to-maturity investment?**

Yes. The note can be classified as a held-to-maturity investment because it has a fixed payment of CU10 and fixed maturity and Entity A has the positive intention and ability to hold it to maturity (IAS 39.9). However, the equity index feature is a call option not closely related to the debt host, which must be separated as an embedded derivative under IAS 39.11. The purchase price of CU12 is allocated between the host debt instrument and the embedded derivative. For example, if the fair value of the embedded option at acquisition is CU4, the host debt instrument is measured at CU8 on initial recognition. In this case, the discount of CU2 that is implicit in the host bond (principal of CU10 minus the original carrying amount of CU8) is amortised to profit or loss over the term to maturity of the note using the effective interest method.

#### **B.14 Definition of held-to-maturity financial assets: index-linked interest**

**Can a bond with a fixed payment at maturity and a fixed maturity date be classified as a held-to-maturity investment if the bond's interest payments are indexed to the price of a commodity or equity, and the entity has the positive intention and ability to hold the bond to maturity?**

Yes. However, the commodity-indexed or equity-indexed interest payments result in an embedded derivative that is separated and accounted for as a derivative at fair value (IAS 39.11). IAS 39.12 is not applicable since it should be straightforward to separate the host debt investment (the fixed payment at maturity) from the embedded derivative (the index-linked interest payments).

#### **B.15 Definition of held-to-maturity financial assets: sale following rating downgrade**

**Would a sale of a held-to-maturity investment following a downgrade of the issuer's credit rating by a rating agency raise a question about the entity's intention to hold other investments to maturity?**

Not necessarily. A downgrade is likely to indicate a decline in the issuer's creditworthiness. IAS 39 specifies that a sale due to a significant deterioration in the issuer's creditworthiness could satisfy the condition in IAS 39 and therefore not raise a question about the entity's intention to hold other investments to maturity. However, the deterioration in creditworthiness must be significant judged by reference to the credit rating at initial recognition. Also, the rating downgrade must not have been reasonably anticipated when the entity classified the investment as held to maturity in order to meet the condition in IAS 39. A credit downgrade of a notch within a class or from one rating class to the immediately lower rating class could often be regarded as reasonably anticipated. If the rating downgrade in combination with other information provides evidence of impairment, the deterioration in creditworthiness often would be regarded as significant.

**B.16 Definition of held-to-maturity financial assets: permitted sales**

**Would sales of held-to-maturity financial assets due to a change in management compromise the classification of other financial assets as held to maturity?**

Yes. A change in management is not identified under IAS 39.AG22 as an instance where sales or transfers from held-to-maturity do not compromise the classification as held to maturity. Sales in response to such a change in management would, therefore, call into question the entity's intention to hold investments to maturity.

To illustrate: Entity X has a portfolio of financial assets that is classified as held to maturity. In the current period, at the direction of the board of directors, the senior management team has been replaced. The new management wishes to sell a portion of the held-to-maturity financial assets in order to carry out an expansion strategy designated and approved by the board. Although the previous management team had been in place since the entity's inception and Entity X had never before undergone a major restructuring, the sale nevertheless calls into question Entity X's intention to hold remaining held-to-maturity financial assets to maturity.

**B.17 Definition of held-to-maturity investments: sales in response to entity-specific capital requirements**

**In some countries, regulators of banks or other industries may set *entity-specific* capital requirements that are based on an assessment of the risk in that particular entity. IAS 39.AG22(e) indicates that an entity that sells held-to-maturity investments in response to an unanticipated significant increase by the regulator in the industry's capital requirements may do so under IAS 39 without necessarily raising a question about its intention to hold other investments to maturity. Would sales of held-to-maturity investments that are due to a significant increase in *entity-specific* capital requirements imposed by regulators (ie capital requirements applicable to a particular entity, but not to the industry) raise such doubt?**

Yes, such sales 'taint' the entity's intention to hold other financial assets as held to maturity unless it can be demonstrated that the sales fulfil the condition in IAS 39.9 in that they result from an increase in capital requirements, which is an isolated event that is beyond the entity's control, is non-recurring and could not have been reasonably anticipated by the entity.



### **B.18 Definition of held-to-maturity financial assets: pledged collateral, repurchase agreements (repos) and securities lending agreements**

**An entity cannot have a demonstrated ability to hold to maturity an investment if it is subject to a constraint that could frustrate its intention to hold the financial asset to maturity. Does this mean that a debt instrument that has been pledged as collateral, or transferred to another party under a repo or securities lending transaction, and continues to be recognised cannot be classified as a held-to-maturity investment?**

No. An entity's intention and ability to hold debt instruments to maturity is not necessarily constrained if those instruments have been pledged as collateral or are subject to a repurchase agreement or securities lending agreement. However, an entity does not have the positive intention and ability to hold the debt instruments until maturity if it does not expect to be able to maintain or recover access to the instruments.

### **B.19 Definition of held-to-maturity financial assets: 'tainting'**

**In response to unsolicited tender offers, Entity A sells a significant amount of financial assets classified as held to maturity on economically favourable terms. Entity A does not classify any financial assets acquired after the date of the sale as held to maturity. However, it does not reclassify the remaining held-to-maturity investments since it maintains that it still intends to hold them to maturity. Is Entity A in compliance with IAS 39?**

No. Whenever a sale or transfer of more than an insignificant amount of financial assets classified as held to maturity (HTM) results in the conditions in IAS 39.9 and IAS 39.AG22 not being satisfied, no instruments should be classified in that category. Accordingly, any remaining HTM assets are reclassified as available-for-sale financial assets. The reclassification is recorded in the reporting period in which the sales or transfers occurred and is accounted for as a change in classification under IAS 39.51. IAS 39.9 makes it clear that at least two full financial years must pass before an entity can again classify financial assets as HTM.

### **B.20 Definition of held-to-maturity investments: sub-categorisation for the purpose of applying the 'tainting' rule**

**Can an entity apply the conditions for held-to-maturity classification in IAS 39.9 separately to different categories of held-to-maturity financial assets, such as debt instruments denominated in US dollars and debt instruments denominated in euro?**

No. The 'tainting rule' in IAS 39.9 is clear. If an entity has sold or reclassified more than an insignificant amount of held-to-maturity investments, it cannot classify any financial assets as held-to-maturity financial assets.

### **B.21 Definition of held-to-maturity investments: application of the ‘tainting’ rule on consolidation**

**Can an entity apply the conditions in IAS 39.9 separately to held-to-maturity financial assets held by different entities in a consolidated group, for example, if those group entities are in different countries with different legal or economic environments?**

No. If an entity has sold or reclassified more than an insignificant amount of investments classified as held-to-maturity in the consolidated financial statements, it cannot classify any financial assets as held-to-maturity financial assets in the consolidated financial statements unless the conditions in IAS 39.9 are met.

### **B.22 Definition of loans and receivables: equity instrument**

**Can an equity instrument, such as a preference share, with fixed or determinable payments be classified within loans and receivables by the holder?**

Yes. If a non-derivative equity instrument would be recorded as a liability by the issuer, and it has fixed or determinable payments and is not quoted in an active market, it can be classified within loans and receivables by the holder, provided the definition is otherwise met. IAS 32.15–IAS 32.22 provide guidance about the classification of a financial instrument as a liability or as equity from the perspective of the issuer of a financial instrument. If an instrument meets the definition of an equity instrument under IAS 32, it cannot be classified within loans and receivables by the holder.

### **B.23 Definition of loans and receivables: banks’ deposits in other banks**

**Banks make term deposits with a central bank or other banks. Sometimes, the proof of deposit is negotiable, sometimes not. Even if negotiable, the depositor bank may or may not intend to sell it. Would such a deposit fall within loans and receivables under IAS 39.9?**

Such a deposit meets the definition of loans and receivables, whether or not the proof of deposit is negotiable, unless the depositor bank intends to sell the instrument immediately or in the near term, in which case the deposit is classified as a financial asset held for trading.

### **B.24 Definition of amortised cost: perpetual debt instruments with fixed or market-based variable rate**

**Sometimes entities purchase or issue debt instruments that are required to be measured at amortised cost and in respect of which the issuer has no obligation to repay the principal amount. Interest may be paid either at a fixed rate or at a variable rate. Would the difference between the initial amount paid or received and zero (‘the maturity amount’) be amortised immediately on initial recognition for the purpose of determining amortised cost if the rate of interest is fixed or specified as a market-based variable rate?**

No. Since there are no repayments of principal, there is no amortisation of the difference between the initial amount and the maturity amount if the rate of interest is fixed or specified as a market-based variable rate. Because interest payments are fixed or market-based and will be paid in perpetuity, the amortised cost (the present value of the stream of future cash payments discounted at the effective interest rate) equals the principal amount in each period (IAS 39.9).

### **B.25 Definition of amortised cost: perpetual debt instruments with decreasing interest rate**

**If the stated rate of interest on a perpetual debt instrument decreases over time, would amortised cost equal the principal amount in each period?**

No. From an economic perspective, some or all of the interest payments are repayments of the principal amount. For example, the interest rate may be stated as 16 per cent for the first ten years and as zero per cent in subsequent periods. In that case, the initial amount is amortised to zero over the first ten years using the effective interest method, since a portion of the interest payments represents repayments of the principal amount. The amortised cost is zero after year 10 because the present value of the stream of future cash payments in subsequent periods is zero (there are no further cash payments of either principal or interest in subsequent periods).

### **B.26 Example of calculating amortised cost: financial asset**

**Financial assets that are excluded from fair valuation and have a fixed maturity should be measured at amortised cost. How is amortised cost calculated?**

Under IAS 39, amortised cost is calculated using the effective interest method. The effective interest rate inherent in a financial instrument is the rate that exactly discounts the estimated cash flows associated with the financial instrument through the expected life of the instrument or, where appropriate, a shorter period to the net carrying amount at initial recognition. The computation includes all fees and points paid or received that are an integral part of the effective interest rate, directly attributable transaction costs and all other premiums or discounts.

The following example illustrates how amortised cost is calculated using the effective interest method. Entity A purchases a debt instrument with five years remaining to maturity for its fair value of CU1,000 (including transaction costs). The instrument has a principal amount of CU1,250 and carries fixed interest of 4.7 per cent that is paid annually ( $CU1,250 \times 4.7$  per cent = CU59 per year). The contract also specifies that the borrower has an option to prepay the instrument and that no penalty will be charged for prepayment. At inception, the entity expects the borrower not to prepay.

It can be shown that in order to allocate interest receipts and the initial discount over the term of the debt instrument at a constant rate on the carrying amount, they must be accrued at the rate of 10 per cent annually. The table below provides information about the amortised cost, interest income and cash flows of the debt instrument in each reporting period.

<b>Year</b>	<b>(a)</b> <b>Amortised cost at the beginning of the year</b>	<b>(b = a × 10%)</b> <b>Interest income</b>	<b>(c)</b> <b>Cash flows</b>	<b>(d = a + b – c)</b> <b>Amortised cost at the end of the year</b>
20X0	1,000	100	59	1,041
20X1	1,041	104	59	1,086
20X2	1,086	109	59	1,136
20X3	1,136	113	59	1,190
20X4	1,190	119	1,250 + 59	–

On the first day of 20X2 the entity revises its estimate of cash flows. It now expects that 50 per cent of the principal will be prepaid at the end of 20X2 and the remaining 50 per cent at the end of 20X4. In accordance with IAS 39.AG8, the opening balance of the debt instrument in 20X2 is adjusted. The adjusted amount is calculated by discounting the amount the entity expects to receive in 20X2 and subsequent years using the original effective interest rate (10 per cent). This results in the new opening balance in 20X2 of CU1138. The adjustment of CU52 (CU1,138 – CU1,086) is recorded in profit or loss in 20X2. The table below provides information about the amortised cost, interest income and cash flows as they would be adjusted taking into account the change in estimate.

<b>Year</b>	<b>(a)</b> <b>Amortised cost at the beginning of the year</b>	<b>(b = a × 10%)</b> <b>Interest income</b>	<b>(c)</b> <b>Cash flows</b>	<b>(d = a + b – c)</b> <b>Amortised cost at the end of the year</b>
20X0	1,000	100	59	1,041
20X1	1,041	104	59	1,086
20X2	1,086 + 52	114	625 + 59	568
20X3	568	57	30	595
20X4	595	60	625 + 30	–

If the debt instrument becomes impaired, say, at the end of 20X3, the impairment loss is calculated as the difference between the carrying amount (CU595) and the present value of estimated future cash flows discounted at the original effective interest rate (10 per cent).

## B.27 Example of calculating amortised cost: debt instruments with stepped interest payments

Sometimes entities purchase or issue debt instruments with a predetermined rate of interest that increases or decreases progressively ('stepped interest') over the term of the debt instrument. If a debt instrument with stepped interest and no embedded derivative is issued at CU1,250 and has a maturity amount of CU1,250, would the amortised cost equal CU1,250 in each reporting period over the term of the debt instrument?

No. Although there is no difference between the initial amount and maturity amount, an entity uses the effective interest method to allocate interest payments over the term of the debt instrument to achieve a constant rate on the carrying amount (IAS 39.9).

The following example illustrates how amortised cost is calculated using the effective interest method for an instrument with a predetermined rate of interest that increases or decreases over the term of the debt instrument ('stepped interest').

On 1 January 20X0, Entity A issues a debt instrument for a price of CU1,250. The principal amount is CU1,250 and the debt instrument is repayable on 31 December 20X4. The rate of interest is specified in the debt agreement as a percentage of the principal amount as follows: 6.0 per cent in 20X0 (CU75), 8.0 per cent in 20X1 (CU100), 10.0 per cent in 20X2 (CU125), 12.0 per cent in 20X3 (CU150), and 16.4 per cent in 20X4 (CU205). In this case, the interest rate that exactly discounts the stream of future cash payments through maturity is 10 per cent. Therefore, cash interest payments are reallocated over the term of the debt instrument for the purposes of determining amortised cost in each period. In each period, the amortised cost at the beginning of the period is multiplied by the effective interest rate of 10 per cent and added to the amortised cost. Any cash payments in the period are deducted from the resulting number. Accordingly, the amortised cost in each period is as follows:

Year	(a) Amortised cost at the beginning of the year	(b = a × 10%) Interest income	(c) Cash flows	(d = a + b – c) Amortised cost at the end of the year
20X0	1,250	125	75	1,300
20X1	1,300	130	100	1,330
20X2	1,330	133	125	1,338
20X3	1,338	134	150	1,322
20X4	1,322	133	1,250 + 205	–

## **B.28 Regular way contracts: no established market**

**Can a contract to purchase a financial asset be a regular way contract if there is no established market for trading such a contract?**

Yes. IAS 39.9 refers to terms that require delivery of the asset within the time frame established generally by regulation or convention in the marketplace concerned. Marketplace, as that term is used in IAS 39.9, is not limited to a formal stock exchange or organised over-the-counter market. Rather, it means the environment in which the financial asset is customarily exchanged. An acceptable time frame would be the period reasonably and customarily required for the parties to complete the transaction and prepare and execute closing documents.

For example, a market for private issue financial instruments can be a marketplace.

## **B.29 Regular way contracts: forward contract**

**Entity ABC enters into a forward contract to purchase one million of M's ordinary shares in two months for CU10 per share. The contract is with an individual and is not an exchange-traded contract. The contract requires ABC to take physical delivery of the shares and pay the counterparty CU10 million in cash. M's shares trade in an active public market at an average of 100,000 shares a day. Regular way delivery is three days. Is the forward contract regarded as a regular way contract?**

No. The contract must be accounted for as a derivative because it is not settled in the way established by regulation or convention in the marketplace concerned.

## **B.30 Regular way contracts: which customary settlement provisions apply?**

**If an entity's financial instruments trade in more than one active market, and the settlement provisions differ in the various active markets, which provisions apply in assessing whether a contract to purchase those financial instruments is a regular way contract?**

The provisions that apply are those in the market in which the purchase actually takes place.

To illustrate: Entity XYZ purchases one million shares of Entity ABC on a US stock exchange, for example, through a broker. The settlement date of the contract is six business days later. Trades for equity shares on US exchanges customarily settle in three business days. Because the trade settles in six business days, it does not meet the exemption as a regular way trade.

However, if XYZ did the same transaction on a foreign exchange that has a customary settlement period of six business days, the contract would meet the exemption for a regular way trade.

### **B.31 Regular way contracts: share purchase by call option**

**Entity A purchases a call option in a public market permitting it to purchase 100 shares of Entity XYZ at any time over the next three months at a price of CU100 per share. If Entity A exercises its option, it has 14 days to settle the transaction according to regulation or convention in the options market. XYZ shares are traded in an active public market that requires three-day settlement. Is the purchase of shares by exercising the option a regular way purchase of shares?**

Yes. The settlement of an option is governed by regulation or convention in the marketplace for options and, therefore, upon exercise of the option it is no longer accounted for as a derivative because settlement by delivery of the shares within 14 days is a regular way transaction.

### **B.32 Recognition and derecognition of financial liabilities using trade date or settlement date accounting**

**IAS 39 has special rules about recognition and derecognition of financial assets using trade date or settlement date accounting. Do these rules apply to transactions in financial instruments that are classified as financial liabilities, such as transactions in deposit liabilities and trading liabilities?**

No. IAS 39 does not contain any specific requirements about trade date accounting and settlement date accounting in the case of transactions in financial instruments that are classified as financial liabilities. Therefore, the general recognition and derecognition requirements in IAS 39.14 and IAS 39.39 apply. IAS 39.14 states that financial liabilities are recognised on the date the entity 'becomes a party to the contractual provisions of the instrument'. Such contracts generally are not recognised unless one of the parties has performed or the contract is a derivative contract not exempted from the scope of IAS 39. IAS 39.39 specifies that financial liabilities are derecognised only when they are extinguished, ie when the obligation specified in the contract is discharged or cancelled or expires.

## Section C Embedded derivatives

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### C.1 Embedded derivatives: separation of host debt instrument

**If an embedded non-option derivative is required to be separated from a host debt instrument, how are the terms of the host debt instrument and the embedded derivative identified? For example, would the host debt instrument be a fixed rate instrument, a variable rate instrument or a zero coupon instrument?**

The terms of the host debt instrument reflect the stated or implied substantive terms of the hybrid instrument. In the absence of implied or stated terms, the entity makes its own judgement of the terms. However, an entity may not identify a component that is not specified or may not establish terms of the host debt instrument in a manner that would result in the separation of an embedded derivative that is not already clearly present in the hybrid instrument, that is to say, it cannot create a cash flow that does not exist. For example, if a five-year debt instrument has fixed interest payments of CU40,000 annually and a principal payment at maturity of CU1,000,000 multiplied by the change in an equity price index, it would be inappropriate to identify a floating rate host contract and an embedded equity swap that has an offsetting floating rate leg in lieu of identifying a fixed rate host. In that example, the host contract is a fixed rate debt instrument that pays CU40,000 annually because there are no floating interest rate cash flows in the hybrid instrument.

In addition, the terms of an embedded non-option derivative, such as a forward or swap, must be determined so as to result in the embedded derivative having a fair value of zero at the inception of the hybrid instrument. If it were permitted to separate embedded non-option derivatives on other terms, a single hybrid instrument could be decomposed into an infinite variety of combinations of host debt instruments and embedded derivatives, for example, by separating embedded derivatives with terms that create leverage, asymmetry or some other risk exposure not already present in the hybrid instrument. Therefore, it is inappropriate to separate an embedded non-option derivative on terms that result in a fair value other than zero at the inception of the hybrid instrument. The determination of the terms of the embedded derivative is based on the conditions existing when the financial instrument was issued.

### C.2 Embedded derivatives: separation of embedded option

**The response to Question C.1 states that the terms of an embedded non-option derivative should be determined so as to result in the embedded derivative having a fair value of zero at the initial recognition of the hybrid instrument. When an embedded option-based derivative is separated, must the terms of the embedded option be determined so as to result in the embedded derivative having either a fair value of zero or an intrinsic value of zero (that is to say, be at the money) at the inception of the hybrid instrument?**

No. The economic behaviour of a hybrid instrument with an option-based embedded derivative depends critically on the strike price (or strike rate) specified for the option feature in the hybrid instrument, as discussed below. Therefore, the separation of an option-based embedded derivative (including any embedded put, call, cap, floor, caption,



floor) or swaption feature in a hybrid instrument) should be based on the stated terms of the option feature documented in the hybrid instrument. As a result, the embedded derivative would not necessarily have a fair value or intrinsic value equal to zero at the initial recognition of the hybrid instrument.

If an entity were required to identify the terms of an embedded option-based derivative so as to achieve a fair value of the embedded derivative of zero, the strike price (or strike rate) generally would have to be determined so as to result in the option being infinitely out of the money. This would imply a zero probability of the option feature being exercised. However, since the probability of the option feature in a hybrid instrument being exercised generally is not zero, it would be inconsistent with the likely economic behaviour of the hybrid instrument to assume an initial fair value of zero. Similarly, if an entity were required to identify the terms of an embedded option-based derivative so as to achieve an intrinsic value of zero for the embedded derivative, the strike price (or strike rate) would have to be assumed to equal the price (or rate) of the underlying variable at the initial recognition of the hybrid instrument. In this case, the fair value of the option would consist only of time value. However, such an assumption would not be consistent with the likely economic behaviour of the hybrid instrument, including the probability of the option feature being exercised, unless the agreed strike price was indeed equal to the price (or rate) of the underlying variable at the initial recognition of the hybrid instrument.

The economic nature of an option-based embedded derivative is fundamentally different from a forward-based embedded derivative (including forwards and swaps), because the terms of a forward are such that a payment based on the difference between the price of the underlying and the forward price will occur at a specified date, while the terms of an option are such that a payment based on the difference between the price of the underlying and the strike price of the option may or may not occur depending on the relationship between the agreed strike price and the price of the underlying at a specified date or dates in the future. Adjusting the strike price of an option-based embedded derivative, therefore, alters the nature of the hybrid instrument. On the other hand, if the terms of a non-option embedded derivative in a host debt instrument were determined so as to result in a fair value of any amount other than zero at the inception of the hybrid instrument, that amount would essentially represent a borrowing or lending. Accordingly, as discussed in the answer to Question C.1, it is not appropriate to separate a non-option embedded derivative in a host debt instrument on terms that result in a fair value other than zero at the initial recognition of the hybrid instrument.

### **C.3 Embedded derivatives: accounting for a convertible bond**

**What is the accounting treatment of an investment in a bond (financial asset) that is convertible into shares of the issuing entity or another entity before maturity?**

An investment in a convertible bond that is convertible before maturity generally cannot be classified as a held-to-maturity investment because that would be inconsistent with paying for the conversion feature—the right to convert into equity shares before maturity.

An investment in a convertible bond can be classified as an available-for-sale financial asset provided it is not purchased for trading purposes. The equity conversion option is an embedded derivative.

If the bond is classified as available for sale (ie fair value changes recognised in other comprehensive income until the bond is sold), the equity conversion option (the embedded derivative) is separated. The amount paid for the bond is split between the debt instrument without the conversion option and the equity conversion option. Changes in the fair value of the equity conversion option are recognised in profit or loss unless the option is part of a cash flow hedging relationship.

If the convertible bond is measured at fair value with changes in fair value recognised in profit or loss, separating the embedded derivative from the host bond is not permitted.

#### **C.4 Embedded derivatives: equity kicker**

**In some instances, venture capital entities providing subordinated loans agree that if and when the borrower lists its shares on a stock exchange, the venture capital entity is entitled to receive shares of the borrowing entity free of charge or at a very low price (an ‘equity kicker’) in addition to interest and repayment of principal. As a result of the equity kicker feature, the interest on the subordinated loan is lower than it would otherwise be. Assuming that the subordinated loan is not measured at fair value with changes in fair value recognised in profit or loss (IAS 39.11(c)), does the equity kicker feature meet the definition of an embedded derivative even though it is contingent upon the future listing of the borrower?**

Yes. The economic characteristics and risks of an equity return are not closely related to the economic characteristics and risks of a host debt instrument (IAS 39.11(a)). The equity kicker meets the definition of a derivative because it has a value that changes in response to the change in the price of the shares of the borrower, it requires no initial net investment or an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors, and it is settled at a future date (IAS 39.11(b) and IAS 39.9(a)). The equity kicker feature meets the definition of a derivative even though the right to receive shares is contingent upon the future listing of the borrower. IAS 39.AG9 states that a derivative could require a payment as a result of some future event that is unrelated to a notional amount. An equity kicker feature is similar to such a derivative except that it does not give a right to a fixed payment, but an option right, if the future event occurs.

#### **C.5 Embedded derivatives: debt or equity host contract**

**Entity A purchases a five-year ‘debt’ instrument issued by Entity B with a principal amount of CU1 million that is indexed to the share price of Entity C. At maturity, Entity A will receive from Entity B the principal amount plus or minus the change in the fair value of 10,000 shares of Entity C. The current share price is CU110. No separate interest payments are made by Entity B. The purchase price is CU1 million. Entity A classifies the debt instrument as available for sale. Entity A concludes that the instrument is a hybrid instrument with an embedded derivative because of the equity-indexed principal. For the purposes of separating an embedded derivative, is the host contract an equity instrument or a debt instrument?**

The host contract is a debt instrument because the hybrid instrument has a stated maturity, ie it does not meet the definition of an equity instrument (IAS 32.11 and IAS 32.16). It is accounted for as a zero coupon debt instrument. Thus, in accounting for the host instrument, Entity A imputes interest on CU1 million over five years using the applicable market interest rate at initial recognition. The embedded non-option derivative is separated so as to have an initial fair value of zero (see Question C.1).

## C.6 Embedded derivatives: synthetic instruments

**Entity A acquires a five-year floating rate debt instrument issued by Entity B. At the same time, it enters into a five-year pay-variable, receive-fixed interest rate swap with Entity C. Entity A regards the combination of the debt instrument and swap as a synthetic fixed rate instrument and classifies the instrument as a held-to-maturity investment, since it has the positive intention and ability to hold it to maturity. Entity A contends that separate accounting for the swap is inappropriate since IAS 39.AG33(a) requires an embedded derivative to be classified together with its host instrument if the derivative is linked to an interest rate that can change the amount of interest that would otherwise be paid or received on the host debt contract. Is the entity's analysis correct?**

No. Embedded derivative instruments are terms and conditions that are included in non-derivative host contracts. It is generally inappropriate to treat two or more separate financial instruments as a single combined instrument ('synthetic instrument' accounting) for the purpose of applying IAS 39. Each of the financial instruments has its own terms and conditions and each may be transferred or settled separately. Therefore, the debt instrument and the swap are classified separately. The transactions described here differ from the transactions discussed in Question B.6, which had no substance apart from the resulting interest rate swap.

## C.7 Embedded derivatives: purchases and sales contracts in foreign currency instruments

**A supply contract provides for payment in a currency other than (a) the functional currency of either party to the contract, (b) the currency in which the product is routinely denominated in commercial transactions around the world and (c) the currency that is commonly used in contracts to purchase or sell non-financial items in the economic environment in which the transaction takes place. Is there an embedded derivative that should be separated under IAS 39?**

Yes. To illustrate: a Norwegian entity agrees to sell oil to an entity in France. The oil contract is denominated in Swiss francs, although oil contracts are routinely denominated in US dollars in commercial transactions around the world, and Norwegian krone are commonly used in contracts to purchase or sell non-financial items in Norway. Neither entity carries out any significant activities in Swiss francs. In this case, the Norwegian entity regards the supply contract as a host contract with an embedded foreign currency forward to purchase Swiss francs. The French entity regards the supply contract as a host contract with an embedded foreign currency forward to sell Swiss francs. Each entity includes fair value changes on the currency forward in profit or loss unless the reporting entity designates it as a cash flow hedging instrument, if appropriate.

## **C.8 Embedded foreign currency derivatives: unrelated foreign currency provision**

Entity A, which measures items in its financial statements on the basis of the euro (its functional currency), enters into a contract with Entity B, which has the Norwegian krone as its functional currency, to purchase oil in six months for 1,000 US dollars. The host oil contract is not within the scope of IAS 39 because it was entered into and continues to be for the purpose of delivery of a non-financial item in accordance with the entity's expected purchase, sale or usage requirements (IAS 39.5 and IAS 39.AG10). The oil contract includes a leveraged foreign exchange provision that states that the parties, in addition to the provision of, and payment for, oil will exchange an amount equal to the fluctuation in the exchange rate of the US dollar and Norwegian krone applied to a notional amount of 100,000 US dollars. Under IAS 39.11, is that embedded derivative (the leveraged foreign exchange provision) regarded as closely related to the host oil contract?

No, that leveraged foreign exchange provision is separated from the host oil contract because it is not closely related to the host oil contract (IAS 39.AG33(d)).

