

**IASB documents published to accompany****IFRS 9****Financial Instruments**

The text of the unaccompanied standard, IFRS 9, is contained in Part A of this edition. The text of the Basis for Conclusions on IFRS 9 is contained in Part C of this edition. Its effective date when issued was 1 January 2018. This part presents the following documents:

**ILLUSTRATIVE EXAMPLES****GUIDANCE ON IMPLEMENTING IFRS 9 *FINANCIAL INSTRUMENTS*****APPENDIX****Amendments to the guidance on other Standards**

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*from paragraph***IFRS 9 FINANCIAL INSTRUMENTS  
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## IFRS 9 Financial Instruments Illustrative Examples

*These examples accompany, but are not part of, IFRS 9.*

### Financial liabilities at fair value through profit or loss

- IE1 The following example illustrates the calculation that an entity might perform in accordance with paragraph B5.7.18 of IFRS 9.
- IE2 On 1 January 20X1 an entity issues a 10-year bond with a par value of CU150,000<sup>1</sup> and an annual fixed coupon rate of 8 per cent, which is consistent with market rates for bonds with similar characteristics.
- IE3 The entity uses LIBOR as its observable (benchmark) interest rate. At the date of inception of the bond, LIBOR is 5 per cent. At the end of the first year:
- (a) LIBOR has decreased to 4.75 per cent.
- (b) the fair value for the bond is CU153,811, consistent with an interest rate of 7.6 per cent.<sup>2</sup>
- IE4 The entity assumes a flat yield curve, all changes in interest rates result from a parallel shift in the yield curve, and the changes in LIBOR are the only relevant changes in market conditions.
- IE5 The entity estimates the amount of change in the fair value of the bond that is not attributable to changes in market conditions that give rise to market risk as follows:

|                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>[paragraph B5.7.18(a)]</p> <p>First, the entity computes the liability's internal rate of return at the start of the period using the observed market price of the liability and the liability's contractual cash flows at the start of the period. It deducts from this rate of return the observed (benchmark) interest rate at the start of the period, to arrive at an instrument-specific component of the internal rate of return.</p>       | <p>At the start of the period of a 10-year bond with a coupon of 8 per cent, the bond's internal rate of return is 8 per cent.</p> <p>Because the observed (benchmark) interest rate (LIBOR) is 5 per cent, the instrument-specific component of the internal rate of return is 3 per cent.</p>                                                                                                                                                                                                                                |
| <p>[paragraph B5.7.18(b)]</p> <p>Next, the entity calculates the present value of the cash flows associated with the liability using the liability's contractual cash flows at the end of the period and a discount rate equal to the sum of (i) the observed (benchmark) interest rate at the end of the period and (ii) the instrument-specific component of the internal rate of return as determined in accordance with paragraph B5.7.18(a).</p> | <p>The contractual cash flows of the instrument at the end of the period are:</p> <ul style="list-style-type: none"> <li>interest: CU12,000<sup>(a)</sup> per year for each of years 2–10.</li> <li>principal: CU150,000 in year 10.</li> </ul> <p>The discount rate to be used to calculate the present value of the bond is thus 7.75 per cent, which is the end of period LIBOR rate of 4.75 per cent, plus the 3 per cent instrument-specific component.</p> <p>This gives a present value of CU152,367.<sup>(b)</sup></p> |
| <p>[paragraph B5.7.18(c)]</p> <p>The difference between the observed market price of the liability at the end of the period and the amount determined in accordance with paragraph B5.7.18(b) is the change in fair value that is not attributable to changes in the observed (benchmark) interest rate. This is the amount to be presented in other comprehensive income in accordance with paragraph 5.7.7(a).</p>                                  | <p>The market price of the liability at the end of the period is CU153,811.<sup>(c)</sup></p> <p>Thus, the entity presents CU1,444 in other comprehensive income, which is CU153,811 – CU152,367, as the increase in fair value of the bond that is not attributable to changes in market conditions that give rise to market risk.</p>                                                                                                                                                                                        |
| <p>(a) CU150,000 × 8% = CU12,000.</p> <p>(b) <math>PV = [CU12,000 \times (1 - (1 + 0.0775)^{-9})/0.0775] + CU150,000 \times (1 + 0.0775)^{-9}</math>.</p>                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

<sup>1</sup> In this guidance monetary amounts are denominated in 'currency units' (CU).

<sup>2</sup> This reflects a shift in LIBOR from 5 per cent to 4.75 per cent and a movement of 0.15 per cent which, in the absence of other relevant changes in market conditions, is assumed to reflect changes in credit risk of the instrument.

|     |                                                                                                                     |
|-----|---------------------------------------------------------------------------------------------------------------------|
| (c) | market price = $[\text{CU}12,000 \times (1 - (1 + 0.076)^{-9})/0.076] + \text{CU}150,000 \times (1 + 0.076)^{-9}$ . |
|-----|---------------------------------------------------------------------------------------------------------------------|

## Impairment (Section 5.5)

### Assessing significant increases in credit risk since initial recognition

IE6 The following examples illustrate possible ways to assess whether there have been significant increases in credit risk since initial recognition. For simplicity of illustration, the following examples only show one aspect of the credit risk analysis. However, the assessment of whether lifetime expected credit losses should be recognised is a multifactor and holistic analysis that considers reasonable and supportable information that is available without undue cost or effort and that is relevant for the particular financial instrument being assessed.

### Example 1—significant increase in credit risk

IE7 Company Y has a funding structure that includes a senior secured loan facility with different tranches<sup>3</sup>. Bank X provides a tranche of that loan facility to Company Y. At the time of origination of the loan by Bank X, although Company Y's leverage was relatively high compared with other issuers with similar credit risk, it was expected that Company Y would be able to meet the covenants for the life of the instrument. In addition, the generation of revenue and cash flow was expected to be stable in Company Y's industry over the term of the senior facility. However, there was some business risk related to the ability to grow gross margins within its existing businesses.

IE8 At initial recognition, because of the considerations outlined in paragraph IE7, Bank X considers that despite the level of credit risk at initial recognition, the loan is not an originated credit-impaired loan because it does not meet the definition of a credit-impaired financial asset in Appendix A of IFRS 9.

IE9 Subsequent to initial recognition, macroeconomic changes have had a negative effect on total sales volume and Company Y has underperformed on its business plan for revenue generation and net cash flow generation. Although spending on inventory has increased, anticipated sales have not materialised. To increase liquidity, Company Y has drawn down more on a separate revolving credit facility, thereby increasing its leverage ratio. Consequently, Company Y is now close to breaching its covenants on the senior secured loan facility with Bank X.

IE10 Bank X makes an overall assessment of the credit risk on the loan to Company Y at the reporting date by taking into consideration all reasonable and supportable information that is available without undue cost or effort and that is relevant for assessing the extent of the increase in credit risk since initial recognition. This may include factors such as:

- (a) Bank X's expectation that the deterioration in the macroeconomic environment may continue in the near future, which is expected to have a further negative impact on Company Y's ability to generate cash flows and to deleverage.
- (b) Company Y is closer to breaching its covenants, which may result in a need to restructure the loan or reset the covenants.
- (c) Bank X's assessment that the trading prices for Company Y's bonds have decreased and that the credit margin on newly originated loans have increased reflecting the increase in credit risk, and that these changes are not explained by changes in the market environment (for example, benchmark interest rates have remained unchanged). A further comparison with the pricing of Company Y's peers shows that reductions in the price of Company Y's bonds and increases in credit margin on its loans have probably been caused by company-specific factors.
- (d) Bank X has reassessed its internal risk grading of the loan on the basis of the information that it has available to reflect the increase in credit risk.

IE11 Bank X determines that there has been a significant increase in credit risk since initial recognition of the loan in accordance with paragraph 5.5.3 of IFRS 9. Consequently, Bank X recognises lifetime expected credit losses on its senior secured loan to Company Y. Even if Bank X has not yet changed the internal risk

<sup>3</sup> The security on the loan affects the loss that would be realised if a default occurs, but does not affect the risk of a default occurring, so it is not considered when determining whether there has been a significant increase in credit risk since initial recognition as required by paragraph 5.5.3 of IFRS 9.

grading of the loan it could still reach this conclusion—the absence or presence of a change in risk grading in itself is not determinative of whether credit risk has increased significantly since initial recognition.

## Example 2—no significant increase in credit risk

- IE12 Company C, is the holding company of a group that operates in a cyclical production industry. Bank B provided a loan to Company C. At that time, the prospects for the industry were positive, because of expectations of further increases in global demand. However, input prices were volatile and given the point in the cycle, a potential decrease in sales was anticipated.
- IE13 In addition, in the past Company C has been focused on external growth, acquiring majority stakes in companies in related sectors. As a result, the group structure is complex and has been subject to change, making it difficult for investors to analyse the expected performance of the group and to forecast the cash that will be available at the holding company level. Even though leverage is at a level that is considered acceptable by Company C's creditors at the time that Bank B originates the loan, its creditors are concerned about Company C's ability to refinance its debt because of the short remaining life until the maturity of the current financing. There is also concern about Company C's ability to continue to service interest using the dividends it receives from its operating subsidiaries.
- IE14 At the time of the origination of the loan by Bank B, Company C's leverage was in line with that of other customers with similar credit risk and based on projections over the expected life of the loan, the available capacity (ie headroom) on its coverage ratios before triggering a default event, was high. Bank B applies its own internal rating methods to determine credit risk and allocates a specific internal rating score to its loans. Bank B's internal rating categories are based on historical, current and forward-looking information and reflect the credit risk for the tenor of the loans. On initial recognition, Bank B determines that the loan is subject to considerable credit risk, has speculative elements and that the uncertainties affecting Company C, including the group's uncertain prospects for cash generation, could lead to default. However, Bank B does not consider the loan to be originated credit-impaired because it does not meet the definition of a purchased or originated credit-impaired financial asset in Appendix A of IFRS 9.
- IE15 Subsequent to initial recognition, Company C has announced that three of its five key subsidiaries had a significant reduction in sales volume because of deteriorated market conditions but sales volumes are expected to improve in line with the anticipated cycle for the industry in the following months. The sales of the other two subsidiaries were stable. Company C has also announced a corporate restructure to streamline its operating subsidiaries. This restructuring will increase the flexibility to refinance existing debt and the ability of the operating subsidiaries to pay dividends to Company C.
- IE16 Despite the expected continuing deterioration in market conditions, Bank B determines, in accordance with paragraph 5.5.3 of IFRS 9, that there has not been a significant increase in the credit risk on the loan to Company C since initial recognition. This is demonstrated by factors that include:
- (a) Although current sale volumes have fallen, this was as anticipated by Bank B at initial recognition. Furthermore, sales volumes are expected to improve, in the following months.
  - (b) Given the increased flexibility to refinance the existing debt at the operating subsidiary level and the increased availability of dividends to Company C, Bank B views the corporate restructure as being credit enhancing. This is despite some continued concern about the ability to refinance the existing debt at the holding company level.
  - (c) Bank B's credit risk department, which monitors Company C, has determined that the latest developments are not significant enough to justify a change in its internal credit risk rating.
- IE17 As a consequence, Bank B does not recognise a loss allowance at an amount equal to lifetime expected credit losses on the loan. However, it updates its measurement of the 12-month expected credit losses for the increased risk of a default occurring in the next 12 months and for current expectations of the credit losses that would arise if a default were to occur.

## Example 3—highly collateralised financial asset

- IE18 Company H owns real estate assets which are financed by a five-year loan from Bank Z with a loan-to-value (LTV) ratio of 50 per cent. The loan is secured by a first-ranking security over the real estate assets. At initial recognition of the loan, Bank Z does not consider the loan to be originated credit-impaired as defined in Appendix A of IFRS 9.
- IE19 Subsequent to initial recognition, the revenues and operating profits of Company H have decreased because of an economic recession. Furthermore, expected increases in regulations have the potential to further

- negatively affect revenue and operating profit. These negative effects on Company H's operations could be significant and ongoing.
- IE20 As a result of these recent events and expected adverse economic conditions, Company H's free cash flow is expected to be reduced to the point that the coverage of scheduled loan payments could become tight. Bank Z estimates that a further deterioration in cash flows may result in Company H missing a contractual payment on the loan and becoming past due.
- IE21 Recent third party appraisals have indicated a decrease in the value of the real estate properties, resulting in a current LTV ratio of 70 per cent.
- IE22 At the reporting date, the loan to Company H is not considered to have low credit risk in accordance with paragraph 5.5.10 of IFRS 9. Bank Z therefore needs to assess whether there has been a significant increase in credit risk since initial recognition in accordance with paragraph 5.5.3 of IFRS 9, irrespective of the value of the collateral it holds. It notes that the loan is subject to considerable credit risk at the reporting date because even a slight deterioration in cash flows could result in Company H missing a contractual payment on the loan. As a result, Bank Z determines that the credit risk (ie the risk of a default occurring) has increased significantly since initial recognition. Consequently, Bank Z recognises lifetime expected credit losses on the loan to Company H.
- IE23 Although lifetime expected credit losses should be recognised, the measurement of the expected credit losses will reflect the recovery expected from the collateral (adjusting for the costs of obtaining and selling the collateral) on the property as required by paragraph B5.5.55 of IFRS 9 and may result in the expected credit losses on the loan being very small.

### Example 4—public investment-grade bond

- IE24 Company A is a large listed national logistics company. The only debt in the capital structure is a five-year public bond with a restriction on further borrowing as the only bond covenant. Company A reports quarterly to its shareholders. Entity B is one of many investors in the bond. Entity B considers the bond to have low credit risk at initial recognition in accordance with paragraph 5.5.10 of IFRS 9. This is because the bond has a low risk of default and Company A is considered to have a strong capacity to meet its obligations in the near term. Entity B's expectations for the longer term are that adverse changes in economic and business conditions may, but will not necessarily, reduce Company A's ability to fulfil its obligations on the bond. In addition, at initial recognition the bond had an internal credit rating that is correlated to a global external credit rating of investment grade.
- IE25 At the reporting date, Entity B's main credit risk concern is the continuing pressure on the total volume of sales that has caused Company A's operating cash flows to decrease.
- IE26 Because Entity B relies only on quarterly public information and does not have access to private credit risk information (because it is a bond investor), its assessment of changes in credit risk is tied to public announcements and information, including updates on credit perspectives in press releases from rating agencies.
- IE27 Entity B applies the low credit risk simplification in paragraph 5.5.10 of IFRS 9. Accordingly, at the reporting date, Entity B evaluates whether the bond is considered to have low credit risk using all reasonable and supportable information that is available without undue cost or effort. In making that evaluation, Entity B reassesses the internal credit rating of the bond and concludes that the bond is no longer equivalent to an investment grade rating because:
- (a) The latest quarterly report of Company A revealed a quarter-on-quarter decline in revenues of 20 per cent and in operating profit by 12 per cent.
  - (b) Rating agencies have reacted negatively to a profit warning by Company A and put the credit rating under review for possible downgrade from investment grade to non-investment grade. However, at the reporting date the external credit risk rating was unchanged.
  - (c) The bond price has also declined significantly, which has resulted in a higher yield to maturity. Entity B assesses that the bond prices have been declining as a result of increases in Company A's credit risk. This is because the market environment has not changed (for example, benchmark interest rates, liquidity etc are unchanged) and comparison with the bond prices of peers shows that the reductions are probably company specific (instead of being, for example, changes in benchmark interest rates that are not indicative of company-specific credit risk).
- IE28 While Company A currently has the capacity to meet its commitments, the large uncertainties arising from its exposure to adverse business and economic conditions have increased the risk of a default occurring on the bond. As a result of the factors described in paragraph IE27, Entity B determines that the bond does not

have low credit risk at the reporting date. As a result, Entity B needs to determine whether the increase in credit risk since initial recognition has been significant. On the basis of its assessment, Company B determines that the credit risk has increased significantly since initial recognition and that a loss allowance at an amount equal to lifetime expected credit losses should be recognised in accordance with paragraph 5.5.3 of IFRS 9.

## Example 5—responsiveness to changes in credit risk

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- IE29 Bank ABC provides mortgages to finance residential real estate in three different regions. The mortgage loans are originated across a wide range of LTV criteria and a wide range of income groups. As part of the mortgage application process, customers are required to provide information such as the industry within which the customer is employed and the post code of the property that serves as collateral on the mortgage.
- IE30 Bank ABC sets its acceptance criteria based on credit scores. Loans with a credit score above the ‘acceptance level’ are approved because these borrowers are considered to be able to meet contractual payment obligations. When new mortgage loans are originated, Bank ABC uses the credit score to determine the risk of a default occurring as at initial recognition.
- IE31 At the reporting date Bank ABC determines that economic conditions are expected to deteriorate significantly in all regions. Unemployment levels are expected to increase while the value of residential property is expected to decrease, causing the LTV ratios to increase. As a result of the expected deterioration in economic conditions, Bank ABC expects default rates on the mortgage portfolio to increase.

### Individual assessment

- IE32 In Region One, Bank ABC assesses each of its mortgage loans on a monthly basis by means of an automated behavioural scoring process. Its scoring models are based on current and historical past due statuses, levels of customer indebtedness, LTV measures, customer behaviour on other financial instruments with Bank ABC, the loan size and the time since the origination of the loan. Bank ABC updates the LTV measures on a regular basis through an automated process that re-estimates property values using recent sales in each post code area and reasonable and supportable forward-looking information that is available without undue cost or effort.
- IE33 Bank ABC has historical data that indicates a strong correlation between the value of residential property and the default rates for mortgages. That is, when the value of residential property declines, a customer has less economic incentive to make scheduled mortgage repayments, increasing the risk of a default occurring.
- IE34 Through the impact of the LTV measure in the behavioural scoring model, an increased risk of a default occurring due to an expected decline in residential property value adjusts the behavioural scores. The behavioural score can be adjusted as a result of expected declines in property value even when the mortgage loan is a bullet loan with the most significant payment obligations at maturity (and beyond the next 12 months). Mortgages with a high LTV ratio are more sensitive to changes in the value of the residential property and Bank ABC is able to identify significant increases in credit risk since initial recognition on individual customers before a mortgage becomes past due if there has been a deterioration in the behavioural score.
- IE35 When the increase in credit risk has been significant, a loss allowance at an amount equal to lifetime expected credit losses is recognised. Bank ABC measures the loss allowance by using the LTV measures to estimate the severity of the loss, ie the loss given default (LGD). The higher the LTV measure, the higher the expected credit losses all else being equal.
- IE36 If Bank ABC was unable to update behavioural scores to reflect the expected declines in property prices, it would use reasonable and supportable information that is available without undue cost or effort to undertake a collective assessment to determine the loans on which there has been a significant increase in credit risk since initial recognition and recognise lifetime expected credit losses for those loans.

### Collective assessment

- IE37 In Regions Two and Three, Bank ABC does not have an automated scoring capability. Instead, for credit risk management purposes, Bank ABC tracks the risk of a default occurring by means of past due statuses. It recognises a loss allowance at an amount equal to lifetime expected credit losses for all loans that have a past due status of more than 30 days past due. Although Bank ABC uses past due status information as the only borrower-specific information, it also considers other reasonable and supportable forward-looking information that is available without undue cost or effort to assess whether lifetime expected credit losses

should be recognised on loans that are not more than 30 days past due. This is necessary in order to meet the objective in paragraph 5.5.4 of IFRS 9 of recognising lifetime expected credit losses for all significant increases in credit risk.

### *Region Two*

- IE38 Region Two includes a mining community that is largely dependent on the export of coal and related products. Bank ABC becomes aware of a significant decline in coal exports and anticipates the closure of several coal mines. Because of the expected increase in the unemployment rate, the risk of a default occurring on mortgage loans to borrowers who are employed by the coal mines is determined to have increased significantly, even if those customers are not past due at the reporting date. Bank ABC therefore segments its mortgage portfolio by the industry within which customers are employed (using the information recorded as part of the mortgage application process) to identify customers that rely on coal mining as the dominant source of employment (ie a ‘bottom up’ approach in which loans are identified based on a common risk characteristic). For those mortgages, Bank ABC recognises a loss allowance at an amount equal to lifetime expected credit losses while it continues to recognise a loss allowance at an amount equal to 12-month expected credit losses for all other mortgages in Region Two.<sup>4</sup> Newly originated mortgages to borrowers who rely on the coal mines for employment in this community would, however, have a loss allowance at an amount equal to 12-month expected credit losses because they would not have experienced significant increases in credit risk since initial recognition. However, some of these mortgages may experience significant increases in credit risk soon after initial recognition because of the expected closure of the coal mines.

