

A Closer Look Assessing hedge effectiveness under IFRS 9



Introduction

In September 2012 the International Accounting Standards Board (IASB) issued a draft of the new proposals for hedge accounting under IFRS. These long awaited reforms will eventually form part of the new standard on financial instrument accounting, IFRS 9, and are expected to be effective from 1 January 2015. The draft will be available on the IASB website until early December.

The IASB has proposed a number of significant changes to the current IAS 39 hedge accounting requirements. The overall effect will be more opportunities to apply hedge accounting and consequently less profit or loss volatility arising from risk management activities. To date, IAS 39's restrictive accounting rules have led to some companies not applying hedge accounting or in some cases changing their risk management approach to become eligible. Hence, the lifting of these restrictions could prompt changes in risk management and more application of hedge accounting.

To highlight the practical effect of some of the new proposals we have written a series of examples contrasting the current IAS 39 requirements with the new proposals. This publication is the third in that series¹ and will explore the changes to the hedge effectiveness requirements.

Under the proposals a hedging relationship must meet certain hedge effectiveness requirements in order to qualify for hedge accounting. Those requirements are significantly different to those in IAS 39. The key changes to the effectiveness testing requirements include:

- the removal of the 80 – 125 per cent offset requirement and replacement with a principles based effectiveness test;
- the removal of retrospective effectiveness testing requirements leaving only a prospective assessment required at the beginning of each hedged period; and
- increased flexibility in how hedge effectiveness is demonstrated.

The requirement to measure and recognise hedge ineffectiveness is not changed under these proposals.

Background

To qualify for hedge accounting under IAS 39 there must be an expectation that the hedge will be highly effective (ie the prospective test) and that expectation must be realised for each hedged period (ie the retrospective test). Therefore under IAS 39 it is not known whether hedge accounting will apply for each period until the end of each period. IAS 39 defines a hedge as highly effective if the offset is in the range of 80-125 per cent. This results in entities being required to perform numerical effectiveness tests to demonstrate offset within this range if it wishes to qualify for hedge accounting. These requirements are seen to be onerous, not in line with risk management practices and vulnerable to technical failures (rather than a breakdown in the economics of the hedge). In addition, it is difficult to explain an entity's risk management strategy when hedge accounting is not allowed because of an 'accounting-based threshold' of 80-125 per cent. This approach also fails to show the true performance of a hedge when the offset falls outside the 80-125 per cent range.

To address these issues the IASB decided to replace the qualifying criteria in IAS 39 with more principles-based qualifying criteria, avoiding any specific offset thresholds that could be inconsistent with risk management approaches. Under the proposals a hedging relationship must comply with the following to qualify for hedge accounting:

- there should be an *economic relationship* between the hedging instrument and the hedged item;
- the effect of *credit risk should not dominate* the value changes that result from that economic relationship; and
- *the hedge ratio should reflect the actual quantity* of hedging instrument used to hedge the actual quantity of hedged item (ie consistent with the ratio used for risk management purposes), provided this does not deliberately attempt to achieve an inappropriate accounting outcome.

¹ The first publication explored the changes to the accounting of option contracts designated as hedging instruments and the second focussed on hedging risk components in non-financial items. Both can be found at <http://www.iasplus.com/en/tag-types/global-publications/a-closer-look>.

The new effectiveness assessment regime will require judgement to determine whether an economic relationship exists between the hedged item and hedging instrument. Depending on how complex the hedging relationship is, that judgement may need to be supported by a qualitative or a quantitative assessment of the hedging relationship.

The examples below set out in a more practical context how an entity could go about meeting the effectiveness testing requirements of IFRS 9. The examples compare the IFRS 9 requirements to IAS 39 to illustrate the practical differences between the two standards. The examples focus on cash flow hedges of interest rate risk, however, the principles can apply to other hedges. The numbers used in these examples are for illustrative purposes only.

What is hedge effectiveness?