The payment provision under the host oil contract of 1,000 US dollars can be viewed as a foreign currency derivative because the US dollar is neither Entity A's nor Entity B's functional currency. This foreign currency derivative would not be separated because it follows from IAS 39.AG33(d) that a crude oil contract that requires payment in US dollars is not regarded as a host contract with a foreign currency derivative.

The leveraged foreign exchange provision that states that the parties will exchange an amount equal to the fluctuation in the exchange rate of the US dollar and Norwegian krone applied to a notional amount of 100,000 US dollars is in addition to the required payment for the oil transaction. It is unrelated to the host oil contract and therefore separated from the host oil contract and accounted for as an embedded derivative under IAS 39.11.

## **C.9 Embedded foreign currency derivatives: currency of international commerce**

**IAS 39.AG33(d) refers to the currency in which the price of the related goods or services is routinely denominated in commercial transactions around the world. Could it be a currency that is used for a certain product or service in commercial transactions within the local area of one of the substantial parties to the contract?**

No. The currency in which the price of the related goods or services is routinely denominated in commercial transactions around the world is only a currency that is used for similar transactions all around the world, not just in one local area. For example, if cross-border transactions in natural gas in North America are routinely denominated in US dollars and such transactions are routinely denominated in euro in Europe, neither the US dollar nor the euro is a currency in which the goods or services are routinely denominated in commercial transactions around the world.

### **C.10 Embedded derivatives: holder permitted, but not required, to settle without recovering substantially all of its recognised investment**

**If the terms of a combined instrument permit, but do not require, the holder to settle the combined instrument in a manner that causes it not to recover substantially all of its recognised investment and the issuer does not have such a right (for example, a puttable debt instrument), does the contract satisfy the condition in IAS 39.AG33(a) that the holder would not recover substantially all of its recognised investment?**

No. The condition that ‘the holder would not recover substantially all of its recognised investment’ is not satisfied if the terms of the combined instrument permit, but do not require, the investor to settle the combined instrument in a manner that causes it not to recover substantially all of its recognised investment and the issuer has no such right. Accordingly, an interest-bearing host contract with an embedded interest rate derivative with such terms is regarded as closely related to the host contract. The condition that ‘the holder would not recover substantially all of its recognised investment’ applies to situations in which the holder can be forced to accept settlement at an amount that causes the holder not to recover substantially all of its recognised investment.

### **C.11 Embedded derivatives: reliable determination of fair value**

**If an embedded derivative that is required to be separated cannot be reliably measured because it will be settled by an unquoted equity instrument whose fair value cannot be reliably measured, is the embedded derivative measured at cost?**

No. In this case, the entire combined contract is treated as a financial instrument held for trading (IAS 39.12). If the fair value of the combined instrument can be reliably measured, the combined contract is measured at fair value. The entity might conclude, however, that the equity component of the combined instrument may be sufficiently significant to preclude it from obtaining a reliable estimate of the entire instrument. In that case, the combined instrument is measured at cost less impairment.

## **Section D Recognition and derecognition**

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### **D.1 Initial recognition**

#### **D.1.1 Recognition: cash collateral**

**Entity B transfers cash to Entity A as collateral for another transaction with Entity A (for example, a securities borrowing transaction). The cash is not legally segregated from Entity A's assets. Should Entity A recognise the cash collateral it has received as an asset?**

Yes. The ultimate realisation of a financial asset is its conversion into cash and, therefore, no further transformation is required before the economic benefits of the cash transferred by Entity B can be realised by Entity A. Therefore, Entity A recognises the cash as an asset and a payable to Entity B while Entity B derecognises the cash and recognises a receivable from Entity A.

### **D.2 Regular way purchase or sale of a financial asset**

#### **D.2.1 Trade date vs settlement date: amounts to be recorded for a purchase**

**How are the trade date and settlement date accounting principles in the Standard applied to a purchase of a financial asset?**

The following example illustrates the application of the trade date and settlement date accounting principles in the Standard for a purchase of a financial asset. On 29 December 20X1, an entity commits itself to purchase a financial asset for CU1,000, which is its fair value on commitment (trade) date. Transaction costs are immaterial. On 31 December 20X1 (financial year-end) and on 4 January 20X2 (settlement date) the fair value of the asset is CU1,002 and CU1,003, respectively. The amounts to be recorded for the asset will depend on how it is classified and whether trade date or settlement date accounting is used, as shown in the two tables below.

<b>Settlement date accounting</b>			
<b>Balances</b>	<b>Held-to-maturity investments carried at amortised cost</b>	<b>Available-for-sale assets remeasured to fair value with changes in other comprehensive income</b>	<b>Assets at fair value through profit or loss remeasured to fair value with changes in profit or loss</b>
<b>29 December 20X1</b>			
Financial asset	–	–	–
Financial liability	–	–	–
<b>31 December 20X1</b>			
Receivable	–	2	2
Financial asset	–	–	–
Financial liability	–	–	–
Equity (fair value adjustment)	–	(2)	–
Retained earnings (through profit or loss)	–	–	(2)
<b>4 January 20X2</b>			
Receivable	–	–	–
Financial asset	1,000	1,003	1,003
Financial liability	–	–	–
Equity (fair value adjustment)	–	(3)	–
Retained earnings (through profit or loss)	–	–	(3)

<b>Trade date accounting</b>			
<b>Balances</b>	<b>Held-to-maturity investments carried at amortised cost</b>	<b>Available-for-sale assets remeasured to fair value with changes in other comprehensive income</b>	<b>Assets at fair value through profit or loss remeasured to fair value with changes in profit or loss</b>
<b>29 December 20X1</b>			
Financial asset	1,000	1,000	1,000
Financial liability	(1,000)	(1,000)	(1,000)
<b>31 December 20X1</b>			
Receivable	–	–	–
Financial asset	1,000	1,002	1,002
Financial liability	(1,000)	(1,000)	(1,000)
Equity (fair value adjustment)	–	(2)	–
Retained earnings (through profit or loss)	–	–	(2)
<b>4 January 20X2</b>			
Receivable	–	–	–
Financial asset	1,000	1,003	1,003
Financial liability	–	–	–
Equity (fair value adjustment)	–	(3)	–
Retained earnings (through profit or loss)	–	–	(3)

### D.2.2 Trade date vs settlement date: amounts to be recorded for a sale

**How are the trade date and settlement date accounting principles in the Standard applied to a sale of a financial asset?**

The following example illustrates the application of the trade date and settlement date accounting principles in the Standard for a sale of a financial asset. On 29 December 20X2 (trade date) an entity enters into a contract to sell a financial asset for its current fair value of CU1,010. The asset was acquired one year earlier for CU1,000 and its amortised cost is CU1,000. On 31 December 20X2 (financial year-end), the fair value of the asset is CU1,012. On 4 January 20X3 (settlement date), the fair value is CU1,013. The amounts to be recorded will depend on how the asset is classified and whether trade date or settlement date accounting is used as shown in the two tables below (any interest that might have accrued on the asset is disregarded).



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A change in the fair value of a financial asset that is sold on a regular way basis is not recorded in the financial statements between trade date and settlement date even if the entity applies settlement date accounting because the seller's right to changes in the fair value ceases on the trade date.

<b>Settlement date accounting</b>			
<b>Balances</b>	<b>Held-to-maturity investments carried at amortised cost</b>	<b>Available-for-sale assets remeasured to fair value with changes in other comprehensive income</b>	<b>Assets at fair value through profit or loss remeasured to fair value with changes in profit or loss</b>
<b>29 December 20X2</b>			
Receivable	–	–	–
Financial asset	1,000	1,010	1,010
Equity (fair value adjustment)	–	10	–
Retained earnings (through profit or loss)	–	–	10
<b>31 December 20X2</b>			
Receivable	–	–	–
Financial asset	1,000	1,010	1,010
Equity (fair value adjustment)	–	10	–
Retained earnings (through profit or loss)	–	–	10
<b>4 January 20X3</b>			
Equity (fair value adjustment)	–	–	–
Retained earnings (through profit or loss)	10	10	10

<b>Trade date accounting</b>			
<b>Balances</b>	<b>Held-to-maturity investments carried at amortised cost</b>	<b>Available-for-sale assets remeasured to fair value with changes in other comprehensive income</b>	<b>Assets at fair value through profit or loss remeasured to fair value with changes in profit or loss</b>
<b>29 December 20X2</b>			
Receivable	1,010	1,010	1,010
Financial asset	–	–	–
Equity (fair value adjustment)	–	–	–
Retained earnings (through profit or loss)	10	10	10
<b>31 December 20X2</b>			
Receivable	1,010	1,010	1,010
Financial asset	–	–	–
Equity (fair value adjustment)	–	–	–
Retained earnings (through profit or loss)	10	10	10
<b>4 January 20X3</b>			
Equity (fair value adjustment)	–	–	–
Retained earnings (through profit or loss)	10	10	10

### **D.2.3 Settlement date accounting: exchange of non-cash financial assets**

**If an entity recognises sales of financial assets using settlement date accounting, would a change in the fair value of a financial asset to be received in exchange for the non-cash financial asset that is sold be recognised in accordance with IAS 39.57?**

It depends. Any change in the fair value of the financial asset to be received would be accounted for under IAS 39.57 if the entity applies settlement date accounting for that category of financial assets. However, if the entity classifies the financial asset to be received in a category for which it applies trade date accounting, the asset to be received is recognised on the trade date as described in IAS 39.AG55. In that case, the entity recognises a liability of an amount equal to the carrying amount of the financial asset to be delivered on settlement date.

To illustrate: on 29 December 20X2 (trade date) Entity A enters into a contract to sell Note Receivable A, which is carried at amortised cost, in exchange for Bond B, which will be classified as held for trading and measured at fair value. Both assets have a fair value of CU1,010 on 29 December, while the amortised cost of Note Receivable A is CU1,000. Entity A uses settlement date accounting for loans and receivables and trade date

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accounting for assets held for trading. On 31 December 20X2 (financial year-end), the fair value of Note Receivable A is CU1,012 and the fair value of Bond B is CU1,009. On 4 January 20X3, the fair value of Note Receivable A is CU1,013 and the fair value of Bond B is CU1,007. The following entries are made:

**29 December 20X2**

Dr Bond B	CU1,010	
Cr Payable		CU1,010

**31 December 20X2**

Dr Trading loss	CU1	
Cr Bond B		CU1

**4 January 20X3**

Dr Payable	CU1,010	
Dr Trading loss	CU2	
Cr Note Receivable A		CU1,000
Cr Bond B		CU2
Cr Realisation gain		CU10

## Section E Measurement

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### E.1 Initial measurement of financial assets and financial liabilities

#### E.1.1 Initial measurement: transaction costs

**Transaction costs should be included in the initial measurement of financial assets and financial liabilities other than those at fair value through profit or loss. How should this requirement be applied in practice?**

For financial assets, incremental costs that are directly attributable to the acquisition of the asset, for example fees and commissions, are added to the amount originally recognised. For financial liabilities, directly related costs of issuing debt are deducted from the amount of debt originally recognised. For financial instruments that are measured at fair value through profit or loss, transaction costs are not added to the fair value measurement at initial recognition.

For financial instruments that are carried at amortised cost, such as held-to-maturity investments, loans and receivables, and financial liabilities that are not at fair value through profit or loss, transaction costs are included in the calculation of amortised cost using the effective interest method and, in effect, amortised through profit or loss over the life of the instrument.

For available-for-sale financial assets, transaction costs are recognised in other comprehensive income as part of a change in fair value at the next remeasurement. If an available-for-sale financial asset has fixed or determinable payments and does not have an indefinite life, the transaction costs are amortised to profit or loss using the effective interest method. If an available-for-sale financial asset does not have fixed or determinable payments and has an indefinite life, the transaction costs are recognised in profit or loss when the asset is derecognised or becomes impaired.

Transaction costs expected to be incurred on transfer or disposal of a financial instrument are not included in the measurement of the financial instrument.

### E.2 Fair value measurement considerations

#### E.2.1 Fair value measurement considerations for investment funds

**IAS 39.AG72 states that the current bid price is usually the appropriate price to be used in measuring the fair value of an asset held. The rules applicable to some investment funds require net asset values to be reported to investors on the basis of mid-market prices. In these circumstances, would it be appropriate for an investment fund to measure its assets on the basis of mid-market prices?**

No. The existence of regulations that require a different measurement for specific purposes does not justify a departure from the general requirement in IAS 39.AG72 to use the current bid price in the absence of a matching liability position. In its financial statements, an investment fund measures its assets at current bid prices. In reporting its net asset value to investors, an investment fund may wish to provide a reconciliation between the fair values recognised in its statement of financial position and the prices used for the net asset value calculation.

## **E.2.2 Fair value measurement: large holding**

Entity A holds 15 per cent of the share capital in Entity B. The shares are publicly traded in an active market. The currently quoted price is CU100. Daily trading volume is 0.1 per cent of outstanding shares. Because Entity A believes that the fair value of the Entity B shares it owns, if sold as a block, is greater than the quoted market price, Entity A obtains several independent estimates of the price it would obtain if it sells its holding. These estimates indicate that Entity A would be able to obtain a price of CU105, ie a 5 per cent premium above the quoted price. Which figure should Entity A use for measuring its holding at fair value?

Under IAS 39.AG71, a published price quotation in an active market is the best estimate of fair value. Therefore, Entity A uses the published price quotation (CU100). Entity A cannot depart from the quoted market price solely because independent estimates indicate that Entity A would obtain a higher (or lower) price by selling the holding as a block.

## **E.3 Gains and losses**

### **E.3.1 Available-for-sale financial assets: exchange of shares**

Entity A holds a small number of shares in Entity B. The shares are classified as available for sale. On 20 December 20X0, the fair value of the shares is CU120 and the cumulative gain recognised in other comprehensive income is CU20. On the same day, Entity B is acquired by Entity C, a large public entity. As a result, Entity A receives shares in Entity C in exchange for those it had in Entity B of equal fair value. Under IAS 39.55(b), should Entity A reclassify the cumulative gain of CU20 recognised in other comprehensive income from equity to profit or loss as a reclassification adjustment?

Yes. The transaction qualifies for derecognition under IAS 39. IAS 39.55(b) requires the cumulative gain or loss on an available-for-sale financial asset that has been recognised in other comprehensive income to be reclassified from equity to profit or loss when the asset is derecognised. In the exchange of shares, Entity A disposes of the shares it had in Entity B and receives shares in Entity C.

### **E.3.2 IAS 39 and IAS 21 Available-for-sale financial assets: separation of currency component**

For an available-for-sale monetary financial asset, the entity recognises changes in the carrying amount relating to changes in foreign exchange rates in profit or loss in accordance with IAS 21.23(a) and IAS 21.28 and other changes in the carrying amount in other comprehensive income in accordance with IAS 39. How is the cumulative gain or loss that is recognised in other comprehensive income determined?

It is the difference between the amortised cost (adjusted for impairment, if any) and fair value of the available-for-sale monetary financial asset in the functional currency of the reporting entity. For the purpose of applying IAS 21.28 the asset is treated as an asset measured at amortised cost in the foreign currency.

To illustrate: on 31 December 20X1 Entity A acquires a bond denominated in a foreign currency (FC) for its fair value of FC1,000. The bond has five years remaining to maturity and a principal amount of FC1,250, carries fixed interest of 4.7 per cent that is paid annually ( $FC1,250 \times 4.7$  per cent = FC59 per year), and has an effective interest rate of 10 per cent. Entity A classifies the bond as available for sale, and thus recognises gains and losses in other comprehensive income. The entity's functional currency is its local currency (LC). The exchange rate is FC1 to LC1.5 and the carrying amount of the bond is LC1,500 (=  $FC1,000 \times 1.5$ ).

Dr Bond	LC1,500	
	Cr Cash	LC1,500

On 31 December 20X2, the foreign currency has appreciated and the exchange rate is FC1 to LC2. The fair value of the bond is FC1,060 and thus the carrying amount is LC2,120 (=  $FC1,060 \times 2$ ). The amortised cost is FC1,041 (= LC2,082). In this case, the cumulative gain or loss to be recognised in other comprehensive income and accumulated in equity is the difference between the fair value and the amortised cost on 31 December 20X2, ie LC38 (=  $LC2,120 - LC2,082$ ).

Interest received on the bond on 31 December 20X2 is FC59 (= LC118). Interest income determined in accordance with the effective interest method is FC100 (=  $1,000 \times 10$  per cent). The average exchange rate during the year is FC1 to LC1.75. For the purpose of this question, it is assumed that the use of the average exchange rate provides a reliable approximation of the spot rates applicable to the accrual of interest income during the year (IAS 21.22). Thus, reported interest income is LC175 (=  $FC100 \times 1.75$ ) including accretion of the initial discount of LC72 (=  $[FC100 - FC59] \times 1.75$ ). Accordingly, the exchange difference on the bond that is recognised in profit or loss is LC510 (=  $LC2,082 - LC1,500 - LC72$ ). Also, there is an exchange gain on the interest receivable for the year of LC15 (=  $FC59 \times [2.00 - 1.75]$ ).

Dr Bond	LC620	
Dr Cash	LC118	
	Cr Interest income	LC175
	Cr Exchange gain	LC525
	Cr Fair value change in other comprehensive income	LC38

On 31 December 20X3, the foreign currency has appreciated further and the exchange rate is FC1 to LC2.50. The fair value of the bond is FC1,070 and thus the carrying amount is LC2,675 (=  $FC1,070 \times 2.50$ ). The amortised cost is FC1,086 (= LC2,715). The cumulative gain or loss to be accumulated in equity is the difference between the fair value and the amortised cost on 31 December 20X3, ie negative LC40 (=  $LC2,675 - LC2,715$ ). Thus, the amount recognised in other comprehensive income equals the change in the difference during 20X3 of LC78 (=  $LC40 + LC38$ ).

Interest received on the bond on 31 December 20X3 is FC59 (= LC148). Interest income determined in accordance with the effective interest method is FC104 (=  $FC1,041 \times 10$  per cent). The average exchange rate during the year is FC1 to LC2.25. For the purpose of this question, it is assumed that the use of the average exchange rate provides a reliable approximation of the spot rates applicable to the accrual of interest income during the

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year (IAS 21.22). Thus, recognised interest income is LC234 (= FC104 × 2.25) including accretion of the initial discount of LC101 (= [FC104 - FC59] × 2.25). Accordingly, the exchange difference on the bond that is recognised in profit or loss is LC532 (= LC2,715 - LC2,082 - LC101). Also, there is an exchange gain on the interest receivable for the year of LC15 (= FC59 × [2.50 - 2.25]).

Dr Bond	LC555	
Dr Cash	LC148	
Dr Fair value change in other comprehensive income	LC78	
Cr Interest income		LC234
Cr Exchange gain		LC547

### **E.3.3 IAS 39 and IAS 21 Exchange differences arising on translation of foreign entities: other comprehensive income or profit or loss?**

**IAS 21.32 and IAS 21.48 states that all exchange differences resulting from translating the financial statements of a foreign operation should be recognised in other comprehensive income until disposal of the net investment. This would include exchange differences arising from financial instruments carried at fair value, which would include both financial assets classified as at fair value through profit or loss and financial assets that are available for sale.**

**IAS 39.55 requires that changes in fair value of financial assets classified as at fair value through profit or loss should be recognised in profit or loss and changes in fair value of available-for-sale investments should be recognised in other comprehensive income.**

**If the foreign operation is a subsidiary whose financial statements are consolidated with those of its parent, in the consolidated financial statements how are IAS 39.55 and IAS 21.39 applied?**

IAS 39 applies in the accounting for financial instruments in the financial statements of a foreign operation and IAS 21 applies in translating the financial statements of a foreign operation for incorporation in the financial statements of the reporting entity.

To illustrate: Entity A is domiciled in Country X and its functional currency and presentation currency are the local currency of Country X (LCX). A has a foreign subsidiary (Entity B) in Country Y whose functional currency is the local currency of Country Y (LCY). B is the owner of a debt instrument, which is held for trading and therefore carried at fair value under IAS 39.

In B's financial statements for year 20X0, the fair value and carrying amount of the debt instrument is LCY100 in the local currency of Country Y. In A's consolidated financial statements, the asset is translated into the local currency of Country X at the spot exchange rate applicable at the end of the reporting period (2.00). Thus, the carrying amount is LCX200 (= LCY100 × 2.00) in the consolidated financial statements.

At the end of year 20X1, the fair value of the debt instrument has increased to LCY110 in the local currency of Country Y. B recognises the trading asset at LCY110 in its statement of financial position and recognises a fair value gain of LCY10 in its profit or loss. During the year, the spot exchange rate has increased from 2.00 to 3.00 resulting in an increase in the fair value of the instrument from LCX200 to LCX330 (= LCY110 × 3.00) in the currency of Country X. Therefore, Entity A recognises the trading asset at LCX330 in its consolidated financial statements.

Entity A translates the statement of comprehensive income of B 'at the exchange rates at the dates of the transactions' (IAS 21.39(b)). Since the fair value gain has accrued through the year, A uses the average rate as a practical approximation  $([3.00 + 2.00] / 2 = 2.50)$ , in accordance with IAS 21.22). Therefore, while the fair value of the trading asset has increased by LCX130 (= LCX330 – LCX200), Entity A recognises only LCX25 (= LCY10 × 2.5) of this increase in consolidated profit or loss to comply with IAS 21.39(b). The resulting exchange difference, ie the remaining increase in the fair value of the debt instrument (LCX130 – LCX25 = LCX105), is accumulated in equity until the disposal of the net investment in the foreign operation in accordance with IAS 21.48.

#### **E.3.4 IAS 39 and IAS 21 Interaction between IAS 39 and IAS 21**

**IAS 39 includes requirements about the measurement of financial assets and financial liabilities and the recognition of gains and losses on remeasurement in profit or loss. IAS 21 includes rules about the reporting of foreign currency items and the recognition of exchange differences in profit or loss. In what order are IAS 21 and IAS 39 applied?**

##### *Statement of financial position*

Generally, the measurement of a financial asset or financial liability at fair value, cost or amortised cost is first determined in the foreign currency in which the item is denominated in accordance with IAS 39. Then, the foreign currency amount is translated into the functional currency using the closing rate or a historical rate in accordance with IAS 21 (IAS 39.AG83). For example, if a monetary financial asset (such as a debt instrument) is carried at amortised cost under IAS 39, amortised cost is calculated in the currency of denomination of that financial asset. Then, the foreign currency amount is recognised using the closing rate in the entity's financial statements (IAS 21.23). That applies regardless of whether a monetary item is measured at cost, amortised cost or fair value in the foreign currency (IAS 21.24). A non-monetary financial asset (such as an investment in an equity instrument) is translated using the closing rate if it is carried at fair value in the foreign currency (IAS 21.23(c)) and at a historical rate if it is not carried at fair value under IAS 39 because its fair value cannot be reliably measured (IAS 21.23(b) and IAS 39.46(c)).

As an exception, if the financial asset or financial liability is designated as a hedged item in a fair value hedge of the exposure to changes in foreign currency rates under IAS 39, the hedged item is remeasured for changes in foreign currency rates even if it would otherwise have been recognised using a historical rate under IAS 21 (IAS 39.89), ie the foreign currency amount is recognised using the closing rate. This exception applies to non-monetary items that are carried in terms of historical cost in the foreign currency and are hedged against exposure to foreign currency rates (IAS 21.23(b)).



*Profit or loss*

The recognition of a change in the carrying amount of a financial asset or financial liability in profit or loss depends on a number of factors, including whether it is an exchange difference or other change in carrying amount, whether it arises on a monetary item (for example, most debt instruments) or non-monetary item (such as most equity investments), whether the associated asset or liability is designated as a cash flow hedge of an exposure to changes in foreign currency rates, and whether it results from translating the financial statements of a foreign operation. The issue of recognising changes in the carrying amount of a financial asset or financial liability held by a foreign operation is addressed in a separate question (see Question E.3.3).

Any exchange difference arising on recognising a *monetary item* at a rate different from that at which it was initially recognised during the period, or recognised in previous financial statements, is recognised in profit or loss or in other comprehensive income in accordance with IAS 21 (IAS 39.AG83, IAS 21.28 and IAS 21.32), unless the monetary item is designated as a cash flow hedge of a highly probable forecast transaction in foreign currency, in which case the requirements for recognition of gains and losses on cash flow hedges in IAS 39 apply (IAS 39.95). Differences arising from recognising a monetary item at a foreign currency amount different from that at which it was previously recognised are accounted for in a similar manner, since all changes in the carrying amount relating to foreign currency movements should be treated consistently. All other changes in the statement of financial position measurement of a monetary item are recognised in profit or loss or in other comprehensive income in accordance with IAS 39. For example, although an entity recognises gains and losses on available-for-sale monetary financial assets in other comprehensive income (IAS 39.55(b)), the entity nevertheless recognises the changes in the carrying amount relating to changes in foreign exchange rates in profit or loss (IAS 21.23(a)).

Any changes in the carrying amount of a *non-monetary item* are recognised in profit or loss or in other comprehensive income in accordance with IAS 39 (IAS 39.AG83). For example, for available-for-sale financial assets the entire change in the carrying amount, including the effect of changes in foreign currency rates, is recognised in other comprehensive income. If the non-monetary item is designated as a cash flow hedge of an unrecognised firm commitment or a highly probable forecast transaction in foreign currency, the requirements for recognition of gains and losses on cash flow hedges in IAS 39 apply (IAS 39.95).

When some portion of the change in carrying amount is recognised in other comprehensive income and some portion is recognised in profit or loss, for example, if the amortised cost of a foreign currency bond classified as available for sale has increased in foreign currency (resulting in a gain in profit or loss) but its fair value has decreased in the functional currency (resulting in a loss recognised in other comprehensive income), an entity cannot offset those two components for the purposes of determining gains or losses that should be recognised in profit or loss or in other comprehensive income.

## **E.4 Impairment and uncollectibility of financial assets**

### **E.4.1 Objective evidence of impairment**

**Does IAS 39 require that an entity be able to identify a single, distinct past causative event to conclude that it is probable that an impairment loss on a financial asset has been incurred?**

No. IAS 39.59 states 'It may not be possible to identify a single, discrete event that caused the impairment. Rather the combined effect of several events may have caused the impairment.' Also, IAS 39.60 states that 'a downgrade of an entity's credit rating is not, of itself, evidence of impairment, although it may be evidence of impairment when considered with other available information'. Other factors that an entity considers in determining whether it has objective evidence that an impairment loss has been incurred include information about the debtors' or issuers' liquidity, solvency and business and financial risk exposures, levels of and trends in delinquencies for similar financial assets, national and local economic trends and conditions, and the fair value of collateral and guarantees. These and other factors may, either individually or taken together, provide sufficient objective evidence that an impairment loss has been incurred in a financial asset or group of financial assets.

### **E.4.2 Impairment: future losses**

**Does IAS 39 permit the recognition of an impairment loss through the establishment of an allowance for future losses when a loan is given? For example, if Entity A lends CU1,000 to Customer B, can it recognise an immediate impairment loss of CU10 if Entity A, based on historical experience, expects that 1 per cent of the principal amount of loans given will not be collected?**

No. IAS 39.43 requires a financial asset to be initially measured at fair value. For a loan asset, the fair value is the amount of cash lent adjusted for any fees and costs (unless a portion of the amount lent is compensation for other stated or implied rights or privileges). In addition, IAS 39.58 requires that an impairment loss is recognised only if there is objective evidence of impairment as a result of a past event that occurred after initial recognition. Accordingly, it is inconsistent with IAS 39.43 and IAS 39.58 to reduce the carrying amount of a loan asset on initial recognition through the recognition of an immediate impairment loss.

### **E.4.3 Assessment of impairment: principal and interest**

**Because of Customer B's financial difficulties, Entity A is concerned that Customer B will not be able to make all principal and interest payments due on a loan in a timely manner. It negotiates a restructuring of the loan. Entity A expects that Customer B will be able to meet its obligations under the restructured terms. Would Entity A recognise an impairment loss if the restructured terms are as reflected in any of the following cases?**

- (a) Customer B will pay the full principal amount of the original loan five years after the original due date, but none of the interest due under the original terms.**
- (b) Customer B will pay the full principal amount of the original loan on the original due date, but none of the interest due under the original terms.**

- (c) **Customer B will pay the full principal amount of the original loan on the original due date with interest only at a lower interest rate than the interest rate inherent in the original loan.**
- (d) **Customer B will pay the full principal amount of the original loan five years after the original due date and all interest accrued during the original loan term, but no interest for the extended term.**
- (e) **Customer B will pay the full principal amount of the original loan five years after the original due date and all interest, including interest for both the original term of the loan and the extended term.**

IAS 39.58 indicates that an impairment loss has been incurred if there is objective evidence of impairment. The amount of the impairment loss for a loan measured at amortised cost is the difference between the carrying amount of the loan and the present value of future principal and interest payments discounted at the loan's original effective interest rate. In cases (a)-(d) above, the present value of the future principal and interest payments discounted at the loan's original effective interest rate will be lower than the carrying amount of the loan. Therefore, an impairment loss is recognised in those cases.