### *Region Three*

- IE39 In Region Three, Bank ABC anticipates the risk of a default occurring and thus an increase in credit risk, as a result of an expected increase in interest rates during the expected life of the mortgages. Historically, an increase in interest rates has been a lead indicator of future defaults on mortgages in Region Three—especially when customers do not have a fixed interest rate mortgage. Bank ABC determines that the variable interest-rate portfolio of mortgages in Region Three is homogenous and that unlike for Region Two, it is not possible to identify particular sub portfolios on the basis of shared risk characteristics that represent customers who are expected to have increased significantly in credit risk. However, as a result of the homogenous nature of the mortgages in Region Three, Bank ABC determines that an assessment can be made of a proportion of the overall portfolio that has significantly increased in credit risk since initial recognition (ie a ‘top down’ approach can be used). Based on historical information, Bank ABC estimates that an increase in interest rates of 200 basis points will cause a significant increase in credit risk on 20 per cent of the variable interest-rate portfolio. Therefore, as a result of the anticipated increase in interest rates, Bank ABC determines that the credit risk on 20 per cent of mortgages in Region Three has increased significantly since initial recognition. Accordingly Bank ABC recognises lifetime expected credit losses on 20 per cent of the variable rate mortgage portfolio and a loss allowance at an amount equal to 12-month expected credit losses for the remainder of the portfolio.<sup>5</sup>

## **Example 6—comparison to maximum initial credit risk**

- IE40 Bank A has two portfolios of automobile loans with similar terms and conditions in Region W. Bank A’s policy on financing decisions for each loan is based on an internal credit rating system that considers a customer’s credit history, payment behaviour on other products with Bank A and other factors, and assigns an internal credit risk rating from 1 (lowest credit risk) to 10 (highest credit risk) to each loan on origination. The risk of a default occurring increases exponentially as the credit risk rating deteriorates so, for example, the difference between credit risk rating grades 1 and 2 is smaller than the difference between credit risk rating grades 2 and 3. Loans in Portfolio 1 were only offered to existing customers with a similar internal credit risk rating and at initial recognition all loans were rated 3 or 4 on the internal rating scale. Bank A determines that the maximum initial credit risk rating at initial recognition it would accept for Portfolio 1 is an internal rating of 4. Loans in Portfolio 2 were offered to customers that responded to an advertisement for automobile loans and the internal credit risk ratings of these customers range between 4 and 7 on the internal rating scale. Bank A never originates an automobile loan with an internal credit risk rating worse than 7 (ie with an internal rating of 8–10).

<sup>4</sup> Except for those mortgages that are determined to have significantly increased in credit risk based on an individual assessment, such as those that are more than 30 days past due. Lifetime expected credit losses would also be recognised on those mortgages.

<sup>5</sup> Except for those mortgages that are determined to have significantly increased in credit risk based on an individual assessment, such as those that are more than 30 days past due. Lifetime expected credit losses would also be recognised on those mortgages.

- IE41 For the purposes of assessing whether there have been significant increases in credit risk, Bank A determines that all loans in Portfolio 1 had a similar initial credit risk. It determines that given the risk of default reflected in its internal risk rating grades, a change in internal rating from 3 to 4 would not represent a significant increase in credit risk but that there has been a significant increase in credit risk on any loan in this portfolio that has an internal rating worse than 5. This means that Bank A does not have to know the initial credit rating of each loan in the portfolio to assess the change in credit risk since initial recognition. It only has to determine whether the credit risk is worse than 5 at the reporting date to determine whether lifetime expected credit losses should be recognised in accordance with paragraph 5.5.3 of IFRS 9.
- IE42 However, determining the maximum initial credit risk accepted at initial recognition for Portfolio 2 at an internal credit risk rating of 7, would not meet the objective of the requirements as stated in paragraph 5.5.4 of IFRS 9. This is because Bank A determines that significant increases in credit risk arise not only when credit risk increases above the level at which an entity would originate new financial assets (ie when the internal rating is worse than 7). Although Bank A never originates an automobile loan with an internal credit rating worse than 7, the initial credit risk on loans in Portfolio 2 is not of sufficiently similar credit risk at initial recognition to apply the approach used for Portfolio 1. This means that Bank A cannot simply compare the credit risk at the reporting date with the lowest credit quality at initial recognition (for example, by comparing the internal credit risk rating of loans in Portfolio 2 with an internal credit risk rating of 7) to determine whether credit risk has increased significantly because the initial credit quality of loans in the portfolio is too diverse. For example, if a loan initially had a credit risk rating of 4 the credit risk on the loan may have increased significantly if its internal credit risk rating changes to 6.

## Example 7—counterparty assessment of credit risk

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### Scenario 1

- IE43 In 20X0 Bank A granted a loan of CU10,000 with a contractual term of 15 years to Company Q when the company had an internal credit risk rating of 4 on a scale of 1 (lowest credit risk) to 10 (highest credit risk). The risk of a default occurring increases exponentially as the credit risk rating deteriorates so, for example, the difference between credit risk rating grades 1 and 2 is smaller than the difference between credit risk rating grades 2 and 3. In 20X5, when Company Q had an internal credit risk rating of 6, Bank A issued another loan to Company Q for CU5,000 with a contractual term of 10 years. In 20X7 Company Q fails to retain its contract with a major customer and correspondingly experiences a large decline in its revenue. Bank A considers that as a result of losing the contract, Company Q will have a significantly reduced ability to meet its loan obligations and changes its internal credit risk rating to 8.
- IE44 Bank A assesses credit risk on a counterparty level for credit risk management purposes and determines that the increase in Company Q's credit risk is significant. Although Bank A did not perform an individual assessment of changes in the credit risk on each loan since its initial recognition, assessing the credit risk on a counterparty level and recognising lifetime expected credit losses on all loans granted to Company Q, meets the objective of the impairment requirements as stated in paragraph 5.5.4 of IFRS 9. This is because, even since the most recent loan was originated (in 20X7) when Company Q had the highest credit risk at loan origination, its credit risk has increased significantly. The counterparty assessment would therefore achieve the same result as assessing the change in credit risk for each loan individually.

### Scenario 2

- IE45 Bank A granted a loan of CU150,000 with a contractual term of 20 years to Company X in 20X0 when the company had an internal credit risk rating of 4. During 20X5 economic conditions deteriorate and demand for Company X's products has declined significantly. As a result of the reduced cash flows from lower sales, Company X could not make full payment of its loan instalment to Bank A. Bank A re-assesses Company X's internal credit risk rating, and determines it to be 7 at the reporting date. Bank A considered the change in credit risk on the loan, including considering the change in the internal credit risk rating, and determines that there has been a significant increase in credit risk and recognises lifetime expected credit losses on the loan of CU150,000.
- IE46 Despite the recent downgrade of the internal credit risk rating, Bank A grants another loan of CU50,000 to Company X in 20X6 with a contractual term of 5 years, taking into consideration the higher credit risk at that date.
- IE47 The fact that Company X's credit risk (assessed on a counterparty basis) has previously been assessed to have increased significantly, does not result in lifetime expected credit losses being recognised on the new loan. This is because the credit risk on the new loan has not increased significantly since the loan was

initially recognised. If Bank A only assessed credit risk on a counterparty level, without considering whether the conclusion about changes in credit risk applies to all individual financial instruments provided to the same customer, the objective in paragraph 5.5.4 of IFRS 9 would not be met.

## Recognition and measurement of expected credit losses

IE48 The following examples illustrate the application of the recognition and measurement requirements in accordance with Section 5.5 of IFRS 9, as well as the interaction with the hedge accounting requirements.

### Example 8—12-month expected credit loss measurement using an explicit ‘probability of default’ approach

#### Scenario 1

- IE49 Entity A originates a single 10 year amortising loan for CU1 million. Taking into consideration the expectations for instruments with similar credit risk (using reasonable and supportable information that is available without undue cost or effort), the credit risk of the borrower, and the economic outlook for the next 12 months, Entity A estimates that the loan at initial recognition has a probability of default (PD) of 0.5 per cent over the next 12 months. Entity A also determines that changes in the 12-month PD are a reasonable approximation of the changes in the lifetime PD for determining whether there has been a significant increase in credit risk since initial recognition.
- IE50 At the reporting date (which is before payment on the loan is due<sup>6</sup>), there has been no change in the 12-month PD and Entity A determines that there was no significant increase in credit risk since initial recognition. Entity A determines that 25 per cent of the gross carrying amount will be lost if the loan defaults (ie the LGD is 25 per cent).<sup>7</sup> Entity A measures the loss allowance at an amount equal to 12-month expected credit losses using the 12-month PD of 0.5 per cent. Implicit in that calculation is the 99.5 per cent probability that there is no default. At the reporting date the loss allowance for the 12 month expected credit losses is CU1,250 ( $0.5\% \times 25\% \times \text{CU}1,000,000$ ).

#### Scenario 2

- IE51 Entity B acquires a portfolio of 1,000 five year bullet loans for CU1,000 each (ie CU1million in total) with an average 12-month PD of 0.5 per cent for the portfolio. Entity B determines that because the loans only have significant payment obligations beyond the next 12 months, it would not be appropriate to consider changes in the 12-month PD when determining whether there have been significant increases in credit risk since initial recognition. At the reporting date Entity B therefore uses changes in the lifetime PD to determine whether the credit risk of the portfolio has increased significantly since initial recognition.
- IE52 Entity B determines that there has not been a significant increase in credit risk since initial recognition and estimates that the portfolio has an average LGD of 25 per cent. Entity B determines that it is appropriate to measure the loss allowance on a collective basis in accordance with IFRS 9. The 12-month PD remains at 0.5 per cent at the reporting date. Entity B therefore measures the loss allowance on a collective basis at an amount equal to 12-month expected credit losses based on the average 0.5 per cent 12-month PD. Implicit in the calculation is the 99.5 per cent probability that there is no default. At the reporting date the loss allowance for the 12-month expected credit losses is CU1,250 ( $0.5\% \times 25\% \times \text{CU}1,000,000$ ).

### Example 9—12-month expected credit loss measurement based on a loss rate approach

- IE53 Bank A originates 2,000 bullet loans with a total gross carrying amount of CU500,000. Bank A segments its portfolio into borrower groups (Groups X and Y) on the basis of shared credit risk characteristics at initial recognition. Group X comprises 1,000 loans with a gross carrying amount per client of CU200, for a total gross carrying amount of CU200,000. Group Y comprises 1,000 loans with a gross carrying amount per client of CU300, for a total gross carrying amount of CU300,000. There are no transaction costs and the

<sup>6</sup> Thus for simplicity of illustration it is assumed there is no amortisation of the loan.

<sup>7</sup> Because the LGD represents a percentage of the present value of the gross carrying amount, this example does not illustrate the time value of money.

loan contracts include no options (for example, prepayment or call options), premiums or discounts, points paid, or other fees.

- IE54 Bank A measures expected credit losses on the basis of a loss rate approach for Groups X and Y. In order to develop its loss rates, Bank A considers samples of its own historical default and loss experience for those types of loans. In addition, Bank A considers forward-looking information, and updates its historical information for current economic conditions as well as reasonable and supportable forecasts of future economic conditions. Historically, for a population of 1,000 loans in each group, Group X's loss rates are 0.3 per cent, based on four defaults, and historical loss rates for Group Y are 0.15 per cent, based on two defaults.

|                                                                                                                                                                                                                     | Number of clients in sample | Estimated per client gross carrying amount at default | Total estimated gross carrying amount at default | Historic per annum average defaults | Estimated total gross carrying amount at default | Present value of observed loss <sup>(a)</sup> | Loss rate |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-------------------------------------------------------|--------------------------------------------------|-------------------------------------|--------------------------------------------------|-----------------------------------------------|-----------|
| Group                                                                                                                                                                                                               | A                           | B                                                     | C = A × B                                        | D                                   | E = B × D                                        | F                                             | G = F ÷ C |
| X                                                                                                                                                                                                                   | 1,000                       | CU200                                                 | CU200,000                                        | 4                                   | CU800                                            | CU600                                         | 0.3%      |
| Y                                                                                                                                                                                                                   | 1,000                       | CU300                                                 | CU300,000                                        | 2                                   | CU600                                            | CU450                                         | 0.15%     |
| (a) In accordance with paragraph 5.5.17(b) expected credit losses should be discounted using the effective interest rate. However, for purposes of this example, the present value of the observed loss is assumed. |                             |                                                       |                                                  |                                     |                                                  |                                               |           |

- IE55 At the reporting date, Bank A expects an increase in defaults over the next 12 months compared to the historical rate. As a result, Bank A estimates five defaults in the next 12 months for loans in Group X and three for loans in Group Y. It estimates that the present value of the observed credit loss per client will remain consistent with the historical loss per client.
- IE56 On the basis of the expected life of the loans, Bank A determines that the expected increase in defaults does not represent a significant increase in credit risk since initial recognition for the portfolios. On the basis of its forecasts, Bank A measures the loss allowance at an amount equal to 12-month expected credit losses on the 1,000 loans in each group amounting to CU750 and CU675 respectively. This equates to a loss rate in the first year of 0.375 per cent for Group X and 0.225 per cent for Group Y.

|       | Number of clients in sample | Estimated per client gross carrying amount at default | Total estimated gross carrying amount at default | Expected defaults | Estimated total gross carrying amount at default | Present value of observed loss | Loss rate |
|-------|-----------------------------|-------------------------------------------------------|--------------------------------------------------|-------------------|--------------------------------------------------|--------------------------------|-----------|
| Group | A                           | B                                                     | C = A × B                                        | D                 | E = B × D                                        | F                              | G = F ÷ C |
| X     | 1,000                       | CU200                                                 | CU200,000                                        | 5                 | CU1,000                                          | CU750                          | 0.375%    |
| Y     | 1,000                       | CU300                                                 | CU300,000                                        | 3                 | CU900                                            | CU675                          | 0.225%    |

- IE57 Bank A uses the loss rates of 0.375 per cent and 0.225 per cent respectively to estimate 12-month expected credit losses on new loans in Group X and Group Y originated during the year and for which credit risk has not increased significantly since initial recognition.

## Example 10—revolving credit facilities

- IE58 Bank A provides co- branded credit cards to customers in conjunction with a local department store. The credit cards have a one-day notice period after which Bank A has the contractual right to cancel the credit card (both the drawn and undrawn components). However, Bank A does not enforce its contractual right to cancel the credit cards in the normal day- to- day management of the instruments and only cancels facilities when it becomes aware of an increase in credit risk and starts to monitor customers on an

- individual basis. Bank A therefore does not consider the contractual right to cancel the credit cards to limit its exposure to credit losses to the contractual notice period.
- IE59 For credit risk management purposes Bank A considers that there is only one set of contractual cash flows from customers to assess and does not distinguish between the drawn and undrawn balances at the reporting date. The portfolio is therefore managed and expected credit losses are measured on a facility level.
- IE60 At the reporting date the outstanding balance on the credit card portfolio is CU60,000 and the available undrawn facility is CU40,000. Bank A determines the expected life of the portfolio by estimating the period over which it expects to be exposed to credit risk on the facilities at the reporting date, taking into account:
- (a) the period over which it was exposed to credit risk on a similar portfolio of credit cards;
  - (b) the length of time for related defaults to occur on similar financial instruments; and
  - (c) past events that led to credit risk management actions because of an increase in credit risk on similar financial instruments, such as the reduction or removal of undrawn credit limits.
- IE61 On the basis of the information listed in paragraph IE60, Bank A determines that the expected life of the credit card portfolio is 30 months.
- IE62 At the reporting date Bank A assesses the change in the credit risk on the portfolio since initial recognition and determines in accordance with paragraph 5.5.3 of IFRS 9 that the credit risk on a portion of the credit card facilities representing 25 per cent of the portfolio, has increased significantly since initial recognition. The outstanding balance on these credit facilities for which lifetime expected credit losses should be recognised is CU20,000 and the available undrawn facility is CU10,000.
- IE63 When measuring the expected credit losses in accordance with paragraph 5.5.20 of IFRS 9, Bank A considers its expectations about future draw-downs over the expected life of the portfolio (ie 30 months) in accordance with paragraph B5.5.31 and estimates what it expects the outstanding balance (ie exposure at default) on the portfolio would be if customers were to default. By using its credit risk models Bank A determines that the exposure at default on the credit card facilities for which lifetime expected credit losses should be recognised, is CU25,000 (ie the drawn balance of CU20,000 plus further draw-downs of CU5,000 from the available undrawn commitment). The exposure at default of the credit card facilities for which 12-month expected credit losses are recognised, is CU45,000 (ie the outstanding balance of CU40,000 and an additional draw-down of CU5,000 from the undrawn commitment over the next 12 months).
- IE64 The exposure at default and expected life determined by Bank A are used to measure the lifetime expected credit losses and 12-month expected credit losses on its credit card portfolio.
- IE65 Bank A measures expected credit losses on a facility level and therefore cannot separately identify the expected credit losses on the undrawn commitment component from those on the loan component. It recognises expected credit losses for the undrawn commitment together with the loss allowance for the loan component in the statement of financial position. To the extent that the combined expected credit losses exceed the gross carrying amount of the financial asset, the expected credit losses should be presented as a provision (in accordance with IFRS 7 *Financial Instruments: Disclosure*).

## Example 11—modification of contractual cash flows

- IE66 Bank A originates a five-year loan that requires the repayment of the outstanding contractual amount in full at maturity. Its contractual par amount is CU1,000 with an interest rate of 5 per cent payable annually. The effective interest rate is 5 per cent. At the end of the first reporting period (Period 1), Bank A recognises a loss allowance at an amount equal to 12-month expected credit losses because there has not been a significant increase in credit risk since initial recognition. A loss allowance balance of CU20 is recognised.
- IE67 In the subsequent reporting period (Period 2), Bank A determines that the credit risk on the loan has increased significantly since initial recognition. As a result of this increase, Bank A recognises lifetime expected credit losses on the loan. The loss allowance balance is CU30.
- IE68 At the end of the third reporting period (Period 3), following significant financial difficulty of the borrower, Bank A modifies the contractual cash flows on the loan. It extends the contractual term of the loan by one year so that the remaining term at the date of the modification is three years. The modification does not result in the derecognition of the loan by Bank A.
- IE69 As a result of that modification, Bank A recalculates the gross carrying amount of the financial asset as the present value of the modified contractual cash flows discounted at the loan's original effective interest rate of 5 per cent. In accordance with paragraph 5.4.3 of IFRS 9, the difference between this recalculated gross carrying amount and the gross carrying amount before the modification is recognised as a modification gain

or loss. Bank A recognises the modification loss (calculated as CU300) against the gross carrying amount of the loan, reducing it to CU700, and a modification loss of CU300 in profit or loss.

- IE70 Bank A also remeasures the loss allowance, taking into account the modified contractual cash flows and evaluates whether the loss allowance for the loan shall continue to be measured at an amount equal to lifetime expected credit losses. Bank A compares the current credit risk (taking into consideration the modified cash flows) to the credit risk (on the original unmodified cash flows) at initial recognition. Bank A determines that the loan is not credit-impaired at the reporting date but that credit risk has still significantly increased compared to the credit risk at initial recognition and continues to measure the loss allowance at an amount equal to lifetime expected credit losses. The loss allowance balance for lifetime expected credit losses is CU100 at the reporting date.

| Period | Beginning gross carrying amount | Impairment (loss)/gain | Modification (loss)/gain | Interest revenue              | Cash flows | Ending gross carrying amount | Loss allowance | Ending amortised cost amount |
|--------|---------------------------------|------------------------|--------------------------|-------------------------------|------------|------------------------------|----------------|------------------------------|
|        | A                               | B                      | C                        | D<br>Gross:<br>$A \times 5\%$ | E          | $F = A + C + D - E$          | G              | $H = F - G$                  |
| 1      | CU1,000                         | (CU20)                 |                          | CU50                          | CU50       | CU1,000                      | CU20           | CU980                        |
| 2      | CU1,000                         | (CU10)                 |                          | CU50                          | CU50       | CU1,000                      | CU30           | CU970                        |
| 3      | CU1,000                         | (CU70)                 | (CU300)                  | CU50                          | CU50       | CU700                        | CU100          | CU600                        |

- IE71 At each subsequent reporting date, Bank A evaluates whether there is a significant increase in credit risk by comparing the loan's credit risk at initial recognition (based on the original, unmodified cash flows) with the credit risk at the reporting date (based on the modified cash flows), in accordance with paragraph 5.5.12 of IFRS 9.
- IE72 Two reporting periods after the loan modification (Period 5), the borrower has outperformed its business plan significantly compared to the expectations at the modification date. In addition, the outlook for the business is more positive than previously envisaged. An assessment of all reasonable and supportable information that is available without undue cost or effort indicates that the overall credit risk on the loan has decreased and that the risk of a default occurring over the expected life of the loan has decreased, so Bank A adjusts the borrower's internal credit rating at the end of the reporting period.
- IE73 Given the positive overall development, Bank A re-assesses the situation and concludes that the credit risk of the loan has decreased and there is no longer a significant increase in credit risk since initial recognition. As a result, Bank A once again measures the loss allowance at an amount equal to 12-month expected credit losses.