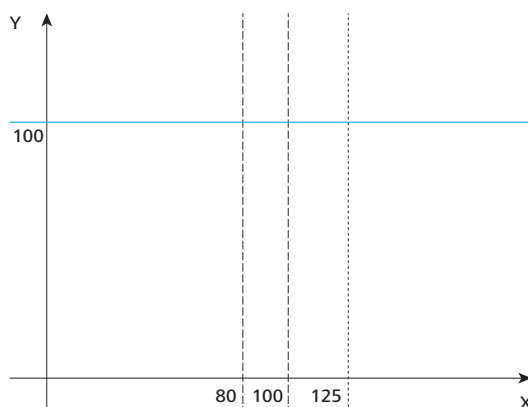
Hedge effectiveness is the extent to which changes in the fair value or cash flows of the hedging instrument offset changes in the fair value or cash flows of the hedged item

Assessment vs Measurement

Hedge effectiveness *assessment* is different from hedge effectiveness *measurement*. Assessment determines whether a hedge relationship is eligible for hedge accounting. If hedge accounting is applied then any hedge ineffectiveness (except for a cash flow under-hedge) must be *measured* and recognised in profit or loss. The requirements of IFRS 9 and IAS 39 are very different in respect of *assessment* but both require actual hedge ineffectiveness to be *measured* and recognised in the same way.

The graph below shows that in the absence of hedge accounting, 100 per cent of the change in fair value of the hedging instrument is recognised in profit or loss with no offsetting amounts from remeasuring hedged items (in the case of a fair value hedge).

No hedge accounting under IAS 39 or IFRS 9

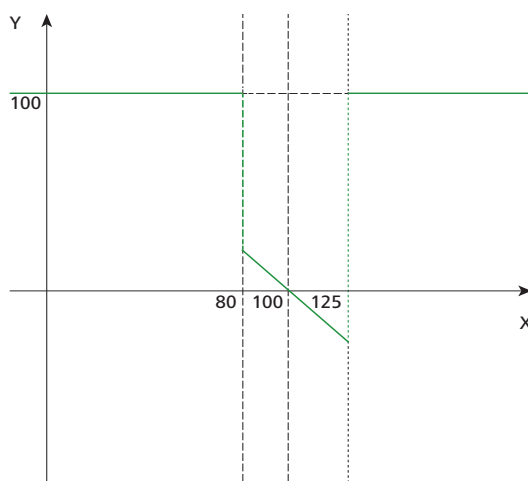


(Y axis): % change in fair value (FV) of hedging instrument recognised in profit or loss net of any fair value hedge adjustments on hedged items in a fair value hedge.

(X axis): $-\Delta\text{FV of hedged item} / \Delta\text{FV hedging instrument as \%}$.

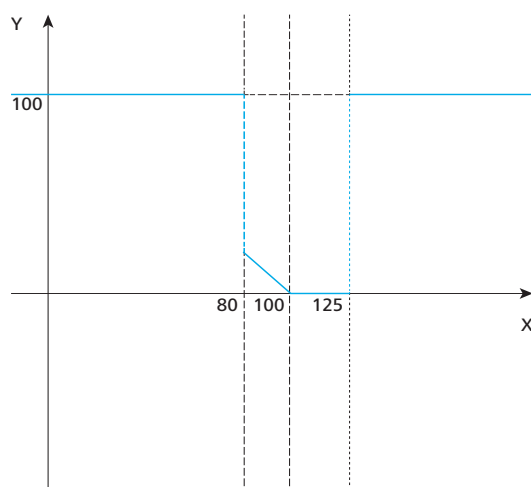
The chart below illustrates the effect of fair value hedge accounting under IAS 39 which applies when the hedge is assessed as effective within the 80 to 125 per cent range.

Fair value hedge under IAS 39



The chart below illustrates the effect of cash flow hedge accounting under IAS 39 which applies when the hedge is assessed as effective within the 80 to 125 per cent range.

Cash flow hedge under IAS 39



Under IAS 39, hedge accounting cannot be applied outside the 80-125% range. Outside this range offset between hedged item and hedging instrument is not reflected.