In case (e), even though the timing of payments has changed, the lender will receive interest on interest, and the present value of the future principal and interest payments discounted at the loan's original effective interest rate will equal the carrying amount of the loan. Therefore, there is no impairment loss. However, this fact pattern is unlikely given Customer B's financial difficulties.

#### **E.4.4 Assessment of impairment: fair value hedge**

**A loan with fixed interest rate payments is hedged against the exposure to interest rate risk by a receive-variable, pay-fixed interest rate swap. The hedge relationship qualifies for fair value hedge accounting and is reported as a fair value hedge. Thus, the carrying amount of the loan includes an adjustment for fair value changes attributable to movements in interest rates. Should an assessment of impairment in the loan take into account the fair value adjustment for interest rate risk?**

Yes. The loan's original effective interest rate before the hedge becomes irrelevant once the carrying amount of the loan is adjusted for any changes in its fair value attributable to interest rate movements. Therefore, the original effective interest rate and amortised cost of the loan are adjusted to take into account recognised fair value changes. The adjusted effective interest rate is calculated using the adjusted carrying amount of the loan.

An impairment loss on the hedged loan is calculated as the difference between its carrying amount after adjustment for fair value changes attributable to the risk being hedged and the estimated future cash flows of the loan discounted at the adjusted effective interest rate. When a loan is included in a portfolio hedge of interest rate risk, the entity should allocate the change in the fair value of the hedged portfolio to the loans (or groups of similar loans) being assessed for impairment on a systematic and rational basis.

#### E.4.5 Impairment: provision matrix

**A financial institution calculates impairment in the unsecured portion of loans and receivables on the basis of a provision matrix that specifies fixed provision rates for the number of days a loan has been classified as non-performing (zero per cent if less than 90 days, 20 per cent if 90–180 days, 50 per cent if 181–365 days and 100 per cent if more than 365 days). Can the results be considered to be appropriate for the purpose of calculating the impairment loss on loans and receivables under IAS 39.63?**

Not necessarily. IAS 39.63 requires impairment or bad debt losses to be calculated as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the financial instrument's original effective interest rate.

#### E.4.6 Impairment: excess losses

**Does IAS 39 permit an entity to recognise impairment or bad debt losses in excess of impairment losses that are determined on the basis of objective evidence about impairment in identified individual financial assets or identified groups of similar financial assets?**

No. IAS 39 does not permit an entity to recognise impairment or bad debt losses in addition to those that can be attributed to individually identified financial assets or identified groups of financial assets with similar credit risk characteristics (IAS 39.64) on the basis of objective evidence about the existence of impairment in those assets (IAS 39.58). Amounts that an entity might want to set aside for additional possible impairment in financial assets, such as reserves that cannot be supported by objective evidence about impairment, are not recognised as impairment or bad debt losses under IAS 39. However, if an entity determines that no objective evidence of impairment exists for an individually assessed financial asset, whether significant or not, it includes the asset in a group of financial assets with similar credit risk characteristics (IAS 39.64).

#### E.4.7 Recognition of impairment on a portfolio basis

**IAS 39.63 requires that impairment be recognised for financial assets carried at amortised cost. IAS 39.64 states that impairment may be measured and recognised individually or on a portfolio basis for a group of similar financial assets. If one asset in the group is impaired but the fair value of another asset in the group is above its amortised cost, does IAS 39 allow non-recognition of the impairment of the first asset?**

No. If an entity knows that an individual financial asset carried at amortised cost is impaired, IAS 39.63 requires that the impairment of that asset should be recognised. It states: 'the amount of the loss is measured as the difference between *the asset's* carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate' (emphasis added). Measurement of impairment on a portfolio basis under IAS 39.64 may be applied to groups of small balance items and to financial assets that are individually assessed and found not to be impaired when there is indication of impairment in a group of similar assets and impairment cannot be identified with an individual asset in that group.

#### **E.4.8 Impairment: recognition of collateral**

**If an impaired financial asset is secured by collateral that does not meet the recognition criteria for assets in other Standards, is the collateral recognised as an asset separate from the impaired financial asset?**

No. The measurement of the impaired financial asset reflects the fair value of the collateral. The collateral is not recognised as an asset separate from the impaired financial asset unless it meets the recognition criteria for an asset in another Standard.

#### **E.4.9 Impairment of non-monetary available-for-sale financial asset**

**If a non-monetary financial asset, such as an equity instrument, measured at fair value with gains and losses recognised in other comprehensive income becomes impaired, should the cumulative net loss recognised in other comprehensive income, including any portion attributable to foreign currency changes, be reclassified from equity to profit or loss as a reclassification adjustment?**

Yes. IAS 39.67 states that when a decline in the fair value of an available-for-sale financial asset has been recognised in other comprehensive income and there is objective evidence that the asset is impaired, the cumulative net loss that had been recognised in other comprehensive income should be reclassified from equity to profit or loss even though the asset has not been derecognised. Any portion of the cumulative net loss that is attributable to foreign currency changes on that asset that had been recognised in other comprehensive income is also reclassified from equity to profit or loss. Any subsequent losses, including any portion attributable to foreign currency changes, are also reclassified from equity to profit or loss until the asset is derecognised.

#### **E.4.10 Impairment: whether the available-for-sale reserve in equity can be negative**

**IAS 39 requires that gains and losses arising from changes in fair value on available-for-sale financial assets are recognised in other comprehensive income. If the aggregate fair value of such assets is less than their carrying amount, should the aggregate net loss that has been recognised in other comprehensive income be reclassified from equity to profit or loss as a reclassification adjustment?**

Not necessarily. The relevant criterion is not whether the aggregate fair value is less than the carrying amount, but whether there is objective evidence that a financial asset or group of assets is impaired. An entity assesses at the end of each reporting period whether there is any objective evidence that a financial asset or group of assets may be impaired, in accordance with IAS 39.59–61. IAS 39.60 states that a downgrade of an entity's credit rating is not, of itself, evidence of impairment, although it may be evidence of impairment when considered with other available information. Additionally, a decline in the fair value of a financial asset below its cost or amortised cost is not necessarily evidence of impairment (for example, a decline in the fair value of an investment in a debt instrument that results from an increase in the basic, risk-free interest rate).

## Section F Hedging

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### F.1 Hedging instruments

#### F.1.1 Hedging the fair value exposure of a bond denominated in a foreign currency

**Entity J, whose functional currency is the Japanese yen, has issued 5 million five-year US dollar fixed rate debt. Also, it owns a 5 million five-year fixed rate US dollar bond which it has classified as available for sale. Can Entity J designate its US dollar liability as a hedging instrument in a fair value hedge of the entire fair value exposure of its US dollar bond?**

No. IAS 39.72 permits a non-derivative to be used as a hedging instrument only for a hedge of a foreign currency risk. Entity J's bond has a fair value exposure to foreign currency and interest rate changes and credit risk.

**Alternatively, can the US dollar liability be designated as a fair value hedge or cash flow hedge of the foreign currency component of the bond?**

Yes. However, hedge accounting is unnecessary because the amortised cost of the hedging instrument and the hedged item are both remeasured using closing rates. Regardless of whether Entity J designates the relationship as a cash flow hedge or a fair value hedge, the effect on profit or loss is the same. Any gain or loss on the non-derivative hedging instrument designated as a cash flow hedge is immediately recognised in profit or loss to correspond with the recognition of the change in spot rate on the hedged item in profit or loss as required by IAS 21.

#### F.1.2 Hedging with a non-derivative financial asset or liability

**Entity J's functional currency is the Japanese yen. It has issued a fixed rate debt instrument with semi-annual interest payments that matures in two years with principal due at maturity of 5 million US dollars. It has also entered into a fixed price sales commitment for 5 million US dollars that matures in two years and is not accounted for as a derivative because it meets the exemption for normal sales in paragraph 5. Can Entity J designate its US dollar liability as a fair value hedge of the entire fair value exposure of its fixed price sales commitment and qualify for hedge accounting?**

No. IAS 39.72 permits a non-derivative asset or liability to be used as a hedging instrument only for a hedge of a foreign currency risk.

**Alternatively, can Entity J designate its US dollar liability as a cash flow hedge of the foreign currency exposure associated with the future receipt of US dollars on the fixed price sales commitment?**

Yes. IAS 39 permits the designation of a non-derivative asset or liability as a hedging instrument in either a cash flow hedge or a fair value hedge of the exposure to changes in foreign exchange rates of a firm commitment (IAS 39.87). Any gain or loss on the non-derivative hedging instrument that is recognised in other comprehensive income during the period preceding the future sale is reclassified from equity to profit or loss as a reclassification adjustment when the sale takes place (IAS 39.95).

**Alternatively, can Entity J designate the sales commitment as the hedging instrument instead of the hedged item?**

No. Only a derivative instrument or a non-derivative financial asset or liability can be designated as a hedging instrument in a hedge of a foreign currency risk. A firm commitment cannot be designated as a hedging instrument. However, if the foreign currency component of the sales commitment is required to be separated as an embedded derivative under IAS 39.11 and IAS 39.AG33(d), it could be designated as a hedging instrument in a hedge of the exposure to changes in the fair value of the maturity amount of the debt attributable to foreign currency risk.

**F.1.3 Hedge accounting: use of written options in combined hedging instruments**

**Issue (a) – Does IAS 39.AG94 preclude the use of an interest rate collar or other derivative instrument that combines a written option component and a purchased option component as a hedging instrument?**

It depends. An interest rate collar or other derivative instrument that includes a written option cannot be designated as a hedging instrument if it is a net written option, because IAS 39.AG94 precludes the use of a written option as a hedging instrument unless it is designated as an offset to a purchased option. An interest rate collar or other derivative instrument that includes a written option may be designated as a hedging instrument, however, if the combination is a net purchased option or zero cost collar.

**Issue (b) – What factors indicate that an interest rate collar or other derivative instrument that combines a written option component and a purchased option component is not a net written option?**

The following factors taken together suggest that an interest rate collar or other derivative instrument that includes a written option is not a net written option.

- (a) No net premium is received either at inception or over the life of the combination of options. The distinguishing feature of a written option is the receipt of a premium to compensate the writer for the risk incurred.
- (b) Except for the strike prices, the critical terms and conditions of the written option component and the purchased option component are the same (including underlying variable or variables, currency denomination and maturity date). Also, the notional amount of the written option component is not greater than the notional amount of the purchased option component.

**F.1.4 Internal hedges**

**Some entities use internal derivative contracts (internal hedges) to transfer risk exposures between different companies within a group or divisions within a single legal entity. Does IAS 39.73 prohibit hedge accounting in such cases?**

Yes, if the derivative contracts are internal to the entity being reported on. IAS 39 does not specify how an entity should manage its risk. However, it states that internal hedging transactions do not qualify for hedge accounting. This applies both (a) in consolidated financial statements for intragroup hedging transactions, and (b) in the individual or

separate financial statements of a legal entity for hedging transactions between divisions in the entity. The principles of preparing consolidated financial statements in IAS 27.24 require that 'intragroup balances, transactions, income and expenses shall be eliminated in full'.

On the other hand, an intragroup hedging transaction may be designated as a hedge in the individual or separate financial statements of a group entity, if the intragroup transaction is an external transaction from the perspective of the group entity. In addition, if the internal contract is offset with an external party the external contract may be regarded as the hedging instrument and the hedging relationship may qualify for hedge accounting.

The following summarises the application of IAS 39 to internal hedging transactions.

- IAS 39 does not preclude an entity from using internal derivative contracts for risk management purposes and it does not preclude internal derivatives from being accumulated at the treasury level or some other central location so that risk can be managed on an entity-wide basis or at some higher level than the separate legal entity or division.
- Internal derivative contracts between two separate entities within a consolidated group can qualify for hedge accounting by those entities in their individual or separate financial statements, even though the internal contracts are not offset by derivative contracts with a party external to the consolidated group.
- Internal derivative contracts between two separate divisions within the same legal entity can qualify for hedge accounting in the individual or separate financial statements of that legal entity only if those contracts are offset by derivative contracts with a party external to the legal entity.
- Internal derivative contracts between separate divisions within the same legal entity and between separate entities within the consolidated group can qualify for hedge accounting in the consolidated financial statements only if the internal contracts are offset by derivative contracts with a party external to the consolidated group.
- If the internal derivative contracts are not offset by derivative contracts with external parties, the use of hedge accounting by group entities and divisions using internal contracts must be reversed on consolidation.

To illustrate: the banking division of Entity A enters into an internal interest rate swap with the trading division of the same entity. The purpose is to hedge the interest rate risk exposure of a loan (or group of similar loans) in the loan portfolio. Under the swap, the banking division pays fixed interest payments to the trading division and receives variable interest rate payments in return.

If a hedging instrument is not acquired from an external party, IAS 39 does not allow hedge accounting treatment for the hedging transaction undertaken by the banking and trading divisions. IAS 39.73 indicates that only derivatives that involve a party external to the entity can be designated as hedging instruments and, further, that any gains or losses on intragroup or intra-entity transactions should be eliminated on consolidation. Therefore, transactions between different divisions within Entity A do not qualify for hedge accounting treatment in the financial statements of Entity A. Similarly, transactions between different entities within a group do not qualify for hedge accounting treatment in consolidated financial statements.



However, if in addition to the internal swap in the above example the trading division enters into an interest rate swap or other contract with an external party that offsets the exposure hedged in the internal swap, hedge accounting is permitted under IAS 39. For the purposes of IAS 39, the hedged item is the loan (or group of similar loans) in the banking division and the hedging instrument is the external interest rate swap or other contract.

The trading division may aggregate several internal swaps or portions of them that are not offsetting each other and enter into a single third party derivative contract that offsets the aggregate exposure. Under IAS 39, such external hedging transactions may qualify for hedge accounting treatment provided that the hedged items in the banking division are identified and the other conditions for hedge accounting are met. It should be noted, however, that IAS 39.79 does not permit hedge accounting treatment for held-to-maturity investments if the hedged risk is the exposure to interest rate changes.

#### **F.1.5 Offsetting internal derivative contracts used to manage interest rate risk**

**If a central treasury function enters into internal derivative contracts with subsidiaries and various divisions within the consolidated group to manage interest rate risk on a centralised basis, can those contracts qualify for hedge accounting in the consolidated financial statements if, before laying off the risk, the internal contracts are first netted against each other and only the net exposure is offset in the marketplace with external derivative contracts?**

No. An internal contract designated at the subsidiary level or by a division as a hedge results in the recognition of changes in the fair value of the item being hedged in profit or loss (a fair value hedge) or in the recognition of the changes in the fair value of the internal derivative in other comprehensive income (a cash flow hedge). There is no basis for changing the measurement attribute of the item being hedged in a fair value hedge unless the exposure is offset with an external derivative. There is also no basis for recognising the gain or loss on the internal derivative in other comprehensive income for one entity and recognising it in profit or loss by the other entity unless it is offset with an external derivative. In cases where two or more internal derivatives are used to manage interest rate risk on assets or liabilities at the subsidiary or division level and those internal derivatives are offset at the treasury level, the effect of designating the internal derivatives as hedging instruments is that the hedged non-derivative exposures at the subsidiary or division levels would be used to offset each other on consolidation. Accordingly, since IAS 39.72 does not permit designating non-derivatives as hedging instruments, except for foreign currency exposures, the results of hedge accounting from the use of internal derivatives at the subsidiary or division level that are not laid off with external parties must be reversed on consolidation.

It should be noted, however, that there will be no effect on profit or loss and other comprehensive income of reversing the effect of hedge accounting in consolidation for internal derivatives that offset each other at the consolidation level if they are used in the same type of hedging relationship at the subsidiary or division level and, in the case of cash flow hedges, where the hedged items affect profit or loss in the same period. Just as the internal derivatives offset at the treasury level, their use as fair value hedges by two separate entities or divisions within the consolidated group will also result in the offset of the fair value amounts recognised in profit or loss, and their use as cash flow hedges by two separate entities or divisions within the consolidated group will also result in the fair

value amounts being offset against each other in other comprehensive income. However, there may be an effect on individual line items in both the consolidated statement of comprehensive income and the consolidated statement of financial position, for example when internal derivatives that hedge assets (or liabilities) in a fair value hedge are offset by internal derivatives that are used as a fair value hedge of other assets (or liabilities) that are recognised in a different line item in the statement of financial position or statement of comprehensive income. In addition, to the extent that one of the internal contracts is used as a cash flow hedge and the other is used in a fair value hedge, gains and losses recognised would not offset since the gain (or loss) on the internal derivative used as a fair value hedge would be recognised in profit or loss and the corresponding loss (or gain) on the internal derivative used as a cash flow hedge would be recognised in other comprehensive income.

Question F.1.4 describes the application of IAS 39 to internal hedging transactions.

### **F.1.6 Offsetting internal derivative contracts used to manage foreign currency risk**

**If a central treasury function enters into internal derivative contracts with subsidiaries and various divisions within the consolidated group to manage foreign currency risk on a centralised basis, can those contracts be used as a basis for identifying external transactions that qualify for hedge accounting in the consolidated financial statements if, before laying off the risk, the internal contracts are first netted against each other and only the net exposure is offset by entering into a derivative contract with an external party?**

It depends. IAS 27 *Consolidated and Separate Financial Statements* requires all internal transactions to be eliminated in consolidated financial statements. As stated in IAS 39.73, internal hedging transactions do not qualify for hedge accounting in the consolidated financial statements of the group. Therefore, if an entity wishes to achieve hedge accounting in the consolidated financial statements, it must designate a hedging relationship between a qualifying external hedging instrument and a qualifying hedged item.

As discussed in Question F.1.5, the accounting effect of two or more internal derivatives that are used to manage interest rate risk at the subsidiary or division level and are offset at the treasury level is that the hedged non-derivative exposures at those levels would be used to offset each other on consolidation. There is no effect on profit or loss or other comprehensive income if (a) the internal derivatives are used in the same type of hedge relationship (ie fair value or cash flow hedges) and (b), in the case of cash flow hedges, any derivative gains and losses that are initially recognised in other comprehensive income are reclassified from equity to profit or loss in the same period(s). When these two conditions are met, the gains and losses on the internal derivatives that are recognised in profit or loss or in other comprehensive income will offset on consolidation resulting in the same profit or loss and other comprehensive income as if the derivatives had been eliminated. However, there may be an effect on individual line items, in both the consolidated statement of comprehensive income and the consolidated statement of financial position, that would need to be eliminated. In addition, there is an effect on profit or loss and other comprehensive income if some of the offsetting internal derivatives are used in cash flow hedges, while others are used in fair value hedges. There is also an effect on profit or loss and other comprehensive income for offsetting internal derivatives that are used in cash flow hedges if the derivative gains and losses that are initially recognised in other comprehensive income are reclassified from equity to profit or loss in different periods (because the hedged items affect profit or loss in different periods).

As regards foreign currency risk, provided that the internal derivatives represent the transfer of foreign currency risk on underlying non-derivative financial assets or liabilities, hedge accounting can be applied because IAS 39.72 permits a non-derivative financial asset or liability to be designated as a hedging instrument for hedge accounting purposes for a hedge of a foreign currency risk. Accordingly, in this case the internal derivative contracts can be used as a basis for identifying external transactions that qualify for hedge accounting in the consolidated financial statements even if they are offset against each other. However, for consolidated financial statements, it is necessary to designate the hedging relationship so that it involves only external transactions.

Furthermore, the entity cannot apply hedge accounting to the extent that two or more offsetting internal derivatives represent the transfer of foreign currency risk on underlying forecast transactions or unrecognised firm commitments. This is because an unrecognised firm commitment or forecast transaction does not qualify as a hedging instrument under IAS 39. Accordingly, in this case the internal derivatives cannot be used as a basis for identifying external transactions that qualify for hedge accounting in the consolidated financial statements. As a result, any cumulative net gain or loss on an internal derivative that has been included in the initial carrying amount of an asset or liability (basis adjustment) or recognised in other comprehensive income would have to be reversed on consolidation if it cannot be demonstrated that the offsetting internal derivative represented the transfer of a foreign currency risk on a financial asset or liability to an external hedging instrument.

### **F.1.7 Internal derivatives: examples of applying Question F.1.6**

*In each case, FC = foreign currency, LC = local currency (which is the entity's functional currency), and TC = treasury centre.*

#### *Case 1 Offset of fair value hedges*

Subsidiary A has trade receivables of FC100, due in 60 days, which it hedges using a forward contract with TC. Subsidiary B has payables of FC50, also due in 60 days, which it hedges using a forward contract with TC.

TC nets the two internal derivatives and enters into a net external forward contract to pay FC50 and receive LC in 60 days.

At the end of month 1, FC weakens against LC. A incurs a foreign exchange loss of LC10 on its receivables, offset by a gain of LC10 on its forward contract with TC. B makes a foreign exchange gain of LC5 on its payables offset by a loss of LC5 on its forward contract with TC. TC makes a loss of LC10 on its internal forward contract with A, a gain of LC5 on its internal forward contract with B, and a gain of LC5 on its external forward contract.

At the end of month 1, the following entries are made in the individual or separate financial statements of A, B and TC. Entries reflecting intragroup transactions or events are shown in italics.

**A's entries**

Dr Foreign exchange loss	LC10	
Cr Receivables		LC10
Dr Internal contract TC	LC10	
Cr Internal gain TC		LC10

**B's entries**

Dr Payables	LC5	
Cr Foreign exchange gain		LC5
Dr Internal loss TC	LC5	
Cr Internal contract TC		LC5

**TC's entries**

Dr Internal loss A	LC10	
Cr Internal contract A		LC10
Dr Internal contract B	LC5	
Cr Internal gain B		LC5
Dr External forward contract	LC5	
Cr Foreign exchange gain		LC5

Both A and B could apply hedge accounting in their individual financial statements provided all conditions in IAS 39 are met. However, in this case, no hedge accounting is required because gains and losses on the internal derivatives and the offsetting losses and gains on the hedged receivables and payables are recognised immediately in profit or loss of A and B without hedge accounting.

In the consolidated financial statements, the internal derivative transactions are eliminated. In economic terms, the payable in B hedges FC50 of the receivables in A. The external forward contract in TC hedges the remaining FC50 of the receivable in A. Hedge accounting is not necessary in the consolidated financial statements because monetary items are measured at spot foreign exchange rates under IAS 21 irrespective of whether hedge accounting is applied.

The net balances before and after elimination of the accounting entries relating to the internal derivatives are the same, as set out below. Accordingly, there is no need to make any further accounting entries to meet the requirements of IAS 39.

	<i>Debit</i>	<i>Credit</i>
Receivables	–	LC10
Payables	LC5	–
External forward contract	LC5	–
Gains and losses	–	–
Internal contracts	–	–

*Case 2 Offset of cash flow hedges*

To extend the example, A also has highly probable future revenues of FC200 on which it expects to receive cash in 90 days. B has highly probable future expenses of FC500 (advertising cost), also to be paid for in 90 days. A and B enter into separate forward contracts with TC to hedge these exposures and TC enters into an external forward contract to receive FC300 in 90 days.

As before, FC weakens at the end of month 1. A incurs a 'loss' of LC20 on its anticipated revenues because the LC value of these revenues decreases. This is offset by a 'gain' of LC20 on its forward contract with TC.

B incurs a 'gain' of LC50 on its anticipated advertising cost because the LC value of the expense decreases. This is offset by a 'loss' of LC50 on its transaction with TC.

TC incurs a 'gain' of LC50 on its internal transaction with B, a 'loss' of LC20 on its internal transaction with A and a loss of LC30 on its external forward contract.

A and B complete the necessary documentation, the hedges are effective, and both A and B qualify for hedge accounting in their individual financial statements. A recognises the gain of LC20 on its internal derivative transaction in other comprehensive income and B recognises the loss of LC50 in other comprehensive income. TC does not claim hedge accounting, but measures both its internal and external derivative positions at fair value, which net to zero.

At the end of month 1, the following entries are made in the individual or separate financial statements of A, B and TC. Entries reflecting intragroup transactions or events are shown in italics.

**A's entries**

<i>Dr</i>	<i>Internal contract TC</i>	LC20	
	<i>Cr</i>	<i>Other comprehensive income</i>	LC20

**B's entries**

<i>Dr</i>	<i>Other comprehensive income</i>	LC50	
	<i>Cr</i>	<i>Internal contract TC</i>	LC50

**TC's entries**

<i>Dr</i>	<i>Internal loss A</i>	LC20	
	<i>Cr</i>	<i>Internal contract A</i>	LC20
<i>Dr</i>	<i>Internal contract B</i>	LC50	
	<i>Cr</i>	<i>Internal gain B</i>	LC50
<i>Dr</i>	Foreign exchange loss	LC30	
	<i>Cr</i>	External forward contract	LC30

For the consolidated financial statements, TC's external forward contract on FC300 is designated, at the beginning of month 1, as a hedging instrument of the first FC300 of B's highly probable future expenses. IAS 39 requires that in the consolidated financial statements at the end of month 1, the accounting effects of the internal derivative transactions must be eliminated.

However, the net balances before and after elimination of the accounting entries relating to the internal derivatives are the same, as set out below. Accordingly, there is no need to make any further accounting entries in order for the requirements of IAS 39 to be met.

	<i>Debit</i>	<i>Credit</i>
External forward contract	–	LC30
Other comprehensive income	LC30	–
Gains and losses	–	–
Internal contracts	–	–

### *Case 3 Offset of fair value and cash flow hedges*

Assume that the exposures and the internal derivative transactions are the same as in cases 1 and 2. However, instead of entering into two external derivatives to hedge separately the fair value and cash flow exposures, TC enters into a single net external derivative to receive FC250 in exchange for LC in 90 days.

TC has four internal derivatives, two maturing in 60 days and two maturing in 90 days. These are offset by a net external derivative maturing in 90 days. The interest rate differential between FC and LC is minimal, and therefore the ineffectiveness resulting from the mismatch in maturities is expected to have a minimal effect on profit or loss in TC.

As in cases 1 and 2, A and B apply hedge accounting for their cash flow hedges and TC measures its derivatives at fair value. A recognises a gain of LC20 on its internal derivative transaction in other comprehensive income and B recognises a loss of LC50 on its internal derivative transaction in other comprehensive income.

At the end of month 1, the following entries are made in the individual or separate financial statements of A, B and TC. Entries reflecting intragroup transactions or events are shown in italics.

#### **A's entries**

Dr Foreign exchange loss	LC10	
Cr Receivables		LC10
Dr <i>Internal contract TC</i>	<i>LC10</i>	
Cr <i>Internal gain TC</i>		<i>LC10</i>
Dr <i>Internal contract TC</i>	<i>LC20</i>	
Cr <i>Other comprehensive income</i>		<i>LC20</i>

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**B's entries**

Dr Payables	LC5	
Cr Foreign exchange gain		LC5
Dr <i>Internal loss TC</i>	<i>LC5</i>	
Cr <i>Internal contract TC</i>		<i>LC5</i>
Dr <i>Other comprehensive income</i>	<i>LC50</i>	
Cr <i>Internal contract TC</i>		<i>LC50</i>

**TC's entries**

Dr <i>Internal loss A</i>	<i>LC10</i>	
Cr <i>Internal contract A</i>		<i>LC10</i>
Dr <i>Internal loss A</i>	<i>LC20</i>	
Cr <i>Internal contract A</i>		<i>LC20</i>
Dr <i>Internal contract B</i>	<i>LC5</i>	
Cr <i>Internal gain B</i>		<i>LC5</i>
Dr <i>Internal contract B</i>	<i>LC50</i>	
Cr <i>Internal gain B</i>		<i>LC50</i>
Dr Foreign exchange loss	LC25	
Cr External forward contract		LC25

<i>TOTAL (for the internal derivatives)</i>	<i>A</i>	<i>B</i>	<i>Total</i>
	<i>LC</i>	<i>LC</i>	<i>TC</i>
Profit or loss (fair value hedges)	10	(5)	5
Other comprehensive income (cash flow hedges)	20	(50)	(30)
Total	30	(55)	(25)

Combining these amounts with the external transactions (ie those not marked in italics above) produces the total net balances before elimination of the internal derivatives as follows:

	<i>Debit</i>	<i>Credit</i>
Receivables	–	LC10
Payables	LC5	–
Forward contract	–	LC25
Other comprehensive income	LC30	–
Gains and losses	–	–
Internal contracts	–	–

For the consolidated financial statements, the following designations are made at the beginning of month 1:

- the payable of FC50 in B is designated as a hedge of the first FC50 of the highly probable future revenues in A. Therefore, at the end of month 1, the following entries are made in the consolidated financial statements: Dr Payable LC5; Cr Other comprehensive income LC5;
- the receivable of FC100 in A is designated as a hedge of the first FC100 of the highly probable future expenses in B. Therefore, at the end of month 1, the following entries are made in the consolidated financial statements: Dr Other comprehensive income LC10; Cr Receivable LC10; and
- the external forward contract on FC250 in TC is designated as a hedge of the next FC250 of highly probable future expenses in B. Therefore, at the end of month 1, the following entries are made in the consolidated financial statements: Dr Other comprehensive income LC25; Cr External forward contract LC25.