## Example 12—provision matrix

- IE74 Company M, a manufacturer, has a portfolio of trade receivables of CU30 million in 20X1 and operates only in one geographical region. The customer base consists of a large number of small clients and the trade receivables are categorised by common risk characteristics that are representative of the customers' abilities to pay all amounts due in accordance with the contractual terms. The trade receivables do not have a significant financing component in accordance with IFRS 15 *Revenue from Contracts with Customers*. In accordance with paragraph 5.5.15 of IFRS 9 the loss allowance for such trade receivables is always measured at an amount equal to lifetime expected credit losses.
- IE75 To determine the expected credit losses for the portfolio, Company M uses a provision matrix. The provision matrix is based on its historical observed default rates over the expected life of the trade receivables and is adjusted for forward-looking estimates. At every reporting date the historical observed default rates are updated and changes in the forward-looking estimates are analysed. In this case it is forecast that economic conditions will deteriorate over the next year.
- IE76 On that basis, Company M estimates the following provision matrix:

|              | Current | 1–30 days past due | 31–60 days past due | 61–90 days past due | More than 90 days past due |
|--------------|---------|--------------------|---------------------|---------------------|----------------------------|
| Default rate | 0.3%    | 1.6%               | 3.6%                | 6.6%                | 10.6%                      |

IE77 The trade receivables from the large number of small customers amount to CU30 million and are measured using the provision matrix.

|                            | Gross carrying amount | Lifetime expected credit loss allowance<br>(Gross carrying amount x lifetime expected credit loss rate) |
|----------------------------|-----------------------|---------------------------------------------------------------------------------------------------------|
| Current                    | CU15,000,000          | CU45,000                                                                                                |
| 1–30 days past due         | CU7,500,000           | CU120,000                                                                                               |
| 31–60 days past due        | CU4,000,000           | CU144,000                                                                                               |
| 61–90 days past due        | CU2,500,000           | CU165,000                                                                                               |
| More than 90 days past due | CU1,000,000           | CU106,000                                                                                               |
|                            | <b>CU30,000,000</b>   | <b>CU580,000</b>                                                                                        |

### Example 13—debt instrument measured at fair value through other comprehensive income

IE78 An entity purchases a debt instrument with a fair value of CU1,000 on 15 December 20X0 and measures the debt instrument at fair value through other comprehensive income. The instrument has an interest rate of 5 per cent over the contractual term of 10 years, and has a 5 per cent effective interest rate. At initial recognition the entity determines that the asset is not purchased or originated credit-impaired.

|                                                                      | Debit   | Credit  |
|----------------------------------------------------------------------|---------|---------|
| Financial asset—FVOCI <sup>(a)</sup>                                 | CU1,000 |         |
| Cash                                                                 |         | CU1,000 |
| <i>(To recognise the debt instrument measured at its fair value)</i> |         |         |
| (a) FVOCI means fair value through other comprehensive income.       |         |         |

IE79 On 31 December 20X0 (the reporting date), the fair value of the debt instrument has decreased to CU950 as a result of changes in market interest rates. The entity determines that there has not been a significant increase in credit risk since initial recognition and that expected credit losses should be measured at an amount equal to 12-month expected credit losses, which amounts to CU30. For simplicity, journal entries for the receipt of interest revenue are not provided.

|                                                                                                           | Debit | Credit |
|-----------------------------------------------------------------------------------------------------------|-------|--------|
| Impairment loss (profit or loss)                                                                          | CU30  |        |
| Other comprehensive income <sup>(a)</sup>                                                                 | CU20  |        |
| Financial asset—FVOCI                                                                                     |       | CU50   |
| <i>(To recognise 12-month expected credit losses and other fair value changes on the debt instrument)</i> |       |        |

|                                                                                                                                                                                                                                                                                                           | Debit | Credit |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--------|
| (a) The cumulative loss in other comprehensive income at the reporting date was CU20. That amount consists of the total fair value change of CU50 (ie CU1,000 – CU950) offset by the change in the accumulated impairment amount representing 12-month expected credit losses that was recognised (CU30). |       |        |

IE80 Disclosure would be provided about the accumulated impairment amount of CU30.

IE81 On 1 January 20X1, the entity decides to sell the debt instrument for CU950, which is its fair value at that date.

|                                                                                                                                                                 | Debit | Credit |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--------|
| Cash                                                                                                                                                            | CU950 |        |
| Financial asset—FVOCI                                                                                                                                           |       | CU950  |
| Loss (profit or loss)                                                                                                                                           | CU20  |        |
| Other comprehensive income                                                                                                                                      |       | CU20   |
| <i>(To derecognise the fair value through other comprehensive income asset and recycle amounts accumulated in other comprehensive income to profit or loss)</i> |       |        |

### Example 14—interaction between the fair value through other comprehensive income measurement category and foreign currency denomination, fair value hedge accounting and impairment

IE82 This example illustrates the accounting relating to a debt instrument denominated in a foreign currency, measured at fair value through other comprehensive income and designated in a fair value hedge accounting relationship. The example illustrates the interaction with accounting for impairment.

IE83 An entity purchases a debt instrument (a bond) denominated in a foreign currency (FC) for its fair value of FC100,000 on 1 January 20X0 and classifies the bond as measured at fair value through other comprehensive income. The bond has five years remaining to maturity and a fixed coupon of 5 per cent over its contractual life on the contractual par amount of FC100,000. On initial recognition the bond has a 5 per cent effective interest rate. The entity's functional currency is its local currency (LC). The exchange rate is FC1 to LC1 on 1 January 20X0. At initial recognition the entity determines that the bond is not purchased or originated credit-impaired. In addition, as at 1 January 20X0 the 12-month expected credit losses are determined to be FC1,200. Its amortised cost in FC as at 1 January 20X0 is equal to its gross carrying amount of FC100,000 less the 12-month expected credit losses (FC100,000—FC1,200).

IE84 The entity has the following risk exposures:

- (a) fair value interest rate risk in FC: the exposure that arises as a result of purchasing a fixed interest rate instrument; and
- (b) foreign exchange risk: the exposure to changes in foreign exchange rates measured in LC.

IE85 The entity hedges its risk exposures using the following risk management strategy:

- (a) for fixed interest rate risk (in FC) the entity decides to link its interest receipts in FC to current variable interest rates in FC. Consequently, the entity uses interest rate swaps denominated in FC under which it pays fixed interest and receives variable interest in FC; and
- (b) for foreign exchange risk the entity decides not to hedge against any variability in LC arising from changes in foreign exchange rates.

IE86 The entity designates the following hedge relationship:<sup>8</sup> a fair value hedge of the bond in FC as the hedged item with changes in benchmark interest rate risk in FC as the hedged risk. The entity enters into an on-

<sup>8</sup> This example assumes that all qualifying criteria for hedge accounting are met (see paragraph 6.4.1 of IFRS 9). The following description of the designation is solely for the purpose of understanding this example (ie it is not an example of the complete formal documentation required in accordance with paragraph 6.4.1 of IFRS 9).

market swap that pays fixed and receives variable interest on the same day and designates the swap as the hedging instrument. The tenor of the swap matches that of the hedged item (ie five years).

IE87 For simplicity, in this example it is assumed that no hedge ineffectiveness arises in the hedge accounting relationship. This is because of the assumptions made in order to better focus on illustrating the accounting mechanics in a situation that entails measurement at fair value through other comprehensive income of a foreign currency financial instrument that is designated in a fair value hedge relationship, and also to focus on the recognition of impairment gains or losses on such an instrument.

IE88 The entity makes the following journal entries to recognise the bond and the swap on 1 January 20X0:

|                                                                                                                                                                        | Debit<br>LC | Credit<br>LC |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------|
| Financial asset—FVOCI                                                                                                                                                  | 100,000     |              |
| Cash                                                                                                                                                                   |             | 100,000      |
| <i>(To recognise the bond at its fair value)</i>                                                                                                                       |             |              |
| Impairment loss (profit or loss)                                                                                                                                       | 1,200       |              |
| Other comprehensive income                                                                                                                                             |             | 1,200        |
| <i>(To recognise the 12-month expected credit losses)<sup>(a)</sup></i>                                                                                                |             |              |
| Swap                                                                                                                                                                   | –           |              |
| Cash                                                                                                                                                                   |             | –            |
| <i>(To recognise the swap at its fair value)</i>                                                                                                                       |             |              |
| (a) In case of items measured in the functional currency of an entity the journal entry recognising expected credit losses will usually be made at the reporting date. |             |              |

IE89 As of 31 December 20X0 (the reporting date), the fair value of the bond decreased from FC100,000 to FC96,370 because of an increase in market interest rates. The fair value of the swap increased to FC1,837. In addition, as at 31 December 20X0 the entity determines that there has been no change to the credit risk on the bond since initial recognition and continues to carry a loss allowance for 12-month expected credit losses at FC1,200.<sup>9</sup> As at 31 December 20X0, the exchange rate is FC1 to LC1.4. This is reflected in the following table:

|                                    | 1 January<br>20X0 | 31 December 20X0 |
|------------------------------------|-------------------|------------------|
| <b>Bond</b>                        |                   |                  |
| Fair value (FC)                    | 100,000           | 96,370           |
| Fair value (LC)                    | 100,000           | 134,918          |
| Amortised cost (FC)                | 98,800            | 98,800           |
| Amortised cost (LC)                | 98,800            | 138,320          |
| <b>Interest rate swap</b>          |                   |                  |
| Interest rate swap (FC)            | –                 | 1,837            |
| Interest rate swap (LC)            | –                 | 2,572            |
| <b>Impairment – loss allowance</b> |                   |                  |

<sup>9</sup> For the purposes of simplicity the example ignores the impact of discounting when computing expected credit losses.

|                     | 1 January<br>20X0 | 31 December 20X0 |
|---------------------|-------------------|------------------|
| Loss allowance (FC) | 1,200             | 1,200            |
| Loss allowance (LC) | 1,200             | 1,680            |
| FX rate (FC:LC)     | 1:1               | 1:1.4            |

- IE90 The bond is a monetary asset. Consequently, the entity recognises the changes arising from movements in foreign exchange rates in profit or loss in accordance with paragraphs 23(a) and 28 of IAS 21 *The Effects of Changes in Foreign Exchange Rates* and recognises other changes in accordance with IFRS 9. For the purposes of applying paragraph 28 of IAS 21 the asset is treated as an asset measured at amortised cost in the foreign currency.
- IE91 As shown in the table, on 31 December 20X0 the fair value of the bond is LC134,918 ( $FC96,370 \times 1.4$ ) and its amortised cost is LC138,320 ( $FC(100,000 - 1,200) \times 1.4$ ).
- IE92 The gain recognised in profit or loss that is due to the changes in foreign exchange rates is LC39,520 ( $LC138,320 - LC98,800$ ), ie the change in the amortised cost of the bond during 20X0 in LC. The change in the fair value of the bond in LC, which amounts to LC34,918, is recognised as an adjustment to the carrying amount. The difference between the fair value of the bond and its amortised cost in LC is LC3,402 ( $LC134,918 - LC138,320$ ). However, the change in the cumulative gain or loss recognised in other comprehensive income during 20X0 as a reduction is LC 4,602 ( $LC3,402 + LC1,200$ ).
- IE93 A gain of LC2,572 ( $FC1,837 \times 1.4$ ) on the swap is recognised in profit or loss and, because it is assumed that there is no hedge ineffectiveness, an equivalent amount is recycled from other comprehensive income in the same period. For simplicity, journal entries for the recognition of interest revenue are not provided. It is assumed that interest accrued is received in the period.
- IE94 The entity makes the following journal entries on 31 December 20X0:

|                                                                                                                                                                                                                                | Debit<br>LC | Credit<br>LC |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------|
| Financial asset—FVOCI                                                                                                                                                                                                          | 34,918      |              |
| Other comprehensive income                                                                                                                                                                                                     | 4,602       |              |
| Profit or loss                                                                                                                                                                                                                 |             | 39,520       |
| <i>(To recognise the foreign exchange gain on the bond, the adjustment to its carrying amount measured at fair value in LC and the movement in the accumulated impairment amount due to changes in foreign exchange rates)</i> |             |              |
| Swap                                                                                                                                                                                                                           | 2,572       |              |
| Profit or loss                                                                                                                                                                                                                 |             | 2,572        |
| <i>(To remeasure the swap at fair value)</i>                                                                                                                                                                                   |             |              |
| Profit or loss                                                                                                                                                                                                                 | 2,572       |              |
| Other comprehensive income                                                                                                                                                                                                     |             | 2,572        |
| <i>(To recognise in profit or loss the change in fair value of the bond due to a change in the hedged risk)</i>                                                                                                                |             |              |

- IE95 In accordance with paragraph 16A of IFRS 7, the loss allowance for financial assets measured at fair value through other comprehensive income is not presented separately as a reduction of the carrying amount of the financial asset. However, disclosure would be provided about the accumulated impairment amount recognised in other comprehensive income.
- IE96 As at 31 December 20X1 (the reporting date), the fair value of the bond decreased to FC87,114 because of an increase in market interest rates and an increase in the credit risk of the bond. The fair value of the swap increased by FC255 to FC2,092. In addition, as at 31 December 20X1 the entity determines that there has been a significant increase in credit risk on the bond since initial recognition, so a loss allowance at an

amount equal to lifetime expected credit losses is recognised.<sup>10</sup> The estimate of lifetime expected credit losses as at 31 December 20X1 is FC9,700. As at 31 December 20X1, the exchange rate is FC1 to LC1.25. This is reflected in the following table:

|                                    | 31 December<br>20X0 | 31 December<br>20X1 |
|------------------------------------|---------------------|---------------------|
| <b>Bond</b>                        |                     |                     |
| Fair value (FC)                    | 96,370              | 87,114              |
| Fair value (LC)                    | 134,918             | 108,893             |
|                                    |                     |                     |
| Amortised cost (FC)                | 98,800              | 90,300              |
| Amortised cost (LC)                | 138,320             | 112,875             |
|                                    |                     |                     |
| <b>Interest rate swap</b>          |                     |                     |
| Interest rate swap (FC)            | 1,837               | 2,092               |
| Interest rate swap (LC)            | 2,572               | 2,615               |
|                                    |                     |                     |
| <b>Impairment – loss allowance</b> |                     |                     |
| Loss allowance (FC)                | 1,200               | 9,700               |
| Loss allowance (LC)                | 1,680               | 12,125              |
| FX rate (FC:LC)                    | 1:1.4               | 1:1.25              |

IE97 As shown in the table, as at 31 December 20X1 the fair value of the bond is LC108,893 (FC87,114 × 1.25) and its amortised cost is LC112,875 (FC(100,000 – 9,700) × 1.25).

IE98 The lifetime expected credit losses on the bond are measured as FC9,700 as of 31 December 20X1. Thus the impairment loss recognised in profit or loss in LC is LC10,625 (FC(9,700 – 1,200) × 1.25).

IE99 The loss recognised in profit or loss because of the changes in foreign exchange rates is LC14,820 (LC112,875 – LC138,320 + LC10,625), which is the change in the gross carrying amount of the bond on the basis of amortised cost during 20X1 in LC, adjusted for the impairment loss. The difference between the fair value of the bond and its amortised cost in the functional currency of the entity on 31 December 20X1 is LC3,982 (LC108,893 – LC112,875). However, the change in the cumulative gain or loss recognised in other comprehensive income during 20X1 as a reduction in other comprehensive income is LC11,205 (LC3,982 – LC3,402 + LC10,625).

IE100 A gain of LC43 (LC2,615 – LC2,572) on the swap is recognised in profit or loss and, because it is assumed that there is no hedge ineffectiveness, an equivalent amount is recycled from other comprehensive income in the same period.

IE101 The entity makes the following journal entries on 31 December 20X1:

|                                                                                                                                                                                                                                | Debit<br>LC | Credit<br>LC |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------|
| Financial asset—FVOCI                                                                                                                                                                                                          |             | 26,025       |
| Other comprehensive income                                                                                                                                                                                                     | 11,205      |              |
| Profit or loss                                                                                                                                                                                                                 | 14,820      |              |
| <i>(To recognise the foreign exchange gain on the bond, the adjustment to its carrying amount measured at fair value in LC and the movement in the accumulated impairment amount due to changes in foreign exchange rates)</i> |             |              |

<sup>10</sup>

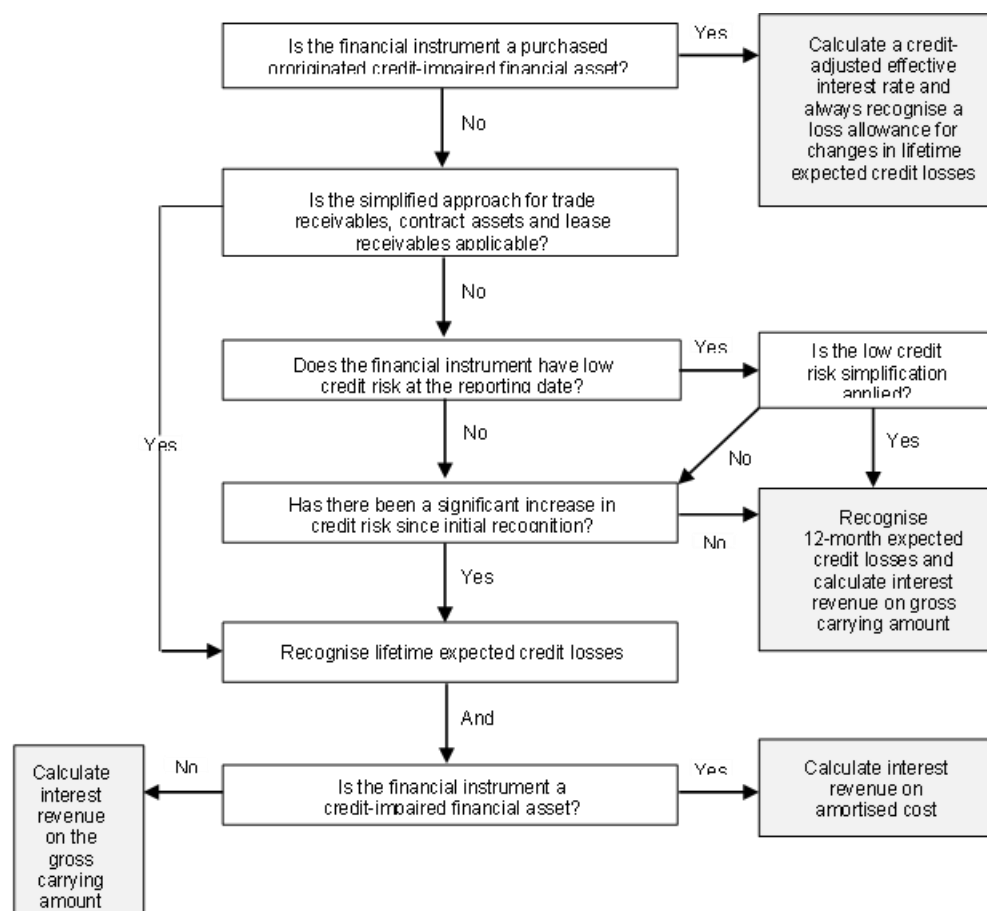
For simplicity this example assumes that credit risk does not dominate the fair value hedge relationship.

|                                                                                                                 | Debit<br>LC | Credit<br>LC |
|-----------------------------------------------------------------------------------------------------------------|-------------|--------------|
| Swap                                                                                                            | 43          |              |
| Profit or loss                                                                                                  |             | 43           |
| <i>(To remeasure the swap at fair value)</i>                                                                    |             |              |
| Profit or loss                                                                                                  | 43          |              |
| Other comprehensive income                                                                                      |             | 43           |
| <i>(To recognise in profit or loss the change in fair value of the bond due to a change in the hedged risk)</i> |             |              |
| Profit or loss (impairment loss)                                                                                | 10,625      |              |
| Other comprehensive income (accumulated impairment amount)                                                      |             | 10,625       |
| <i>(To recognise lifetime expected credit losses)</i>                                                           |             |              |

IE102 On 1 January 20X2, the entity decides to sell the bond for FC 87,114, which is its fair value at that date and also closes out the swap at fair value. The foreign exchange rate is the same as at 31 December 20X1. The journal entries to derecognise the bond and reclassify the gains and losses that have accumulated in other comprehensive income would be as follows:

|                                                                                                                                                                                                                                                                                                                      | Debit<br>LC          | Credit<br>LC |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------------|
| Cash                                                                                                                                                                                                                                                                                                                 | 108,893              |              |
| Financial asset—FVOCI                                                                                                                                                                                                                                                                                                |                      | 108,893      |
| Loss on sale (profit or loss)                                                                                                                                                                                                                                                                                        | 1,367 <sup>(a)</sup> |              |
| Other comprehensive income                                                                                                                                                                                                                                                                                           |                      | 1,367        |
| <i>(To derecognise the bond)</i>                                                                                                                                                                                                                                                                                     |                      |              |
| Swap                                                                                                                                                                                                                                                                                                                 |                      | 2,615        |
| Cash                                                                                                                                                                                                                                                                                                                 | 2,615                |              |
| <i>(To close out the swap)</i>                                                                                                                                                                                                                                                                                       |                      |              |
| <p>(a) This amount consists of the changes in fair value of the bond, the accumulated impairment amount and the changes in foreign exchange rates recognised in other comprehensive income (LC2,572 + LC1,200 + LC43 + LC10,625 – LC4,602 – LC11,205 = -LC1,367, which is recycled as a loss in profit or loss).</p> |                      |              |

## Application of the impairment requirements on a reporting date



## Reclassification of financial assets (Section 5.6)

IE103 This example illustrates the accounting requirements for the reclassification of financial assets between measurement categories in accordance with Section 5.6 of IFRS 9. The example illustrates the interaction with the impairment requirements in Section 5.5 of IFRS 9.