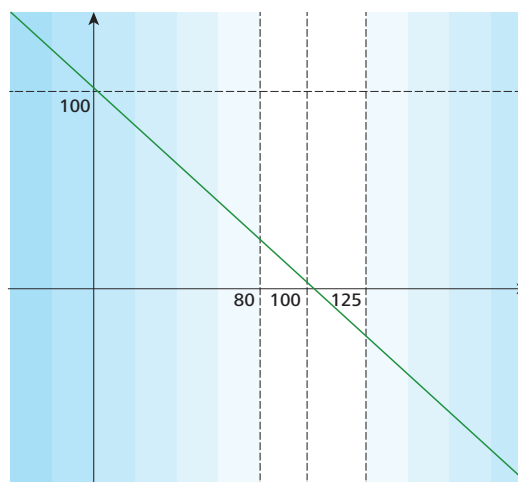
Both IAS 39 and IFRS 9 have the same mechanics for cash flow hedge accounting where the amounts deferred in reserves is the lower of:

- (i) The cumulative gain or loss on the hedging instrument from inception of the hedge; and
- (ii) The cumulative change in present value of the expected future cash flows on the hedged item from inception of the hedge.

The consequence of this is that no ineffectiveness is recognised in profit or loss for an effective hedge where the cumulative change in value of the hedging instrument is less than the hedged item.

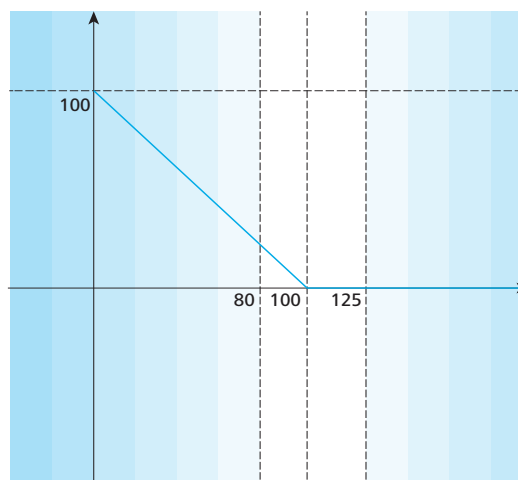
The chart below illustrates the effect of fair value hedge accounting under IFRS 9 when the hedge is assessed as effective.

Fair value hedge under IFRS 9



The chart below illustrates the effect of cash flow hedge accounting under IFRS 9 when the hedge is assessed as effective.

Cash flow hedge under IFRS 9



Under IFRS 9 there is no defined numerical range of effectiveness necessary for hedge accounting to be applied. If there is an economic relationship, not dominated by credit risk, and the appropriate hedge ratio is designated, the hedge effectiveness criteria are met. However, where hedge ineffectiveness arises it would be necessary to consider whether it calls into question the economic relationship or prompts reconsideration of the hedge ratio. For example, if a hedge is consistently 90 per cent effective this might indicate that the hedge ratio should be different.

Detailed examples

The numbers used in these examples are for illustrative purposes only.

Example 1 – matched terms

Entity A plans to issue a floating rate bond on 1 July 2013. The bond will have principal of £100m and pay interest quarterly in arrears on 1 January, 1 April, 1 July and 1 October each year up to and including the maturity date of 1 July 2023. Interest will be paid at a rate of 3M LIBOR + margin.

Entity A has an interest rate risk management policy under which interest rate swaps may be used to hedge interest rate risk. On 1 May 2013 the entity transacts a pay fixed, receive float, forward starting interest rate swap with the following terms:

Trade date	1 May 2013
Effective date	1 July 2013
Maturity date	1 July 2023
Notional	£100,000,000
Pay	2.2%
Receive	3M LIBOR
Payment dates	1 January, 1 April, 1 July and 1 October each year up to and including 1 July 2023

The swap is on-market and transacted for nil consideration. The hedge is formally designated on 1 May 2013 as a cash flow hedge of the variability of the highly probable interest cash flows on the forecast bond issuance up to the date of issue and on the actual bond issued to maturity for changes in 3M LIBOR.

Hedge effectiveness under IAS 39

- **Designation of the quantity of hedged item and quantity of hedging instrument (ie hedge ratio):**

Given that IAS 39 requires a hedge to achieve an offset within 80-125% in order to be regarded as an effective hedge, the hedge ratio would need to be set in order to expect to meet this level of effectiveness. Also, IAS 39 prohibits an entity from deliberately 'under-hedging' by designating the amount of the hedging instrument lower than the amount of hedged item in order to artificially reduce hedge ineffectiveness. This is particularly relevant for cash flow hedges. In this example the entity has hedged 100% of the exposure and hence this is not relevant.