In the consolidated financial statements at the end of month 1, IAS 39 requires the accounting effects of the internal derivative transactions to be eliminated.

However, the total net balances before and after elimination of the accounting entries relating to the internal derivatives are the same, as set out below. Accordingly, there is no need to make any further accounting entries to meet the requirements of IAS 39.

	<i>Debit</i>	<i>Credit</i>
Receivables	–	LC10
Payables	LC5	–
Forward contract	–	LC25
Other comprehensive income	LC30	–
Gains and losses	–	–
Internal contracts	–	–

#### *Case 4 Offset of fair value and cash flow hedges with adjustment to carrying amount of inventory*

Assume similar transactions as in case 3, except that the anticipated cash outflow of FC500 in B relates to the purchase of inventory that is delivered after 60 days. Assume also that the entity has a policy of basis-adjusting hedged forecast non-financial items. At the end of month 2, there are no further changes in exchange rates or fair values. At that date, the inventory is delivered and the loss of LC50 on B's internal derivative, recognised in other comprehensive income in month 1, is adjusted against the carrying amount of inventory in B. The gain of LC20 on A's internal derivative is recognised in other comprehensive income as before.

In the consolidated financial statements, there is now a mismatch compared with the result that would have been achieved by unwinding and redesignating the hedges. The external derivative (FC250) and a proportion of the receivable (FC50) offset FC300 of the anticipated inventory purchase. There is a natural hedge between the remaining FC200 of anticipated cash outflow in B and the anticipated cash inflow of FC200 in A. This relationship does not qualify for hedge accounting under IAS 39 and this time there is only a partial offset between gains and losses on the internal derivatives that hedge these amounts.



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At the end of months 1 and 2, the following entries are made in the individual or separate financial statements of A, B and TC. Entries reflecting intragroup transactions or events are shown in italics.

**A's entries (all at the end of month 1)**

Dr Foreign exchange loss	LC10	
Cr Receivables		LC10
<i>Dr Internal contract TC</i>	<i>LC10</i>	
<i>Cr Internal gain TC</i>		<i>LC10</i>
<i>Dr Internal contract TC</i>	<i>LC20</i>	
<i>Cr Other comprehensive income</i>		<i>LC20</i>

**B's entries**

At the end of month 1:

Dr Payables	LC5	
Cr Foreign exchange gain		LC5
<i>Dr Internal loss TC</i>	<i>LC5</i>	
<i>Cr Internal contract TC</i>		<i>LC5</i>
<i>Dr Other comprehensive income</i>	<i>LC50</i>	
<i>Cr Internal contract TC</i>		<i>LC50</i>

At the end of month 2:

Dr Inventory	LC50	
Cr Other comprehensive income		LC50

**TC's entries (all at the end of month 1)**

<i>Dr Internal loss A</i>	<i>LC10</i>	
<i>Cr Internal contract A</i>		<i>LC10</i>
<i>Dr Internal loss A</i>	<i>LC20</i>	
<i>Cr Internal contract A</i>		<i>LC20</i>
<i>Dr Internal contract B</i>	<i>LC5</i>	
<i>Cr Internal gain B</i>		<i>LC5</i>
<i>Dr Internal contract B</i>	<i>LC50</i>	
<i>Cr Internal gain B</i>		<i>LC50</i>
Dr Foreign exchange loss	LC25	
Cr Forward		LC25

<i>TOTAL (for the internal derivatives)</i>	<i>A</i>	<i>B</i>	<i>Total</i>
	<i>LC</i>	<i>LC</i>	<i>TC</i>
Profit or loss (fair value hedges)	10	(5)	5
Other comprehensive income (cash flow hedges)	20	–	20
Basis adjustment (inventory)	–	(50)	(50)
Total	30	(55)	(25)

Combining these amounts with the external transactions (ie those not marked in italics above) produces the total net balances before elimination of the internal derivatives as follows:

	<i>Debit</i>	<i>Credit</i>
Receivables	–	LC10
Payables	LC5	–
Forward contract	–	LC25
Other comprehensive income	–	LC20
Basis adjustment (inventory)	LC50	–
Gains and losses	–	–
Internal contracts	–	–

For the consolidated financial statements, the following designations are made at the beginning of month 1:

- the payable of FC50 in B is designated as a hedge of the first FC50 of the highly probable future revenues in A. Therefore, at the end of month 1, the following entry is made in the consolidated financial statements: Dr Payables LC5; Cr Other comprehensive income LC5.
- the receivable of FC100 in A is designated as a hedge of the first FC100 of the highly probable future expenses in B. Therefore, at the end of month 1, the following entries are made in the consolidated financial statements: Dr Other comprehensive income LC10; Cr Receivable LC10; and at the end of month 2, Dr Inventory LC10; Cr Other comprehensive income LC10.
- the external forward contract on FC250 in TC is designated as a hedge of the next FC250 of highly probable future expenses in B. Therefore, at the end of month 1, the following entry is made in the consolidated financial statements: Dr Other comprehensive income LC25; Cr External forward contract LC25; and at the end of month 2, Dr Inventory LC25; Cr Other comprehensive income LC25.

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The total net balances after elimination of the accounting entries relating to the internal derivatives are as follows:

	<i>Debit</i>	<i>Credit</i>
Receivables	–	LC10
Payables	LC5	–
Forward contract	–	LC25
Other comprehensive income	–	LC5
Basis adjustment (inventory)	LC35	–
Gains and losses	–	–
Internal contracts	–	–

These total net balances are different from those that would be recognised if the internal derivatives were not eliminated, and it is these net balances that IAS 39 requires to be included in the consolidated financial statements. The accounting entries required to adjust the total net balances before elimination of the internal derivatives are as follows:

- (a) to reclassify LC15 of the loss on B's internal derivative that is included in inventory to reflect that FC150 of the forecast purchase of inventory is not hedged by an external instrument (neither the external forward contract of FC250 in TC nor the external payable of FC100 in A); and
- (b) to reclassify the gain of LC15 on A's internal derivative to reflect that the forecast revenues of FC150 to which it relates is not hedged by an external instrument.

The net effect of these two adjustments is as follows:

Dr Other comprehensive income	LC15	
Cr Inventory		LC15

### F.1.8 Combination of written and purchased options

**In most cases, IAS 39.AG94 prohibits the use of written options as hedging instruments. If a combination of a written option and purchased option (such as an interest rate collar) is transacted as a single instrument with one counterparty, can an entity split the derivative instrument into its written option component and purchased option component and designate the purchased option component as a hedging instrument?**

No. IAS 39.74 specifies that a hedging relationship is designated by an entity for a hedging instrument in its entirety. The only exceptions permitted are splitting the time value and intrinsic value of an option and splitting the interest element and spot price on a forward. Question F.1.3 addresses the issue of whether and when a combination of options is considered as a written option.

### F.1.9 Delta-neutral hedging strategy

**Does IAS 39 permit an entity to apply hedge accounting for a 'delta-neutral' hedging strategy and other dynamic hedging strategies under which the quantity of the hedging instrument is constantly adjusted in order to maintain a desired hedge ratio, for example, to achieve a delta-neutral position insensitive to changes in the fair value of the hedged item?**

Yes. IAS 39.74 states that 'a dynamic hedging strategy that assesses both the intrinsic value and time value of an option contract can qualify for hedge accounting'. For example, a portfolio insurance strategy that seeks to ensure that the fair value of the hedged item does not drop below a certain level, while allowing the fair value to increase, may qualify for hedge accounting.

To qualify for hedge accounting, the entity must document how it will monitor and update the hedge and measure hedge effectiveness, be able to track properly all terminations and redesignations of the hedging instrument, and demonstrate that all other criteria for hedge accounting in IAS 39.88 are met. Also, it must be able to demonstrate an expectation that the hedge will be highly effective for a specified short period of time during which the hedge is not expected to be adjusted.

### F.1.10 Hedging instrument: out of the money put option

**Entity A has an investment in one share of Entity B, which it has classified as available for sale. To give itself partial protection against decreases in the share price of Entity B, Entity A acquires a put option on one share of Entity B and designates the change in the intrinsic value of the put as a hedging instrument in a fair value hedge of changes in the fair value of its share in Entity B. The put gives Entity A the right to sell one share of Entity B at a strike price of CU90. At the inception of the hedging relationship, the share has a quoted price of CU100. Since the put option gives Entity A the right to dispose of the share at a price of CU90, the put should normally be fully effective in offsetting price declines below CU90 on an intrinsic value basis. Price changes above CU90 are not hedged. In this case, are changes in the fair value of the share of Entity B for prices above CU90 regarded as hedge ineffectiveness under IAS 39.88 and recognised in profit or loss under IAS 39.89?**

No. IAS 39.74 permits Entity A to designate changes in the intrinsic value of the option as the hedging instrument. The changes in the intrinsic value of the option provide protection against the risk of variability in the fair value of one share of Entity B below or equal to the strike price of the put of CU90. For prices above CU90, the option is out of the money and has no intrinsic value. Accordingly, gains and losses on one share of Entity B for prices above CU90 are not attributable to the hedged risk for the purposes of assessing hedge effectiveness and recognising gains and losses on the hedged item.

Therefore, Entity A recognises changes in the fair value of the share in other comprehensive income if it is associated with variation in its price above CU90 (IAS 39.55 and IAS 39.90). Changes in the fair value of the share associated with price declines below CU90 form part of the designated fair value hedge and are recognised in profit or loss under IAS 39.89(b). Assuming the hedge is effective, those changes are offset by changes in the intrinsic value of the put, which are also recognised in profit or loss (IAS 39.89(a)). Changes in the time value of the put are excluded from the designated hedging relationship and recognised in profit or loss under IAS 39.55(a).

### **F.1.11 Hedging instrument: proportion of the cash flows of a cash instrument**

**In the case of foreign exchange risk, a non-derivative financial asset or non-derivative financial liability can potentially qualify as a hedging instrument. Can an entity treat the cash flows for specified periods during which a financial asset or financial liability that is designated as a hedging instrument remains outstanding as a proportion of the hedging instrument under IAS 39.75, and exclude the other cash flows from the designated hedging relationship?**

No. IAS 39.75 indicates that a hedging relationship may not be designated for only a portion of the time period in which the hedging instrument is outstanding. For example, the cash flows during the first three years of a ten-year borrowing denominated in a foreign currency cannot qualify as a hedging instrument in a cash flow hedge of the first three years of revenue in the same foreign currency. On the other hand, a non-derivative financial asset or financial liability denominated in a foreign currency may potentially qualify as a hedging instrument in a hedge of the foreign currency risk associated with a hedged item that has a remaining time period until maturity that is equal to or longer than the remaining maturity of the hedging instrument (see Question F.2.17).

### **F.1.12 Hedges of more than one type of risk**

**Issue (a) - Normally a hedging relationship is designated between an entire hedging instrument and a hedged item so that there is a single measure of fair value for the hedging instrument. Does this preclude designating a single financial instrument simultaneously as a hedging instrument in both a cash flow hedge and a fair value hedge?**

No. For example, entities commonly use a combined interest rate and currency swap to convert a variable rate position in a foreign currency to a fixed rate position in the functional currency. IAS 39.76 allows the swap to be designated separately as a fair value hedge of the currency risk and a cash flow hedge of the interest rate risk provided the conditions in IAS 39.76 are met.

**Issue (b) - If a single financial instrument is a hedging instrument in two different hedges, is special disclosure required?**

IFRS 7.22 requires disclosures separately for designated fair value hedges, cash flow hedges and hedges of a net investment in a foreign operation. The instrument in question would be reported in the IFRS 7.22 disclosures separately for each type of hedge.

### F.1.13 Hedging instrument: dual foreign currency forward exchange contract

**Entity A's functional currency is the Japanese yen. Entity A has a five-year floating rate US dollar liability and a ten-year fixed rate pound sterling-denominated note receivable. The principal amounts of the asset and liability when converted into the Japanese yen are the same. Entity A enters into a single foreign currency forward contract to hedge its foreign currency exposure on both instruments under which it receives US dollars and pays pounds sterling at the end of five years. If Entity A designates the forward exchange contract as a hedging instrument in a cash flow hedge against the foreign currency exposure on the principal repayments of both instruments, can it qualify for hedge accounting?**

Yes. IAS 39.76 permits designating a single hedging instrument as a hedge of multiple types of risk if three conditions are met. In this example, the derivative hedging instrument satisfies all of these conditions, as follows.

- (a) The risks hedged can be identified clearly. The risks are the exposures to changes in the exchange rates between US dollars and yen, and yen and pounds, respectively.
- (b) The effectiveness of the hedge can be demonstrated. For the pound sterling loan, the effectiveness is measured as the degree of offset between the fair value of the principal repayment in pounds sterling and the fair value of the pound sterling payment on the forward exchange contract. For the US dollar liability, the effectiveness is measured as the degree of offset between the fair value of the principal repayment in US dollars and the US dollar receipt on the forward exchange contract. Even though the receivable has a ten-year life and the forward protects it for only the first five years, hedge accounting is permitted for only a portion of the exposure as described in Question F.2.17.
- (c) It is possible to ensure that there is specific designation of the hedging instrument and different risk positions. The hedged exposures are identified as the principal amounts of the liability and the note receivable in their respective currency of denomination.

### F.1.14 Concurrent offsetting swaps and use of one as a hedging instrument

**Entity A enters into an interest rate swap and designates it as a hedge of the fair value exposure associated with fixed rate debt. The fair value hedge meets the hedge accounting criteria of IAS 39. Entity A simultaneously enters into a second interest rate swap with the same swap counterparty that has terms that fully offset the first interest rate swap. Is Entity A required to view the two swaps as one unit and therefore precluded from applying fair value hedge accounting to the first swap?**

It depends. IAS 39 is transaction-based. If the second swap was not entered into in contemplation of the first swap or there is a substantive business purpose for structuring the transactions separately, then the swaps are not viewed as one unit.

For example, some entities have a policy that requires a centralised dealer or treasury subsidiary to enter into third-party derivative contracts on behalf of other subsidiaries within the organisation to hedge the subsidiaries' interest rate risk exposures. The dealer or treasury subsidiary also enters into internal derivative transactions with those subsidiaries in order to track those hedges operationally within the organisation. Because the dealer or treasury subsidiary also enters into derivative contracts as part of its trading operations, or because it may wish to rebalance the risk of its overall portfolio, it may enter

into a derivative contract with the same third party during the same business day that has substantially the same terms as a contract entered into as a hedging instrument on behalf of another subsidiary. In this case, there is a valid business purpose for entering into each contract.

Judgement is applied to determine whether there is a substantive business purpose for structuring the transactions separately. For example, if the sole purpose is to obtain fair value accounting treatment for the debt, there is no substantive business purpose.

## **F.2 Hedged items**

### **F.2.1 Whether a derivative can be designated as a hedged item**

**Does IAS 39 permit designating a derivative instrument (whether a stand-alone or separately recognised embedded derivative) as a hedged item either individually or as part of a hedged group in a fair value or cash flow hedge, for example, by designating a pay-variable, receive-fixed Forward Rate Agreement (FRA) as a cash flow hedge of a pay-fixed, receive-variable FRA?**

No. Derivative instruments are always deemed held for trading and measured at fair value with gains and losses recognised in profit or loss unless they are designated and effective hedging instruments (IAS 39.9). As an exception, IAS 39.AG94 permits the designation of a purchased option as the hedged item in a fair value hedge.

### **F.2.2 Cash flow hedge: anticipated issue of fixed rate debt**

**Is hedge accounting allowed for a hedge of an anticipated issue of fixed rate debt?**

Yes. This would be a cash flow hedge of a highly probable forecast transaction that will affect profit or loss (IAS 39.86) provided that the conditions in IAS 39.88 are met.

To illustrate: Entity R periodically issues new bonds to refinance maturing bonds, provide working capital and for various other purposes. When Entity R decides it will be issuing bonds, it may hedge the risk of changes in the long-term interest rate from the date it decides to issue the bonds to the date the bonds are issued. If long-term interest rates go up, the bond will be issued either at a higher rate or with a higher discount or smaller premium than was originally expected. The higher rate being paid or decrease in proceeds is normally offset by the gain on the hedge. If long-term interest rates go down, the bond will be issued either at a lower rate or with a higher premium or a smaller discount than was originally expected. The lower rate being paid or increase in proceeds is normally offset by the loss on the hedge.

For example, in August 20X0 Entity R decided it would issue CU200 million seven-year bonds in January 20X1. Entity R performed historical correlation studies and determined that a seven-year treasury bond adequately correlates to the bonds Entity R expected to issue, assuming a hedge ratio of 0.93 futures contracts to one debt unit. Therefore, Entity R hedged the anticipated issue of the bonds by selling (shorting) CU186 million worth of futures on seven-year treasury bonds. From August 20X0 to January 20X1 interest rates increased. The short futures positions were closed in January 20X1, the date the bonds were issued, and resulted in a CU1.2 million gain that will offset the increased interest payments on the bonds and, therefore, will affect profit or loss over the life of the bonds. The hedge qualifies as a cash flow hedge of the interest rate risk on the forecast issue of debt.

### **F.2.3 Hedge accounting: core deposit intangibles**

#### **Is hedge accounting treatment permitted for a hedge of the fair value exposure of core deposit intangibles?**

It depends on whether the core deposit intangible is generated internally or acquired (eg as part of a business combination).

Internally generated core deposit intangibles are not recognised as intangible assets under IAS 38. Because they are not recognised, they cannot be designated as a hedged item.

If a core deposit intangible is acquired together with a related portfolio of deposits, the core deposit intangible is required to be recognised separately as an intangible asset (or as part of the related acquired portfolio of deposits) if it meets the recognition criteria in paragraph 21 of IAS 38 *Intangible Assets*. A recognised core deposit intangible asset could be designated as a hedged item, but only if it meets the conditions in paragraph 88, including the requirement in paragraph 88(d) that the effectiveness of the hedge can be measured reliably. Because it is often difficult to measure reliably the fair value of a core deposit intangible asset other than on initial recognition, it is unlikely that the requirement in paragraph 88(d) will be met.

### **F.2.4 Hedge accounting: hedging of future foreign currency revenue streams**

#### **Is hedge accounting permitted for a currency borrowing that hedges an expected but not contractual revenue stream in foreign currency?**

Yes, if the revenues are highly probable. Under IAS 39.86(b) a hedge of an anticipated sale may qualify as a cash flow hedge. For example, an airline entity may use sophisticated models based on experience and economic data to project its revenues in various currencies. If it can demonstrate that forecast revenues for a period of time into the future in a particular currency are 'highly probable', as required by IAS 39.88, it may designate a currency borrowing as a cash flow hedge of the future revenue stream. The portion of the gain or loss on the borrowing that is determined to be an effective hedge is recognised in other comprehensive income until the revenues occur.

It is unlikely that an entity can reliably predict 100 per cent of revenues for a future year. On the other hand, it is possible that a portion of predicted revenues, normally those expected in the short term, will meet the 'highly probable' criterion.



### **F.2.5 Cash flow hedges: 'all in one' hedge**

**If a derivative instrument is expected to be settled gross by delivery of the underlying asset in exchange for the payment of a fixed price, can the derivative instrument be designated as the hedging instrument in a cash flow hedge of that gross settlement assuming the other cash flow hedge accounting criteria are met?**

Yes. A derivative instrument that will be settled gross can be designated as the hedging instrument in a cash flow hedge of the variability of the consideration to be paid or received in the future transaction that will occur on gross settlement of the derivative contract itself because there would be an exposure to variability in the purchase or sale price without the derivative. This applies to all fixed price contracts that are accounted for as derivatives under IAS 39.

For example, if an entity enters into a fixed price contract to sell a commodity and that contract is accounted for as a derivative under IAS 39 (for example, because the entity has a practice of settling such contracts net in cash or of taking delivery of the underlying and selling it within a short period after delivery for the purpose of generating a profit from short-term fluctuations in price or dealer's margin), the entity may designate the fixed price contract as a cash flow hedge of the variability of the consideration to be received on the sale of the asset (a future transaction) even though the fixed price contract is the contract under which the asset will be sold. Also, if an entity enters into a forward contract to purchase a debt instrument that will be settled by delivery, but the forward contract is a derivative because its term exceeds the regular way delivery period in the marketplace, the entity may designate the forward as a cash flow hedge of the variability of the consideration to be paid to acquire the debt instrument (a future transaction), even though the derivative is the contract under which the debt instrument will be acquired.

### **F.2.6 Hedge relationships: entity-wide risk**

**An entity has a fixed rate asset and a fixed rate liability, each having the same principal amount. Under the terms of the instruments, interest payments on the asset and liability occur in the same period and the net cash flow is always positive because the interest rate on the asset exceeds the interest rate on the liability. The entity enters into an interest rate swap to receive a floating interest rate and pay a fixed interest rate on a notional amount equal to the principal of the asset and designates the interest rate swap as a fair value hedge of the fixed rate asset. Does the hedging relationship qualify for hedge accounting even though the effect of the interest rate swap on an entity-wide basis is to create an exposure to interest rate changes that did not previously exist?**

Yes. IAS 39 does not require risk reduction on an entity-wide basis as a condition for hedge accounting. Exposure is assessed on a transaction basis and, in this instance, the asset being hedged has a fair value exposure to interest rate increases that is offset by the interest rate swap.

### **F.2.7 Cash flow hedge: forecast transaction related to an entity's equity**

**Can a forecast transaction in the entity's own equity instruments or forecast dividend payments to shareholders be designated as a hedged item in a cash flow hedge?**

No. To qualify as a hedged item, the forecast transaction must expose the entity to a particular risk that can affect profit or loss (IAS 39.86). The classification of financial instruments as liabilities or equity generally provides the basis for determining whether transactions or other payments relating to such instruments are recognised in profit or loss (IAS 32). For example, distributions to holders of an equity instrument are debited by the issuer directly to equity (IAS 32.35). Therefore, such distributions cannot be designated as a hedged item. However, a declared dividend that has not yet been paid and is recognised as a financial liability may qualify as a hedged item, for example, for foreign currency risk if it is denominated in a foreign currency.

### **F.2.8 Hedge accounting: risk of a transaction not occurring**

**Does IAS 39 permit an entity to apply hedge accounting to a hedge of the risk that a transaction will not occur, for example, if that would result in less revenue to the entity than expected?**

No. The risk that a transaction will not occur is an overall business risk that is not eligible as a hedged item. Hedge accounting is permitted only for risks associated with recognised assets and liabilities, firm commitments, highly probable forecast transactions and net investments in foreign operations (IAS 39.86).

### **F.2.9 Held-to-maturity investments: hedging variable interest rate payments**

**Can an entity designate a pay-variable, receive-fixed interest rate swap as a cash flow hedge of a variable rate, held-to-maturity investment?**

No. It is inconsistent with the designation of a debt investment as being held to maturity to designate a swap as a cash flow hedge of the debt investment's variable interest rate payments. IAS 39.79 states that a held-to-maturity investment cannot be a hedged item with respect to interest rate risk or prepayment risk 'because designation of an investment as held to maturity requires an intention to hold the investment until maturity without regard to changes in the fair value or cash flows of such an investment attributable to changes in interest rates'.

### **F.2.10 Hedged items: purchase of held-to-maturity investment**

**An entity forecasts the purchase of a financial asset that it intends to classify as held to maturity when the forecast transaction occurs. It enters into a derivative contract with the intent to lock in the current interest rate and designates the derivative as a hedge of the forecast purchase of the financial asset. Can the hedging relationship qualify for cash flow hedge accounting even though the asset will be classified as a held-to-maturity investment?**

Yes. With respect to interest rate risk, IAS 39 prohibits hedge accounting for financial assets that are classified as held-to-maturity (IAS 39.79). However, even though the entity intends to classify the asset as held to maturity, the instrument is not classified as such until the transaction occurs.

### **F.2.11 Cash flow hedges: reinvestment of funds obtained from held-to-maturity investments**

**An entity owns a variable rate asset that it has classified as held to maturity. It enters into a derivative contract with the intention to lock in the current interest rate on the reinvestment of variable rate cash flows, and designates the derivative as a cash flow hedge of the forecast future interest receipts on debt instruments resulting from the reinvestment of interest receipts on the held-to-maturity asset. Assuming that the other hedge accounting criteria are met, can the hedging relationship qualify for cash flow hedge accounting even though the interest payments that are being reinvested come from an asset that is classified as held to maturity?**

Yes. IAS 39.79 states that a held-to-maturity investment cannot be a hedged item with respect to interest rate risk. Question F.2.9 specifies that this applies not only to fair value hedges, ie hedges of the exposure to fair value interest rate risk associated with held-to-maturity investments that pay fixed interest, but also to cash flow hedges, ie hedges of the exposure to cash flow interest rate risk associated with held-to-maturity investments that pay variable interest at current market rates. However, in this instance, the derivative is designated as an offset of the exposure to cash flow risk associated with forecast future interest receipts on debt instruments resulting from the forecast reinvestment of variable rate cash flows on the held-to-maturity investment. The source of the funds forecast to be reinvested is not relevant in determining whether the reinvestment risk can be hedged. Accordingly, designation of the derivative as a cash flow hedge is permitted. This answer applies also to a hedge of the exposure to cash flow risk associated with the forecast future interest receipts on debt instruments resulting from the reinvestment of interest receipts on a fixed rate asset classified as held to maturity.

### **F.2.12 Hedge accounting: prepayable financial asset**

**If the issuer has the right to prepay a financial asset, can the investor designate the cash flows after the prepayment date as part of the hedged item?**

Cash flows after the prepayment date may be designated as the hedged item to the extent it can be demonstrated that they are 'highly probable' (IAS 39.88). For example, cash flows after the prepayment date may qualify as highly probable if they result from a group or pool of similar assets (for example, mortgage loans) for which prepayments can be estimated with a high degree of accuracy or if the prepayment option is significantly out of the money. In addition, the cash flows after the prepayment date may be designated as the hedged item if a comparable option exists in the hedging instrument.

### **F.2.13 Fair value hedge: risk that could affect profit or loss**

**Is fair value hedge accounting permitted for exposure to interest rate risk in fixed rate loans that are classified as loans and receivables?**

Yes. Under IAS 39, loans and receivables are carried at amortised cost. Banking institutions in many countries hold the bulk of their loans and receivables until maturity. Thus, changes in the fair value of such loans and receivables that are due to changes in market interest rates will not affect profit or loss. IAS 39.86 specifies that a fair value hedge is a hedge of the exposure to changes in fair value that is attributable to a particular risk and that can affect profit or loss. Therefore, IAS 39.86 may appear to preclude fair value hedge accounting for loans and receivables. However, it follows from IAS 39.79 that loans

and receivables can be hedged items with respect to interest rate risk since they are not designated as held-to-maturity investments. The entity could sell them and the change in fair values would affect profit or loss. Thus, fair value hedge accounting is permitted for loans and receivables.

#### **F.2.14 Intragroup and intra-entity hedging transactions**

**An Australian entity, whose functional currency is the Australian dollar, has forecast purchases in Japanese yen that are highly probable. The Australian entity is wholly owned by a Swiss entity, which prepares consolidated financial statements (which include the Australian subsidiary) in Swiss francs. The Swiss parent entity enters into a forward contract to hedge the change in yen relative to the Australian dollar. Can that hedge qualify for hedge accounting in the consolidated financial statements, or must the Australian subsidiary that has the foreign currency exposure be a party to the hedging transaction?**

The hedge can qualify for hedge accounting provided the other hedge accounting criteria in IAS 39 are met. Since the Australian entity did not hedge the foreign currency exchange risk associated with the forecast purchases in yen, the effects of exchange rate changes between the Australian dollar and the yen will affect the Australian entity's profit or loss and, therefore, would also affect consolidated profit or loss. IAS 39 does not require that the operating unit that is exposed to the risk being hedged be a party to the hedging instrument.