### Example 15—reclassification of financial assets

- IE104 An entity purchases a portfolio of bonds for its fair value (gross carrying amount) of CU500,000.
- IE105 The entity changes the business model for managing the bonds in accordance with paragraph 4.4.1 of IFRS 9. The fair value of the portfolio of bonds at the reclassification date is CU490,000.
- IE106 If the portfolio was measured at amortised cost or at fair value through other comprehensive income immediately prior to reclassification, the loss allowance recognised at the date of reclassification would be CU6,000 (reflecting a significant increase in credit risk since initial recognition and thus the measurement of lifetime expected credit losses).
- IE107 The 12-month expected credit losses at the reclassification date are CU4,000.
- IE108 For simplicity, journal entries for the recognition of interest revenue are not provided.

### Scenario 1: Reclassification out of the amortised cost measurement category and into the fair value through profit or loss measurement category

- IE109 Bank A reclassifies the portfolio of bonds out of the amortised cost measurement category and into the fair value through profit or loss measurement category. At the reclassification date, the portfolio of bonds is measured at fair value. Any gain or loss arising from a difference between the previous amortised cost amount of the portfolio of bonds and the fair value of the portfolio of bonds is recognised in profit or loss on reclassification.

|                                                                                                                                                     | Debit     | Credit    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
| Bonds (FVPL assets)                                                                                                                                 | CU490,000 |           |
| Bonds (gross carrying amount of the amortised cost assets)                                                                                          |           | CU500,000 |
| Loss allowance                                                                                                                                      | CU6,000   |           |
| Reclassification loss (profit or loss)                                                                                                              | CU4,000   |           |
| <i>(To recognise the reclassification of bonds from amortised cost to fair value through profit or loss and to derecognise the loss allowance.)</i> |           |           |

### Scenario 2: Reclassification out of the fair value through profit or loss measurement category and into the amortised cost measurement category

- IE110 Bank A reclassifies the portfolio of bonds out of the fair value through profit or loss measurement category and into the amortised cost measurement category. At the reclassification date, the fair value of the portfolio of bonds becomes the new gross carrying amount and the effective interest rate is determined based on that gross carrying amount. The impairment requirements apply to the bond from the reclassification date. For the purposes of recognising expected credit losses, the credit risk of the portfolio of bonds at the reclassification date becomes the credit risk against which future changes in credit risk shall be compared.

|                                                                                                                                                          | Debit     | Credit    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
| Bonds (gross carrying amount of the amortised cost assets)                                                                                               | CU490,000 |           |
| Bonds (FVPL assets)                                                                                                                                      |           | CU490,000 |
| Impairment loss (profit or loss)                                                                                                                         | CU4,000   |           |
| Loss allowance                                                                                                                                           |           | CU4,000   |
| <i>(To recognise reclassification of bonds from fair value through profit or loss to amortised cost including commencing accounting for impairment.)</i> |           |           |

### Scenario 3: Reclassification out of the amortised cost measurement category and into the fair value through other comprehensive income measurement category

- IE111 Bank A reclassifies the portfolio of bonds out of the amortised cost measurement category and into the fair value through other comprehensive income measurement category. At the reclassification date, the portfolio of bonds is measured at fair value. Any gain or loss arising from a difference between the previous amortised cost amount of the portfolio of bonds and the fair value of the portfolio of bonds is recognised in other comprehensive income. The effective interest rate and the measurement of expected credit losses are not adjusted as a result of the reclassification. The credit risk at initial recognition continues to be used to assess changes in credit risk. From the reclassification date the loss allowance ceases to be recognised as an

adjustment to the gross carrying amount of the bond and is recognised as an accumulated impairment amount, which would be disclosed.

|                                                                                                                                                                                                                                                                                                                        | Debit     | Credit    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
| Bonds (FVOCI assets)                                                                                                                                                                                                                                                                                                   | CU490,000 |           |
| Bonds (gross carrying amount of amortised cost assets)                                                                                                                                                                                                                                                                 |           | CU500,000 |
| Loss allowance                                                                                                                                                                                                                                                                                                         | CU6,000   |           |
| Other comprehensive income <sup>(a)</sup>                                                                                                                                                                                                                                                                              | CU4,000   |           |
| <i>(To recognise the reclassification from amortised cost to fair value through other comprehensive income. The measurement of expected credit losses is however unchanged.)</i>                                                                                                                                       |           |           |
| (a) For simplicity, the amount related to impairment is not shown separately. If it had been, this journal entry (ie DR CU4,000) would be split into the following two entries: DR Other comprehensive income CU10,000 (fair value changes) and CR other comprehensive income CU6,000 (accumulated impairment amount). |           |           |

#### Scenario 4: Reclassification out of the fair value through other comprehensive income measurement category and into the amortised cost measurement category

IE112 Bank A reclassifies the portfolio of bonds out of the fair value through other comprehensive income measurement category and into the amortised cost measurement category. The portfolio of bonds is reclassified at fair value. However, at the reclassification date, the cumulative gain or loss previously recognised in other comprehensive income is removed from equity and adjusted against the fair value of the portfolio of bonds. As a result, the portfolio of bonds is measured at the reclassification date as if it had always been measured at amortised cost. The effective interest rate and the measurement of expected credit losses are not adjusted as a result of the reclassification. The credit risk at initial recognition continues to be used to assess changes in the credit risk on the bonds. The loss allowance is recognised as an adjustment to the gross carrying amount of the bond (to reflect the amortised cost amount) from the reclassification date.

|                                                                                                                                                                                                                                                                                                                                            | Debit     | Credit    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
| Bonds (gross carrying value of the amortised cost assets)                                                                                                                                                                                                                                                                                  | CU490,000 |           |
| Bonds (FVOCI assets)                                                                                                                                                                                                                                                                                                                       |           | CU490,000 |
| Bonds (gross carrying value of the amortised cost assets)                                                                                                                                                                                                                                                                                  | CU10,000  |           |
| Loss allowance                                                                                                                                                                                                                                                                                                                             |           | CU6,000   |
| Other comprehensive income <sup>(a)</sup>                                                                                                                                                                                                                                                                                                  |           | CU4,000   |
| <i>(To recognise the reclassification from fair value through other comprehensive income to amortised cost including the recognition of the loss allowance deducted to determine the amortised cost amount. The measurement of expected credit losses is however unchanged.)</i>                                                           |           |           |
| (a) The cumulative loss in other comprehensive income at the reclassification date was CU4,000. That amount consists of the total fair value change of CU10,000 (ie CU500,000 – 490,000) offset by the accumulated impairment amount recognised (CU6,000) while the assets were measured at fair value through other comprehensive income. |           |           |

#### Scenario 5: Reclassification out of the fair value through profit or loss measurement category and into the fair value through other comprehensive income measurement category

IE113 Bank A reclassifies the portfolio of bonds out of the fair value through profit or loss measurement category and into the fair value through other comprehensive measurement category. The portfolio of bonds

continues to be measured at fair value. However, for the purposes of applying the effective interest method, the fair value of the portfolio of bonds at the reclassification date becomes the new gross carrying amount and the effective interest rate is determined based on that new gross carrying amount. The impairment requirements apply from the reclassification date. For the purposes of recognising expected credit losses, the credit risk of the portfolio of bonds at the reclassification date becomes the credit risk against which future changes in credit risk shall be compared.

|                                                                                                                                                                                                                                                                                                                                                                               | Debit     | Credit    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
| Bonds (FVOCI assets)                                                                                                                                                                                                                                                                                                                                                          | CU490,000 |           |
| Bonds (FVPL assets)                                                                                                                                                                                                                                                                                                                                                           |           | CU490,000 |
| Impairment loss (profit or loss)                                                                                                                                                                                                                                                                                                                                              | CU4,000   |           |
| Other comprehensive income                                                                                                                                                                                                                                                                                                                                                    |           | CU4,000   |
| <i>(To recognise the reclassification of bonds from fair value through profit or loss to fair value through other comprehensive income including commencing accounting for impairment. The other comprehensive income amount reflects the loss allowance at the date of reclassification (an accumulated impairment amount relevant for disclosure purposes) of CU4,000.)</i> |           |           |

### Scenario 6: Reclassification out of the fair value through other comprehensive income measurement category and into the fair value through profit or loss measurement category

- IE114 Bank A reclassifies the portfolio of bonds out of the fair value through other comprehensive income measurement category and into the fair value through profit or loss measurement category. The portfolio of bonds continues to be measured at fair value. However, the cumulative gain or loss previously recognised in other comprehensive income is reclassified from equity to profit or loss as a reclassification adjustment (see IAS 1 *Presentation of Financial Statements*).

|                                                                                                                                                                                                                                                                                                                                      | Debit     | Credit    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
| Bonds (FVPL assets)                                                                                                                                                                                                                                                                                                                  | CU490,000 |           |
| Bonds (FVOCI assets)                                                                                                                                                                                                                                                                                                                 |           | CU490,000 |
| Reclassification loss (profit or loss)                                                                                                                                                                                                                                                                                               | CU4,000   |           |
| Other comprehensive income <sup>(a)</sup>                                                                                                                                                                                                                                                                                            |           | CU4,000   |
| <i>(To recognise the reclassification of bonds from fair value through other comprehensive income to fair value through profit or loss.)</i>                                                                                                                                                                                         |           |           |
| (a) The cumulative loss in other comprehensive income at the reclassification date was CU4,000. That amount consists of the total fair value change of CU10,000 (ie CU500,000 – 490,000) offset by the loss allowance that was recognised (CU6,000) while the assets were measured at fair value through other comprehensive income. |           |           |

### Hedge accounting for aggregated exposures

- IE115 The following examples illustrate the mechanics of hedge accounting for aggregated exposures.

## Example 16—combined commodity price risk and foreign currency risk hedge (cash flow hedge/cash flow hedge combination)

### Fact pattern

- IE116 Entity A wants to hedge a highly probable forecast coffee purchase (which is expected to occur at the end of Period 5). Entity A's functional currency is its Local Currency (LC). Coffee is traded in Foreign Currency (FC). Entity A has the following risk exposures:
- (a) commodity price risk: the variability in cash flows for the purchase price, which results from fluctuations of the spot price of coffee in FC; and
  - (b) foreign currency (FX) risk: the variability in cash flows that result from fluctuations of the spot exchange rate between LC and FC.
- IE117 Entity A hedges its risk exposures using the following risk management strategy:
- (a) Entity A uses benchmark commodity forward contracts, which are denominated in FC, to hedge its coffee purchases four periods before delivery. The coffee price that Entity A actually pays for its purchase is different from the benchmark price because of differences in the type of coffee, the location and delivery arrangement.<sup>11</sup> This gives rise to the risk of changes in the relationship between the two coffee prices (sometimes referred to as 'basis risk'), which affects the effectiveness of the hedging relationship. Entity A does not hedge this risk because it is not considered economical under cost/benefit considerations.
  - (b) Entity A also hedges its FX risk. However, the FX risk is hedged over a different horizon—only three periods before delivery. Entity A considers the FX exposure from the variable payments for the coffee purchase in FC and the gain or loss on the commodity forward contract in FC as one aggregated FX exposure. Hence, Entity A uses one single FX forward contract to hedge the FX cash flows from a forecast coffee purchase and the related commodity forward contract.
- IE118 The following table sets out the parameters used for Example 16 (the 'basis spread' is the differential, expressed as a percentage, between the price of the coffee that Entity A actually buys and the price for the benchmark coffee):

| <b>Example 16—Parameters</b>               |          |          |          |          |          |
|--------------------------------------------|----------|----------|----------|----------|----------|
| <b>Period</b>                              | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| Interest rates for remaining maturity [FC] | 0.26%    | 0.21%    | 0.16%    | 0.06%    | 0.00%    |
| Interest rates for remaining maturity [LC] | 1.12%    | 0.82%    | 0.46%    | 0.26%    | 0.00%    |
| Forward price [FC/lb]                      | 1.25     | 1.01     | 1.43     | 1.22     | 2.15     |
| Basis spread                               | - 5.00%  | - 5.50%  | - 6.00%  | - 3.40%  | - 7.00%  |
| FX rate (spot) [FC/LC]                     | 1.3800   | 1.3300   | 1.4100   | 1.4600   | 1.4300   |

### Accounting mechanics

- IE119 Entity A designates as cash flow hedges the following two hedging relationships:<sup>12</sup>
- (a) A commodity price risk hedging relationship between the coffee price related variability in cash flows attributable to the forecast coffee purchase in FC as the hedged item and a commodity forward contract denominated in FC as the hedging instrument (the 'first level relationship'). This hedging relationship is designated at the end of Period 1 with a term to the end of Period 5. Because of the basis spread between the price of the coffee that Entity A actually buys and the

<sup>11</sup> For the purpose of this example it is assumed that the hedged risk is not designated based on a benchmark coffee price risk component. Consequently, the entire coffee price risk is hedged.

<sup>12</sup> This example assumes that all qualifying criteria for hedge accounting are met (see paragraph 6.4.1 of IFRS 9). The following description of the designation is solely for the purpose of understanding this example (ie it is not an example of the complete formal documentation required in accordance with IFRS 9.6.4.1(b)).

price for the benchmark coffee, Entity A designates a volume of 112,500 pounds (lbs) of coffee as the hedging instrument and a volume of 118,421 lbs as the hedged item.<sup>13</sup>

- (b) An FX risk hedging relationship between the aggregated exposure as the hedged item and an FX forward contract as the hedging instrument (the 'second level relationship'). This hedging relationship is designated at the end of Period 2 with a term to the end of Period 5. The aggregated exposure that is designated as the hedged item represents the FX risk that is the effect of exchange rate changes, compared to the forward FX rate at the end of Period 2 (ie the time of designation of the FX risk hedging relationship), on the combined FX cash flows in FC of the two items designated in the commodity price risk hedging relationship, which are the forecast coffee purchase and the commodity forward contract. Entity A's long-term view of the basis spread between the price of the coffee that it actually buys and the price for the benchmark coffee has not changed from the end of Period 1. Consequently, the actual volume of hedging instrument that Entity A enters into (the nominal amount of the FX forward contract of FC140,625) reflects the cash flow exposure associated with a basis spread that had remained at - 5 per cent. However, Entity A's actual aggregated exposure is affected by changes in the basis spread. Because the basis spread has moved from - 5 per cent to - 5.5 per cent during Period 2, Entity A's actual aggregated exposure at the end of Period 2 is FC140,027.

IE120 The following table sets out the fair values of the derivatives, the changes in the value of the hedged items and the calculation of the cash flow hedge reserves and hedge ineffectiveness:<sup>14</sup>

| Example 16—Calculations                                                     |         | Period                       | 1       | 2        | 3        | 4        | 5        |
|-----------------------------------------------------------------------------|---------|------------------------------|---------|----------|----------|----------|----------|
| <b>Commodity price risk hedging relationship (first level relationship)</b> |         |                              |         |          |          |          |          |
| <i>Forward purchase contract for coffee</i>                                 |         |                              |         |          |          |          |          |
| Volume (lbs)                                                                | 112,500 |                              |         |          |          |          |          |
| Forward price [FC/lb]                                                       | 1.25    | Price (fwd) [FC/lb]          | 1.25    | 1.01     | 1.43     | 1.22     | 2.15     |
|                                                                             |         | Fair value [FC]              | 0       | (26,943) | 20,219   | (3,373)  | 101,250  |
|                                                                             |         | Fair value [LC]              | 0       | (20,258) | 14,339   | (2,310)  | 70,804   |
|                                                                             |         | Change in fair value [LC]    |         | (20,258) | 34,598   | (16,650) | 73,114   |
| <i>Hedged forecast coffee purchase</i>                                      |         |                              |         |          |          |          |          |
| Hedge ratio                                                                 | 105.26% | Basis spread                 | - 5.00% | - 5.50%  | - 6.00%  | - 3.40%  | - 7.00%  |
| Hedged volume                                                               | 118,421 | Price (fwd) [FC/lb]          | 1.19    | 0.95     | 1.34     | 1.18     | 2.00     |
| Implied forward price                                                       | 1.1875  | Present value [FC]           | 0       | 27,540   | (18,528) | 1,063    | (96,158) |
|                                                                             |         | Present value [LC]           | 0       | 20,707   | (13,140) | 728      | (67,243) |
|                                                                             |         | Change in present value [LC] |         | 20,707   | (33,847) | 13,868   | (67,971) |
| <i>Accounting</i>                                                           |         |                              | LC      | LC       | LC       | LC       | LC       |
| Derivative                                                                  |         |                              | 0       | (20,258) | 14,339   | (2,310)  | 70,804   |
| Cash flow hedge reserve                                                     |         |                              | 0       | (20,258) | 13,140   | (728)    | 67,243   |

<sup>13</sup> In this example, the current basis spread at the time of designation is coincidentally the same as Entity A's long-term view of the basis spread (- 5 per cent) that determines the volume of coffee purchases that it actually hedges. Also, this example assumes that Entity A designates the hedging instrument in its entirety and designates as much of its highly probable forecast purchases as it regards as hedged. That results in a hedge ratio of 1/(100%- 5%). Other entities might follow different approaches when determining what volume of their exposure they actually hedge, which can result in a different hedge ratio and also designating less than a hedging instrument in its entirety (see paragraph 6.4.1 of IFRS 9).

<sup>14</sup> In the following table for the calculations all amounts (including the calculations for accounting purposes of amounts for assets, liabilities, equity and profit or loss) are in the format of positive (plus) and negative (minus) numbers (eg a profit or loss amount that is a negative number is a loss).

| <b>Example 16—Calculations</b>                                  |                              |                           |          |          |          |          |
|-----------------------------------------------------------------|------------------------------|---------------------------|----------|----------|----------|----------|
|                                                                 | <b>Period</b>                | <b>1</b>                  | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| Change in cash flow hedge reserve                               |                              |                           | (20,258) | 33,399   | (13,868) | 67,971   |
| Profit or loss                                                  |                              |                           | 0        | 1,199    | (2,781)  | 5,143    |
| Retained earnings                                               |                              | 0                         | 0        | 1,199    | (1,582)  | 3,561    |
| <b>FX risk hedging relationship (second level relationship)</b> |                              |                           |          |          |          |          |
| FX rate [FC/LC]                                                 | Spot                         | 1.3800                    | 1.3300   | 1.4100   | 1.4600   | 1.4300   |
|                                                                 | Forward                      | 1.3683                    | 1.3220   | 1.4058   | 1.4571   | 1.4300   |
| <i>FX forward contract (buy FC/sell LC)</i>                     |                              |                           |          |          |          |          |
| Volume [FC]                                                     | 140,625                      |                           |          |          |          |          |
| Forward rate (in P <sub>2</sub> )                               | 1.3220                       | Fair value [LC]           | 0        | (6,313)  | (9,840)  | (8,035)  |
|                                                                 |                              | Change in fair value [LC] |          | (6,313)  | (3,528)  | 1,805    |
| <i>Hedged FX risk</i>                                           |                              |                           |          |          |          |          |
| Aggregated FX exposure                                          | Hedged volume [FC]           | 140,027                   | 138,932  | 142,937  | 135,533  |          |
|                                                                 | Present value [LC]           | 0                         | 6,237    | 10,002   | 7,744    |          |
|                                                                 | Change in present value [LC] |                           | 6,237    | 3,765    | (2,258)  |          |
| <i>Accounting</i>                                               |                              |                           |          |          |          |          |
| Derivative                                                      |                              | LC                        | LC       | LC       | LC       |          |
|                                                                 |                              | 0                         | (6,313)  | (9,840)  | (8,035)  |          |
| Cash flow hedge reserve                                         |                              | 0                         | (6,237)  | (9,840)  | (7,744)  |          |
| Change in cash flow hedge reserve                               |                              |                           | (6,237)  | (3,604)  | 2,096    |          |
| Profit or loss                                                  |                              |                           | (76)     | 76       | (291)    |          |
| Retained earnings                                               |                              | 0                         | (76)     | 0        | (291)    |          |

IE121 The commodity price risk hedging relationship is a cash flow hedge of a highly probable forecast transaction that starts at the end of Period 1 and remains in place when the FX risk hedging relationship starts at the end of Period 2, ie the first level relationship continues as a separate hedging relationship.

IE122 The volume of the aggregated FX exposure (in FC), which is the hedged volume of the FX risk hedging relationship, is the total of:<sup>15</sup>

- the hedged coffee purchase volume multiplied by the current forward price (this represents the expected spot price of the actual coffee purchase); and
- the volume of the hedging instrument (designated nominal amount) multiplied by the difference between the contractual forward rate and the current forward rate (this represents the expected price differential from benchmark coffee price movements in FC that Entity A will receive or pay under the commodity forward contract).