- **Method for assessing hedge effectiveness:**

The hedge documentation must specify the method Entity A will apply to assess hedge effectiveness both prospectively and retrospectively and apply this consistently for the duration of the hedge relationship.

- **Prospective hedge effectiveness:** On 1 May 2013, and at the beginning of each reporting period, Entity A is required to carry out prospective effectiveness testing to demonstrate that the hedge is expected to be highly effective (ie 80 to 125 per cent offset). More frequent testing is permitted.

The method of testing adopted in this example is critical terms matching. As the critical terms of the hedged cash flows and hedging interest rate swap match, credit risk is insignificant and the fair value of the swap is nil on designation, the hedge is expected to be a highly effective. Note that if the effect of credit risk was expected to be more than insignificant then this would call into question whether critical terms matching would be a sufficient test to demonstrate an expectation of high effectiveness.

- **Retrospective hedge effectiveness:** At the end of each reporting period whilst the hedge accounting relationship remains designated, Entity A is required to perform retrospective effectiveness testing to demonstrate that the hedge has actually been highly effective during the period. More frequent testing is permitted. This cannot be limited to principal terms matching, instead a quantitative assessment is required. The entity chooses to test effectiveness using simple ratio analysis (also referred to as a dollar offset test) based on cumulative changes in fair value using a hypothetical derivative to measure the hedged item. This test would capture the effect of credit risk on the hedging instrument not replicated in the hedged item and if it was significant enough to push the hedge outside of the 80 to 125 per cent threshold then hedge accounting would not be permitted for that period.

- **Measurement of hedge ineffectiveness:** For each reporting period during the life of the hedge, hedge ineffectiveness must be measured and recognised accordingly.

Hedge effectiveness under IFRS 9

- **Prospective hedge effectiveness:** At inception of the hedge and at each reporting date an entity must demonstrate that it meets the following three components of the hedge effectiveness requirements of the proposed IFRS 9:

- (1) **There is an economic relationship between the hedged item and the hedging instrument.**

The requirement that an economic relationship exists means that the hedging instrument and the hedged item have values that generally move in the opposite direction because of the same hedged risk or related underlying. The proposed IFRS 9 does not specify a method for assessing effectiveness.

However, when the critical terms of the hedging instrument and the hedged item match it would most likely be possible to conclude on the basis of a qualitative assessment that the hedged item and hedging instrument have values that generally move in the opposite direction because of the same risk and hence an economic relationship exists. In this case, because the terms of the hedged item and hedging instrument match and the fair value of the swap is nil at inception of the hedge, Entity A determines on a qualitative basis that an economic relationship exists between the hedged item and hedging instrument.

(2) The effect of credit risk does not dominate the value changes that result from that economic relationship.

A change in credit risk on the hedged item or hedging instrument could be of such a magnitude that it could negate the economic relationship that would otherwise exist between the hedged item and hedging instrument. Therefore it is necessary that the effect of credit risk does not dominate the value changes that result from the economic relationship. In this example until the debt is issued it is not necessary to consider credit risk on the hedged item as it is a forecast transaction and cannot be exposed to credit risk. Note that under both IAS 39 and the proposed IFRS 9, a forecast transaction must be highly probable in order to be eligible as a hedged item. However, consideration should be given to the effect of credit risk on the value changes of the hedging instrument. In this case Entity A determines that its own credit standing and the credit standing of the swap counterparty is high and is expected to stay that way and hence concludes that changes in credit risk would not dominate the value changes that result from the economic relationship.

(3) The hedge ratio is consistent with that used for risk management purposes without a deliberate imbalance to derive an inappropriate accounting outcome (eg deliberate under-hedging by designating the amount of the hedging instrument to be lower than the amount of the hedged item to artificially reduce hedge ineffectiveness).

Entity A economically hedges a bond with principal of £100m using a swap with matched terms and notional of £100m. This actual hedge ratio does not reflect an imbalance (that could result in an accounting outcome that would be inconsistent with the purpose of hedge accounting) and hence represents an eligible hedge ratio. If it had attempted to designate only £80m of the £100m notional of the swap actually transacted in a hedge of £100m of the bond then this would be regarded as a deliberate under-hedge and not meet the effectiveness requirements in respect of the hedge ratio and not be eligible for hedge accounting. It should be noted that in this example there is no incentive to under-hedge as the hedge has matched terms and minimal sources of hedge ineffectiveness.