#### **F.2.15 Internal contracts: single offsetting external derivative**

**An entity uses what it describes as internal derivative contracts to document the transfer of responsibility for interest rate risk exposures from individual divisions to a central treasury function. The central treasury function aggregates the internal derivative contracts and enters into a single external derivative contract that offsets the internal derivative contracts on a net basis. For example, if the central treasury function has entered into three internal receive-fixed, pay-variable interest rate swaps that lay off the exposure to variable interest cash flows on variable rate liabilities in other divisions and one internal receive-variable, pay-fixed interest rate swap that lays off the exposure to variable interest cash flows on variable rate assets in another division, it would enter into an interest rate swap with an external counterparty that exactly offsets the four internal swaps. Assuming that the hedge accounting criteria are met, in the entity's financial statements would the single offsetting external derivative qualify as a hedging instrument in a hedge of a part of the underlying items on a gross basis?**

Yes, but only to the extent the external derivative is designated as an offset of cash inflows or cash outflows on a gross basis. IAS 39.84 indicates that a hedge of an overall net position does not qualify for hedge accounting. However, it does permit designating a part of the underlying items as the hedged position on a gross basis. Therefore, even though the purpose of entering into the external derivative was to offset internal derivative contracts on a net basis, hedge accounting is permitted if the hedging relationship is defined and documented as a hedge of a part of the underlying cash inflows or cash outflows on a gross basis. An entity follows the approach outlined in IAS 39.84 and IAS 39.AG101 to designate part of the underlying cash flows as the hedged position.

### **F.2.16 Internal contracts: external derivative contracts that are settled net**

**Issue (a) – An entity uses internal derivative contracts to transfer interest rate risk exposures from individual divisions to a central treasury function. For each internal derivative contract, the central treasury function enters into a derivative contract with a single external counterparty that offsets the internal derivative contract. For example, if the central treasury function has entered into a receive-5 per cent-fixed, pay-LIBOR interest rate swap with another division that has entered into the internal contract with central treasury to hedge the exposure to variability in interest cash flows on a pay-LIBOR borrowing, central treasury would enter into a pay-5 per cent-fixed, receive-LIBOR interest rate swap on the same principal terms with the external counterparty. Although each of the external derivative contracts is formally documented as a separate contract, only the net of the payments on all of the external derivative contracts is settled since there is a netting agreement with the external counterparty. Assuming that the other hedge accounting criteria are met, can the individual external derivative contracts, such as the pay-5 per cent-fixed, receive-LIBOR interest rate swap above, be designated as hedging instruments of underlying gross exposures, such as the exposure to changes in variable interest payments on the pay-LIBOR borrowing above, even though the external derivatives are settled on a net basis?**

Generally, yes. External derivative contracts that are legally separate contracts and serve a valid business purpose, such as laying off risk exposures on a gross basis, qualify as hedging instruments even if those external contracts are settled on a net basis with the same external counterparty, provided the hedge accounting criteria in IAS 39 are met. See also Question F.1.14.

**Issue (b) – Treasury observes that by entering into the external offsetting contracts and including them in the centralised portfolio, it is no longer able to evaluate the exposures on a net basis. Treasury wishes to manage the portfolio of offsetting external derivatives separately from other exposures of the entity. Therefore, it enters into an additional, single derivative to offset the risk of the portfolio. Can the individual external derivative contracts in the portfolio still be designated as hedging instruments of underlying gross exposures even though a single external derivative is used to offset fully the market exposure created by entering into the external contracts?**

Generally, yes. The purpose of structuring the external derivative contracts in this manner is consistent with the entity's risk management objectives and strategies. As indicated above, external derivative contracts that are legally separate contracts and serve a valid business purpose qualify as hedging instruments. Moreover, the answer to Question F.1.14 specifies that hedge accounting is not precluded simply because the entity has entered into a swap that mirrors exactly the terms of another swap with the same counterparty if there is a substantive business purpose for structuring the transactions separately.

### F.2.17 Partial term hedging

**IAS 39.75 indicates that a hedging relationship may not be designated for only a portion of the time period during which a hedging instrument remains outstanding. Is it permitted to designate a derivative as hedging only a portion of the time period to maturity of a hedged item?**

Yes. A financial instrument may be a hedged item for only a portion of its cash flows or fair value, if effectiveness can be measured and the other hedge accounting criteria are met.

To illustrate: Entity A acquires a 10 per cent fixed rate government bond with a remaining term to maturity of ten years. Entity A classifies the bond as available for sale. To hedge itself against fair value exposure on the bond associated with the present value of the interest rate payments until year 5, Entity A acquires a five-year pay-fixed, receive-floating swap. The swap may be designated as hedging the fair value exposure of the interest rate payments on the government bond until year 5 and the change in value of the principal payment due at maturity to the extent affected by changes in the yield curve relating to the five years of the swap.

### F.2.18 Hedging instrument: cross-currency interest rate swap

**Entity A's functional currency is the Japanese yen. Entity A has a five-year floating rate US dollar liability and a 10-year fixed rate pound sterling-denominated note receivable. Entity A wishes to hedge the foreign currency exposure on its asset and liability and the fair value interest rate exposure on the receivable and enters into a matching cross-currency interest rate swap to receive floating rate US dollars and pay fixed rate pounds sterling and to exchange the dollars for the pounds at the end of five years. Can Entity A designate the swap as a hedging instrument in a fair value hedge against both foreign currency risk and interest rate risk, although both the pound sterling and US dollar are foreign currencies to Entity A?**

Yes. IAS 39.81 permits hedge accounting for components of risk, if effectiveness can be measured. Also, IAS 39.76 permits designating a single hedging instrument as a hedge of more than one type of risk if the risks can be identified clearly, effectiveness can be demonstrated, and specific designation of the hedging instrument and different risk positions can be ensured. Therefore, the swap may be designated as a hedging instrument in a fair value hedge of the pound sterling receivable against exposure to changes in its fair value associated with changes in UK interest rates for the initial partial term of five years and the exchange rate between pounds and US dollars. The swap is measured at fair value with changes in fair value recognised in profit or loss. The carrying amount of the receivable is adjusted for changes in its fair value caused by changes in UK interest rates for the first five-year portion of the yield curve. The receivable and payable are remeasured using spot exchange rates under IAS 21 and the changes to their carrying amounts recognised in profit or loss.

### **F.2.19 Hedged items: hedge of foreign currency risk of publicly traded shares**

**Entity A acquires shares in Entity B on a foreign stock exchange for their fair value of 1,000 in foreign currency (FC). It classifies the shares as available for sale. To protect itself from the exposure to changes in the foreign exchange rate associated with the shares, it enters into a forward contract to sell FC750. Entity A intends to roll over the forward exchange contract for as long as it retains the shares. Assuming that the other hedge accounting criteria are met, could the forward exchange contract qualify as a hedge of the foreign exchange risk associated with the shares?**

Yes, but only if there is a clear and identifiable exposure to changes in foreign exchange rates. Therefore, hedge accounting is permitted if (a) the equity instrument is not traded on an exchange (or in another established marketplace) where trades are denominated in the same currency as the functional currency of Entity A and (b) dividends to Entity A are not denominated in that currency. Thus, if a share is traded in multiple currencies and one of those currencies is the functional currency of the reporting entity, hedge accounting for the foreign currency component of the share price is not permitted.

**If so, could the forward exchange contract be designated as a hedging instrument in a hedge of the foreign exchange risk associated with the portion of the fair value of the shares up to FC750 in foreign currency?**

Yes. IAS 39 permits designating a portion of the cash flow or fair value of a financial asset as the hedged item if effectiveness can be measured (IAS 39.81). Therefore, Entity A may designate the forward exchange contract as a hedge of the foreign exchange risk associated with only a portion of the fair value of the shares in foreign currency. It could either be designated as a fair value hedge of the foreign exchange exposure of FC750 associated with the shares or as a cash flow hedge of a forecast sale of the shares, provided the timing of the sale is identified. Any variability in the fair value of the shares in foreign currency would not affect the assessment of hedge effectiveness unless the fair value of the shares in foreign currency was to fall below FC750.

### **F.2.20 Hedge accounting: stock index**

**An entity may acquire a portfolio of shares to replicate a stock index and a put option on the index to protect itself from fair value losses. Does IAS 39 permit designating the put on the stock index as a hedging instrument in a hedge of the portfolio of shares?**

No. If similar financial instruments are aggregated and hedged as a group, IAS 39.83 states that the change in fair value attributable to the hedged risk for each individual item in the group is expected to be approximately proportional to the overall change in fair value attributable to the hedged risk of the group. In the scenario above, the change in the fair value attributable to the hedged risk for each individual item in the group (individual share prices) is not expected to be approximately proportional to the overall change in fair value attributable to the hedged risk of the group.

### **F.2.21 Hedge accounting: netting of assets and liabilities**

**May an entity group financial assets together with financial liabilities for the purpose of determining the net cash flow exposure to be hedged for hedge accounting purposes?**

An entity's hedging strategy and risk management practices may assess cash flow risk on a net basis but IAS 39.84 does not permit designating a net cash flow exposure as a hedged item for hedge accounting purposes. IAS 39.AG101 provides an example of how a bank might assess its risk on a net basis (with similar assets and liabilities grouped together) and then qualify for hedge accounting by hedging on a gross basis.

## **F.3 Hedge accounting**

### **F.3.1 Cash flow hedge: fixed interest rate cash flows**

**An entity issues a fixed rate debt instrument and enters into a receive-fixed, pay-variable interest rate swap to offset the exposure to interest rate risk associated with the debt instrument. Can the entity designate the swap as a cash flow hedge of the future interest cash outflows associated with the debt instrument?**

No. IAS 39.86(b) states that a cash flow hedge is 'a hedge of the exposure to variability in cash flows'. In this case, the issued debt instrument does not give rise to any exposure to variability in cash flows since the interest payments are fixed. The entity may designate the swap as a fair value hedge of the debt instrument, but it cannot designate the swap as a cash flow hedge of the future cash outflows of the debt instrument.

### **F.3.2 Cash flow hedge: reinvestment of fixed interest rate cash flows**

**An entity manages interest rate risk on a net basis. On 1 January 20X1, it forecasts aggregate cash inflows of CU100 on fixed rate assets and aggregate cash outflows of CU90 on fixed rate liabilities in the first quarter of 20X2. For risk management purposes it uses a receive-variable, pay-fixed Forward Rate Agreement (FRA) to hedge the forecast net cash inflow of CU10. The entity designates as the hedged item the first CU10 of cash inflows on fixed rate assets in the first quarter of 20X2. Can it designate the receive-variable, pay-fixed FRA as a cash flow hedge of the exposure to variability to cash flows in the first quarter of 20X2 associated with the fixed rate assets?**

No. The FRA does not qualify as a cash flow hedge of the cash flow relating to the fixed rate assets because they do not have a cash flow exposure. The entity could, however, designate the FRA as a hedge of the fair value exposure that exists before the cash flows are remitted.

In some cases, the entity could also hedge the interest rate exposure associated with the forecast reinvestment of the interest and principal it receives on fixed rate assets (see Question F.6.2). However, in this example, the FRA does not qualify for cash flow hedge accounting because it increases rather than reduces the variability of interest cash flows resulting from the reinvestment of interest cash flows (for example, if market rates increase, there will be a cash inflow on the FRA and an increase in the expected interest cash inflows resulting from the reinvestment of interest cash inflows on fixed rate assets). However, potentially it could qualify as a cash flow hedge of a portion of the refinancing of cash outflows on a gross basis.



### **F.3.3 Foreign currency hedge**

**Entity A has a foreign currency liability payable in six months' time and it wishes to hedge the amount payable on settlement against foreign currency fluctuations. To that end, it takes out a forward contract to buy the foreign currency in six months' time. Should the hedge be treated as:**

- (a) a fair value hedge of the foreign currency liability with gains and losses on revaluing the liability and the forward contract at the year-end both recognised in profit or loss; or**
- (b) a cash flow hedge of the amount to be settled in the future with gains and losses on revaluing the forward contract recognised in other comprehensive income?**

IAS 39 does not preclude either of these two methods. If the hedge is treated as a fair value hedge, the gain or loss on the fair value remeasurement of the hedging instrument and the gain or loss on the fair value remeasurement of the hedged item for the hedged risk are recognised immediately in profit or loss. If the hedge is treated as a cash flow hedge with the gain or loss on remeasuring the forward contract recognised in other comprehensive income, that amount is recognised in profit or loss in the same period or periods during which the hedged item (the liability) affects profit or loss, ie when the liability is remeasured for changes in foreign exchange rates. Therefore, if the hedge is effective, the gain or loss on the derivative is released to profit or loss in the same periods during which the liability is remeasured, not when the payment occurs. See Question F.3.4.

### **F.3.4 Foreign currency cash flow hedge**

**An entity exports a product at a price denominated in a foreign currency. At the date of the sale, the entity obtains a receivable for the sale price payable in 90 days and takes out a 90-day forward exchange contract in the same currency as the receivable to hedge its foreign currency exposure.**

**Under IAS 21, the sale is recorded at the spot rate at the date of sale, and the receivable is restated during the 90-day period for changes in exchange rates with the difference being taken to profit or loss (IAS 21.23 and IAS 21.28).**

**If the foreign exchange contract is designated as a hedging instrument, does the entity have a choice whether to designate the foreign exchange contract as a fair value hedge of the foreign currency exposure of the receivable or as a cash flow hedge of the collection of the receivable?**

Yes. If the entity designates the foreign exchange contract as a fair value hedge, the gain or loss from remeasuring the forward exchange contract at fair value is recognised immediately in profit or loss and the gain or loss on remeasuring the receivable is also recognised in profit or loss.

If the entity designates the foreign exchange contract as a cash flow hedge of the foreign currency risk associated with the collection of the receivable, the portion of the gain or loss that is determined to be an effective hedge is recognised in other comprehensive income, and the ineffective portion in profit or loss (IAS 39.95). The amount recognised in other comprehensive income is reclassified from equity to profit or loss as a reclassification adjustment in the same period or periods during which changes in the measurement of the receivable affect profit or loss (IAS 39.100).

### F.3.5 Fair value hedge: variable rate debt instrument

**Does IAS 39 permit an entity to designate a portion of the risk exposure of a variable rate debt instrument as a hedged item in a fair value hedge?**

Yes. A variable rate debt instrument may have an exposure to changes in its fair value due to credit risk. It may also have an exposure to changes in its fair value relating to movements in the market interest rate in the periods between which the variable interest rate on the debt instrument is reset. For example, if the debt instrument provides for annual interest payments reset to the market rate each year, a portion of the debt instrument has an exposure to changes in fair value during the year.

### F.3.6 Fair value hedge: inventory

**IAS 39.86(a) states that a fair value hedge is 'a hedge of the exposure to changes in fair value of a recognised asset or liability ... that is attributable to a particular risk and could affect profit or loss'. Can an entity designate inventories, such as copper inventory, as the hedged item in a fair value hedge of the exposure to changes in the price of the inventories, such as the copper price, although inventories are measured at the lower of cost and net realisable value under IAS 2 Inventories?**

Yes. The inventories may be hedged for changes in fair value due to changes in the copper price because the change in fair value of inventories will affect profit or loss when the inventories are sold or their carrying amount is written down. The adjusted carrying amount becomes the cost basis for the purpose of applying the lower of cost and net realisable value test under IAS 2. The hedging instrument used in a fair value hedge of inventories may alternatively qualify as a cash flow hedge of the future sale of the inventory.

### F.3.7 Hedge accounting: forecast transaction

**For cash flow hedges, a forecast transaction that is subject to a hedge must be 'highly probable'. How should the term 'highly probable' be interpreted?**

The term 'highly probable' indicates a much greater likelihood of happening than the term 'more likely than not'. An assessment of the likelihood that a forecast transaction will take place is not based solely on management's intentions because intentions are not verifiable. A transaction's probability should be supported by observable facts and the attendant circumstances.

In assessing the likelihood that a transaction will occur, an entity should consider the following circumstances:

- (a) the frequency of similar past transactions;
- (b) the financial and operational ability of the entity to carry out the transaction;
- (c) substantial commitments of resources to a particular activity (for example, a manufacturing facility that can be used in the short run only to process a particular type of commodity);
- (d) the extent of loss or disruption of operations that could result if the transaction does not occur;

- (e) the likelihood that transactions with substantially different characteristics might be used to achieve the same business purpose (for example, an entity that intends to raise cash may have several ways of doing so, ranging from a short-term bank loan to an offering of ordinary shares); and
- (f) the entity's business plan.

The length of time until a forecast transaction is projected to occur is also a factor in determining probability. Other factors being equal, the more distant a forecast transaction is, the less likely it is that the transaction would be regarded as highly probable and the stronger the evidence that would be needed to support an assertion that it is highly probable.

For example, a transaction forecast to occur in five years may be less likely to occur than a transaction forecast to occur in one year. However, forecast interest payments for the next 20 years on variable rate debt would typically be highly probable if supported by an existing contractual obligation.

In addition, other factors being equal, the greater the physical quantity or future value of a forecast transaction in proportion to the entity's transactions of the same nature, the less likely it is that the transaction would be regarded as highly probable and the stronger the evidence that would be required to support an assertion that it is highly probable. For example, less evidence generally would be needed to support forecast sales of 100,000 units in the next month than 950,000 units in that month when recent sales have averaged 950,000 units per month for the past three months.

A history of having designated hedges of forecast transactions and then determining that the forecast transactions are no longer expected to occur would call into question both an entity's ability to predict forecast transactions accurately and the propriety of using hedge accounting in the future for similar forecast transactions.

### **F.3.8 Retrospective designation of hedges**

#### **Does IAS 39 permit an entity to designate hedge relationships retrospectively?**

No. Designation of hedge relationships takes effect prospectively from the date all hedge accounting criteria in IAS 39.88 are met. In particular, hedge accounting can be applied only from the date the entity has completed the necessary documentation of the hedge relationship, including identification of the hedging instrument, the related hedged item or transaction, the nature of the risk being hedged, and how the entity will assess hedge effectiveness.

### **F.3.9 Hedge accounting: designation at the inception of the hedge**

#### **Does IAS 39 permit an entity to designate and formally document a derivative contract as a hedging instrument after entering into the derivative contract?**

Yes, prospectively. For hedge accounting purposes, IAS 39 requires a hedging instrument to be designated and formally documented as such from the inception of the hedge relationship (IAS 39.88); in other words, a hedge relationship cannot be designated retrospectively. Also, it precludes designating a hedging relationship for only a portion of the time period during which the hedging instrument remains outstanding (IAS 39.75). However, it does not require the hedging instrument to be acquired at the inception of the hedge relationship.

### **F.3.10 Hedge accounting: identification of hedged forecast transaction**

**Can a forecast transaction be identified as the purchase or sale of the last 15,000 units of a product in a specified period or as a percentage of purchases or sales during a specified period?**

No. The hedged forecast transaction must be identified and documented with sufficient specificity so that when the transaction occurs, it is clear whether the transaction is or is not the hedged transaction. Therefore, a forecast transaction may be identified as the sale of the first 15,000 units of a specific product during a specified three-month period, but it could not be identified as the last 15,000 units of that product sold during a three-month period because the last 15,000 units cannot be identified when they are sold. For the same reason, a forecast transaction cannot be specified solely as a percentage of sales or purchases during a period.

### **F.3.11 Cash flow hedge: documentation of timing of forecast transaction**

**For a hedge of a forecast transaction, should the documentation of the hedge relationship that is established at inception of the hedge identify the date when, or time period in which, the forecast transaction is expected to occur?**

Yes. To qualify for hedge accounting, the hedge must relate to a specific identified and designated risk (IAS 39.AG110) and it must be possible to measure its effectiveness reliably (IAS 39.88(d)). Also, the hedged forecast transaction must be highly probable (IAS 39.88(c)). To meet these criteria, an entity is not required to predict and document the exact date a forecast transaction is expected to occur. However, it is required to identify and document the time period during which the forecast transaction is expected to occur within a reasonably specific and generally narrow range of time from a most probable date, as a basis for assessing hedge effectiveness. To determine that the hedge will be highly effective in accordance with IAS 39.88(d), it is necessary to ensure that changes in the fair value of the expected cash flows are offset by changes in the fair value of the hedging instrument and this test may be met only if the timing of the cash flows occur within close proximity to each other. If the forecast transaction is no longer expected to occur, hedge accounting is discontinued in accordance with IAS 39.101(c).

## **F.4 Hedge effectiveness**

### **F.4.1 Hedging on an after-tax basis**

**Hedging is often done on an after-tax basis. Is hedge effectiveness assessed after taxes?**

IAS 39 permits, but does not require, assessment of hedge effectiveness on an after-tax basis. If the hedge is undertaken on an after-tax basis, it is so designated at inception as part of the formal documentation of the hedging relationship and strategy.

#### **F.4.2 Hedge effectiveness: assessment on cumulative basis**

**IAS 39.88(b) requires that the hedge is expected to be highly effective. Should expected hedge effectiveness be assessed separately for each period or cumulatively over the life of the hedging relationship?**

Expected hedge effectiveness may be assessed on a cumulative basis if the hedge is so designated, and that condition is incorporated into the appropriate hedging documentation. Therefore, even if a hedge is not expected to be highly effective in a particular period, hedge accounting is not precluded if effectiveness is expected to remain sufficiently high over the life of the hedging relationship. However, any ineffectiveness is required to be recognised in profit or loss as it occurs.

To illustrate: an entity designates a LIBOR-based interest rate swap as a hedge of a borrowing whose interest rate is a UK base rate plus a margin. The UK base rate changes, perhaps, once each quarter or less, in increments of 25–50 basis points, while LIBOR changes daily. Over a period of 1–2 years, the hedge is expected to be almost perfect. However, there will be quarters when the UK base rate does not change at all, while LIBOR has changed significantly. This would not necessarily preclude hedge accounting.

#### **F.4.3 Hedge effectiveness: counterparty credit risk**

**Must an entity consider the likelihood of default by the counterparty to the hedging instrument in assessing hedge effectiveness?**

Yes. An entity cannot ignore whether it will be able to collect all amounts due under the contractual provisions of the hedging instrument. When assessing hedge effectiveness, both at the inception of the hedge and on an ongoing basis, the entity considers the risk that the counterparty to the hedging instrument will default by failing to make any contractual payments to the entity. For a cash flow hedge, if it becomes probable that a counterparty will default, an entity would be unable to conclude that the hedging relationship is expected to be highly effective in achieving offsetting cash flows. As a result, hedge accounting would be discontinued. For a fair value hedge, if there is a change in the counterparty's creditworthiness, the fair value of the hedging instrument will change, which affects the assessment of whether the hedge relationship is effective and whether it qualifies for continued hedge accounting.

#### **F.4.4 Hedge effectiveness: effectiveness tests**

**How should hedge effectiveness be measured for the purposes of initially qualifying for hedge accounting and for continued qualification?**

IAS 39 does not provide specific guidance about how effectiveness tests are performed. IAS 39.AG105 specifies that a hedge is normally regarded as highly effective only if (a) at inception and in subsequent periods, the hedge is expected to be highly effective in achieving offsetting changes in fair value or cash flows attributable to the hedged risk during the period for which the hedge is designated, and (b) the actual results are within a range of 80–125 per cent. IAS 39.AG105 also states that the expectation in (a) can be demonstrated in various ways.

The appropriateness of a given method of assessing hedge effectiveness will depend on the nature of the risk being hedged and the type of hedging instrument used. The method of assessing effectiveness must be reasonable and consistent with other similar hedges unless different methods are explicitly justified. An entity is required to document at the inception of the hedge how effectiveness will be assessed and then to apply that effectiveness test on a consistent basis for the duration of the hedge.

Several mathematical techniques can be used to measure hedge effectiveness, including ratio analysis, ie a comparison of hedging gains and losses with the corresponding gains and losses on the hedged item at a point in time, and statistical measurement techniques such as regression analysis. If regression analysis is used, the entity's documented policies for assessing effectiveness must specify how the results of the regression will be assessed.

#### **F.4.5 Hedge effectiveness: less than 100 per cent offset**

**If a cash flow hedge is regarded as highly effective because the actual risk offset is within the allowed 80–125 per cent range of deviation from full offset, is the gain or loss on the ineffective portion of the hedge recognised in other comprehensive income?**

No. IAS 39.95(a) indicates that only the effective portion is recognised in other comprehensive income. IAS 39.95(b) requires the ineffective portion to be recognised in profit or loss.

#### **F.4.7 Assuming perfect hedge effectiveness**

**If the principal terms of the hedging instrument and of the entire hedged asset or liability or hedged forecast transaction are the same, can an entity assume perfect hedge effectiveness without further effectiveness testing?**

No. IAS 39.88(e) requires an entity to assess hedges on an ongoing basis for hedge effectiveness. It cannot assume hedge effectiveness even if the principal terms of the hedging instrument and the hedged item are the same, since hedge ineffectiveness may arise because of other attributes such as the liquidity of the instruments or their credit risk (IAS 39.AG109). It may, however, designate only certain risks in an overall exposure as being hedged and thereby improve the effectiveness of the hedging relationship. For example, for a fair value hedge of a debt instrument, if the derivative hedging instrument has a credit risk that is equivalent to the AA-rate, it may designate only the risk related to AA-rated interest rate movements as being hedged, in which case changes in credit spreads generally will not affect the effectiveness of the hedge.

### **F.5 Cash flow hedges**

#### **F.5.1 Hedge accounting: non-derivative monetary asset or non-derivative monetary liability used as a hedging instrument**

**If an entity designates a non-derivative monetary asset as a foreign currency cash flow hedge of the repayment of the principal of a non-derivative monetary liability, would the exchange differences on the hedged item be recognised in profit or loss (IAS 21.28) and the exchange differences on the hedging instrument be recognised in other comprehensive income until the repayment of the liability (IAS 39.95)?**

No. Exchange differences on the monetary asset and the monetary liability are both recognised in profit or loss in the period in which they arise (IAS 21.28).

IAS 39.AG83 specifies that if there is a hedge relationship between a non-derivative monetary asset and a non-derivative monetary liability, changes in fair values of those financial instruments are recognised in profit or loss.

### F.5.2 Cash flow hedges: performance of hedging instrument (1)

**Entity A has a floating rate liability of CU1,000 with five years remaining to maturity. It enters into a five-year pay-fixed, receive-floating interest rate swap in the same currency and with the same principal terms as the liability to hedge the exposure to variable cash flow payments on the floating rate liability attributable to interest rate risk. At inception, the fair value of the swap is zero. Subsequently, there is an increase of CU49 in the fair value of the swap. This increase consists of a change of CU50 resulting from an increase in market interest rates and a change of minus CU1 resulting from an increase in the credit risk of the swap counterparty. There is no change in the fair value of the floating rate liability, but the fair value (present value) of the future cash flows needed to offset the exposure to variable interest cash flows on the liability increases by CU50. Assuming that Entity A determines that the hedge is still highly effective, is there ineffectiveness that should be recognised in profit or loss?**

No. A hedge of interest rate risk is not fully effective if part of the change in the fair value of the derivative is attributable to the counterparty's credit risk (IAS 39.AG109). However, because Entity A determines that the hedge relationship is still highly effective, it recognises the effective portion of the change in fair value of the swap, ie the net change in fair value of CU49, in other comprehensive income. There is no debit to profit or loss for the change in fair value of the swap attributable to the deterioration in the credit quality of the swap counterparty, because the cumulative change in the present value of the future cash flows needed to offset the exposure to variable interest cash flows on the hedged item, ie CU50, exceeds the cumulative change in value of the hedging instrument, ie CU49.

Dr	Swap	CU49	
	Cr	Other comprehensive income	CU49

If Entity A concludes that the hedge is no longer highly effective, it discontinues hedge accounting prospectively as from the date the hedge ceased to be highly effective in accordance with IAS 39.101.

**Would the answer change if the fair value of the swap instead increases to CU51 of which CU50 results from the increase in market interest rates and CU1 from a decrease in the credit risk of the swap counterparty?**

Yes. In this case, there is a credit to profit or loss of CU1 for the change in fair value of the swap attributable to the improvement in the credit quality of the swap counterparty. This is because the cumulative change in the value of the hedging instrument, ie CU51, exceeds the cumulative change in the present value of the future cash flows needed to offset the exposure to variable interest cash flows on the hedged item, ie CU50. The difference of CU1 represents the excess ineffectiveness attributable to the derivative hedging instrument, the swap, and is recognised in profit or loss.