IE123 The present value (in LC) of the hedged item of the FX risk hedging relationship (ie the aggregated exposure) is calculated as the hedged volume (in FC) multiplied by the difference between the forward FX

<sup>15</sup> For example, at the end of Period 3 the aggregated FX exposure is determined as: 118,421 lbs × 1.34 FC/lb = FC159,182 for the expected price of the actual coffee purchase and 112,500 lbs × (1.25 [FC/lb] - 1.43 [FC/lb]) = FC(20,250) for the expected price differential under the commodity forward contract, which gives a total of FC138,932—the volume of the aggregated FX exposure at the end of Period 3.

rate at the measurement date and the forward FX rate at the designation date of the hedging relationship (ie the end of Period 2).<sup>16</sup>

IE124 Using the present value of the hedged item and the fair value of the hedging instrument, the cash flow hedge reserve and the hedge ineffectiveness are then determined (see paragraph 6.5.11 of IFRS 9).

IE125 The following table shows the effect on Entity A's statement of profit or loss and other comprehensive income and its statement of financial position (for the sake of transparency the line items<sup>17</sup> are disaggregated on the face of the statements by the two hedging relationships, ie for the commodity price risk hedging relationship and the FX risk hedging relationship):

| <b>Example 16—Overview of effect on statements of financial performance and financial position</b><br><i>[All amounts in LC]</i> |          |          |          |          |          |
|----------------------------------------------------------------------------------------------------------------------------------|----------|----------|----------|----------|----------|
| <b>Period</b>                                                                                                                    | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| <b>Statement of profit or loss and other comprehensive income</b>                                                                |          |          |          |          |          |
| Hedge ineffectiveness                                                                                                            |          |          |          |          |          |
| Commodity hedge                                                                                                                  |          | 0        | (1,199)  | 2,781    | (5,143)  |
| FX hedge                                                                                                                         |          | 0        | 76       | (76)     | 291      |
| Profit or loss                                                                                                                   | 0        | 0        | (1,123)  | 2,705    | (4,852)  |
| <b>Other comprehensive income (OCI)</b>                                                                                          |          |          |          |          |          |
| Commodity hedge                                                                                                                  |          | 20,258   | (33,399) | 13,868   | (67,971) |
| FX hedge                                                                                                                         |          | 0        | 6,237    | 3,604    | (2,096)  |
| Total other comprehensive income                                                                                                 | 0        | 20,258   | (27,162) | 17,472   | (70,067) |
| Comprehensive income                                                                                                             | 0        | 20,258   | (28,285) | 20,177   | (74,920) |
| <b>Statement of financial position</b>                                                                                           |          |          |          |          |          |
| Commodity forward                                                                                                                | 0        | (20,258) | 14,339   | (2,310)  | 70,804   |
| FX forward                                                                                                                       |          | 0        | (6,313)  | (9,840)  | (8,035)  |
| Total net assets                                                                                                                 | 0        | (20,258) | 8,027    | (12,150) | 62,769   |
| <b>Equity</b>                                                                                                                    |          |          |          |          |          |
| Accumulated OCI                                                                                                                  |          |          |          |          |          |
| Commodity hedge                                                                                                                  | 0        | 20,258   | (13,140) | 728      | (67,243) |
| FX hedge                                                                                                                         |          | 0        | 6,237    | 9,840    | 7,744    |
|                                                                                                                                  | 0        | 20,258   | (6,904)  | 10,568   | (59,499) |
| <b>Retained earnings</b>                                                                                                         |          |          |          |          |          |
| Commodity hedge                                                                                                                  | 0        | 0        | (1,199)  | 1,582    | (3,561)  |
| FX hedge                                                                                                                         |          | 0        | 76       | 0        | 291      |

<sup>16</sup> For example, at the end of Period 3 the present value of the hedged item is determined as the volume of the aggregated exposure at the end of Period 3 (FC138,932) multiplied by the difference between the forward FX rate at the end of Period 3 (1/1.4058) and the forward FX rate and the time of designation (ie the end of Period 2: 1/1.3220) and then discounted using the interest rate (in LC) at the end of Period 3 with a term of 2 periods (ie until the end of Period 5 – 0.46%). The calculation is:  $FC138,932 \times (1/(1.4058[FC/LC]) - 1/(1.3220 [FC/LC]))/(1 + 0.46\%) = LC6,237$ .

<sup>17</sup> The line items used in this example are a possible presentation. Different presentation formats using different line items (including line items that include the amounts shown here) are also possible (IFRS 7 sets out disclosure requirements for hedge accounting that include disclosures about hedge ineffectiveness, the carrying amount of hedging instruments and the cash flow hedge reserve).

**Example 16—Overview of effect on statements of financial performance and financial position**  
*[All amounts in LC]*

| Period       | 1 | 2      | 3       | 4      | 5        |
|--------------|---|--------|---------|--------|----------|
|              | 0 | 0      | (1,123) | 1,582  | (3,270)  |
| Total equity | 0 | 20,258 | (8,027) | 12,150 | (62,769) |

IE126 The total cost of inventory after hedging is as follows:<sup>18</sup>

|                                                           |          |
|-----------------------------------------------------------|----------|
| <i>Cost of inventory [all amounts in LC]</i>              |          |
| Cash price (at spot for commodity price risk and FX risk) | 165,582  |
| Gain/loss from CFHR for commodity price risk              | (67,243) |
| Gain/loss from CFHR for FX risk                           | 7,744    |
| Cost of inventory                                         | 106,083  |

IE127 The total overall cash flow from all transactions (the actual coffee purchase at the spot price and the settlement of the two derivatives) is LC102,813. It differs from the hedge adjusted cost of inventory by LC3,270, which is the net amount of cumulative hedge ineffectiveness from the two hedging relationships. This hedge ineffectiveness has a cash flow effect but is excluded from the measurement of the inventory.

**Example 17—combined interest rate risk and foreign currency risk hedge (fair value hedge/cash flow hedge combination)**
**Fact pattern**

IE128 Entity B wants to hedge a fixed rate liability that is denominated in Foreign Currency (FC). The liability has a term of four periods from the start of Period 1 to the end of Period 4. Entity B's functional currency is its Local Currency (LC). Entity B has the following risk exposures:

- (a) fair value interest rate risk and FX risk: the changes in fair value of the fixed rate liability attributable to interest rate changes, measured in LC.
- (b) cash flow interest rate risk: the exposure that arises as a result of swapping the combined fair value interest rate risk and FX risk exposure associated with the fixed rate liability (see (a) above) into a variable rate exposure in LC in accordance with Entity B's risk management strategy for FC denominated fixed rate liabilities (see paragraph IE129(a) below).

IE129 Entity B hedges its risk exposures using the following risk management strategy:

- (a) Entity B uses cross-currency interest rate swaps to swap its FC denominated fixed rate liabilities into a variable rate exposure in LC. Entity B hedges its FC denominated liabilities (including the interest) for their entire life. Consequently, Entity B enters into a cross-currency interest rate swap at the same time as it issues an FC denominated liability. Under the cross-currency interest rate swap Entity B receives fixed interest in FC (used to pay the interest on the liability) and pays variable interest in LC.
- (b) Entity B considers the cash flows on a hedged liability and on the related cross-currency interest rate swap as one aggregated variable rate exposure in LC. From time to time, in accordance with its risk management strategy for variable rate interest rate risk (in LC), Entity B decides to lock in its interest payments and hence swaps its aggregated variable rate exposure in LC into a fixed rate exposure in LC. Entity B seeks to obtain as a fixed rate exposure a single blended fixed coupon rate (ie the uniform forward coupon rate for the hedged term that exists at the start of the

<sup>18</sup>

'CFHR' is the cash flow hedge reserve, ie the amount accumulated in other comprehensive income for a cash flow hedge.

hedging relationship).<sup>19</sup> Consequently, Entity B uses interest rate swaps (denominated entirely in LC) under which it receives variable interest (used to pay the interest on the pay leg of the cross-currency interest rate swap) and pays fixed interest.

IE130 The following table sets out the parameters used for Example 17:

| <b>Example 17—Parameters</b>                                                                        |                      |                 |                 |                 |                 |
|-----------------------------------------------------------------------------------------------------|----------------------|-----------------|-----------------|-----------------|-----------------|
|                                                                                                     | <b>t<sub>0</sub></b> | <b>Period 1</b> | <b>Period 2</b> | <b>Period 3</b> | <b>Period 4</b> |
| FX spot rate [LC/FC]                                                                                | 1.2000               | 1.0500          | 1.4200          | 1.5100          | 1.3700          |
| Interest curves<br>(vertical presentation of rates for each<br>quarter of a period on a p.a. basis) |                      |                 |                 |                 |                 |
| LC                                                                                                  | 2.50%                | 5.02%           | 6.18%           | 0.34%           | [N/A]           |
|                                                                                                     | 2.75%                | 5.19%           | 6.26%           | 0.49%           |                 |
|                                                                                                     | 2.91%                | 5.47%           | 6.37%           | 0.94%           |                 |
|                                                                                                     | 3.02%                | 5.52%           | 6.56%           | 1.36%           |                 |
|                                                                                                     | 2.98%                | 5.81%           | 6.74%           |                 |                 |
|                                                                                                     | 3.05%                | 5.85%           | 6.93%           |                 |                 |
|                                                                                                     | 3.11%                | 5.91%           | 7.19%           |                 |                 |
|                                                                                                     | 3.15%                | 6.06%           | 7.53%           |                 |                 |
|                                                                                                     | 3.11%                | 6.20%           |                 |                 |                 |
|                                                                                                     | 3.14%                | 6.31%           |                 |                 |                 |
|                                                                                                     | 3.27%                | 6.36%           |                 |                 |                 |
|                                                                                                     | 3.21%                | 6.40%           |                 |                 |                 |
|                                                                                                     | 3.21%                |                 |                 |                 |                 |
|                                                                                                     | 3.25%                |                 |                 |                 |                 |
|                                                                                                     | 3.29%                |                 |                 |                 |                 |
|                                                                                                     | 3.34%                |                 |                 |                 |                 |
| FC                                                                                                  | 3.74%                | 4.49%           | 2.82%           | 0.70%           | [N/A]           |
|                                                                                                     | 4.04%                | 4.61%           | 2.24%           | 0.79%           |                 |
|                                                                                                     | 4.23%                | 4.63%           | 2.00%           | 1.14%           |                 |
|                                                                                                     | 4.28%                | 4.34%           | 2.18%           | 1.56%           |                 |
|                                                                                                     | 4.20%                | 4.21%           | 2.34%           |                 |                 |
|                                                                                                     | 4.17%                | 4.13%           | 2.53%           |                 |                 |
|                                                                                                     | 4.27%                | 4.07%           | 2.82%           |                 |                 |
|                                                                                                     | 4.14%                | 4.09%           | 3.13%           |                 |                 |
|                                                                                                     | 4.10%                | 4.17%           |                 |                 |                 |
|                                                                                                     | 4.11%                | 4.13%           |                 |                 |                 |
|                                                                                                     | 4.11%                | 4.24%           |                 |                 |                 |

<sup>19</sup>

An entity may have a different risk management strategy whereby it seeks to obtain a fixed rate exposure that is not a single blended rate but a series of forward rates that are each fixed for the respective individual interest period. For such a strategy the hedge effectiveness is measured based on the difference between the forward rates that existed at the start of the hedging relationship and the forward rates that exist at the effectiveness measurement date for the individual interest periods. For such a strategy a series of forward contracts corresponding with the individual interest periods would be more effective than an interest rate swap (that has a fixed payment leg with a single blended fixed rate).

**Example 17—Parameters**

|  | <b>t<sub>0</sub></b> | <b>Period 1</b> | <b>Period 2</b> | <b>Period 3</b> | <b>Period 4</b> |
|--|----------------------|-----------------|-----------------|-----------------|-----------------|
|  | 4.13%                | 4.34%           |                 |                 |                 |
|  | 4.14%                |                 |                 |                 |                 |
|  | 4.06%                |                 |                 |                 |                 |
|  | 4.12%                |                 |                 |                 |                 |
|  | 4.19%                |                 |                 |                 |                 |

**Accounting mechanics**

IE131 Entity B designates the following hedging relationships:<sup>20</sup>

- (a) As a fair value hedge, a hedging relationship for fair value interest rate risk and FX risk between the FC denominated fixed rate liability (fixed rate FX liability) as the hedged item and a cross-currency interest rate swap as the hedging instrument (the ‘first level relationship’). This hedging relationship is designated at the beginning of Period 1 (ie t<sub>0</sub>) with a term to the end of Period 4.
- (b) As a cash flow hedge, a hedging relationship between the aggregated exposure as the hedged item and an interest rate swap as the hedging instrument (the ‘second level relationship’). This hedging relationship is designated at the end of Period 1, when Entity B decides to lock in its interest payments and hence swaps its aggregated variable rate exposure in LC into a fixed rate exposure in LC, with a term to the end of Period 4. The aggregated exposure that is designated as the hedged item represents, in LC, the variability in cash flows that is the effect of changes in the combined cash flows of the two items designated in the fair value hedge of the fair value interest rate risk and FX risk (see (a) above), compared to the interest rates at the end of Period 1 (ie the time of designation of the hedging relationship between the aggregated exposure and the interest rate swap).

IE132 The following table<sup>21</sup> sets out the overview of the fair values of the derivatives, the changes in the value of the hedged items and the calculation of the cash flow hedge reserve and hedge ineffectiveness.<sup>22</sup> In this example, hedge ineffectiveness arises on both hedging relationships.<sup>23</sup>

**Example 17—Calculations**

|                                                 | <b>t<sub>0</sub></b> | <b>Period 1</b> | <b>Period 2</b> | <b>Period 3</b> | <b>Period 4</b> |
|-------------------------------------------------|----------------------|-----------------|-----------------|-----------------|-----------------|
| <b>Fixed rate FX liability</b>                  |                      |                 |                 |                 |                 |
| Fair value [FC]                                 | (1,000,000)          | (995,522)       | (1,031,008)     | (1,030,193)     | (1,000,000)     |
| Fair value [LC]                                 | (1,200,000)          | (1,045,298)     | (1,464,031)     | (1,555,591)     | (1,370,000)     |
| Change in fair value [LC]                       |                      | 154,702         | (418,733)       | (91,560)        | 185,591         |
| <b>CCIRS (receive fixed FC/pay variable LC)</b> |                      |                 |                 |                 |                 |

<sup>20</sup> This example assumes that all qualifying criteria for hedge accounting are met (see paragraph 6.4.1 of IFRS 9). The following description of the designation is solely for the purpose of understanding this example (ie it is not an example of the complete formal documentation required in accordance with paragraph 6.4.1(b) of IFRS 9).

<sup>21</sup> Tables in this example use the following acronyms: ‘CCIRS’ for cross-currency interest rate swap, ‘CF(s)’ for cash flow(s), ‘CFH’ for cash flow hedge, ‘CFHR’ for cash flow hedge reserve, ‘FVH’ for fair value hedge, ‘IRS’ for interest rate swap and ‘PV’ for present value.

<sup>22</sup> In the following table for the calculations all amounts (including the calculations for accounting purposes of amounts for assets, liabilities and equity) are in the format of positive (plus) and negative (minus) numbers (eg an amount in the cash flow hedge reserve that is in brackets is a loss).

<sup>23</sup> For a situation such as in this example, hedge ineffectiveness can result from various factors, for example credit risk, differences in the day count method or, depending on whether it is included in the designation of the hedging instrument, the charge for exchanging different currencies that is included in cross-currency interest rate swaps (commonly referred to as the ‘currency basis’).

**Example 17—Calculations**

|                                                  | <b>t<sub>0</sub></b> | <b>Period 1</b> | <b>Period 2</b> | <b>Period 3</b> | <b>Period 4</b> |
|--------------------------------------------------|----------------------|-----------------|-----------------|-----------------|-----------------|
| Fair value [LC]                                  | 0                    | (154,673)       | 264,116         | 355,553         | 170,000         |
| Change in fair value [LC]                        |                      | (154,673)       | 418,788         | 91,437          | (185,553)       |
| <b>IRS (receive variable/pay fixed)</b>          |                      |                 |                 |                 |                 |
| Fair value [LC]                                  |                      | 0               | 18,896          | (58,767)        | 0               |
| Change in fair value [LC]                        |                      |                 | 18,896          | (77,663)        | (58,767)        |
| <b>CF variability of the aggregated exposure</b> |                      |                 |                 |                 |                 |
| Present value [LC]                               |                      | 0               | (18,824)        | 58,753          | 0               |
| Change in present value [LC]                     |                      |                 | (18,824)        | 77,577          | (58,753)        |
| <b>CFHR</b>                                      |                      |                 |                 |                 |                 |
| Balance (end of period) [LC]                     |                      | 0               | 18,824          | (58,753)        | 0               |
| Change [LC]                                      |                      |                 | 18,824          | (77,577)        | 58,753          |

IE133 The hedging relationship between the fixed rate FX liability and the cross-currency interest rate swap starts at the beginning of Period 1 (ie t<sub>0</sub>) and remains in place when the hedging relationship for the second level relationship starts at the end of Period 1, ie the first level relationship continues as a separate hedging relationship.

IE134 The cash flow variability of the aggregated exposure is calculated as follows:

- (a) At the point in time from which the cash flow variability of the aggregated exposure is hedged (ie the start of the second level relationship at the end of Period 1), all cash flows expected on the fixed rate FX liability and the cross-currency interest rate swap over the hedged term (ie until the end of Period 4) are mapped out and equated to a single blended fixed coupon rate so that the total present value (in LC) is nil. This calculation establishes the single blended fixed coupon rate (reference rate) that is used at subsequent dates as the reference point to measure the cash flow variability of the aggregated exposure since the start of the hedging relationship. This calculation is illustrated in the following table:

**Example 17—Cash flow variability of the aggregated exposure (calibration)**

| Example 2: Cash flow variability of the aggregated exposure (calibration) |                |              |      |              |      |                                                  |    |      |
|---------------------------------------------------------------------------|----------------|--------------|------|--------------|------|--------------------------------------------------|----|------|
| Variability in cash flows of the aggregated exposure                      |                |              |      |              |      |                                                  |    |      |
| FX liability                                                              |                | CCIRS FC leg |      | CCIRS LC leg |      | Calibration                                      | PV |      |
| CF(s)                                                                     | PV             | CF(s)        | PV   | CF(s)        | PV   | 1,200,000 Nominal<br>5.6963% Rate<br>4 Frequency |    |      |
| [FC]                                                                      | [FC]           | [FC]         | [FC] | [LC]         | [LC] | [LC]                                             |    | [LC] |
|                                                                           |                |              |      |              |      |                                                  |    |      |
| Time                                                                      |                |              |      |              |      |                                                  |    |      |
| t <sub>0</sub>                                                            |                |              |      |              |      |                                                  |    |      |
| Period<br>1                                                               |                |              |      |              |      |                                                  |    |      |
|                                                                           | t <sub>1</sub> |              |      |              |      |                                                  |    |      |
|                                                                           | t <sub>2</sub> |              |      |              |      |                                                  |    |      |

**Example 17—Cash flow variability of the aggregated exposure (calibration)**

| Variability in cash flows of the aggregated exposure |             |              |           |              |             |                                                  |           |           |
|------------------------------------------------------|-------------|--------------|-----------|--------------|-------------|--------------------------------------------------|-----------|-----------|
| FX liability                                         |             | CCIRS FC leg |           | CCIRS LC leg |             | Calibration                                      | PV        |           |
| CF(s)                                                | PV          | CF(s)        | PV        | CF(s)        | PV          | 1,200,000 Nominal<br>5.6963% Rate<br>4 Frequency |           |           |
| [FC]                                                 | [FC]        | [FC]         | [FC]      | [LC]         | [LC]        | [LC]                                             | [LC]      |           |
| t <sub>3</sub>                                       |             |              |           |              |             |                                                  |           |           |
| t <sub>4</sub>                                       |             |              |           |              |             |                                                  |           |           |
| <b>Period 2</b>                                      |             |              |           |              |             |                                                  |           |           |
| t <sub>5</sub>                                       | 0           | 0            | 0         | 0            | (14,771)    | (14,591)                                         | 17,089    | 16,881    |
| t <sub>6</sub>                                       | (20,426)    | (19,977)     | 20,246    | 19,801       | (15,271)    | (14,896)                                         | 17,089    | 16,669    |
| t <sub>7</sub>                                       | 0           | 0            | 0         | 0            | (16,076)    | (15,473)                                         | 17,089    | 16,449    |
| t <sub>8</sub>                                       | (20,426)    | (19,543)     | 20,582    | 19,692       | (16,241)    | (15,424)                                         | 17,089    | 16,229    |
| <b>Period 3</b>                                      |             |              |           |              |             |                                                  |           |           |
| t <sub>9</sub>                                       | 0           | 0            | 0         | 0            | (17,060)    | (15,974)                                         | 17,089    | 16,002    |
| t <sub>10</sub>                                      | (20,426)    | (19,148)     | 20,358    | 19,084       | (17,182)    | (15,862)                                         | 17,089    | 15,776    |
| t <sub>11</sub>                                      | 0           | 0            | 0         | 0            | (17,359)    | (15,797)                                         | 17,089    | 15,551    |
| t <sub>12</sub>                                      | (20,426)    | (18,769)     | 20,582    | 18,912       | (17,778)    | (15,942)                                         | 17,089    | 15,324    |
| <b>Period 4</b>                                      |             |              |           |              |             |                                                  |           |           |
| t <sub>13</sub>                                      | 0           | 0            | 0         | 0            | (18,188)    | (16,066)                                         | 17,089    | 15,095    |
| t <sub>14</sub>                                      | (20,426)    | (18,391)     | 20,246    | 18,229       | (18,502)    | (16,095)                                         | 17,089    | 14,866    |
| t <sub>15</sub>                                      | 0           | 0            | 0         | 0            | (18,646)    | (15,972)                                         | 17,089    | 14,638    |
| t <sub>16</sub>                                      | (1,020,426) | (899,695)    | 1,020,582 | 899,832      | (1,218,767) | (1,027,908)                                      | 1,217,089 | 1,026,493 |
| Totals                                               | (995,522)   |              | 995,550   |              | (1,200,000) |                                                  |           | 1,199,971 |
| Totals in LC                                         | (1,045,298) |              | 1,045,327 |              | (1,200,000) |                                                  |           | 1,199,971 |
| PV of all CF(s) [LC]                                 |             |              |           |              |             |                                                  |           |           |

The nominal amount that is used for the calibration of the reference rate is the same as the nominal amount of aggregated exposure that creates the variable cash flows in LC (LC1,200,000), which coincides with the nominal amount of the cross-currency interest rate swap for the variable rate leg in LC. This results in a reference rate of 5.6963 per cent (determined by iteration so that the present value of all cash flows in total is nil).