- **Documented method of assessing hedge effectiveness:** The hedge documentation must specify the method Entity A will use to assess hedge effectiveness. That method may need to change if circumstances change so that the current methodology no longer captures the relevant characteristics of the hedge relationship and the documentation should be amended to reflect this when it happens. In addition the documentation should contain:

- an analysis of the sources of ineffectiveness; and
- how the hedge ratio has been determined.

In this example this can be limited to a qualitative analysis as discussed above.

- **Measurement of hedge ineffectiveness:** At each reporting date during the life of the hedge, ineffectiveness must be measured and recognised accordingly. Retrospective hedge effectiveness assessment is not required.

Example 2 – Closely matched terms

The facts are the same as in the example above with the exception that, the forecast bond issuance does not become highly probable until 1 June 2013. Therefore Entity A cannot designate the swap transacted on 1 May 2013 in an eligible hedging relationship under the proposed IFRS 9 until 1 June 2013 (nor would it be eligible under IAS 39) by which time the hedging instrument is off-market.

On designation the swap is in a liability position of £1.3m (referred to below as the embedded financing). Interest rates have reduced such that an on market swap at this date would have a fixed leg of 1.9%.

The hedge is formally designated on 1 June 2013 as a cash flow hedge of the variability of the highly probable interest cash flows on the forecast bond issuance up to the date of issue and on the actual bond issued to maturity for changes in 3M LIBOR.

Hedge effectiveness under IAS 39

- As noted in the matched terms example above the entity designates a hedge ratio that does not deliberately under-hedge in order to avoid recognising hedge ineffectiveness in profit or loss. The entity is also required to select and document a method of assessing hedge effectiveness both prospectively and retrospectively, and measure and recognise hedge ineffectiveness accordingly.
- In this example as the derivative hedging instrument is off market at the date of designation, critical terms matching would not be considered to be an adequate prospective hedge effectiveness test. Instead Entity A must perform sufficient quantitative analysis to support the expectation that the hedge will be highly effective. Entity A uses the 'hypothetical derivative' method to measure the hedged item.

The terms of the hypothetical derivative are the same terms as the actual swap with the exception of the rate paid on the fixed leg which is 1.9% rather than 2.2%. Entity A considers the relative fair value gains or losses that would arise on the hypothetical and actual derivatives in a range of scenarios based on past market data. Entity A uses regression analysis to demonstrate prospective effectiveness. It selects this method as it is less likely to fail the 80 to 125 per cent test using regression analysis than if it used a simple ratio analysis (or dollar offset test). Entity A also uses regression analysis for its retrospective hedge effectiveness testing.

Hedge effectiveness under IFRS 9

- **Prospective hedge effectiveness:** As noted in the example above, at inception of the hedge and at each reporting date an entity must demonstrate that it meets the following three components of the hedge effectiveness requirements of the proposed IFRS 9:

(1) There is an economic relationship between the hedged item and the hedging instrument.

As noted above the proposed IFRS 9 does not specify a method for demonstrating an economic relationship. In this example the critical terms closely match, however, due to the delayed designation the fixed leg of the actual swap is different to the fixed leg of the hypothetical swap. Hence some hedge ineffectiveness is expected due to the £1.3m embedded financing in the swap. Entity A must determine whether despite this embedded financing an economic relationship exists between the hedged item and hedging instrument.

In this example Entity A performs basic numerical analysis of discount rates considering a range of possible scenarios of changes in interest rates to demonstrate that possible changes in fair value of the embedded financing (which is deemed by the entity to be the main source of hedge ineffectiveness) are not sufficient to negate the underlying economic relationship between the hedged item and hedging instrument. Entity A concludes that an economic relationship between the hedged item and hedging instrument exists.

(2) The effect of credit risk does not dominate the value changes that result from that economic relationship.

The analysis here would be the same as that performed for the matched terms example above.

(3) The hedge ratio is consistent with that used for risk management purposes without a deliberate imbalance to derive an inappropriate accounting outcome.