Dr	Swap	CU51	
	Cr	Other comprehensive income	CU50
	Cr	Profit or loss	CU1

### F.5.3 Cash flow hedges: performance of hedging instrument (2)

On 30 September 20X1, Entity A hedges the anticipated sale of 24 tonnes of pulp on 1 March 20X2 by entering into a short forward contract on 24 tonnes of pulp. The contract requires net settlement in cash determined as the difference between the future spot price of pulp on a specified commodity exchange and CU1,000. Entity A expects to sell the pulp in a different, local market. Entity A determines that the forward contract is an effective hedge of the anticipated sale and that the other conditions for hedge accounting are met. It assesses hedge effectiveness by comparing the entire change in the fair value of the forward contract with the change in the fair value of the expected cash inflows. On 31 December, the spot price of pulp has increased both in the local market and on the exchange. The increase in the local market exceeds the increase on the exchange. As a result, the present value of the expected cash inflow from the sale on the local market is CU1,100. The fair value of Entity A's forward contract is negative CU80. Assuming that Entity A determines that the hedge is still highly effective, is there ineffectiveness that should be recognised in profit or loss?

No. In a cash flow hedge, ineffectiveness is not recognised in the financial statements when the cumulative change in the fair value of the hedged cash flows exceeds the cumulative change in the value of the hedging instrument. In this case, the cumulative change in the fair value of the forward contract is CU80, while the fair value of the cumulative change in expected future cash flows on the hedged item is CU100. Since the fair value of the cumulative change in expected future cash flows on the hedged item from the inception of the hedge exceeds the cumulative change in fair value of the hedging instrument (in absolute amounts), no portion of the gain or loss on the hedging instrument is recognised in profit or loss (IAS 39.95(b)). Because Entity A determines that the hedge relationship is still highly effective, it recognises the entire change in fair value of the forward contract (CU80) in other comprehensive income.

Dr	Other comprehensive income	CU80	
	Cr	Forward	CU80

If Entity A concludes that the hedge is no longer highly effective, it discontinues hedge accounting prospectively as from the date the hedge ceases to be highly effective in accordance with IAS 39.101.

### F.5.4 Cash flow hedges: forecast transaction occurs before the specified period

An entity designates a derivative as a hedging instrument in a cash flow hedge of a forecast transaction, such as a forecast sale of a commodity. The hedging relationship meets all the hedge accounting conditions, including the requirement to identify and document the period in which the transaction is expected to occur within a reasonably specific and narrow range of time (see Question F.2.17). If, in a subsequent period, the forecast transaction is expected to occur in an earlier period than originally anticipated, can the entity conclude that this transaction is the same as the one that was designated as being hedged?

Yes. The change in timing of the forecast transaction does not affect the validity of the designation. However, it may affect the assessment of the effectiveness of the hedging relationship. Also, the hedging instrument would need to be designated as a hedging



instrument for the whole remaining period of its existence in order for it to continue to qualify as a hedging instrument (see IAS 39.75 and Question F.2.17).

#### **F.5.5 Cash flow hedges: measuring effectiveness for a hedge of a forecast transaction in a debt instrument**

**A forecast investment in an interest-earning asset or forecast issue of an interest-bearing liability creates a cash flow exposure to interest rate changes because the related interest payments will be based on the market rate that exists when the forecast transaction occurs. The objective of a cash flow hedge of the exposure to interest rate changes is to offset the effects of future changes in interest rates so as to obtain a single fixed rate, usually the rate that existed at the inception of the hedge that corresponds with the term and timing of the forecast transaction. During the period of the hedge, it is not possible to determine what the market interest rate for the forecast transaction will be at the time the hedge is terminated or when the forecast transaction occurs. In this case, how is the effectiveness of the hedge assessed and measured?**

During this period, effectiveness can be measured on the basis of changes in interest rates between the designation date and the interim effectiveness measurement date. The interest rates used to make this measurement are the interest rates that correspond with the term and occurrence of the forecast transaction that existed at the inception of the hedge and that exist at the measurement date as evidenced by the term structure of interest rates.

Generally it will not be sufficient simply to compare cash flows of the hedged item with cash flows generated by the derivative hedging instrument as they are paid or received, since such an approach ignores the entity's expectations of whether the cash flows will offset in subsequent periods and whether there will be any resulting ineffectiveness.

The discussion that follows illustrates the mechanics of establishing a cash flow hedge and measuring its effectiveness. For the purpose of the illustrations, assume that an entity expects to issue a CU100,000 one-year debt instrument in three months. The instrument will pay interest quarterly with principal due at maturity. The entity is exposed to interest rate increases and establishes a hedge of the interest cash flows of the debt by entering into a forward starting interest rate swap. The swap has a term of one year and will start in three months to correspond with the terms of the forecast debt issue. The entity will pay a fixed rate and receive a variable rate, and the entity designates the risk being hedged as the LIBOR-based interest component in the forecast issue of the debt.

#### **Yield curve**

The yield curve provides the foundation for computing future cash flows and the fair value of such cash flows both at the inception of, and during, the hedging relationship. It is based on current market yields on applicable reference bonds that are traded in the marketplace. Market yields are converted to spot interest rates ('spot rates' or 'zero coupon rates') by eliminating the effect of coupon payments on the market yield. Spot rates are used to discount future cash flows, such as principal and interest rate payments, to arrive at their fair value. Spot rates also are used to compute forward interest rates that are used

to compute variable and estimated future cash flows. The relationship between spot rates and one-period forward rates is shown by the following formula:

**Spot-forward relationship**

$$F = \frac{(1 + SR_t)^t}{(1 + SR_{t-1})^{t-1}} - 1$$

where F = forward rate (%)

SR = spot rate (%)

t = period in time (eg 1, 2, 3, 4, 5)

Also, for the purpose of this illustration, assume that the following quarterly-period term structure of interest rates using quarterly compounding exists at the inception of the hedge.

<b>Yield curve at inception – (beginning of period 1)</b>					
<i>Forward periods</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
Spot rates	3.75%	4.50%	5.50%	6.00%	6.25%
Forward rates	3.75%	5.25%	7.51%	7.50%	7.25%

The one-period forward rates are computed on the basis of spot rates for the applicable maturities. For example, the current forward rate for Period 2 calculated using the formula above is equal to  $[1.0450^2/1.0375] - 1 = 5.25$  per cent. The current one-period forward rate for Period 2 is different from the current spot rate for Period 2, since the spot rate is an interest rate from the beginning of Period 1 (spot) to the end of Period 2, while the forward rate is an interest rate from the beginning of Period 2 to the end of Period 2.

**Hedged item**

In this example, the entity expects to issue a CU100,000 one-year debt instrument in three months with quarterly interest payments. The entity is exposed to interest rate increases and would like to eliminate the effect on cash flows of interest rate changes that may happen before the forecast transaction takes place. If that risk is eliminated, the entity would obtain an interest rate on its debt issue that is equal to the one-year forward coupon rate currently available in the marketplace in three months. That forward coupon rate, which is different from the forward (spot) rate, is 6.86 per cent, computed from the term structure of interest rates shown above. It is the market rate of interest that exists at the inception of the hedge, given the terms of the forecast debt instrument. It results in the fair value of the debt being equal to par at its issue.

At the inception of the hedging relationship, the expected cash flows of the debt instrument can be calculated on the basis of the existing term structure of interest rates. For this purpose, it is assumed that interest rates do not change and that the debt would

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be issued at 6.86 per cent at the beginning of Period 2. In this case, the cash flows and fair value of the debt instrument would be as follows at the beginning of Period 2.

<b>Issue of fixed rate debt</b>					
<b>Beginning of period 2 - No rate changes (spot based on forward rates)</b>					
<i>Total</i>					
<i>Original forward periods</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
<i>Remaining periods</i>		<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
Spot rates		5.25%	6.38%	6.75%	6.88%
Forward rates		5.25%	7.51%	7.50%	7.25%
	<i>CU</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>
<i>Cash flows:</i>					
Fixed interest @6.86%		1,716	1,716	1,716	1,716
Principal					100,000
<i>Fair value:</i>					
Interest	6,592	1,694	1,663	1,632	1,603
Principal	93,408				93,408 (a)
Total	100,000				

(a)  $CU100,000/(1 + [0.0688/4])^4$

Since it is assumed that interest rates do not change, the fair value of the interest and principal amounts equals the par amount of the forecast transaction. The fair value amounts are computed on the basis of the spot rates that exist at the inception of the hedge for the applicable periods in which the cash flows would occur had the debt been issued at the date of the forecast transaction. They reflect the effect of discounting those cash flows on the basis of the periods that will remain after the debt instrument is issued. For example, the spot rate of 6.38 per cent is used to discount the interest cash flow that is expected to be paid in Period 3, but it is discounted for only two periods because it will occur two periods after the forecast transaction.

The forward interest rates are the same as shown previously, since it is assumed that interest rates do not change. The spot rates are different but they have not actually changed. They represent the spot rates one period forward and are based on the applicable forward rates.

### Hedging instrument

The objective of the hedge is to obtain an overall interest rate on the forecast transaction and the hedging instrument that is equal to 6.86 per cent, which is the market rate at the inception of the hedge for the period from Period 2 to Period 5. This objective is accomplished by entering into a forward starting interest rate swap that has a fixed rate of 6.86 per cent. Based on the term structure of interest rates that exist at the inception of the hedge, the interest rate swap will have such a rate. At the inception of the hedge, the fair value of the fixed rate payments on the interest rate swap will equal the fair value of the variable rate payments, resulting in the interest rate swap having a fair value of zero. The expected cash flows of the interest rate swap and the related fair value amounts are shown as follows.

<b>Interest rate swap</b>					
<i>Total</i>					
<i>Original forward periods</i>	1	2	3	4	5
<i>Remaining periods</i>		1	2	3	4
	<i>CU</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>
<i>Cash flows:</i>					
Fixed interest @6.86%		1,716	1,716	1,716	1,716
Forecast variable interest		1,313	1,877	1,876	1,813
<i>Forecast based on forward rate</i>		5.25%	7.51%	7.50%	7.25%
Net interest		(403)	161	160	97
<i>Fair value:</i>					
<i>Discount rate (spot)</i>		5.25%	6.38%	6.75%	6.88%
Fixed interest	6,592	1,694	1,663	1,632	1,603
Forecast variable interest	6,592	1,296	1,819	1,784	1,693
Fair value of interest rate swap	0	(398)	156	152	90

At the inception of the hedge, the fixed rate on the forward swap is equal to the fixed rate the entity would receive if it could issue the debt in three months under terms that exist today.

### Measuring hedge effectiveness

If interest rates change during the period the hedge is outstanding, the effectiveness of the hedge can be measured in various ways.

Assume that interest rates change as follows immediately before the debt is issued at the beginning of Period 2.

<b>Yield curve - Rates increase 200 basis points</b>					
<i>Forward periods</i>	1	2	3	4	5
<i>Remaining periods</i>		1	2	3	4
Spot rates		5.75%	6.50%	7.50%	8.00%
Forward rates		5.75%	7.25%	9.51%	9.50%

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Under the new interest rate environment, the fair value of the pay-fixed at 6.86 per cent, receive-variable interest rate swap that was designated as the hedging instrument would be as follows.

<b>Fair value of interest rate swap</b>						
<i>Total</i>						
<i>Original forward periods</i>		<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
<i>Remaining periods</i>			<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
	<i>CU</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>
<i>Cash flows:</i>						
Fixed interest @6.86%			1,716	1,716	1,716	1,716
Forecast variable interest			1,438	1,813	2,377	2,376
<i>Forecast based on new forward rate</i>			5.25%	7.25%	9.51%	9.50%
Net interest			(279)	97	661	660
<i>Fair value:</i>						
<i>New discount rate (spot)</i>			5.75%	6.50%	7.50%	8.00%
Fixed interest	6,562		1,692	1,662	1,623	1,585
Forecast variable interest	7,615		1,417	1,755	2,248	2,195
Fair value of net interest	1,053		(275)	93	625	610

In order to compute the effectiveness of the hedge, it is necessary to measure the change in the present value of the cash flows or the value of the hedged forecast transaction. There are at least two methods of accomplishing this measurement.

<b>Method A Compute change in fair value of debt</b>						
<i>Total</i>						
<i>Original forward periods</i>		<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
<i>Remaining periods</i>			<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
	<i>CU</i>		<i>CU</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>
<i>Cash flows:</i>						
Fixed interest @6.86%			1,716	1,716	1,716	1,716
Principal						100,000
<i>Fair value:</i>						
<i>New discount rate (spot)</i>			5.75%	6.50%	7.50%	8.00%
Interest	6,562		1,692	1,662	1,623	1,585
Principal	92,385					92,385 (a)
Total	98,947					
Fair value at inception	100,000					
Fair value difference	(1,053)					
(a) $CU100,000/(1 + [0.08/4])^4$						

Under Method A, a computation is made of the fair value in the new interest rate environment of debt that carries interest that is equal to the coupon interest rate that existed at the inception of the hedging relationship (6.86 per cent). This fair value is compared with the expected fair value as of the beginning of Period 2 that was calculated on the basis of the term structure of interest rates that existed at the inception of the hedging relationship, as illustrated above, to determine the change in the fair value. Note that the difference between the change in the fair value of the swap and the change in the expected fair value of the debt exactly offset in this example, since the terms of the swap and the forecast transaction match each other.

<b>Method B Compute change in fair value of cash flows</b>					
<i>Total</i>					
<i>Original forward periods</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
<i>Remaining periods</i>		<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
Market rate at inception		6.86%	6.86%	6.86%	6.86%
Current forward rate		5.75%	7.25%	9.51%	9.50%
Rate difference		1.11%	(0.39%)	(2.64%)	(2.64%)
Cash flow difference (principal × rate)		CU279	(CU97)	(CU661)	(CU660)
<i>Discount rate (spot)</i>		5.75%	6.50%	7.50%	8.00%
Fair value of difference	(CU1,053)	CU275	(CU93)	(CU625)	(CU610)

Under Method B, the present value of the change in cash flows is computed on the basis of the difference between the forward interest rates for the applicable periods at the effectiveness measurement date and the interest rate that would have been obtained if the debt had been issued at the market rate that existed at the inception of the hedge. The market rate that existed at the inception of the hedge is the one-year forward coupon rate in three months. The present value of the change in cash flows is computed on the basis of the current spot rates that exist at the effectiveness measurement date for the applicable periods in which the cash flows are expected to occur. This method also could be referred to as the ‘theoretical swap’ method (or ‘hypothetical derivative’ method) because the comparison is between the hedged fixed rate on the debt and the current variable rate, which is the same as comparing cash flows on the fixed and variable rate legs of an interest rate swap.

As before, the difference between the change in the fair value of the swap and the change in the present value of the cash flows exactly offset in this example, since the terms match.

#### *Other considerations*

There is an additional computation that should be performed to compute ineffectiveness before the expected date of the forecast transaction that has not been considered for the purpose of this illustration. The fair value difference has been determined in each of the illustrations as of the expected date of the forecast transaction immediately before the forecast transaction, ie at the beginning of Period 2. If the assessment of hedge effectiveness is done before the forecast transaction occurs, the difference should be discounted to the current date to arrive at the actual amount of ineffectiveness. For example, if the measurement date were one month after the hedging relationship was

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established and the forecast transaction is now expected to occur in two months, the amount would have to be discounted for the remaining two months before the forecast transaction is expected to occur to arrive at the actual fair value. This step would not be necessary in the examples provided above because there was no ineffectiveness. Therefore, additional discounting of the amounts, which net to zero, would not have changed the result.

Under Method B, ineffectiveness is computed on the basis of the difference between the forward coupon interest rates for the applicable periods at the effectiveness measurement date and the interest rate that would have been obtained if the debt had been issued at the market rate that existed at the inception of the hedge. Computing the change in cash flows based on the difference between the forward interest rates that existed at the inception of the hedge and the forward rates that exist at the effectiveness measurement date is inappropriate if the objective of the hedge is to establish a single fixed rate for a series of forecast interest payments. This objective is met by hedging the exposures with an interest rate swap as illustrated in the above example. The fixed interest rate on the swap is a blended interest rate composed of the forward rates over the life of the swap. Unless the yield curve is flat, the comparison between the forward interest rate exposures over the life of the swap and the fixed rate on the swap will produce different cash flows whose fair values are equal only at the inception of the hedging relationship. This difference is shown in the table below.

	<i>Total</i>				
<i>Original forward periods</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
<i>Remaining periods</i>		<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
Forward rate at inception		5.25%	7.51%	7.50%	7.25%
Current forward rate		5.75%	7.25%	9.51%	9.50%
Rate difference		(0.50%)	0.26%	(2.00%)	(2.25%)
Cash flow difference (principal × rate)		(CU125)	CU64	(CU501)	(CU563)
Discount rate (spot)		5.75%	6.50%	7.50%	8.00%
Fair value of difference	(CU1,055)	(CU123)	CU62	(CU474)	(CU520)
Fair value of interest rate swap	CU1,053				
Ineffectiveness	(CU2)				

If the objective of the hedge is to obtain the forward rates that existed at the inception of the hedge, the interest rate swap is ineffective because the swap has a single blended fixed coupon rate that does not offset a series of different forward interest rates. However, if the objective of the hedge is to obtain the forward coupon rate that existed at the inception of the hedge, the swap is effective, and the comparison based on differences in forward interest rates suggests ineffectiveness when none may exist. Computing ineffectiveness based on the difference between the forward interest rates that existed at the inception of the hedge and the forward rates that exist at the effectiveness measurement date would be an appropriate measurement of ineffectiveness if the hedging objective is to lock in those forward interest rates. In that case, the appropriate hedging instrument would be a series of forward contracts each of which matures on a repricing date that corresponds with the date of the forecast transactions.

It also should be noted that it would be inappropriate to compare only the variable cash flows on the interest rate swap with the interest cash flows in the debt that would be generated by the forward interest rates. That methodology has the effect of measuring ineffectiveness only on a portion of the derivative, and IAS 39 does not permit the bifurcation of a derivative for the purposes of assessing effectiveness in this situation (IAS 39.74). It is recognised, however, that if the fixed interest rate on the interest rate swap is equal to the fixed rate that would have been obtained on the debt at inception, there will be no ineffectiveness assuming that there are no differences in terms and no change in credit risk or it is not designated in the hedging relationship.

### F.5.6 Cash flow hedges: firm commitment to purchase inventory in a foreign currency

**Entity A has the Local Currency (LC) as its functional currency and presentation currency. On 30 June 20X1, it enters into a forward exchange contract to receive Foreign Currency (FC) 100,000 and deliver LC109,600 on 30 June 20X2 at an initial cost and fair value of zero. It designates the forward exchange contract as a hedging instrument in a cash flow hedge of a firm commitment to purchase a certain quantity of paper on 31 March 20X2 and the resulting payable of FC100,000, which is to be paid on 30 June 20X2. All hedge accounting conditions in IAS 39 are met.**

As indicated in the table below, on 30 June 20X1, the spot exchange rate is LC1.072 to FC1, while the twelve-month forward exchange rate is LC1.096 to FC1. On 31 December 20X1, the spot exchange rate is LC1.080 to FC1, while the six-month forward exchange rate is LC1.092 to FC1. On 31 March 20X2, the spot exchange rate is LC1.074 to FC1, while the three-month forward rate is LC1.076 to FC1. On 30 June 20X2, the spot exchange rate is LC1.072 to FC1. The applicable yield curve in the local currency is flat at 6 per cent per year throughout the period. The fair value of the forward exchange contract is negative LC388 on 31 December 20X1  $\{[(1.092 \times 100,000) - 109,600]/1.06^{(6/12)}\}$ , negative LC1,971 on 31 March 20X2  $\{[(1.076 \times 100,000) - 109,600]/1.06^{(3/12)}\}$ , and negative LC2,400 on 30 June 20X2  $\{1.072 \times 100,000 - 109,600\}$ .

Date	Spot rate	Forward rate to 30 June 20X2	Fair value of forward contract
30 June 20X1	1.072	1.096	–
31 December 20X1	1.080	1.092	(388)
31 March 20X2	1.074	1.076	(1,971)
30 June 20X2	1.072	–	(2,400)



**Issue (a) – What is the accounting for these transactions if the hedging relationship is designated as being for changes in the fair value of the forward exchange contract and the entity’s accounting policy is to apply basis adjustment to non-financial assets that result from hedged forecast transactions?**

The accounting entries are as follows.

**30 June 20X1**

Dr Forward	LC0	
Cr Cash		LC0

To record the forward exchange contract at its initial amount of zero (IAS 39.43). The hedge is expected to be fully effective because the critical terms of the forward exchange contract and the purchase contract and the assessment of hedge effectiveness are based on the forward price (IAS 39.AG108).

**31 December 20X1**

Dr Other comprehensive income	LC388	
Cr Forward liability		LC388

To record the change in the fair value of the forward exchange contract between 30 June 20X1 and 31 December 20X1, ie  $LC388 - 0 = LC388$ , in other comprehensive income (IAS 39.95). The hedge is fully effective because the loss on the forward exchange contract (LC388) exactly offsets the change in cash flows associated with the purchase contract based on the forward price  $[(LC388) = \{([1.092 \times 100,000] - 109,600)/1.06^{(6/12)}\} - \{([1.096 \times 100,000] - 109,600)/1.06\}]$ .

**31 March 20X2**

Dr Other comprehensive income	LC1,583	
Cr Forward liability		LC1,583

To record the change in the fair value of the forward exchange contract between 1 January 20X2 and 31 March 20X2 (ie  $LC1,971 - LC388 = LC1,583$ ) in other comprehensive income (IAS 39.95). The hedge is fully effective because the loss on the forward exchange contract (LC1,583) exactly offsets the change in cash flows associated with the purchase contract based on the forward price  $[(LC1,583) = \{([1.076 \times 100,000] - 109,600)/1.06^{(3/12)}\} - \{([1.092 \times 100,000] - 109,600)/1.06^{(6/12)}\}]$ .

Dr Paper (purchase price)	LC107,400	
Dr Paper (hedging loss)	LC1,971	
Cr Other comprehensive income		LC1,971
Cr Payable		LC107,400

To recognise the purchase of the paper at the spot rate ( $1.074 \times \text{FC}100,000$ ) and remove the cumulative loss on the forward exchange contract that has been recognised in other comprehensive income (LC1,971) and include it in the initial measurement of the purchased paper. Accordingly, the initial measurement of the purchased paper is LC109,371 consisting of a purchase consideration of LC107,400 and a hedging loss of LC1,971.

**30 June 20X2**

Dr Payable	LC107,400	
Cr Cash		LC107,200
Cr Profit or loss		LC200

To record the settlement of the payable at the spot rate ( $\text{FC}100,000 \times 1.072 = 107,200$ ) and the associated exchange gain of LC200 (LC107,400 - LC107,200).

Dr Profit or loss	LC429	
Cr Forward liability		LC429

To record the loss on the forward exchange contract between 1 April 20X2 and 30 June 20X2 (ie LC2,400 - LC1,971 = LC429) in profit or loss. The hedge is regarded as fully effective because the loss on the forward exchange contract (LC429) exactly offsets the change in the fair value of the payable based on the forward price (LC429 =  $([1.072 \times 100,000] - 109,600 - \{([1.076 \times 100,000] - 109,600)/1.06^{(3/12)}\})$ ).

Dr Forward liability	LC2,400	
Cr Cash		LC2,400

To record the net settlement of the forward exchange contract.

**Issue (b) – What is the accounting for these transactions if the hedging relationship instead is designated as being for changes in the spot element of the forward exchange contract and the interest element is excluded from the designated hedging relationship (IAS 39.74)?**

The accounting entries are as follows.

**30 June 20X1**

Dr Forward	LC0	
Cr Cash		LC0

To record the forward exchange contract at its initial amount of zero (IAS 39.43). The hedge is expected to be fully effective because the critical terms of the forward exchange contract and the purchase contract are the same and the change in the premium or discount on the forward contract is excluded from the assessment of effectiveness (IAS 39.AG108).

**31 December 20X1**

Dr Profit or loss (interest element)	LC1,165	
Cr Other comprehensive income (spot element)		LC777
Cr Forward liability		LC388

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To record the change in the fair value of the forward exchange contract between 30 June 20X1 and 31 December 20X1, ie  $LC388 - 0 = LC388$ . The change in the present value of spot settlement of the forward exchange contract is a gain of LC777 ( $\{([1.080 \times 100,000] - 107,200)/1.06^{(6/12)}\} - \{([1.072 \times 100,000] - 107,200)/1.06\}$ ), which is recognised in other comprehensive income (IAS 39.95(a)). The change in the interest element of the forward exchange contract (the residual change in fair value) is a loss of LC1,165 ( $388 + 777$ ), which is recognised in profit or loss (IAS 39.74 and IAS 39.55(a)). The hedge is fully effective because the gain in the spot element of the forward contract (LC777) exactly offsets the change in the purchase price at spot rates ( $LC777 = \{([1.080 \times 100,000] - 107,200)/1.06^{(6/12)}\} - \{([1.072 \times 100,000] - 107,200)/1.06\}$ ).

### 31 March 20X2

Dr Other comprehensive income (spot element)	LC580	
Dr Profit or loss (interest element)	LC1,003	
Cr Forward liability		LC1,583

To record the change in the fair value of the forward exchange contract between 1 January 20X2 and 31 March 20X2, ie  $LC1,971 - LC388 = LC1,583$ . The change in the present value of the spot settlement of the forward exchange contract is a loss of LC580 ( $\{([1.074 \times 100,000] - 107,200)/1.06^{(3/12)}\} - \{([1.080 \times 100,000] - 107,200)/1.06^{(6/12)}\}$ ), which is recognised in other comprehensive income (IAS 39.95(a)). The change in the interest element of the forward exchange contract (the residual change in fair value) is a loss of LC1,003 ( $LC1,583 - LC580$ ), which is recognised in profit or loss (IAS 39.74 and IAS 39.55(a)). The hedge is fully effective because the loss in the spot element of the forward contract (LC580) exactly offsets the change in the purchase price at spot rates ( $\{580\} = \{([1.074 \times 100,000] - 107,200)/1.06^{(3/12)}\} - \{([1.080 \times 100,000] - 107,200)/1.06^{(6/12)}\}$ ).

Dr Paper (purchase price)	LC107,400	
Dr Other comprehensive income	LC197	
Cr Paper (hedging gain)		LC197
Cr Payable		LC107,400

To recognise the purchase of the paper at the spot rate ( $= 1.074 \times FC100,000$ ) and remove the cumulative gain on the spot element of the forward exchange contract that has been recognised in other comprehensive income ( $LC777 - LC580 = LC197$ ) and include it in the initial measurement of the purchased paper. Accordingly, the initial measurement of the purchased paper is LC107,203, consisting of a purchase consideration of LC107,400 and a hedging gain of LC197.

### 30 June 20X2

Dr Payable	LC107,400	
Cr Cash		LC107,200
Cr Profit or loss		LC200

To record the settlement of the payable at the spot rate ( $FC100,000 \times 1.072 = LC107,200$ ) and the associated exchange gain of LC200 ( $- [1.072 - 1.074] \times FC100,000$ ).

Dr Profit or loss (spot element)	LC197	
Dr Profit or loss (interest element)	LC232	
Cr Forward liability		LC429

To record the change in the fair value of the forward exchange contract between 1 April 20X2 and 30 June 20X2 (ie LC2,400 - LC1,971 = LC429). The change in the present value of the spot settlement of the forward exchange contract is a loss of LC197 ( $[(1.072 \times 100,000) - 107,200 - \{[(1.074 \times 100,000) - 107,200]/1.06^{(3/12)}\}]$ ), which is recognised in profit or loss. The change in the interest element of the forward exchange contract (the residual change in fair value) is a loss of LC232 (LC429 - LC197), which is recognised in profit or loss. The hedge is fully effective because the loss in the spot element of the forward contract (LC197) exactly offsets the change in the present value of the spot settlement of the payable  $[(LC197) = \{[(1.072 \times 100,000) - 107,200 - \{[(1.074 \times 100,000) - 107,200]/1.06^{(3/12)}\}]]$ .

Dr Forward liability	LC2,400	
Cr Cash		LC2,400

To record the net settlement of the forward exchange contract.

The following table provides an overview of the components of the change in fair value of the hedging instrument over the term of the hedging relationship. It illustrates that the way in which a hedging relationship is designated affects the subsequent accounting for that hedging relationship, including the assessment of hedge effectiveness and the recognition of gains and losses.