- (b) At subsequent dates, the cash flow variability of the aggregated exposure is determined by comparison to the reference point established at the end of Period 1. For that purpose, all remaining cash flows expected on the fixed rate FX liability and the cross-currency interest rate swap over the remainder of the hedged term (ie from the effectiveness measurement date until the end of Period 4) are updated (as applicable) and then discounted. Also, the reference rate of 5.6963 per cent is applied to the nominal amount that was used for the calibration of that rate at the end of Period 1 (LC1,200,000) in order to generate a set of cash flows over the remainder of

the hedged term that is then also discounted. The total of all those present values represents the cash flow variability of the aggregated exposure. This calculation is illustrated in the following table for the end of Period 2:

| Example 17—Cash flow variability of the aggregated exposure (at the end of Period 2) |                 |                    |           |                  |         |                    |             |                                                  |           |
|--------------------------------------------------------------------------------------|-----------------|--------------------|-----------|------------------|---------|--------------------|-------------|--------------------------------------------------|-----------|
| Variability in cash flows of the aggregated exposure                                 |                 |                    |           |                  |         |                    |             |                                                  |           |
|                                                                                      |                 | FX liability       |           | CCIRS FC leg     |         | CCIRS LC leg       |             | Calibration                                      | PV        |
|                                                                                      |                 | CF(s)              | PV        | CF(s)            | PV      | CF(s)              | PV          | 1,200,000 Nominal<br>5.6963% Rate<br>4 Frequency |           |
|                                                                                      |                 | [FC]               | [FC]      | [FC]             | [FC]    | [LC]               | [LC]        | [LC]                                             | [LC]      |
| Period 1                                                                             | Time            |                    |           |                  |         |                    |             |                                                  |           |
|                                                                                      | t <sub>0</sub>  |                    |           |                  |         |                    |             |                                                  |           |
|                                                                                      | t <sub>1</sub>  |                    |           |                  |         |                    |             |                                                  |           |
|                                                                                      | t <sub>2</sub>  |                    |           |                  |         |                    |             |                                                  |           |
|                                                                                      | t <sub>3</sub>  |                    |           |                  |         |                    |             |                                                  |           |
|                                                                                      | t <sub>4</sub>  |                    |           |                  |         |                    |             |                                                  |           |
| Period 2                                                                             | t <sub>5</sub>  | 0                  | 0         | 0                | 0       | 0                  | 0           | 0                                                | 0         |
|                                                                                      | t <sub>6</sub>  | 0                  | 0         | 0                | 0       | 0                  | 0           | 0                                                | 0         |
|                                                                                      | t <sub>7</sub>  | 0                  | 0         | 0                | 0       | 0                  | 0           | 0                                                | 0         |
|                                                                                      | t <sub>8</sub>  | 0                  | 0         | 0                | 0       | 0                  | 0           | 0                                                | 0         |
| Period 3                                                                             | t <sub>9</sub>  | 0                  | 0         | 0                | 0       | (18,120)           | (17,850)    | 17,089                                           | 16,835    |
|                                                                                      | t <sub>10</sub> | (20,426)           | (20,173)  | 20,358           | 20,106  | (18,360)           | (17,814)    | 17,089                                           | 16,581    |
|                                                                                      | t <sub>11</sub> | 0                  | 0         | 0                | 0       | (18,683)           | (17,850)    | 17,089                                           | 16,327    |
|                                                                                      | t <sub>12</sub> | (20,426)           | (19,965)  | 20,582           | 20,117  | (19,203)           | (18,058)    | 17,089                                           | 16,070    |
| Period 4                                                                             | t <sub>13</sub> | 0                  | 0         | 0                | 0       | (19,718)           | (18,243)    | 17,089                                           | 15,810    |
|                                                                                      | t <sub>14</sub> | (20,426)           | (19,726)  | 20,246           | 19,553  | (20,279)           | (18,449)    | 17,089                                           | 15,547    |
|                                                                                      | t <sub>15</sub> | 0                  | 0         | 0                | 0       | (21,014)           | (18,789)    | 17,089                                           | 15,280    |
|                                                                                      | t <sub>16</sub> | (1,020,426)        | (971,144) | 1,020,582        | 971,292 | (1,221,991)        | (1,072,947) | 1,217,089                                        | 1,068,643 |
| Totals                                                                               |                 | <u>(1,031,008)</u> |           | <u>1,031,067</u> |         | <u>(1,200,000)</u> |             | <u>1,181,092</u>                                 |           |
| Totals in LC                                                                         |                 | (1,464,031)        |           | 1,464,116        |         | (1,200,000)        |             | 1,181,092                                        |           |
| PV of all CF(s) [LC]                                                                 |                 | (18,824)           |           |                  |         | Σ                  |             |                                                  |           |

The changes in interest rates and the exchange rate result in a change of the cash flow variability of the aggregated exposure between the end of Period 1 and the end of Period 2 that has a present value of LC- 18,824.<sup>24</sup>

IE135 Using the present value of the hedged item and the fair value of the hedging instrument, the cash flow hedge reserve and the hedge ineffectiveness are then determined (see paragraph 6.5.11 of IFRS 9).

IE136 The following table shows the effect on Entity B's statement of profit or loss and other comprehensive income and its statement of financial position (for the sake of transparency some line items<sup>25</sup> are disaggregated on the face of the statements by the two hedging relationships, ie for the fair value hedge of the fixed rate FX liability and the cash flow hedge of the aggregated exposure).<sup>26</sup>

**Example 17—Overview of effect on statements of financial performance and financial position**

[All amounts in LC]

|                                                                   | t <sub>0</sub> | Period 1  | Period 2  | Period 3 | Period 4  |
|-------------------------------------------------------------------|----------------|-----------|-----------|----------|-----------|
| <b>Statement of profit or loss and other comprehensive income</b> |                |           |           |          |           |
| Interest expense                                                  |                |           |           |          |           |
| FX liability                                                      |                | 45,958    | 50,452    | 59,848   | 58,827    |
| FVH adjustment                                                    |                | (12,731)  | 11,941    | 14,385   | (49,439)  |
|                                                                   |                | 33,227    | 62,393    | 74,233   | 9,388     |
| Reclassifications (CFH)                                           |                |           | 5,990     | (5,863)  | 58,982    |
| Total interest expense                                            |                | 33,227    | 68,383    | 68,370   | 68,370    |
| Other gains/losses                                                |                |           |           |          |           |
| Change in fair value of the CCIRS                                 |                | 154,673   | (418,788) | (91,437) | 185,553   |
| FVH adjustment (FX liability)                                     |                | (154,702) | 418,733   | 91,560   | (185,591) |
| Hedge ineffectiveness                                             |                | 0         | (72)      | (54)     | (19)      |
| Total other gains/losses                                          |                | (29)      | (127)     | 68       | (57)      |
| Profit or loss                                                    |                | 33,198    | 68,255    | 68,438   | 68,313    |
| Other comprehensive income (OCI)                                  |                |           |           |          |           |
| Effective CFH gain/loss                                           |                |           | (12,834)  | 71,713   | 229       |
| Reclassifications                                                 |                |           | (5,990)   | 5,863    | (58,982)  |
| Total other comprehensive income                                  |                |           | (18,842)  | 77,577   | (58,753)  |
| Comprehensive income                                              |                | 33,198    | 49,432    | 146,015  | 9,560     |
| <b>Statement of financial position</b>                            |                |           |           |          |           |

<sup>24</sup> This is the amount that is included in the table with the overview of the calculations (see paragraph IE132) as the present value of the cash flow variability of the aggregated exposure at the end of Period 2.

<sup>25</sup> The line items used in this example are a possible presentation. Different presentation formats using different line items (including line items that include the amounts shown here) are also possible (IFRS 7 sets out disclosure requirements for hedge accounting that include disclosures about hedge ineffectiveness, the carrying amount of hedging instruments and the cash flow hedge reserve).

<sup>26</sup> For Period 4 the values in the table with the overview of the calculations (see paragraph IE132) differ from those in the following table. For Periods 1 to 3 the 'dirty' values (ie including interest accruals) equal the 'clean' values (ie excluding interest accruals) because the period end is a settlement date for all legs of the derivatives and the fixed rate FX liability. At the end of Period 4 the table with the overview of the calculations uses clean values in order to calculate the value changes consistently over time. For the following table the dirty values are presented, ie the maturity amounts including accrued interest immediately before the instruments are settled (this is for illustrative purposes as otherwise all carrying amounts other than cash and retained earnings would be nil).

**Example 17—Overview of effect on statements of financial performance and financial position**  
*[All amounts in LC]*

|                   | <b>t<sub>0</sub></b> | <b>Period 1</b> | <b>Period 2</b> | <b>Period 3</b> | <b>Period 4</b> |
|-------------------|----------------------|-----------------|-----------------|-----------------|-----------------|
| FX liability      | (1,200,000)          | (1,045,298)     | (1,464,031)     | (1,555,591)     | (1,397,984)     |
| CCIRS             | 0                    | (154,673)       | 264,116         | 355,553         | 194,141         |
| IRS               |                      | 0               | 18,896          | (58,767)        | (13,004)        |
| Cash              | 1,200,000            | 1,166,773       | 1,098,390       | 1,030,160       | 978,641         |
| Total net assets  | 0                    | (33,198)        | (82,630)        | (228,645)       | (238,205)       |
| <i>Equity</i>     |                      |                 |                 |                 |                 |
| Accumulated OCI   |                      | 0               | (18,824)        | 58,753          | 0               |
| Retained earnings | 0                    | 33,198          | 101,454         | 169,892         | 238,205         |
| Total equity      | 0                    | 33,198          | 82,630          | 228,645         | 238,205         |

IE137 The total interest expense in profit or loss reflects Entity B's interest expense that results from its risk management strategy:

- (a) In Period 1 the risk management strategy results in interest expense reflecting variable interest rates in LC after taking into account the effect of the cross-currency interest rate swap, including a difference between the cash flows on the fixed rate FX liability and the fixed leg of the cross-currency interest rate swap that were settled during Period 1 (this means the interest expense does not exactly equal the variable interest expense that would arise in LC on a borrowing of LC1,200,000). There is also some hedge ineffectiveness that results from a difference in the changes in value for the fixed rate FX liability (as represented by the fair value hedge adjustment) and the cross-currency interest rate swap.
- (b) For Periods 2 to 4 the risk management strategy results in interest expense that reflects, after taking into account the effect of the interest rate swap entered into at the end of Period 1, fixed interest rates in LC (ie locking in a single blended fixed coupon rate for a three-period term based on the interest rate environment at the end of Period 1). However, Entity B's interest expense is affected by the hedge ineffectiveness that arises on its hedging relationships. In Period 2 the interest expense is slightly higher than the fixed rate payments locked in with the interest rate swap because the variable payments received under the interest rate swap are less than the total of the cash flows resulting from the aggregated exposure.<sup>27</sup> In Periods 3 and 4 the interest expense is equal to the locked in rate because the variable payments received under the swap are more than the total of the cash flows resulting from the aggregated exposure.<sup>28</sup>

**Example 18—combined interest rate risk and foreign currency risk hedge (cash flow hedge/fair value hedge combination)**

**Fact pattern**

IE138 Entity C wants to hedge a variable rate liability that is denominated in Foreign Currency (FC). The liability has a term of four periods from the start of Period 1 to the end of Period 4. Entity C's functional currency is its Local Currency (LC). Entity C has the following risk exposures:

<sup>27</sup> In other words, the cash flow variability of the interest rate swap was lower than, and therefore did not fully offset, the cash flow variability of the aggregated exposure as a whole (sometimes called an 'underhedge' situation). In those situations the cash flow hedge does not contribute to the hedge ineffectiveness that is recognised in profit or loss because the hedge ineffectiveness is not recognised (see paragraph 6.5.11 of IFRS 9). The hedge ineffectiveness arising on the fair value hedge affects profit or loss in all periods.

<sup>28</sup> In other words, the cash flow variability of the interest rate swap was higher than, and therefore more than fully offset, the cash flow variability of the aggregated exposure as a whole (sometimes called an 'overhedge' situation). In those situations the cash flow hedge contributes to the hedge ineffectiveness that is recognised in profit or loss (see paragraph 6.5.11 of IFRS 9). The hedge ineffectiveness arising on the fair value hedge affects profit or loss in all periods.

- (a) cash flow interest rate risk and FX risk: the changes in cash flows of the variable rate liability attributable to interest rate changes, measured in LC.
- (b) fair value interest rate risk: the exposure that arises as a result of swapping the combined cash flow interest rate risk and FX risk exposure associated with the variable rate liability (see (a) above) into a fixed rate exposure in LC in accordance with Entity C's risk management strategy for FC denominated variable rate liabilities (see paragraph IE139(a) below).

IE139 Entity C hedges its risk exposures using the following risk management strategy:

- (a) Entity C uses cross-currency interest rate swaps to swap its FC denominated variable rate liabilities into a fixed rate exposure in LC. Entity C hedges its FC denominated liabilities (including the interest) for their entire life. Consequently, Entity C enters into a cross-currency interest rate swap at the same time as it issues an FC denominated liability. Under the cross-currency interest rate swap Entity C receives variable interest in FC (used to pay the interest on the liability) and pays fixed interest in LC.
- (b) Entity C considers the cash flows on a hedged liability and on the related cross-currency interest rate swap as one aggregated fixed rate exposure in LC. From time to time, in accordance with its risk management strategy for fixed rate interest rate risk (in LC), Entity C decides to link its interest payments to current variable interest rate levels and hence swaps its aggregated fixed rate exposure in LC into a variable rate exposure in LC. Consequently, Entity C uses interest rate swaps (denominated entirely in LC) under which it receives fixed interest (used to pay the interest on the pay leg of the cross-currency interest rate swap) and pays variable interest.

IE140 The following table sets out the parameters used for Example 18:

| <b>Example 18—Parameter overview</b>                                                                |                      |                 |                 |                 |                 |
|-----------------------------------------------------------------------------------------------------|----------------------|-----------------|-----------------|-----------------|-----------------|
|                                                                                                     | <b>t<sub>0</sub></b> | <b>Period 1</b> | <b>Period 2</b> | <b>Period 3</b> | <b>Period 4</b> |
| FX spot rate [LC/FC]                                                                                | 1.2                  | 1.05            | 1.42            | 1.51            | 1.37            |
| Interest curves<br>(vertical presentation of rates for each<br>quarter of a period on a p.a. basis) |                      |                 |                 |                 |                 |
| LC                                                                                                  | 2.50%                | 1.00%           | 3.88%           | 0.34%           | [N/A]           |
|                                                                                                     | 2.75%                | 1.21%           | 4.12%           | 0.49%           |                 |
|                                                                                                     | 2.91%                | 1.39%           | 4.22%           | 0.94%           |                 |
|                                                                                                     | 3.02%                | 1.58%           | 5.11%           | 1.36%           |                 |
|                                                                                                     | 2.98%                | 1.77%           | 5.39%           |                 |                 |
|                                                                                                     | 3.05%                | 1.93%           | 5.43%           |                 |                 |
|                                                                                                     | 3.11%                | 2.09%           | 5.50%           |                 |                 |
|                                                                                                     | 3.15%                | 2.16%           | 5.64%           |                 |                 |
|                                                                                                     | 3.11%                | 2.22%           |                 |                 |                 |
|                                                                                                     | 3.14%                | 2.28%           |                 |                 |                 |
|                                                                                                     | 3.27%                | 2.30%           |                 |                 |                 |
|                                                                                                     | 3.21%                | 2.31%           |                 |                 |                 |
|                                                                                                     | 3.21%                |                 |                 |                 |                 |
|                                                                                                     | 3.25%                |                 |                 |                 |                 |
|                                                                                                     | 3.29%                |                 |                 |                 |                 |
|                                                                                                     | 3.34%                |                 |                 |                 |                 |
| FC                                                                                                  | 3.74%                | 4.49%           | 2.82%           | 0.70%           | [N/A]           |
|                                                                                                     | 4.04%                | 4.61%           | 2.24%           | 0.79%           |                 |
|                                                                                                     | 4.23%                | 4.63%           | 2.00%           | 1.14%           |                 |

**Example 18—Parameter overview**

|  | <b>t<sub>0</sub></b> | <b>Period 1</b> | <b>Period 2</b> | <b>Period 3</b> | <b>Period 4</b> |
|--|----------------------|-----------------|-----------------|-----------------|-----------------|
|  | 4.28%                | 4.34%           | 2.18%           | 1.56%           |                 |
|  | 4.20%                | 4.21%           | 2.34%           |                 |                 |
|  | 4.17%                | 4.13%           | 2.53%           |                 |                 |
|  | 4.27%                | 4.07%           | 2.82%           |                 |                 |
|  | 4.14%                | 4.09%           | 3.13%           |                 |                 |
|  | 4.10%                | 4.17%           |                 |                 |                 |
|  | 4.11%                | 4.13%           |                 |                 |                 |
|  | 4.11%                | 4.24%           |                 |                 |                 |
|  | 4.13%                | 4.34%           |                 |                 |                 |
|  | 4.14%                |                 |                 |                 |                 |
|  | 4.06%                |                 |                 |                 |                 |
|  | 4.12%                |                 |                 |                 |                 |
|  | 4.19%                |                 |                 |                 |                 |

**Accounting mechanics**

IE141 Entity C designates the following hedging relationships:<sup>29</sup>

- (a) As a cash flow hedge, a hedging relationship for cash flow interest rate risk and FX risk between the FC denominated variable rate liability (variable rate FX liability) as the hedged item and a cross-currency interest rate swap as the hedging instrument (the ‘first level relationship’). This hedging relationship is designated at the beginning of Period 1 (ie t<sub>0</sub>) with a term to the end of Period 4.
- (b) As a fair value hedge, a hedging relationship between the aggregated exposure as the hedged item and an interest rate swap as the hedging instrument (the ‘second level relationship’). This hedging relationship is designated at the end of Period 1, when Entity C decides to link its interest payments to current variable interest rate levels and hence swaps its aggregated fixed rate exposure in LC into a variable rate exposure in LC, with a term to the end of Period 4. The aggregated exposure that is designated as the hedged item represents, in LC, the change in value that is the effect of changes in the value of the combined cash flows of the two items designated in the cash flow hedge of the cash flow interest rate risk and FX risk (see (a) above), compared to the interest rates at the end of Period 1 (ie the time of designation of the hedging relationship between the aggregated exposure and the interest rate swap).

IE142 The following table<sup>30</sup> sets out the overview of the fair values of the derivatives, the changes in the value of the hedged items and the calculation of the cash flow hedge reserve.<sup>31</sup> In this example no hedge ineffectiveness arises on either hedging relationship because of the assumptions made.<sup>32</sup>

<sup>29</sup> This example assumes that all qualifying criteria for hedge accounting are met (see paragraph 6.4.1 of IFRS 9). The following description of the designation is solely for the purpose of understanding this example (ie it is not an example of the complete formal documentation required in accordance with paragraph 6.4.1(b) of IFRS 9).