<i>Period ending</i>	<i>Change in spot settlement</i>	<i>Fair value of change in spot settlement</i>	<i>Change in forward settlement</i>	<i>Fair value of change in forward settlement</i>	<i>Fair value of change in interest element</i>
	<i>LC</i>	<i>LC</i>	<i>LC</i>	<i>LC</i>	<i>LC</i>
June 20X1	–	–	–	–	–
December 20X1	800	777	(400)	(388)	(1,165)
March 20X2	(600)	(580)	(1,600)	(1,583)	(1,003)
June 20X2	(200)	(197)	(400)	(429)	(232)
Total	–	–	(2,400)	(2,400)	(2,400)

## **F.6 Hedges: other issues**

### **F.6.1 Hedge accounting: management of interest rate risk in financial institutions**

**Banks and other financial institutions often manage their exposure to interest rate risk on a net basis for all or parts of their activities. They have systems to accumulate critical information throughout the entity about their financial assets, financial liabilities and forward commitments, including loan commitments. This information is used to estimate and aggregate cash flows and to schedule such estimated cash flows into the applicable future periods in which they are expected to be paid or received. The systems generate estimates of cash flows based on the contractual terms of the instruments and other factors, including estimates of prepayments and defaults. For risk management purposes, many financial institutions use derivative contracts to offset some or all exposure to interest rate risk on a net basis.**

**If a financial institution manages interest rate risk on a net basis, can its activities potentially qualify for hedge accounting under IAS 39?**

Yes. However, to qualify for hedge accounting the derivative hedging instrument that hedges the net position for risk management purposes must be designated for accounting purposes as a hedge of a gross position related to assets, liabilities, forecast cash inflows or forecast cash outflows giving rise to the net exposure (IAS 39.84, IAS 39.AG101 and IAS 39.AG111). It is not possible to designate a net position as a hedged item under IAS 39 because of the inability to associate hedging gains and losses with a specific item being hedged and, correspondingly, to determine objectively the period in which such gains and losses should be recognised in profit or loss.

Hedging a net exposure to interest rate risk can often be defined and documented to meet the qualifying criteria for hedge accounting in IAS 39.88 if the objective of the activity is to offset a specific, identified and designated risk exposure that ultimately affects the entity's profit or loss (IAS 39.AG110) and the entity designates and documents its interest rate risk exposure on a gross basis. Also, to qualify for hedge accounting the information systems must capture sufficient information about the amount and timing of cash flows and the effectiveness of the risk management activities in accomplishing their objective.

The factors an entity must consider for hedge accounting purposes if it manages interest rate risk on a net basis are discussed in Question F.6.2.

### **F.6.2 Hedge accounting considerations when interest rate risk is managed on a net basis**

**If an entity manages its exposure to interest rate risk on a net basis, what are the issues the entity should consider in defining and documenting its interest rate risk management activities to qualify for hedge accounting and in establishing and accounting for the hedge relationship?**

Issues (a)–(l) below deal with the main issues. First, Issues (a) and (b) discuss the designation of derivatives used in interest rate risk management activities as fair value hedges or cash flow hedges. As noted there, hedge accounting criteria and accounting consequences differ between fair value hedges and cash flow hedges. Since it may be easier to achieve hedge accounting treatment if derivatives used in interest rate risk management activities are designated as cash flow hedging instruments, Issues (c)–(l) expand on various aspects of the

accounting for cash flow hedges. Issues (c)–(f) consider the application of the hedge accounting criteria for cash flow hedges in IAS 39, and Issues (g) and (h) discuss the required accounting treatment. Finally, Issues (i)–(l) elaborate on other specific issues relating to the accounting for cash flow hedges.

**Issue (a) – Can a derivative that is used to manage interest rate risk on a net basis be designated under IAS 39 as a hedging instrument in a fair value hedge or a cash flow hedge of a gross exposure?**

Both types of designation are possible under IAS 39. An entity may designate the derivative used in interest rate risk management activities either as a fair value hedge of assets, liabilities and firm commitments or as a cash flow hedge of forecast transactions, such as the anticipated reinvestment of cash inflows, the anticipated refinancing or rollover of a financial liability, and the cash flow consequences of the resetting of interest rates for an asset or a liability.

In economic terms, it does not matter whether the derivative instrument is regarded as a fair value hedge or as a cash flow hedge. Under either perspective of the exposure, the derivative has the same economic effect of reducing the net exposure. For example, a receive-fixed, pay-variable interest rate swap can be considered to be a cash flow hedge of a variable rate asset or a fair value hedge of a fixed rate liability. Under either perspective, the fair value or cash flows of the interest rate swap offset the exposure to interest rate changes. However, accounting consequences differ depending on whether the derivative is designated as a fair value hedge or a cash flow hedge, as discussed in Issue (b).

To illustrate: a bank has the following assets and liabilities with a maturity of two years.

	Variable interest	Fixed interest
	CU	CU
Assets	60	100
Liabilities	(100)	(60)
Net	<u>(40)</u>	<u>40</u>

The bank takes out a two-year swap with a notional principal of CU40 to receive a variable interest rate and pay a fixed interest rate to hedge the net exposure. As discussed above, this may be regarded and designated either as a fair value hedge of CU40 of the fixed rate assets or as a cash flow hedge of CU40 of the variable rate liabilities.

**Issue (b) – What are the critical considerations in deciding whether a derivative that is used to manage interest rate risk on a net basis should be designated as a hedging instrument in a fair value hedge or a cash flow hedge of a gross exposure?**

Critical considerations include the assessment of hedge effectiveness in the presence of prepayment risk and the ability of the information systems to attribute fair value or cash flow changes of hedging instruments to fair value or cash flow changes, respectively, of hedged items, as discussed below.

For accounting purposes, the designation of a derivative as hedging a fair value exposure or a cash flow exposure is important because both the qualification requirements for hedge accounting and the recognition of hedging gains and losses for these categories are different. It is often easier to demonstrate high effectiveness for a cash flow hedge than for a fair value hedge.

*Effects of prepayments*

Prepayment risk inherent in many financial instruments affects the fair value of an instrument and the timing of its cash flows and impacts on the effectiveness test for fair value hedges and the highly probable test for cash flow hedges, respectively.

Effectiveness is often more difficult to achieve for fair value hedges than for cash flow hedges when the instrument being hedged is subject to prepayment risk. For a fair value hedge to qualify for hedge accounting, the changes in the fair value of the derivative hedging instrument must be expected to be highly effective in offsetting the changes in the fair value of the hedged item (IAS 39.88(b)). This test may be difficult to meet if, for example, the derivative hedging instrument is a forward contract having a fixed term and the financial assets being hedged are subject to prepayment by the borrower. Also, it may be difficult to conclude that, for a portfolio of fixed rate assets that are subject to prepayment, the changes in the fair value for each individual item in the group will be expected to be approximately proportional to the overall changes in fair value attributable to the hedged risk of the group. Even if the risk being hedged is a benchmark interest rate, to be able to conclude that fair value changes will be proportional for each item in the portfolio, it may be necessary to disaggregate the asset portfolio into categories based on term, coupon, credit, type of loan and other characteristics.

In economic terms, a forward derivative instrument could be used to hedge assets that are subject to prepayment but it would be effective only for small movements in interest rates. A reasonable estimate of prepayments can be made for a given interest rate environment and the derivative position can be adjusted as the interest rate environment changes. If an entity's risk management strategy is to adjust the amount of the hedging instrument periodically to reflect changes in the hedged position, the entity needs to demonstrate that the hedge is expected to be highly effective only for the period until the amount of the hedging instrument is next adjusted. However, for that period, the expectation of effectiveness has to be based on existing fair value exposures and the potential for interest rate movements without consideration of future adjustments to those positions. Furthermore, the fair value exposure attributable to prepayment risk can generally be hedged with options.

For a cash flow hedge to qualify for hedge accounting, the forecast cash flows, including the reinvestment of cash inflows or the refinancing of cash outflows, must be highly probable (IAS 39.88(c)) and the hedge expected to be highly effective in achieving offsetting changes in the cash flows of the hedged item and hedging instrument (IAS 39.88(b)). Prepayments affect the timing of cash flows and, therefore, the probability of occurrence of the forecast transaction. If the hedge is established for risk management purposes on a net basis, an entity may have sufficient levels of highly probable cash flows on a gross basis to support the designation for accounting purposes of forecast transactions associated with a portion of the gross cash flows as the hedged item. In this case, the portion of the gross cash flows designated as being hedged may be chosen to be equal to the amount of net cash flows being hedged for risk management purposes.

*Systems considerations*

The accounting for fair value hedges differs from that for cash flow hedges. It is usually easier to use existing information systems to manage and track cash flow hedges than it is for fair value hedges.

Under fair value hedge accounting, the assets or liabilities that are designated as being hedged are remeasured for those changes in fair values during the hedge period that are attributable to the risk being hedged. Such changes adjust the carrying amount of the hedged items and, for interest sensitive assets and liabilities, may result in an adjustment of the effective interest rate of the hedged item (IAS 39.89). As a consequence of fair value hedging activities, the changes in fair value have to be allocated to the assets or liabilities being hedged in order for the entity to be able to recompute their effective interest rate, determine the subsequent amortisation of the fair value adjustment to profit or loss, and determine the amount that should be reclassified from equity to profit or loss when assets are sold or liabilities extinguished (IAS 39.89 and IAS 39.92). To comply with the requirements for fair value hedge accounting, it will generally be necessary to establish a system to track the changes in the fair value attributable to the hedged risk, associate those changes with individual hedged items, recompute the effective interest rate of the hedged items, and amortise the changes to profit or loss over the life of the respective hedged item.

Under cash flow hedge accounting, the cash flows relating to the forecast transactions that are designated as being hedged reflect changes in interest rates. The adjustment for changes in the fair value of a hedging derivative instrument is initially recognised in other comprehensive income (IAS 39.95). To comply with the requirements for cash flow hedge accounting, it is necessary to determine when the cumulative gains and losses recognised in other comprehensive income from changes in the fair value of a hedging instrument should be reclassified to profit or loss (IAS 39.100 and IAS 39.101). For cash flow hedges, it is not necessary to create a separate system to make this determination. The system used to determine the extent of the net exposure provides the basis for scheduling the changes in the cash flows of the derivative and the recognition of such changes in profit or loss.

The timing of the recognition in profit or loss can be predetermined when the hedge is associated with the exposure to changes in cash flows. The forecast transactions that are being hedged can be associated with a specific principal amount in specific future periods composed of variable rate assets and cash inflows being reinvested or variable rate liabilities and cash outflows being refinanced, each of which creates a cash flow exposure to changes in interest rates. The specific principal amounts in specific future periods are equal to the notional amount of the derivative hedging instruments and are hedged only for the period that corresponds to the repricing or maturity of the derivative hedging instruments so that the cash flow changes resulting from changes in interest rates are matched with the derivative hedging instrument. IAS 39.100 specifies that the amounts recognised in other comprehensive income should be reclassified from equity to profit or loss in the same period or periods during which the hedged item affects profit or loss.

**Issue (c) – If a hedging relationship is designated as a cash flow hedge relating to changes in cash flows resulting from interest rate changes, what would be included in the documentation required by IAS 39.88(a)?**

The following would be included in the documentation.



## IAS 39 IG

*The hedging relationship* - The maturity schedule of cash flows used for risk management purposes to determine exposures to cash flow mismatches on a net basis would provide part of the documentation of the hedging relationship.

*The entity's risk management objective and strategy for undertaking the hedge* - The entity's overall risk management objective and strategy for hedging exposures to interest rate risk would provide part of the documentation of the hedging objective and strategy.

*The type of hedge* - The hedge is documented as a cash flow hedge.

*The hedged item* - The hedged item is documented as a group of forecast transactions (interest cash flows) that are expected to occur with a high degree of probability in specified future periods, for example, scheduled on a monthly basis. The hedged item may include interest cash flows resulting from the reinvestment of cash inflows, including the resetting of interest rates on assets, or from the refinancing of cash outflows, including the resetting of interest rates on liabilities and rollovers of financial liabilities. As discussed in Issue (e), the forecast transactions meet the probability test if there are sufficient levels of highly probable cash flows in the specified future periods to encompass the amounts designated as being hedged on a gross basis.

*The hedged risk* - The risk designated as being hedged is documented as a portion of the overall exposure to changes in a specified market interest rate, often the risk-free interest rate or an interbank offered rate, common to all items in the group. To help ensure that the hedge effectiveness test is met at inception of the hedge and subsequently, the designated hedged portion of the interest rate risk could be documented as being based on the same yield curve as the derivative hedging instrument.

*The hedging instrument* - Each derivative hedging instrument is documented as a hedge of specified amounts in specified future time periods corresponding with the forecast transactions occurring in the specified future time periods designated as being hedged.

*The method of assessing effectiveness* - The effectiveness test is documented as being measured by comparing the changes in the cash flows of the derivatives allocated to the applicable periods in which they are designated as a hedge to the changes in the cash flows of the forecast transactions being hedged. Measurement of the cash flow changes is based on the applicable yield curves of the derivatives and hedged items.

**Issue (d) - If the hedging relationship is designated as a cash flow hedge, how does an entity satisfy the requirement for an expectation of high effectiveness in achieving offsetting changes in IAS 39.88(b)?**

An entity may demonstrate an expectation of high effectiveness by preparing an analysis demonstrating high historical and expected future correlation between the interest rate risk designated as being hedged and the interest rate risk of the hedging instrument. Existing documentation of the hedge ratio used in establishing the derivative contracts may also serve to demonstrate an expectation of effectiveness.

**Issue (e) - If the hedging relationship is designated as a cash flow hedge, how does an entity demonstrate a high probability of the forecast transactions occurring as required by IAS 39.88(c)?**

An entity may do this by preparing a cash flow maturity schedule showing that there exist sufficient aggregate gross levels of expected cash flows, including the effects of the resetting of interest rates for assets or liabilities, to establish that the forecast transactions

that are designated as being hedged are highly probable to occur. Such a schedule should be supported by management's stated intentions and past practice of reinvesting cash inflows and refinancing cash outflows.

For example, an entity may forecast aggregate gross cash inflows of CU100 and aggregate gross cash outflows of CU90 in a particular time period in the near future. In this case, it may wish to designate the forecast reinvestment of gross cash inflows of CU10 as the hedged item in the future time period. If more than CU10 of the forecast cash inflows are contractually specified and have low credit risk, the entity has strong evidence to support an assertion that gross cash inflows of CU10 are highly probable to occur and to support the designation of the forecast reinvestment of those cash flows as being hedged for a particular portion of the reinvestment period. A high probability of the forecast transactions occurring may also be demonstrated under other circumstances.

**Issue (f) – If the hedging relationship is designated as a cash flow hedge, how does an entity assess and measure effectiveness under IAS 39.88(d) and IAS 39.88(e)?**

Effectiveness is required to be measured at a minimum at the time an entity prepares its annual or interim financial reports. However, an entity may wish to measure it more frequently on a specified periodic basis, at the end of each month or other applicable reporting period. It is also measured whenever derivative positions designated as hedging instruments are changed or hedges are terminated to ensure that the recognition in profit or loss of the changes in the fair value amounts on assets and liabilities and the recognition of changes in the fair value of derivative instruments designated as cash flow hedges are appropriate.

Changes in the cash flows of the derivative are computed and allocated to the applicable periods in which the derivative is designated as a hedge and are compared with computations of changes in the cash flows of the forecast transactions. Computations are based on yield curves applicable to the hedged items and the derivative hedging instruments and applicable interest rates for the specified periods being hedged.

The schedule used to determine effectiveness could be maintained and used as the basis for determining the period in which the hedging gains and losses recognised initially in other comprehensive income are reclassified from equity to profit or loss.

**Issue (g) – If the hedging relationship is designated as a cash flow hedge, how does an entity account for the hedge?**

The hedge is accounted for as a cash flow hedge in accordance with the provisions in IAS 39.95–IAS 39.100, as follows:

- (i) the portion of gains and losses on hedging derivatives determined to result from effective hedges is recognised in other comprehensive income whenever effectiveness is measured; and
- (ii) the ineffective portion of gains and losses resulting from hedging derivatives is recognised in profit or loss.

IAS 39.100 specifies that the amounts recognised in other comprehensive income should be reclassified from equity to profit or loss in the same period or periods during which the hedged item affects profit or loss. Accordingly, when the forecast transactions occur, the amounts previously recognised in other comprehensive income are reclassified from equity to profit or loss. For example, if an interest rate swap is designated as a hedging instrument of a series of forecast cash flows, the changes in the cash flows of the swap are

reclassified from equity to profit or loss in the periods when the forecast cash flows and the cash flows of the swap offset each other.

**Issue (h) – If the hedging relationship is designated as a cash flow hedge, what is the treatment of any net cumulative gains and losses recognised in other comprehensive income if the hedging instrument is terminated prematurely, the hedge accounting criteria are no longer met, or the hedged forecast transactions are no longer expected to take place?**

If the hedging instrument is terminated prematurely or the hedge no longer meets the criteria for qualification for hedge accounting, for example, the forecast transactions are no longer highly probable, the net cumulative gain or loss recognised in other comprehensive income remains in equity until the forecast transaction occurs (IAS 39.101(a) and IAS 39.101(b)). If the hedged forecast transactions are no longer expected to occur, the net cumulative gain or loss is reclassified from equity to profit or loss (IAS 39.101(c)).

**Issue (i) – IAS 39.75 states that a hedging relationship may not be designated for only a portion of the time period in which a hedging instrument is outstanding. If the hedging relationship is designated as a cash flow hedge, and the hedge subsequently fails the test for being highly effective, does IAS 39.75 preclude redesignating the hedging instrument?**

No. IAS 39.75 indicates that a derivative instrument may not be designated as a hedging instrument for only a portion of its remaining period to maturity. IAS 39.75 does not refer to the derivative instrument's original period to maturity. If there is a hedge effectiveness failure, the ineffective portion of the gain or loss on the derivative instrument is recognised immediately in profit or loss (IAS 39.95(b)) and hedge accounting based on the previous designation of the hedge relationship cannot be continued (IAS 39.101). In this case, the derivative instrument may be redesignated prospectively as a hedging instrument in a new hedging relationship provided this hedging relationship satisfies the necessary conditions. The derivative instrument must be redesignated as a hedge for the entire time period it remains outstanding.

**Issue (j) – For cash flow hedges, if a derivative is used to manage a net exposure to interest rate risk and the derivative is designated as a cash flow hedge of forecast interest cash flows or portions of them on a gross basis, does the occurrence of the hedged forecast transaction give rise to an asset or liability that will result in a portion of the hedging gains and losses that were recognised in other comprehensive income remaining in equity?**

No. In the hedging relationship described in Issue (c) above, the hedged item is a group of forecast transactions consisting of interest cash flows in specified future periods. The hedged forecast transactions do not result in the recognition of assets or liabilities and the effect of interest rate changes that are designated as being hedged is recognised in profit or loss in the period in which the forecast transactions occur. Although this is not relevant for the types of hedges described here, if instead the derivative is designated as a hedge of a forecast purchase of a financial asset or issue of a financial liability, the associated gains or losses that were recognised in other comprehensive income are reclassified from equity to profit or loss in the same period or periods during which the hedged forecast cash flows affect profit or loss (such as in the periods that interest expenses are recognised). However, if an entity expects at any time that all or a portion of a net loss recognised in other comprehensive income will not be recovered in one or more future periods, it shall reclassify immediately from equity to profit or loss the amount that is not expected to be recovered.

**Issue (k) – In the answer to Issue (c) above it was indicated that the designated hedged item is a portion of a cash flow exposure. Does IAS 39 permit a portion of a cash flow exposure to be designated as a hedged item?**

Yes. IAS 39 does not specifically address a hedge of a portion of a cash flow exposure for a forecast transaction. However, IAS 39.81 specifies that a financial asset or liability may be a hedged item with respect to the risks associated with only a portion of its cash flows or fair value, if effectiveness can be measured. The ability to hedge a portion of a cash flow exposure resulting from the resetting of interest rates for assets and liabilities suggests that a portion of a cash flow exposure resulting from the forecast reinvestment of cash inflows or the refinancing or rollover of financial liabilities can also be hedged. The basis for qualification as a hedged item of a portion of an exposure is the ability to measure effectiveness. This is further supported by IAS 39.82, which specifies that a non-financial asset or liability can be hedged only in its entirety or for foreign currency risk but not for a portion of other risks because of the difficulty of isolating and measuring the appropriate portion of the cash flows or fair value changes attributable to a specific risk. Accordingly, assuming effectiveness can be measured, a portion of a cash flow exposure of forecast transactions associated with, for example, the resetting of interest rates for a variable rate asset or liability can be designated as a hedged item.

**Issue (l) – In the answer to Issue (c) above it was indicated that the hedged item is documented as a group of forecast transactions. Since these transactions will have different terms when they occur, including credit exposures, maturities and option features, how can an entity satisfy the tests in IAS 39.78 and IAS 39.83 requiring the hedged group to have similar risk characteristics?**

IAS 39.78 provides for hedging a group of assets, liabilities, firm commitments or forecast transactions with similar risk characteristics. IAS 39.83 provides additional guidance and specifies that portfolio hedging is permitted if two conditions are met, namely: the individual items in the portfolio share the same risk for which they are designated, and the change in the fair value attributable to the hedged risk for each individual item in the group will be expected to be approximately proportional to the overall change in fair value.

When an entity associates a derivative hedging instrument with a gross exposure, the hedged item typically is a group of forecast transactions. For hedges of cash flow exposures relating to a group of forecast transactions, the overall exposure of the forecast transactions and the assets or liabilities that are repriced may have very different risks. The exposure from forecast transactions may differ depending on the terms that are expected as they relate to credit exposures, maturities, options and other features. Although the overall risk exposures may be different for the individual items in the group, a specific risk inherent in each of the items in the group can be designated as being hedged.

The items in the portfolio do not necessarily have to have the same overall exposure to risk, provided they share the same risk for which they are designated as being hedged. A common risk typically shared by a portfolio of financial instruments is exposure to changes in the risk-free or benchmark interest rate or to changes in a specified rate that has a credit exposure equal to the highest credit-rated instrument in the portfolio (ie the instrument with the lowest credit risk). If the instruments that are grouped into a portfolio have different credit exposures, they may be hedged as a group for a portion of the exposure. The risk they have in common that is designated as being hedged is the exposure to interest rate changes from the highest credit rated instrument in the portfolio.

This ensures that the change in fair value attributable to the hedged risk for each individual item in the group is expected to be approximately proportional to the overall change in fair value attributable to the hedged risk of the group. It is likely there will be some ineffectiveness if the hedging instrument has a credit quality that is inferior to the credit quality of the highest credit-rated instrument being hedged, since a hedging relationship is designated for a hedging instrument in its entirety (IAS 39.74). For example, if a portfolio of assets consists of assets rated A, BB and B, and the current market interest rates for these assets are LIBOR+20 basis points, LIBOR+40 basis points and LIBOR+60 basis points, respectively, an entity may use a swap that pays fixed interest rate and for which variable interest payments based on LIBOR are made to hedge the exposure to variable interest rates. If LIBOR is designated as the risk being hedged, credit spreads above LIBOR on the hedged items are excluded from the designated hedge relationship and the assessment of hedge effectiveness.

### **F.6.3 Illustrative example of applying the approach in Question F.6.2**

**The purpose of this example is to illustrate the process of establishing, monitoring and adjusting hedge positions and of qualifying for cash flow hedge accounting in applying the approach to hedge accounting described in Question F.6.2 when a financial institution manages its interest rate risk on an entity-wide basis. To this end, this example identifies a methodology that allows for the use of hedge accounting and takes advantage of existing risk management systems so as to avoid unnecessary changes to it and to avoid unnecessary bookkeeping and tracking.**

The approach illustrated here reflects only one of a number of risk management processes that could be employed and could qualify for hedge accounting. Its use is not intended to suggest that other alternatives could not or should not be used. The approach being illustrated could also be applied in other circumstances (such as for cash flow hedges of commercial entities), for example, hedging the rollover of commercial paper financing.

#### **Identifying, assessing and reducing cash flow exposures**

The discussion and illustrations that follow focus on the risk management activities of a financial institution that manages its interest rate risk by analysing expected cash flows in a particular currency on an entity-wide basis. The cash flow analysis forms the basis for identifying the interest rate risk of the entity, entering into hedging transactions to manage the risk, assessing the effectiveness of risk management activities, and qualifying for and applying cash flow hedge accounting.

The illustrations that follow assume that an entity, a financial institution, had the following expected future net cash flows and hedging positions outstanding in a specific currency, consisting of interest rate swaps, at the beginning of Period X0. The cash flows shown are expected to occur at the end of the period and, therefore, create a cash flow interest exposure in the following period as a result of the reinvestment or repricing of the cash inflows or the refinancing or repricing of the cash outflows.

The illustrations assume that the entity has an ongoing interest rate risk management programme. Schedule I shows the expected cash flows and hedging positions that existed at the beginning of Period X0. It is included here to provide a starting point in the analysis. It provides a basis for considering existing hedges in connection with the evaluation that occurs at the beginning of Period X1.

<b>Schedule I End of period: expected cash flows and hedging positions</b>							
<i>Quarterly period</i>	<i>X0</i>	<i>X1</i>	<i>X2</i>	<i>X3</i>	<i>X4</i>	<i>X5</i>	<i>...n</i>
<i>(units)</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>
Expected net cash flows		1,100	1,500	1,200	1,400	1,500	x,xxx
<i>Outstanding interest rate swaps:</i>							
Receive-fixed, pay-variable (notional amounts)	2,000	2,000	2,000	1,200	1,200	1,200	x,xxx
Pay-fixed, receive-variable (notional amounts)	(1,000)	(1,000)	(1,000)	(500)	(500)	(500)	x,xxx
Net exposure after outstanding swaps		100	500	500	700	800	x.xxx

The schedule depicts five quarterly periods. The actual analysis would extend over a period of many years, represented by the notation '...n'. A financial institution that manages its interest rate risk on an entity-wide basis re-evaluates its cash flow exposures periodically. The frequency of the evaluation depends on the entity's risk management policy.

For the purposes of this illustration, the entity is re-evaluating its cash flow exposures at the end of Period X0. The first step in the process is the generation of forecast net cash flow exposures from existing interest-earning assets and interest-bearing liabilities, including the rollover of short-term assets and short-term liabilities. Schedule II below illustrates the forecast of net cash flow exposures. A common technique for assessing exposure to interest rates for risk management purposes is an interest rate sensitivity gap analysis showing the gap between interest rate-sensitive assets and interest rate-sensitive liabilities over different time intervals. Such an analysis could be used as a starting point for identifying cash flow exposures to interest rate risk for hedge accounting purposes.

<b>Schedule II Forecast net cash flow and repricing exposures</b>							
<i>Quarterly period</i>	<i>Notes</i>	<i>X1</i>	<i>X2</i>	<i>X3</i>	<i>X4</i>	<i>X5</i>	<i>...n</i>
<i>(units)</i>		<i>CU</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>
<b>CASH INFLOW AND REPRICING EXPOSURES - from assets</b>							
<i>Principal and interest payments:</i>							
Long-term fixed rate	(1)	2,400	3,000	3,000	1,000	1,200	x,xxx
Short-term (roll over)	(1)(2)	1,575	1,579	1,582	1,586	1,591	x,xxx
Variable rate – principal payments	(1)	2,000	1,000	–	500	500	x,xxx
Variable rate – estimated interest	(2)	125	110	105	114	118	x,xxx
<i>Total expected cash inflows</i>		<i>6,100</i>	<i>5,689</i>	<i>4,687</i>	<i>3,200</i>	<i>3,409</i>	<i>x,xxx</i>
Variable rate asset balances	(3)	8,000	7,000	7,000	6,500	6,000	x,xxx
<b>Cash inflows and repricings</b>	<b>(4)</b>	<b>14,100</b>	<b>12,689</b>	<b>11,687</b>	<b>9,700</b>	<b>9,409</b>	<b>x,xxx</b>
<b>CASH OUTFLOW AND REPRICING EXPOSURES - from liabilities</b>							
<i>Principal and interest payments:</i>							
Long-term fixed rate	(1)	2,100	400	500	500	301	x,xxx
Short-term (roll over)	(1)(2)	735	737	738	740	742	x,xxx
Variable rate – principal payments	(1)	–	–	2,000	–	1,000	x,xxx
Variable rate – estimated interest	(2)	100	110	120	98	109	x,xxx
<i>Total expected cash outflows</i>		<i>2,935</i>	<i>1,247</i>	<i>3,358</i>	<i>1,338</i>	<i>2,152</i>	<i>x,xxx</i>
Variable rate liability balances	(3)	8,000	8,000	6,000	6,000	5,000	x,xxx
<b>Cash outflows and repricings</b>	<b>(4)</b>	<b>10,935</b>	<b>9,247</b>	<b>9,358</b>	<b>7,338</b>	<b>7,152</b>	<b>x,xxx</b>
<b>NET EXPOSURES</b>	<b>(5)</b>	<b>3,165</b>	<b>3,442</b>	<b>2,329</b>	<b>2,362</b>	<b>2,257</b>	<b>x,xxx</b>

- The cash flows are estimated using contractual terms and assumptions based on management's intentions and market factors. It is assumed that short-term assets and liabilities will continue to be rolled over in succeeding periods. Assumptions about prepayments and defaults and the withdrawal of deposits are based on market and historical data. It is assumed that principal and interest inflows and outflows will be reinvested and refinanced, respectively, at the end of each period at the then current market interest rates and share the benchmark interest rate risk to which they are exposed.
- Forward interest rates obtained from Schedule VI are used to forecast interest payments on variable rate financial instruments and expected rollovers of short-term assets and liabilities. All forecast cash flows are associated with the

specific time periods (3 months, 6 months, 9 months and 12 months) in which they are expected to occur. For completeness, the interest cash flows resulting from reinvestments, refinancings and repricings are included in the schedule and shown gross even though only the net margin may actually be reinvested. Some entities may choose to disregard the forecast interest cash flows for risk management purposes because they may be used to absorb operating costs and any remaining amounts would not be significant enough to affect risk management decisions.

- 3 The cash flow forecast is adjusted to include the variable rate asset and liability balances in each period in which such variable rate asset and liability balances are repriced. The principal amounts of these assets and liabilities are not actually being paid and, therefore, do not generate a cash flow. However, since interest is computed on the principal amounts for each period based on the then current market interest rate, such principal amounts expose the entity to the same interest rate risk as if they were cash flows being reinvested or refinanced.
- 4 The forecast cash flow and repricing exposures that are identified in each period represent the principal amounts of cash inflows that will be reinvested or repriced and cash outflows that will be refinanced or repriced at the market interest rates that are in effect when those forecast transactions occur.
- 5 The net cash flow and repricing exposure is the difference between the cash inflow and repricing exposures from assets and the cash outflow and repricing exposures from liabilities. In the illustration, the entity is exposed to interest rate declines because the exposure from assets exceeds the exposure from liabilities and the excess (ie the net amount) will be reinvested or repriced at the current market rate and there is no offsetting refinancing or repricing of outflows.

Note that some banks regard some portion of their non-interest bearing demand deposits as economically equivalent to long-term debt. However, these deposits do not create a cash flow exposure to interest rates and would therefore be excluded from this analysis for accounting purposes.

Schedule II *Forecast net cash flow and repricing exposures* provides no more than a starting point for assessing cash flow exposure to interest rates and for adjusting hedging positions. The complete analysis includes outstanding hedging positions and is shown in Schedule III *Analysis of expected net exposures and hedging positions*. It compares the forecast net cash flow exposures for each period (developed in Schedule II) with existing hedging positions (obtained from Schedule I), and provides a basis for considering whether adjustment of the hedging relationship should be made.



<b>Schedule III Analysis of expected net exposures and hedging positions</b>						
<i>Quarterly period</i>	<i>X1</i>	<i>X2</i>	<i>X3</i>	<i>X4</i>	<i>X5</i>	<i>...n</i>
<i>(units)</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>
Net cash flow and repricing exposures (Schedule II)	3,165	3,442	2,329	2,362	2,257	x,xxx
<b>Pre-existing swaps outstanding:</b>						
Receive-fixed, pay-variable (notional amounts)	2,000	2,000	1,200	1,200	1,200	x,xxx
Pay-fixed, receive-variable (notional amounts)	(1,000)	(1,000)	(500)	(500)	(500)	x,xxx
<i>Net exposure after pre-existing swaps</i>	<i>2,165</i>	<i>2,442</i>	<i>1,629</i>	<i>1,662</i>	<i>1,557</i>	<i>x,xxx</i>
<b>Transactions to adjust outstanding hedging positions:</b>						
Receive-fixed, pay-variable swap 1 (notional amount, 10-years)	2,000	2,000	2,000	2,000	2,000	x,xxx
Pay-fixed, receive-variable swap 2 (notional amount, 3-years)			(1,000)	(1,000)	(1,000)	x,xxx
Swaps ...X						x,xxx
<i>Unhedged cash flow and repricing exposure</i>	<i>165</i>	<i>442</i>	<i>629</i>	<i>662</i>	<i>557</i>	<i>x,xxx</i>

The notional amounts of the interest rate swaps that are outstanding at the analysis date are included in each of the periods in which the interest rate swaps are outstanding to illustrate the impact of the outstanding interest rate swaps on the identified cash flow exposures. The notional amounts of the outstanding interest rate swaps are included in each period because interest is computed on the notional amounts each period, and the variable rate components of the outstanding swaps are repriced to the current market rate quarterly. The notional amounts create an exposure to interest rates that in part is similar to the principal balances of variable rate assets and variable rate liabilities.

The exposure that remains after considering the existing positions is then evaluated to determine the extent to which adjustments of existing hedging positions are necessary. The bottom portion of Schedule III shows the beginning of Period X1 using interest rate swap transactions to reduce the net exposures further to within the tolerance levels established under the entity's risk management policy.

Note that in the illustration, the cash flow exposure is not entirely eliminated. Many financial institutions do not fully eliminate risk but rather reduce it to within some tolerable limit.

Various types of derivative instruments could be used to manage the cash flow exposure to interest rate risk identified in the schedule of forecast net cash flows (Schedule II). However, for the purpose of the illustration, it is assumed that interest rate swaps are used for all hedging activities. It is also assumed that in periods in which interest rate swaps should be reduced, rather than terminating some of the outstanding interest rate swap positions, a new swap with the opposite return characteristics is added to the portfolio.

In the illustration in Schedule III above, swap 1, a receive-fixed, pay-variable swap, is used to reduce the net exposure in Periods X1 and X2. Since it is a 10-year swap, it also reduces exposures identified in other future periods not shown. However, it has the effect of creating an over-hedged position in Periods X3–X5. Swap 2, a forward starting pay-fixed, receive-variable interest rate swap, is used to reduce the notional amount of the outstanding receive-fixed, pay-variable interest rate swaps in Periods X3–X5 and thereby reduce the over-hedged positions.

It also is noted that in many situations, no adjustment or only a single adjustment of the outstanding hedging position is necessary to bring the exposure to within an acceptable limit. However, when the entity's risk management policy specifies a very low tolerance of risk a greater number of adjustments to the hedging positions over the forecast period would be needed to further reduce any remaining risk.

To the extent that some of the interest rate swaps fully offset other interest rate swaps that have been entered into for hedging purposes, it is not necessary to include them in a designated hedging relationship for hedge accounting purposes. These offsetting positions can be combined, de-designated as hedging instruments, if necessary, and reclassified for accounting purposes from the hedging portfolio to the trading portfolio. This procedure limits the extent to which the gross swaps must continue to be designated and tracked in a hedging relationship for accounting purposes. For the purposes of this illustration it is assumed that CU500 of the pay-fixed, receive-variable interest rate swaps fully offset CU500 of the receive-fixed, pay-variable interest rate swaps at the beginning of Period X1 and for Periods X1–X5, and are de-designated as hedging instruments and reclassified to the trading account.

After reflecting these offsetting positions, the remaining gross interest rate swap positions from Schedule III are shown in Schedule IV as follows.

<b>Schedule IV Interest rate swaps designated as hedges</b>						
<i>Quarterly period</i>	<i>X1</i>	<i>X2</i>	<i>X3</i>	<i>X4</i>	<i>X5</i>	<i>...n</i>
<i>(units)</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>
Receive-fixed, pay-variable (notional amounts)	3,500	3,500	2,700	2,700	2,700	x,xxx
Pay-fixed, receive-variable (notional amounts)	(500)	(500)	(1,000)	(1,000)	(1,000)	x,xxx
<i>Net outstanding swaps positions</i>	<i>3,000</i>	<i>3,000</i>	<i>1,700</i>	<i>1,700</i>	<i>1,700</i>	<i>x,xxx</i>

For the purposes of the illustrations, it is assumed that swap 2, entered into at the beginning of Period X1, only partially offsets another swap being accounted for as a hedge and therefore continues to be designated as a hedging instrument.

#### **Hedge accounting considerations**

##### *Illustrating the designation of the hedging relationship*

The discussion and illustrations thus far have focused primarily on economic and risk management considerations relating to the identification of risk in future periods and the adjustment of that risk using interest rate swaps. These activities form the basis for designating a hedging relationship for accounting purposes.

## IAS 39 IG

The examples in IAS 39 focus primarily on hedging relationships involving a single hedged item and a single hedging instrument, but there is little discussion and guidance on portfolio hedging relationships for cash flow hedges when risk is being managed centrally. In this illustration, the general principles are applied to hedging relationships involving a component of risk in a portfolio having multiple risks from multiple transactions or positions.

Although designation is necessary to achieve hedge accounting, the way in which the designation is described also affects the extent to which the hedging relationship is judged to be effective for accounting purposes and the extent to which the entity's existing system for managing risk will be required to be modified to track hedging activities for accounting purposes. Accordingly, an entity may wish to designate the hedging relationship in a manner that avoids unnecessary systems changes by taking advantage of the information already generated by the risk management system and avoids unnecessary bookkeeping and tracking. In designating hedging relationships, the entity may also consider the extent to which ineffectiveness is expected to be recognised for accounting purposes under alternative designations.

The designation of the hedging relationship needs to specify various matters. These are illustrated and discussed here from the perspective of the hedge of the interest rate risk associated with the cash inflows, but the guidance can also be applied to the hedge of the risk associated with the cash outflows. It is fairly obvious that only a portion of the gross exposures relating to the cash inflows is being hedged by the interest rate swaps. Schedule V *The general hedging relationship* illustrates the designation of the portion of the gross reinvestment risk exposures identified in Schedule II as being hedged by the interest rate swaps.

<b>Schedule V The general hedging relationship</b>						
<i>Quarterly period</i>	<i>X1</i>	<i>X2</i>	<i>X3</i>	<i>X4</i>	<i>X5</i>	<i>...n</i>
<i>(units)</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>	<i>CU</i>
Cash inflow repricing exposure (Schedule II)	14,100	12,689	11,687	9,700	9,409	x,xxx
Receive-fixed, pay-variable swaps (Schedule IV)	3,500	3,500	2,700	2,700	2,700	x,xxx
<i>Hedged exposure percentage</i>	<i>24.8%</i>	<i>27.6%</i>	<i>23.1%</i>	<i>27.8%</i>	<i>28.7%</i>	<i>xx.x%</i>

The hedged exposure percentage is computed as the ratio of the notional amount of the receive-fixed, pay-variable swaps that are outstanding divided by the gross exposure. Note that in Schedule V there are sufficient levels of forecast reinvestments in each period to offset more than the notional amount of the receive-fixed, pay-variable swaps and satisfy the accounting requirement that the forecast transaction is highly probable.

It is not as obvious, however, how the interest rate swaps are specifically related to the cash flow interest risks designated as being hedged and how the interest rate swaps are effective in reducing that risk. The more specific designation is illustrated in Schedule VI *The specific hedging relationship* below. It provides a meaningful way of depicting the more complicated narrative designation of the hedge by focusing on the hedging objective to eliminate the cash flow variability associated with future changes in interest rates and to obtain an interest rate equal to the fixed rate inherent in the term structure of interest rates that exists at the commencement of the hedge.

The expected interest from the reinvestment of the cash inflows and repricings of the assets is computed by multiplying the gross amounts exposed by the forward rate for the period. For example, the gross exposure for Period X2 of CU14,100 is multiplied by the forward rate for Periods X2–X5 of 5.50 per cent, 6.00 per cent, 6.50 per cent and 7.25 per cent, respectively, to compute the expected interest for those quarterly periods based on the current term structure of interest rates. The hedged expected interest is computed by multiplying the expected interest for the applicable three-month period by the hedged exposure percentage.

<b>Schedule VI The specific hedging relationship</b>											
<i>Term structure of interest rates</i>											
<i>Quarterly period</i>	<i>X1</i>	<i>X2</i>	<i>X3</i>	<i>X4</i>	<i>X5</i>	<i>...n</i>					
Spot rates	5.00%	5.25%	5.50%	5.75%	6.05%	x.xx%					
Forward rates <sup>(a)</sup>	5.00%	5.50%	6.00%	6.50%	7.25%	x.xx%					
<i>Cash flow exposures and expected interest amounts</i>											
Repricing period	Time to forecast transaction	Gross amounts exposed	Expected interest								
			CU	CU	CU	CU		CU	CU		
2	3 months	14,100	→	194	212	229	256				
3	6 months	12,689			190	206	230	xxx			
4	9 months	11,687				190	212	xxx			
5	12 months	9,700					176	xxx			
6	15 months	9,409						xxx			
Hedged percentage (Schedule V) in the previous period							24.8%	27.6%	23.1%	27.8%	xx.x%
Hedged expected interest							48	52	44	49	xx
(a) The forward interest rates are computed from the spot interest rates and rounded for the purposes of the presentation. Computations that are based on the forward interest rates are made based on the actual computed forward rate and then rounded for the purposes of the presentation.											

It does not matter whether the gross amount exposed is reinvested in long-term fixed rate debt or variable rate debt, or in short-term debt that is rolled over in each subsequent period. The exposure to changes in the forward interest rate is the same. For example, if the CU14,100 is reinvested at a fixed rate at the beginning of Period X2 for six months, it will be reinvested at 5.75 per cent. The expected interest is based on the forward interest rates for Period X2 of 5.50 per cent and for Period X3 of 6.00 per cent, equal to a blended rate of 5.75 per cent  $(1.055 \times 1.060)^{0.5}$ , which is the Period X2 spot rate for the next six months.

However, only the expected interest from the reinvestment of the cash inflows or repricing of the gross amount for the first three-month period after the forecast transaction occurs is designated as being hedged. The expected interest being hedged is represented by the shaded cells. The exposure for the subsequent periods is not hedged. In the example, the portion of the interest rate exposure being hedged is the forward rate of 5.50 per cent for Period X2. In order to assess hedge effectiveness and compute actual hedge ineffectiveness

on an ongoing basis, the entity may use the information on hedged interest cash inflows in Schedule VI and compare it with updated estimates of expected interest cash inflows (for example, in a table that looks like Schedule II). As long as expected interest cash inflows exceed hedged interest cash inflows, the entity may compare the cumulative change in the fair value of the hedged cash inflows with the cumulative change in the fair value of the hedging instrument to compute actual hedge effectiveness. If there are insufficient expected interest cash inflows, there will be ineffectiveness. It is measured by comparing the cumulative change in the fair value of the expected interest cash flows to the extent they are less than the hedged cash flows with the cumulative change in the fair value of the hedging instrument.

### **Describing the designation of the hedging relationship**

As mentioned previously, there are various matters that should be specified in the designation of the hedging relationship that complicate the description of the designation but are necessary to limit ineffectiveness to be recognised for accounting purposes and to avoid unnecessary systems changes and bookkeeping. The example that follows describes the designation more fully and identifies additional aspects of the designation not apparent from the previous illustrations.

<b>Example designation</b>
<p><i>Hedging objective</i></p> <p>The hedging objective is to eliminate the risk of interest rate fluctuations over the hedging period, which is the life of the interest rate swap, and in effect obtain a fixed interest rate during this period that is equal to the fixed interest rate on the interest rate swap.</p> <p><i>Type of hedge</i></p> <p>Cash flow hedge.</p> <p><i>Hedging instrument</i></p> <p>The receive-fixed, pay-variable swaps are designated as the hedging instrument. They hedge the cash flow exposure to interest rate risk.</p> <p>Each repricing of the swap hedges a three-month portion of the interest cash inflows that results from:</p> <ul style="list-style-type: none"> <li>• the forecast reinvestment or repricing of the principal amounts shown in Schedule V.</li> <li>• unrelated investments or repricings that occur after the repricing dates on the swap over its life and involve different borrowers or lenders.</li> </ul> <p><i>The hedged item—General</i></p> <p>The hedged item is a portion of the gross interest cash inflows that will result from the reinvestment or repricing of the cash flows identified in Schedule V and are expected to occur within the periods shown on such schedule. The portion of the interest cash inflow that is being hedged has three components:</p> <ul style="list-style-type: none"> <li>• the principal component giving rise to the interest cash inflow and the period in which it occurs,</li> </ul> <p style="text-align: right;"><i>continued...</i></p>

<p><i>...continued</i></p> <p><b>Example designation</b></p> <ul style="list-style-type: none"> <li>• the interest rate component, and</li> <li>• the time component or period covered by the hedge.</li> </ul> <p><i>The hedged item—The principal component</i></p> <p>The portion of the interest cash inflows being hedged is the amount that results from the first portion of the principal amounts being invested or repriced in each period:</p> <ul style="list-style-type: none"> <li>• that is equal to the sum of the notional amounts of the received-fixed, pay-variable interest rate swaps that are designated as hedging instruments and outstanding in the period of the reinvestment or repricing, and</li> <li>• that corresponds to the first principal amounts of cash flow exposures that are invested or repriced at or after the repricing dates of the interest rate swaps.</li> </ul> <p><i>The hedged item—The interest rate component</i></p> <p>The portion of the interest rate change that is being hedged is the change in both of the following:</p> <ul style="list-style-type: none"> <li>• the credit component of the interest rate being paid on the principal amount invested or repriced that is equal to the credit risk inherent in the interest rate swap. It is that portion of the interest rate on the investment that is equal to the interest index of the interest rate swap, such as LIBOR, and</li> <li>• the yield curve component of the interest rate that is equal to the repricing period on the interest rate swap designated as the hedging instrument.</li> </ul> <p><i>The hedged item—The hedged period</i></p> <p>The period of the exposure to interest rate changes on the portion of the cash flow exposures being hedged is:</p> <ul style="list-style-type: none"> <li>• the period from the designation date to the repricing date of the interest rate swap that occurs within the quarterly period in which, but not before, the forecast transactions occur, and</li> <li>• its effects for the period after the forecast transactions occur equal to the repricing interval of the interest rate swap.</li> </ul>
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It is important to recognise that the swaps are not hedging the cash flow risk for a single investment over its entire life. The swaps are designated as hedging the cash flow risk from different principal investments and repricings that are made in each repricing period of the swaps over their entire term. The swaps hedge only the interest accruals that occur in the first period following the reinvestment. They are hedging the cash flow impact resulting from a change in interest rates that occurs up to the repricing of the swap. The exposure to changes in rates for the period from the repricing of the swap to the date of the hedged reinvestment of cash inflows or repricing of variable rate assets is not hedged. When the swap is repriced, the interest rate on the swap is fixed until the next repricing date and the accrual of the net swap settlements is determined. Any changes in interest rates after that date that affect the amount of the interest cash inflow are no longer hedged for accounting purposes.

## **Designation objectives**

### *Systems considerations*

Many of the tracking and bookkeeping requirements are eliminated by designating each repricing of an interest rate swap as hedging the cash flow risk from forecast reinvestments of cash inflows and repricings of variable rate assets for only a portion of the lives of the related assets. Much tracking and bookkeeping would be necessary if the swaps were instead designated as hedging the cash flow risk from forecast principal investments and repricings of variable rate assets over the entire lives of these assets.

This type of designation avoids keeping track of gains and losses recognised in other comprehensive income after the forecast transactions occur (IAS 39.97 and IAS 39.98) because the portion of the cash flow risk being hedged is that portion that will be reclassified from equity to profit or loss in the period immediately following the forecast transactions that corresponds with the periodic net cash settlements on the swap. If the hedge were to cover the entire life of the assets being acquired, it would be necessary to associate a specific interest rate swap with the asset being acquired. If a forecast transaction is the acquisition of a fixed rate instrument, the fair value of the swap that hedged that transaction would be reclassified from equity to profit or loss to adjust the interest income on the asset when the interest income is recognised. The swap would then have to be terminated or redesignated in another hedging relationship. If a forecast transaction is the acquisition of a variable rate asset, the swap would continue in the hedging relationship but it would have to be tracked back to the asset acquired so that any fair value amounts on the swap recognised in other comprehensive income could be reclassified from equity to profit or loss upon the subsequent sale of the asset.

It also avoids the necessity of associating with variable rate assets any portion of the fair value of the swaps that is recognised in other comprehensive income. Accordingly, there is no portion of the fair value of the swap that is recognised in other comprehensive income that should be reclassified from equity to profit or loss when a forecast transaction occurs or upon the sale of a variable rate asset.

This type of designation also permits flexibility in deciding how to reinvest cash flows when they occur. Since the hedged risk relates only to a single period that corresponds with the repricing period of the interest rate swap designated as the hedging instrument, it is not necessary to determine at the designation date whether the cash flows will be reinvested in fixed rate or variable rate assets or to specify at the date of designation the life of the asset to be acquired.

### *Effectiveness considerations*

Ineffectiveness is greatly reduced by designating a specific portion of the cash flow exposure as being hedged.

- Ineffectiveness due to credit differences between the interest rate swap and hedged forecast cash flow is eliminated by designating the cash flow risk being hedged as the risk attributable to changes in the interest rates that correspond with the rates inherent in the swap, such as the AA rate curve. This type of designation prevents changes resulting from changes in credit spreads from being considered as ineffectiveness.

- Ineffectiveness due to duration differences between the interest rate swap and hedged forecast cash flow is eliminated by designating the interest rate risk being hedged as the risk relating to changes in the portion of the yield curve that corresponds with the period in which the variable rate leg of the interest rate swap is repriced.
- Ineffectiveness due to interest rate changes that occur between the repricing date of the interest rate swap and the date of the forecast transactions is eliminated by simply not hedging that period of time. The period from the repricing of the swap and the occurrence of the forecast transactions in the period immediately following the repricing of the swap is left unhedged. Therefore, the difference in dates does not result in ineffectiveness.

### **Accounting considerations**

The ability to qualify for hedge accounting using the methodology described here is founded on provisions in IAS 39 and on interpretations of its requirements. Some of those are described in the answer to Question F.6.2 *Hedge accounting considerations when interest rate risk is managed on a net basis*. Some additional and supporting provisions and interpretations are identified below.

#### *Hedging a portion of the risk exposure*

The ability to identify and hedge only a portion of the cash flow risk exposure resulting from the reinvestment of cash flows or repricing of variable rate instruments is found in IAS 39.81 as interpreted in the answers to Questions F.6.2 Issue (k) and F.2.17 *Partial term hedging*.

#### *Hedging multiple risks with a single instrument*

The ability to designate a single interest rate swap as a hedge of the cash flow exposure to interest rates resulting from various reinvestments of cash inflows or repricings of variable rate assets that occur over the life of the swap is founded on IAS 39.76 as interpreted in the answer to Question F.1.12 *Hedges of more than one type of risk*.

#### *Hedging similar risks in a portfolio*

The ability to specify the forecast transaction being hedged as a portion of the cash flow exposure to interest rates for a portion of the duration of the investment that gives rise to the interest payment without specifying at the designation date the expected life of the instrument and whether it pays a fixed or variable rate is founded on the answer to Question F.6.2 Issue (l), which specifies that the items in the portfolio do not necessarily have to have the same overall exposure to risk, providing they share the same risk for which they are designated as being hedged.

#### *Hedge terminations*

The ability to de-designate the forecast transaction (the cash flow exposure on an investment or repricing that will occur after the repricing date of the swap) as being hedged is provided for in IAS 39.101 dealing with hedge terminations. While a portion of the forecast transaction is no longer being hedged, the interest rate swap is not de-designated, and it continues to be a hedging instrument for the remaining transactions



in the series that have not occurred. For example, assume that an interest rate swap having a remaining life of one year has been designated as hedging a series of three quarterly reinvestments of cash flows. The next forecast cash flow reinvestment occurs in three months. When the interest rate swap is repriced in three months at the then current variable rate, the fixed rate and the variable rate on the interest rate swap become known and no longer provide hedge protection for the next three months. If the next forecast transaction does not occur until three months and ten days, the ten-day period that remains after the repricing of the interest rate swap is not hedged.

#### **F.6.4 Hedge accounting: premium or discount on forward exchange contract**

**A forward exchange contract is designated as a hedging instrument, for example, in a hedge of a net investment in a foreign operation. Is it permitted to amortise the discount or premium on the forward exchange contract to profit or loss over the term of the contract?**

No. The premium or discount on a forward exchange contract may not be amortised to profit or loss under IAS 39. Derivatives are always measured at fair value in the statement of financial position. The gain or loss resulting from a change in the fair value of the forward exchange contract is always recognised in profit or loss unless the forward exchange contract is designated and effective as a hedging instrument in a cash flow hedge or in a hedge of a net investment in a foreign operation, in which case the effective portion of the gain or loss is recognised in other comprehensive income. In that case, the amounts recognised in other comprehensive income are reclassified from equity to profit or loss when the hedged future cash flows occur or on the disposal of the net investment, as appropriate. Under IAS 39.74(b), the interest element (time value) of the fair value of a forward may be excluded from the designated hedge relationship. In that case, changes in the interest element portion of the fair value of the forward exchange contract are recognised in profit or loss.

#### **F.6.5 IAS 39 and IAS 21 Fair value hedge of asset measured at cost**

**If the future sale of a ship carried at historical cost is hedged against the exposure to currency risk by foreign currency borrowing, does IAS 39 require the ship to be remeasured for changes in the exchange rate even though the basis of measurement for the asset is historical cost?**

No. In a fair value hedge, the hedged item is remeasured. However, a foreign currency borrowing cannot be classified as a fair value hedge of a ship since a ship does not contain any separately measurable foreign currency risk. If the hedge accounting conditions in IAS 39.88 are met, the foreign currency borrowing may be classified as a cash flow hedge of an anticipated sale in that foreign currency. In a cash flow hedge, the hedged item is not remeasured.

To illustrate: a shipping entity in Denmark has a US subsidiary that has the same functional currency (the Danish krone). The shipping entity measures its ships at historical cost less depreciation in the consolidated financial statements. In accordance with IAS 21.23(b), the ships are recognised in Danish krone using the historical exchange rate. To hedge, fully or partly, the potential currency risk on the ships at disposal in US dollars, the shipping entity normally finances its purchases of ships with loans denominated in US dollars.

In this case, a US dollar borrowing (or a portion of it) may be designated as a cash flow hedge of the anticipated sale of the ship financed by the borrowing provided the sale is highly probable, for example, because it is expected to occur in the immediate future, and the amount of the sales proceeds designated as being hedged is equal to the amount of the foreign currency borrowing designated as the hedging instrument. The gains and losses on the currency borrowing that are determined to constitute an effective hedge of the anticipated sale are recognised in other comprehensive income in accordance with IAS 39.95(a).

## Section G Other

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### G.1 Disclosure of changes in fair value

**IAS 39 requires financial assets classified as available for sale (AFS) and financial assets and financial liabilities at fair value through profit or loss to be remeasured to fair value. Unless a financial asset or a financial liability is designated as a cash flow hedging instrument, fair value changes for financial assets and financial liabilities at fair value through profit or loss are recognised in profit or loss, and fair value changes for AFS assets are recognised in other comprehensive income. What disclosures are required regarding the amounts of the fair value changes during a reporting period?**

IFRS 7.20 requires items of income, expense and gains and losses to be disclosed. This disclosure requirement encompasses items of income, expense and gains and losses that arise on remeasurement to fair value. Therefore, an entity provides disclosures of fair value changes, distinguishing between changes that are recognised in profit or loss and changes that are recognised in other comprehensive income. Further breakdown is provided of changes that relate to:

- (a) AFS assets, showing separately the amount of gain or loss recognised in other comprehensive income during the period and the amount that was reclassified from equity to profit or loss for the period as a reclassification adjustment;
- (b) financial assets or financial liabilities at fair value through profit or loss, showing separately those fair value changes on financial assets or financial liabilities (i) designated as such upon initial recognition and (ii) classified as held for trading in accordance with IAS 39; and
- (c) hedging instruments.

IFRS 7 neither requires nor prohibits disclosure of components of the change in fair value by the way items are classified for internal purposes. For example, an entity may choose to disclose separately the change in fair value of those derivatives that in accordance with IAS 39 it categorises as held for trading, but the entity classifies as part of risk management activities outside the trading portfolio.

In addition, IFRS 7.8 requires disclosure of the carrying amounts of financial assets or financial liabilities at fair value through profit or loss, showing separately: (i) those designated as such upon initial recognition and (ii) those held for trading in accordance with IAS 39.

### G.2 IAS 39 and IAS 7 Hedge accounting: statements of cash flows

**How should cash flows arising from hedging instruments be classified in statements of cash flows?**

Cash flows arising from hedging instruments are classified as operating, investing or financing activities, on the basis of the classification of the cash flows arising from the hedged item. While the terminology in IAS 7 has not been updated to reflect IAS 39, the classification of cash flows arising from hedging instruments in the statement of cash flows should be consistent with the classification of these instruments as hedging instruments under IAS 39.