<sup>30</sup> Tables in this example use the following acronyms: ‘CCIRS’ for cross-currency interest rate swap, ‘CF(s)’ for cash flow(s), ‘CFH’ for cash flow hedge, ‘CFHR’ for cash flow hedge reserve, ‘FVH’ for fair value hedge, ‘IRS’ for interest rate swap and ‘PV’ for present value.

<sup>31</sup> In the following table for the calculations all amounts (including the calculations for accounting purposes of amounts for assets, liabilities and equity) are in the format of positive (plus) and negative (minus) numbers (eg an amount in the cash flow hedge reserve that is a negative number is a loss).

<sup>32</sup> Those assumptions have been made for didactical reasons, in order to better focus on illustrating the accounting mechanics in a cash flow hedge/fair value hedge combination. The measurement and recognition of hedge ineffectiveness has already been demonstrated in Example 16 and Example 17. However, in reality such hedges are typically not perfectly effective because hedge ineffectiveness can result from various factors, for example credit risk, differences in the day count method or, depending on whether it is included in the designation of the hedging instrument, the charge for exchanging different currencies that is included in cross-currency interest rate swaps (commonly referred to as the ‘currency basis’).

| <b>Example 18—Calculations</b>                            |                      |                 |                 |                 |                 |
|-----------------------------------------------------------|----------------------|-----------------|-----------------|-----------------|-----------------|
|                                                           | <b>t<sub>0</sub></b> | <b>Period 1</b> | <b>Period 2</b> | <b>Period 3</b> | <b>Period 4</b> |
| <b>Variable rate FX liability</b>                         |                      |                 |                 |                 |                 |
| Fair value [FC]                                           | (1,000,000)          | (1,000,000)     | (1,000,000)     | (1,000,000)     | (1,000,000)     |
| Fair value [LC]                                           | (1,200,000)          | (1,050,000)     | (1,420,000)     | (1,510,000)     | (1,370,000)     |
| Change in fair value [LC]                                 |                      | 150,000         | (370,000)       | (90,000)        | 140,000         |
| PV of change in variable CF(s) [LC]                       | 0                    | 192,310         | (260,346)       | (282,979)       | (170,000)       |
| Change in PV [LC]                                         |                      | 192,310         | (452,656)       | (22,633)        | 112,979         |
| <b>CCIRS (receive variable FC/pay fixed LC)</b>           |                      |                 |                 |                 |                 |
| Fair value [LC]                                           | 0                    | (192,310)       | 260,346         | 282,979         | 170,000         |
| Change in fair value [LC]                                 |                      | (192,310)       | 452,656         | 22,633          | (112,979)       |
| <b>CFHR</b>                                               |                      |                 |                 |                 |                 |
| Opening balance                                           | 0                    | 0               | (42,310)        | (28,207)        | (14,103)        |
| Reclassification FX risk                                  |                      | 153,008         | (378,220)       | (91,030)        | 140,731         |
| Reclassification (current period CF)                      |                      | (8,656)         | (18,410)        | 2,939           | 21,431          |
| Effective CFH gain/loss                                   |                      | (186,662)       | (479,286)       | 20,724          | (135,141)       |
| Reclassification for interest rate risk                   |                      | 0               | (82,656)        | 67,367          | (27,021)        |
| Amortisation of CFHR                                      |                      | 0               | 14,103          | 14,103          | 14,103          |
| Ending balance                                            |                      | (42,103)        | (28,207)        | (14,103)        | 0               |
| <b>IRS (receive fixed/pay variable)</b>                   |                      |                 |                 |                 |                 |
| Fair value [LC]                                           |                      | 0               | (82,656)        | (15,289)        | (42,310)        |
| Change in fair value                                      |                      |                 | (82,656)        | 67,367          | (27,021)        |
| <b>Change in present value of the aggregated exposure</b> |                      |                 |                 |                 |                 |
| Present value [LC]                                        |                      | (1,242,310)     | (1,159,654)     | (1,227,021)     | (1,200,000)     |
| Change in present value [LC]                              |                      |                 | 82,656          | (67,367)        | 27,021          |

IE143 The hedging relationship between the variable rate FX liability and the cross-currency interest rate swap starts at the beginning of Period 1 (ie t<sub>0</sub>) and remains in place when the hedging relationship for the second level relationship starts at the end of Period 1, ie the first level relationship continues as a separate hedging relationship. However, the hedge accounting for the first level relationship is affected by the start of hedge accounting for the second level relationship at the end of Period 1. The fair value hedge for the second level relationship affects the timing of the reclassification to profit or loss of amounts from the cash flow hedge reserve for the first level relationship:

- (a) The fair value interest rate risk that is hedged by the fair value hedge is included in the amount that is recognised in other comprehensive income as a result of the cash flow hedge for the first level hedging relationship (ie the gain or loss on the cross- currency interest rate swap that is

determined to be an effective hedge).<sup>33</sup> This means that from the end of Period 1 the part of the effective cash flow hedging gain or loss that represents the fair value interest rate risk (in LC), and is recognised in other comprehensive income in a first step, is in a second step immediately (ie in the same period) transferred from the cash flow hedge reserve to profit or loss. That reclassification adjustment offsets the gain or loss on the interest rate swap that is recognised in profit or loss.<sup>34</sup> In the context of accounting for the aggregated exposure as the hedged item, that reclassification adjustment is the equivalent of a fair value hedge adjustment because in contrast to a hedged item that is a fixed rate debt instrument (in LC) at amortised cost, the aggregated exposure is already remeasured for changes regarding the hedged risk but the resulting gain or loss is recognised in other comprehensive income because of applying cash flow hedge accounting for the first level relationship. Consequently, applying fair value hedge accounting with the aggregated exposure as the hedged item does not result in changing the hedged item's measurement but instead affects where the hedging gains and losses are recognised (ie reclassification from the cash flow hedge reserve to profit or loss).

- (b) The amount in the cash flow hedge reserve at the end of Period 1 (LC42,310) is amortised over the remaining life of the cash flow hedge for the first level relationship (ie over Periods 2 to 4).<sup>35</sup>

IE144 The change in value of the aggregated exposure is calculated as follows:

- (a) At the point in time from which the change in value of the aggregated exposure is hedged (ie the start of the second level relationship at the end of Period 1), all cash flows expected on the variable rate FX liability and the cross-currency interest rate swap over the hedged term (ie until the end of Period 4) are mapped out and their combined present value, in LC, is calculated. This calculation establishes the present value that is used at subsequent dates as the reference point to measure the change in present value of the aggregated exposure since the start of the hedging relationship. This calculation is illustrated in the following table:

| <b>Example 18—Present value of the aggregated exposure (starting point)</b> |                |                     |             |                     |             |                     |
|-----------------------------------------------------------------------------|----------------|---------------------|-------------|---------------------|-------------|---------------------|
| <b>Present value of the aggregated exposure</b>                             |                |                     |             |                     |             |                     |
|                                                                             |                | <b>FX liability</b> |             | <b>CCIRS FC leg</b> |             | <b>CCIRS LC leg</b> |
|                                                                             |                | <b>CF(s)</b>        | <b>PV</b>   | <b>CF(s)</b>        | <b>PV</b>   | <b>CF(s)</b>        |
|                                                                             |                | <b>[FC]</b>         | <b>[FC]</b> | <b>[FC]</b>         | <b>[FC]</b> | <b>[LC]</b>         |
| <b>Time</b>                                                                 |                |                     |             |                     |             |                     |
| Period 1                                                                    | t <sub>0</sub> |                     |             |                     |             |                     |
|                                                                             | t <sub>1</sub> |                     |             |                     |             |                     |
|                                                                             | t <sub>2</sub> |                     |             |                     |             |                     |
|                                                                             | t <sub>3</sub> |                     |             |                     |             |                     |
|                                                                             | t <sub>4</sub> |                     |             |                     |             |                     |
| Period 2                                                                    | t <sub>5</sub> | (11,039)            | (10,918)    | 11,039              | 10,918      | (9,117)             |
|                                                                             | t <sub>6</sub> | (11,331)            | (11,082)    | 11,331              | 11,082      | (9,117)             |
|                                                                             | t <sub>7</sub> | (11,375)            | (11,000)    | 11,375              | 11,000      | (9,117)             |
|                                                                             | t <sub>8</sub> | (10,689)            | (10,227)    | 10,689              | 10,227      | (9,117)             |
| Period 3                                                                    | t <sub>9</sub> | (10,375)            | (9,824)     | 10,375              | 9,824       | (9,117)             |
|                                                                             |                |                     |             |                     |             | (8,961)             |

<sup>33</sup> As a consequence of hedging its exposure to cash flow interest rate risk by entering into the cross- currency interest rate swap that changed the cash flow interest rate risk of the variable rate FX liability into a fixed rate exposure (in LC), Entity C in effect assumed an exposure to fair value interest rate risk (see paragraph IE139).

<sup>34</sup> In the table with the overview of the calculations (see paragraph IE142) this reclassification adjustment is the line item “Reclassification for interest rate risk” in the reconciliation of the cash flow hedge reserve (eg at the end of Period 2 a reclassification of a gain of LC82,656 from the cash flow hedge reserve to profit or loss—see paragraph IE144 for how that amount is calculated).

<sup>35</sup> In the table with the overview of the calculations (see paragraph IE142) this amortisation results in a periodic reclassification adjustment of LC14,103 that is included in the line item “Amortisation of CFHR” in the reconciliation of the cash flow hedge reserve.

| Example 18—Present value of the aggregated exposure (starting point) |                 |             |              |           |              |             |
|----------------------------------------------------------------------|-----------------|-------------|--------------|-----------|--------------|-------------|
| Present value of the aggregated exposure                             |                 |             |              |           |              |             |
|                                                                      | FX liability    |             | CCIRS FC leg |           | CCIRS LC leg |             |
|                                                                      | CF(s)           | PV          | CF(s)        | PV        | CF(s)        | PV          |
|                                                                      | [FC]            | [FC]        | [FC]         | [FC]      | [LC]         | [LC]        |
| t <sub>10</sub>                                                      | (10,164)        | (9,528)     | 10,164       | 9,528     | (9,117)      | (8,918)     |
| t <sub>11</sub>                                                      | (10,028)        | (9,307)     | 10,028       | 9,307     | (9,117)      | (8,872)     |
| t <sub>12</sub>                                                      | (10,072)        | (9,255)     | 10,072       | 9,255     | (9,117)      | (8,825)     |
| Period 4                                                             | t <sub>13</sub> | (10,256)    | 10,256       | 9,328     | (9,117)      | (8,776)     |
|                                                                      | t <sub>14</sub> | (10,159)    | 10,159       | 9,147     | (9,117)      | (8,727)     |
|                                                                      | t <sub>15</sub> | (10,426)    | 10,426       | 9,290     | (9,117)      | (8,678)     |
|                                                                      | t <sub>16</sub> | (1,010,670) | 1,010,670    | 891,093   | (1,209,117)  | (1,144,358) |
| Totals                                                               |                 | (1,000,000) |              | 1,000,000 |              | (1,242,310) |
| Totals in LC                                                         |                 | (1,050,000) |              | 1,050,000 |              | (1,242,310) |
| PV of aggregated exposure [LC]                                       |                 | (1,242,310) | ← $\Sigma$   |           |              |             |

The present value of all cash flows expected on the variable rate FX liability and the cross-currency interest rate swap over the hedged term at the end of Period 1 is LC- 1,242,310.<sup>36</sup>

- (b) At subsequent dates, the present value of the aggregated exposure is determined in the same way as at the end of Period 1 but for the remainder of the hedged term. For that purpose, all remaining cash flows expected on the variable rate FX liability and the cross-currency interest rate swap over the remainder of the hedged term (ie from the effectiveness measurement date until the end of Period 4) are updated (as applicable) and then discounted. The total of those present values represents the present value of the aggregated exposure. This calculation is illustrated in the following table for the end of Period 2:

| Example 18—Present value of the aggregated exposure (at the end of Period 2) |              |      |              |      |              |      |
|------------------------------------------------------------------------------|--------------|------|--------------|------|--------------|------|
| Present value of the aggregated exposure                                     |              |      |              |      |              |      |
|                                                                              | FX liability |      | CCIRS FC leg |      | CCIRS LC leg |      |
|                                                                              | CF(s)        | PV   | CF(s)        | PV   | CF(s)        | PV   |
|                                                                              | [FC]         | [FC] | [FC]         | [FC] | [LC]         | [LC] |
| Time                                                                         |              |      |              |      |              |      |
| t <sub>0</sub>                                                               |              |      |              |      |              |      |
| Period 1                                                                     |              |      |              |      |              |      |
| t <sub>1</sub>                                                               |              |      |              |      |              |      |

<sup>36</sup>

In this example no hedge ineffectiveness arises on either hedging relationship because of the assumptions made (see paragraph IE142). Consequently, the absolute values of the variable rate FX liability and the FC denominated leg of the cross-currency interest rate are equal (but with opposite signs). In situations in which hedge ineffectiveness arises, those absolute values would not be equal so that the remaining net amount would affect the present value of the aggregated exposure.

| Example 18—Present value of the aggregated exposure (at the end of Period 2) |             |              |           |              |             |             |   |
|------------------------------------------------------------------------------|-------------|--------------|-----------|--------------|-------------|-------------|---|
| Present value of the aggregated exposure                                     |             |              |           |              |             |             |   |
| FX liability                                                                 |             | CCIRS FC leg |           | CCIRS LC leg |             |             |   |
|                                                                              | CF(s)       | PV           | CF(s)     | PV           | CF(s)       | PV          |   |
|                                                                              | [FC]        | [FC]         | [FC]      | [FC]         | [LC]        | [LC]        |   |
| t <sub>2</sub>                                                               |             |              |           |              |             |             |   |
| t <sub>3</sub>                                                               |             |              |           |              |             |             |   |
| t <sub>4</sub>                                                               |             |              |           |              |             |             |   |
| Period 2                                                                     |             |              |           |              |             |             |   |
| t <sub>5</sub>                                                               | 0           | 0            | 0         | 0            | 0           | 0           | 0 |
| t <sub>6</sub>                                                               | 0           | 0            | 0         | 0            | 0           | 0           | 0 |
| t <sub>7</sub>                                                               | 0           | 0            | 0         | 0            | 0           | 0           | 0 |
| t <sub>8</sub>                                                               | 0           | 0            | 0         | 0            | 0           | 0           | 0 |
| Period 3                                                                     |             |              |           |              |             |             |   |
| t <sub>9</sub>                                                               | (6,969)     | (6,921)      | 6,969     | 6,921        | (9,117)     | (9,030)     |   |
| t <sub>10</sub>                                                              | (5,544)     | (5,475)      | 5,544     | 5,475        | (9,117)     | (8,939)     |   |
| t <sub>11</sub>                                                              | (4,971)     | (4,885)      | 4,971     | 4,885        | (9,117)     | (8,847)     |   |
| t <sub>12</sub>                                                              | (5,401)     | (5,280)      | 5,401     | 5,280        | (9,117)     | (8,738)     |   |
| Period 4                                                                     |             |              |           |              |             |             |   |
| t <sub>13</sub>                                                              | (5,796)     | (5,632)      | 5,796     | 5,632        | (9,117)     | (8,624)     |   |
| t <sub>14</sub>                                                              | (6,277)     | (6,062)      | 6,277     | 6,062        | (9,117)     | (8,511)     |   |
| t <sub>15</sub>                                                              | (6,975)     | (6,689)      | 6,975     | 6,689        | (9,117)     | (8,397)     |   |
| t <sub>16</sub>                                                              | (1,007,725) | (959,056)    | 1,007,725 | 956,056      | (1,209,117) | (1,098,568) |   |
| Totals                                                                       |             | (1,000,000)  |           | 1,000,000    |             | (1,159,654) |   |
| Totals in LC                                                                 |             | (1,420,000)  |           | 1,420,000    |             | (1,159,654) |   |
| PV of aggregated exposure [LC]                                               |             | (1,159,654)  |           | Σ            |             |             |   |

The changes in interest rates and the exchange rate result in a present value of the aggregated exposure at the end of Period 2 of LC- 1,159,654. Consequently, the change in the present value of the aggregated exposure between the end of Period 1 and the end of Period 2 is a gain of LC82,656.<sup>37</sup>

IE145 Using the change in present value of the hedged item (ie the aggregated exposure) and the fair value of the hedging instrument (ie the interest rate swap), the related reclassifications from the cash flow hedge reserve to profit or loss (reclassification adjustments) are then determined.

IE146 The following table shows the effect on Entity C's statement of profit or loss and other comprehensive income and its statement of financial position (for the sake of transparency some line items<sup>38</sup> are

<sup>37</sup> This is the amount that is included in the table with the overview of the calculations (see paragraph IE142) as the change in present value of the aggregated exposure at the end of Period 2.

38 The line items used in this example are a possible presentation. Different presentation formats using different line items (including line items that include the amounts shown here) are also possible (IFRS 7 sets out disclosure requirements for hedge

disaggregated on the face of the statements by the two hedging relationships, ie for the cash flow hedge of the variable rate FX liability and the fair value hedge of the aggregated exposure):<sup>39</sup>

| <b>Example 18—Overview of effect on statements of financial performance and financial position</b><br><i>[All amounts in LC]</i> |                      |                 |                 |                 |                 |
|----------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------|-----------------|-----------------|-----------------|
|                                                                                                                                  | <b>t<sub>0</sub></b> | <b>Period 1</b> | <b>Period 2</b> | <b>Period 3</b> | <b>Period 4</b> |
| <b>Statement of profit or loss and other comprehensive income</b>                                                                |                      |                 |                 |                 |                 |
| Interest expense                                                                                                                 |                      |                 |                 |                 |                 |
| FX liability                                                                                                                     |                      | 45,122          | 54,876          | 33,527          | 15,035          |
| FVH adjustment                                                                                                                   |                      | 0               | (20,478)        | 16,517          | (26,781)        |
|                                                                                                                                  |                      | 45,122          | 34,398          | 50,045          | (11,746)        |
| Reclassifications (CFH)                                                                                                          |                      | (8,656)         | (18,410)        | 2,939           | 21,431          |
|                                                                                                                                  |                      | 36,466          | 15,989          | 52,983          | 9,685           |
| Amortisation of CFHR                                                                                                             |                      | 0               | 14,103          | 14,103          | 14,103          |
| Total interest expense                                                                                                           |                      | 36,466          | 30,092          | 67,087          | 23,788          |
| Other gains/losses                                                                                                               |                      |                 |                 |                 |                 |
| IRS                                                                                                                              |                      | 0               | 82,656          | (67,367)        | 27,021          |
| FX gain/loss (liability)                                                                                                         |                      | (150,000)       | 370,000         | 90,000          | (140,000)       |
| FX gain/loss (interest)                                                                                                          |                      | (3,008)         | 8,220           | 1,030           | (731)           |
| Reclassification for FX risk                                                                                                     |                      | 153,008         | (378,220)       | (91,030)        | 140,731         |
| Reclassification for interest rate risk                                                                                          |                      | 0               | (82,656)        | 67,367          | (27,021)        |
| Total other gains/losses                                                                                                         |                      | 0               | 0               | 0               | 0               |
| Profit or loss                                                                                                                   |                      | 36,466          | 30,092          | 67,087          | 23,788          |
| Other comprehensive income (OCI)                                                                                                 |                      |                 |                 |                 |                 |
| Effective gain/loss                                                                                                              |                      | 186,662         | (479,286)       | (20,724)        | 135,141         |
| Reclassification (current period CF)                                                                                             |                      | 8,656           | 18,410          | (2,939)         | (21,431)        |
| Reclassification for FX risk                                                                                                     |                      | (153,008)       | 378,220         | 91,030          | (140,731)       |
| Reclassification for interest rate risk                                                                                          |                      | 0               | 82,656          | (67,367)        | 27,021          |
| Amortisation of CFHR                                                                                                             |                      | 0               | (14,103)        | (14,103)        | (14,103)        |
| Total other comprehensive income                                                                                                 |                      | 42,310          | (14,103)        | (14,103)        | (14,103)        |
| Comprehensive income                                                                                                             |                      | 78,776          | 15,989          | 52,983          | 9,685           |
| <b>Statement of financial position</b>                                                                                           |                      |                 |                 |                 |                 |
| FX liability                                                                                                                     | (1,200,000)          | (1,050,000)     | (1,420,000)     | (1,510,000)     | (1,375,306)     |
| CCIRS                                                                                                                            | 0                    | (192,310)       | 260,346         | 282,979         | 166,190         |

accounting that include disclosures about hedge ineffectiveness, the carrying amount of hedging instruments and the cash flow hedge reserve).

<sup>39</sup>

For Period 4 the values in the table with the overview of the calculations (see paragraph IE142) differ from those in the following table. For Periods 1 to 3 the 'dirty' values (ie including interest accruals) equal the 'clean' values (ie excluding interest accruals) because the period end is a settlement date for all legs of the derivatives and the fixed rate FX liability. At the end of Period 4 the table with the overview of the calculations uses clean values in order to calculate the value changes consistently over time. For the following table the dirty values are presented, ie the maturity amounts including accrued interest immediately before the instruments are settled (this is for illustrative purposes as otherwise all carrying amounts other than cash and retained earnings would be nil).

**Example 18—Overview of effect on statements of financial performance and financial position**  
*[All amounts in LC]*

|                   | <b>t<sub>0</sub></b> | <b>Period 1</b> | <b>Period 2</b> | <b>Period 3</b> | <b>Period 4</b> |
|-------------------|----------------------|-----------------|-----------------|-----------------|-----------------|
| IRS               |                      | 0               | (82,656)        | (15,289)        | (37,392)        |
| Cash              | 1,200,000            | 1,163,534       | 1,147,545       | 1,094,562       | 1,089,076       |
| Total net assets  | 0                    | (78,776)        | (94,765)        | (147,748)       | (157,433)       |
| Accumulated OCI   | 0                    | 42,310          | 28,207          | 14,103          | 0               |
| Retained earnings | 0                    | 36,466          | 66,558          | 133,645         | 157,433         |
| Total equity      | 0                    | 78,776          | 94,765          | 147,748         | 157,433         |

IE147 The total interest expense in profit or loss reflects Entity C's interest expense that results from its risk management strategy:

- (a) In Period 1 the risk management strategy results in interest expense reflecting fixed interest rates in LC after taking into account the effect of the cross- currency interest rate swap.
- (b) For Periods 2 to 4, after taking into account the effect of the interest rate swap entered into at the end of Period 1, the risk management strategy results in interest expense that changes with variable interest rates in LC (ie the variable interest rate prevailing in each period). However, the amount of the total interest expense is not equal to the amount of the variable rate interest because of the amortisation of the amount that was in the cash flow hedge reserve for the first level relationship at the end of Period 1.<sup>40</sup>

<sup>40</sup>

See paragraph IE143(b). That amortisation becomes an expense that has an effect like a spread on the variable interest rate.



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## Guidance on implementing IFRS 9 *Financial Instruments*

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*This guidance accompanies, but is not part of, IFRS 9. The numbers used for the questions are carried forward from the implementation guidance accompanying IAS 39 Financial Instruments: Recognition and Measurement.*

### 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 1 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 IFRS 9. Instead, it is accounted for as an executory contract (unless the entity irrevocably designates it as measured at fair value through profit or loss in accordance with paragraph 2.5 of IFRS 9).

#### 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.<sup>1</sup> 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 (paragraph 2.4 of IFRS 9; but see also paragraph 2.5 of IFRS 9).

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 (IFRS 9, paragraph 2.7). 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 IFRS 9 because the option writer does not have the ability to require delivery.

However, if the contract were a forward contract instead of 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. (But see also paragraph 2.5 of IFRS 9).

### 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.

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<sup>1</sup> In this guidance, monetary amounts are denominated in 'currency units' (CU).

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

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

IFRS 9 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 nonfinancial 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.**
- (c) **It is settled at a future date.**

| Type of contract                                                   | Main pricing-settlement variable (underlying variable)     |
|--------------------------------------------------------------------|------------------------------------------------------------|
| 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)                   |
| 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 IFRS 9. 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 may apply, for example, if it is a weather derivative (see paragraph B2.1 of IFRS 9), a contract to buy or sell a non-financial item such as commodity (see paragraphs 2.5–2.7 and BA.2 of IFRS 9) or a contract settled in an entity’s own shares (see paragraphs 21–24 of IAS 32). 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 IFRS 9, 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 on the basis of 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 ( $\text{CU100 million} \times 10\% \times 5 \text{ years}$ ) 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 IFRS 9. 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 IFRS 9.

### 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 IFRS 9. Therefore, the contract is not accounted for as a derivative under IFRS 9. 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 contractual par amount at inception of the two loans, since A and B have a netting agreement. Is this a derivative under IFRS 9?**

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 IFRS 9 does not require net settlement.

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

**The definition of a derivative in IFRS 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. IFRS 9 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 1 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, 1 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 IFRS 9, 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 (Appendix A of IFRS 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.24 Definition of gross carrying amount: 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 gross carrying amount. The interest rate may be fixed or variable. 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 repayment of the gross carrying amount, 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 gross carrying amount in each period.

## **B.25 Definition of gross carrying amount: perpetual debt instruments with decreasing interest rate**

**If the stated rate of interest on a perpetual debt instrument decreases over time, would the gross carrying amount equal the contractual par amount in each period?**

No. From an economic perspective, some or all of the contractual interest payments are repayments of the gross carrying amount. For example, the interest rate may be stated as 16 per cent for the first 10 years and as zero per cent in subsequent periods. In that case, the initial amount is amortised to zero over the first 10 years using the effective interest method, since a portion of the contractual interest payments represents repayments of the gross carrying amount. The gross carrying amount 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 contractual cash payments in subsequent periods).

## **B.26 Example of calculating the gross carrying amount: financial asset**

**How is the gross carrying amount calculated for financial assets measured at amortised cost in accordance with IFRS 9?**

The gross carrying amount 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 gross 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 the gross carrying amount 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 contractual par amount of CU1,250 and carries fixed interest of 4.7 per cent that is paid annually ( $\text{CU1,250} \times 4.7\% = \text{CU59}$  per year). The contract also specifies that the borrower has an option to prepay the instrument at par and that no penalty will be charged for prepayment. At inception, the entity expects the borrower not to prepay (and, therefore, the entity determines that the fair value of the prepayment feature is insignificant when the financial asset is initially recognised).

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 gross carrying amount, interest revenue and cash flows of the debt instrument in each reporting period.

| Year | (a)<br><br>Gross carrying<br>amount at the<br>beginning of the<br>year | (b = a × 10%)<br><br>Interest revenue | (c)<br><br>Cash flows | (d = a + b – c)<br><br>Gross carrying<br>amount at the end<br>of the year |
|------|------------------------------------------------------------------------|---------------------------------------|-----------------------|---------------------------------------------------------------------------|
| 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 contractual par amount will be prepaid at the end of 20X2 and the remaining 50 per cent at the end of 20X4. In accordance with paragraph B5.4.6 of IFRS 9, the gross carrying amount of the debt instrument in 20X2 is adjusted. The gross carrying amount is recalculated 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 gross carrying amount in 20X2 of CU1,138. The adjustment of CU52 ( $\text{CU1,138} - \text{CU1,086}$ ) is recorded in profit or loss in 20X2. The table below provides information about the gross carrying amount, interest revenue and cash flows as they would be adjusted taking into account the change in estimate.

| Year | (a)<br><br>Gross carrying<br>amount at the<br>beginning of the<br>year | (b = a × 10%)<br><br>Interest revenue | (c)<br><br>Cash flows | (d = a + b – c)<br><br>Gross carrying<br>amount at the end<br>of the year |
|------|------------------------------------------------------------------------|---------------------------------------|-----------------------|---------------------------------------------------------------------------|
| 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              | –                                                                         |

## B.27 Example of calculating the gross carrying amount: 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 is issued at CU1,250 and has a maturity amount of CU1,250, would the gross carrying amount 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.

The following example illustrates how the gross carrying amount 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 contractual par 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 contractual par 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 the gross carrying amount in each period. In each period, the gross carrying amount at the beginning of the period is multiplied by the effective interest rate of 10 per cent and added to the gross carrying amount. Any cash payments in the period are deducted from the resulting number. Accordingly, the gross carrying amount in each period is as follows:

| Year | (a)                                                | (b = a × 10%)    | (c)         | (d = a + b – c)                              |
|------|----------------------------------------------------|------------------|-------------|----------------------------------------------|
|      | Gross carrying amount at the beginning of the year | Interest revenue | Cash flows  | Gross carrying amount 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. IFRS 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 is not limited to a formal stock exchange or organised over-the-counter market. Instead, 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 1 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 1 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**

**IFRS 9 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. IFRS 9 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 paragraphs 3.1.1 and 3.3.1 of IFRS 9 apply. Paragraph 3.1.1 of IFRS 9 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 IFRS 9. Paragraph 3.3.1 of IFRS 9 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 contract. 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 contract, 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 contractual 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 contract.

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 contract. If it were permitted to separate embedded non-option derivatives on other terms, a single hybrid contract 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 contract. 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 contract. 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 contract. 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 contract?**

No. The economic behaviour of a hybrid contract with an option-based embedded derivative depends critically on the strike price (or strike rate) specified for the option feature in the hybrid contract, as discussed below. Therefore, the separation of an option-based embedded derivative (including any embedded put, call, cap, floor, capton, floortion or swaption feature in a hybrid contract) should be based on the stated terms of the option feature documented in the hybrid contract. 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 contract.

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 contract being exercised generally is not zero, it would be inconsistent with the likely economic behaviour of the hybrid contract 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 contract. 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 contract, 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 contract.

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 contract. 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 contract, 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 contract.

## 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 the contractual payments. 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 (paragraph 4.3.3(c) of IFRS 9), 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 (paragraph 4.3.3(a) of IFRS 9). 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 (paragraph 4.3.3(b) and Appendix A of IFRS 9). 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. Paragraph BA.1 of IFRS 9 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.6 Embedded derivatives: synthetic instruments

**Entity A issues a five-year floating rate debt instrument. At the same time, it enters into a five-year pay-fixed, receive-variable interest rate swap with Entity B. Entity A regards the combination of the debt instrument and swap as a synthetic fixed rate instrument. Entity A contends that separate accounting for the swap is inappropriate since paragraph B4.3.8(a) of IFRS 9 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 contractual 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 IFRS 9. 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 IFRS 9?**

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 IFRS 9 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 (paragraphs 2.4 and BA.2 of IFRS 9) and the entity has not irrevocably designated it as measured at fair value through profit or loss in accordance with paragraph 2.5 of IFRS 9. 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 paragraph 4.3.3 of IFRS 9, 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 (paragraph B4.3.8(d) of IFRS 9).

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 paragraph B4.3.8(d) of IFRS 9 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 paragraph 4.3.3 of IFRS 9.

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

**Paragraph B4.3.8(d) of IFRS 9 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 contract permit, but do not require, the holder to settle the combined contract 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 paragraph B4.3.8(a) of IFRS 9 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 contract permit, but do not require, the investor to settle the combined contract 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.

## 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 IFRS 9 applied to a purchase of a financial asset?**

The following example illustrates the application of the trade date and settlement date accounting principles in IFRS 9 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.

| Settlement date accounting                         |                                             |                                                                            |                                                                |
|----------------------------------------------------|---------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------|
| Balances                                           | Financial assets measured at amortised cost | Financial assets measured at fair value through other comprehensive income | Financial assets measured at fair value through profit or loss |
| <b>29 December 20X1</b>                            |                                             |                                                                            |                                                                |
| Financial asset                                    | –                                           | –                                                                          | –                                                              |
| Financial liability                                | –                                           | –                                                                          | –                                                              |
| <b>31 December 20X1</b>                            |                                             |                                                                            |                                                                |
| Receivable                                         | –                                           | 2                                                                          | 2                                                              |
| Financial asset                                    | –                                           | –                                                                          | –                                                              |
| Financial liability                                | –                                           | –                                                                          | –                                                              |
| Other comprehensive income (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                                | –                                           | –                                                                          | –                                                              |
| Other comprehensive income (fair value adjustment) | –                                           | (3)                                                                        | –                                                              |
| Retained earnings (through profit or loss)         | –                                           | –                                                                          | (3)                                                            |

| Trade date accounting   |                                             |                                                                            |                                                                |
|-------------------------|---------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------|
| Balances                | Financial assets measured at amortised cost | Financial assets measured at fair value through other comprehensive income | Financial assets measured at fair value through profit or loss |
| <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> |                                             |                                                                            |                                                                |

| Trade date accounting                              |         |         |         |
|----------------------------------------------------|---------|---------|---------|
| Receivable                                         | –       | –       | –       |
| Financial asset                                    | 1,000   | 1,002   | 1,002   |
| Financial liability                                | (1,000) | (1,000) | (1,000) |
| Other comprehensive income (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                                | –       | –       | –       |
| Other comprehensive income (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 IFRS 9 applied to a sale of a financial asset?**

The following example illustrates the application of the trade date and settlement date accounting principles in IFRS 9 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 gross carrying amount 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 loss allowance or interest revenue on the financial asset is disregarded for the purpose of this example).

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.

| Settlement date accounting                         |                                             |                                                                            |                                                                |
|----------------------------------------------------|---------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------|
| Balances                                           | Financial assets measured at amortised cost | Financial assets measured at fair value through other comprehensive income | Financial assets measured at fair value through profit or loss |
| <b>29 December 20X2</b>                            |                                             |                                                                            |                                                                |
| Receivable                                         | –                                           | –                                                                          | –                                                              |
| Financial asset                                    | 1,000                                       | 1,010                                                                      | 1,010                                                          |
| Other comprehensive income (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                                                          |
| Other comprehensive income (fair value adjustment) | –                                           | 10                                                                         | –                                                              |

| Settlement date accounting                         |    |    |    |
|----------------------------------------------------|----|----|----|
| Retained earnings (through profit or loss)         | –  | –  | 10 |
| <b>4 January 20X3</b>                              |    |    |    |
| Other comprehensive income (fair value adjustment) | –  | –  | –  |
| Retained earnings (through profit or loss)         | 10 | 10 | 10 |

| Trade date accounting                              |                                             |                                                                            |                                                                |
|----------------------------------------------------|---------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------|
| Balances                                           | Financial assets measured at amortised cost | Financial assets measured at fair value through other comprehensive income | Financial assets measured at fair value through profit or loss |
| <b>29 December 20X2</b>                            |                                             |                                                                            |                                                                |
| Receivable                                         | 1,010                                       | 1,010                                                                      | 1,010                                                          |
| Financial asset                                    | –                                           | –                                                                          | –                                                              |
| Other comprehensive income (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                                    | –                                           | –                                                                          | –                                                              |
| Other comprehensive income (fair value adjustment) | –                                           | –                                                                          | –                                                              |
| Retained earnings (through profit or loss)         | 10                                          | 10                                                                         | 10                                                             |
| <b>4 January 20X3</b>                              |                                             |                                                                            |                                                                |
| Other comprehensive income (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 paragraph 5.7.4 of IFRS 9?**

It depends. Any change in the fair value of the financial asset to be received would be accounted for under paragraph 5.7.4 of IFRS 9 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 paragraph B3.1.5 of IFRS 9. 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 measured at amortised cost, in exchange for Bond B, which meets the definition of held for trading and is 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 financial assets measured at amortised cost and trade date accounting for assets that meet the definition of 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 not measured at fair value through profit or loss, transaction costs are added to the fair value at initial recognition. For financial liabilities, transaction costs are deducted from the fair value at initial recognition.

For financial instruments that are measured at amortised cost, transaction costs are subsequently 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 financial instruments that are measured at fair value through other comprehensive income in accordance with either paragraphs 4.1.2A and 5.7.10 or paragraphs 4.1.4 and 5.7.5 of IFRS 9, transaction costs are recognised in other comprehensive income as part of a change in fair value at the next remeasurement. If the financial asset is measured in accordance with paragraphs 4.1.2A and 5.7.10 of IFRS 9, those transaction costs are amortised to profit or loss using the effective interest method and, in effect, amortised through profit or loss over the life of the instrument.

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.3 Gains and losses

#### E.3.2 IFRS 9 and IAS 21—financial assets measured at fair value through other comprehensive income: separation of currency component

A financial asset measured at fair value through other comprehensive income in accordance with paragraph 4.1.2A of IFRS 9 is treated as a monetary item. Therefore, the entity recognises changes in the carrying

**amount relating to changes in foreign exchange rates in profit or loss in accordance with paragraphs 23(a) and 28 of IAS 21 and other changes in the carrying amount in other comprehensive income in accordance with IFRS 9. How is the cumulative gain or loss that is recognised in other comprehensive income determined?**

It is the difference between the amortised cost of the financial asset<sup>2</sup> and the fair value of the financial asset in the functional currency of the reporting entity. For the purpose of applying paragraph 28 of IAS 21 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 contractual par amount of FC1,250, carries fixed interest of 4.7 per cent that is paid annually ( $FC1,250 \times 4.7\% = FC59$  per year), and has an effective interest rate of 10 per cent. Entity A classifies the bond as subsequently measured at fair value through other comprehensive income in accordance with paragraph 4.1.2A of IFRS 9, 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 revenue determined in accordance with the effective interest method is FC100 ( $= FC1,000 \times 10$  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 revenue during the year (see paragraph 22 of IAS 21). Thus, reported interest revenue 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 revenue                                | 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 other comprehensive income 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 revenue determined in accordance with the effective interest method is FC104 ( $= FC1,041 \times 10\%$ ). 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 revenue during the year (see paragraph 22 of IAS 21). Thus, recognised interest revenue is LC234 ( $= FC104 \times 2.25$ ) including accretion of the initial discount of LC101 ( $= [FC104 - FC59] \times 2.25$ ). 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 ( $= FC59 \times [2.50 - 2.25]$ ).

<sup>2</sup> The objective of this example is to illustrate the separation of the currency component for a financial asset that is measured at fair value through other comprehensive income in accordance with paragraph 4.1.2A of IFRS 9. Consequently, for simplicity, this example does not reflect the effect of the impairment requirements in Section 5.5 of IFRS 9.

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

### E.3.3 IFRS 9 and IAS 21—exchange differences arising on translation of foreign entities: other comprehensive income or profit or loss?

Paragraphs 32 and 48 of IAS 21 state 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 measured at fair value through profit or loss and financial assets that are measured at fair value through other comprehensive income in accordance with IFRS 9.

IFRS 9 requires that changes in fair value of financial assets measured at fair value through profit or loss should be recognised in profit or loss and changes in fair value of financial assets measured at fair value through other comprehensive income 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 IFRS 9 and paragraph 39 of IAS 21 applied?

IFRS 9 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 meets the definition of held for trading and is therefore measured at fair value through profit or loss in accordance with IFRS 9.

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' (paragraph 39(b) of IAS 21). 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 paragraph 22 of IAS 21. 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 paragraph 39(b) of IAS 21. The resulting exchange difference, ie the remaining increase in the fair value of the debt instrument (LCX130 – LCX25 = LCX105), is accumulated in other comprehensive income until the disposal of the net investment in the foreign operation in accordance with paragraph 48 of IAS 21.

### E.3.4 IFRS 9 and IAS 21—interaction between IFRS 9 and IAS 21

IFRS 9 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 IFRS 9 applied?

### *Statement of financial position*

Generally, the measurement of a financial asset or financial liability at fair value or amortised cost is first determined in the foreign currency in which the item is denominated in accordance with IFRS 9. Then, the foreign currency amount is translated into the functional currency using the closing rate or a historical rate in accordance with IAS 21 (paragraph B5.7.2 of IFRS 9). For example, if a monetary financial asset (such as a debt instrument) is measured at amortised cost in accordance with IFRS 9, 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 (paragraph 23 of IAS 21). That applies regardless of whether a monetary item is measured at amortised cost or fair value in the foreign currency (paragraph 24 of IAS 21). A non-monetary financial asset (such as an investment in an equity instrument) that is measured at fair value in the foreign currency is translated using the closing rate (paragraph 23(c) of IAS 21).

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 IFRS 9 (or IAS 39 if an entity chooses as its accounting policy to continue to apply the hedge accounting requirements in 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 (paragraph 6.5.8 of IFRS 9 or paragraph 89 of IAS 39), 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 (paragraph 23(b) of IAS 21).

### *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 in accordance with IAS 21 (paragraph B5.7.2 of IFRS 9, paragraphs 28 and 32 of IAS 21), 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 apply (paragraph 6.5.11 of IFRS 9 or paragraph 95 of IAS 39). 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 in accordance with IFRS 9. For example, although an entity recognises gains and losses on financial assets measured at fair value through other comprehensive income in other comprehensive income (paragraphs 5.7.10 and B5.7.2A of IFRS 9), the entity nevertheless recognises the changes in the carrying amount relating to changes in foreign exchange rates in profit or loss (paragraph 23(a) of IAS 21).

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 IFRS 9. For example, for an investment in an equity instrument that is presented in accordance with paragraph 5.7.5 of IFRS 9, the entire change in the carrying amount, including the effect of changes in foreign currency rates, is presented in other comprehensive income (paragraph B5.7.3 of IFRS 9). 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 apply (paragraph 6.5.11 of IFRS 9 or paragraph 95 of IAS 39).

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 measured at fair value through other comprehensive income has increased in foreign currency (resulting in a gain in profit or loss) but its fair value has decreased in foreign 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.

## Section G Other

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### G.2 IFRS 9 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 IFRS 9, 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 IFRS 9.

## **Appendix**

### **Amendments to guidance on other Standards**

*The amendments in this appendix to the guidance on other Standards are necessary in order to ensure consistency with IFRS 9 and the related amendments to other Standards.*

\* \* \* \* \*

*The amendments contained in this appendix when IFRS 9 was issued in 2014 have been incorporated into the guidance on the relevant Standards included in this volume.*