Entity A economically hedges a bond with principal of £100m using a swap with closely matched terms and notional of £100m. The embedded financing in the swap is a source of hedge ineffectiveness and it should be considered if this affects the required hedge ratio. Entity A determines on a qualitative basis that the existence of the embedded financing in this case would give rise to hedge ineffectiveness but a hedge ratio of 100% would not result in an imbalance as based on a forecast range of possible changes in interest rates the ineffectiveness in each period could be positive or negative by similar amounts (rather than consistently over or under-hedged). Hence the entity selects a hedge ratio of 100%.

- **Documented method of assessing hedge effectiveness:** As noted above the hedge documentation must specify the method Entity A will use to assess hedge effectiveness and contain:
 - an analysis of the sources of ineffectiveness; and
 - how the hedge ratio has been determined.

In this example this will include documenting the qualitative analysis performed (ie on comparing terms and the effect of credit risk) and quantitative analysis performed (ie on the hedge ineffectiveness arising from the embedded financing) that was used to demonstrate compliance with the three components of the effectiveness requirements.

- **Measurement of hedge ineffectiveness:** As noted above, at each reporting date during the life of the hedge, ineffectiveness must be measured and recognised accordingly. Retrospective hedge effectiveness assessment is not required.

It is noted that in practice, most cases of late hedge accounting designations are the result of existing hedging instruments being used to hedge either new, existing or restructured hedged items. There are various commercial reasons for retaining existing off-market derivatives to hedge items rather than close them out and transact new on market derivatives. These reasons include the increased cost incurred (ie dealer's margin) for closing positions and transacting new positions and liquidity constraints when the derivative is in a liability position.

In some cases the embedded financing in the actual swap may be more significant than that considered in the example above and may warrant a more comprehensive quantitative analysis to demonstrate compliance with the effectiveness requirements.

Example 3 – Significantly mismatched terms but related underlyings

The terms of the hedged item are the same as in Example 1 above, however, the terms of the hedging instrument are different because the entity uses a pre-existing swap to hedge the interest rate risk where the terms do not match the hedged item. The terms of the hedging instrument are as follows:

Trade date 1	August 2008 (ie transacted 5 years before being designated in this hedge relationship)
Effective date	1 August 2008
Maturity date	1 August 2023
Notional	£100,000,000
Pay	5.2%
Receive	6M LIBOR
Payment dates	1 August, 1 February each year up to and including 1 August 2023

The hedge is formally designated on 1 May 2013 as a cash flow hedge of the variability of the highly probable interest cash flows on the forecast bond issuance up to the date of issue and on the actual bond issued to maturity for changes in 3M LIBOR.² The fair value of the derivative at the point of designation is a liability of £13m.

Hedge effectiveness under IAS 39

- The hedge effectiveness testing requirements and methodologies applied for this example are the same as in Example 2 above. Given the more significant mismatch in terms and embedded financing, the hedge effectiveness assessment tests may not pass the rigid 80-125 per cent offset test for the duration of the hedge in which case hedge accounting would not be permitted for some or all of the period of the hedge.

² It is noted that alternative hedge designations may be permitted, however, Entity A chooses to designate 3M LIBOR which is consistent with its risk management objective.

Hedge effectiveness under IFRS 9

- **Prospective hedge effectiveness:** At inception of the hedge and at each reporting date an entity must demonstrate that it meets the following three components of the hedge effectiveness requirements of the proposed IFRS 9:

(1) There is an economic relationship between the hedged item and the hedging instrument.

Given the significant mismatch in terms a qualitative assessment would not appropriately consider the sources of hedge ineffectiveness and be sufficient to demonstrate that there is an economic relationship between the hedged item and hedging instrument. Consequently, Entity A performs quantitative analysis of the possible behaviour of the hedging relationship during its term. Entity A considers the relative fair value gains or losses that would arise on the hypothetical derivative with nil fair value at the point of designation (and consequently a fixed rate of 2.2% as was the case for the interest rate swap in Example 1) and the actual derivative in a range of scenarios based on past market data. Entity A uses regression analysis to demonstrate the economic relationship. It should be noted that:

- i) although it must be expected that the present value of the hedged cash flows and the fair value of the swap will typically move in the opposite direction when the hedged 3M LIBOR rates change, it is not necessary for the offset to be within the 80-125 per cent range; and
- ii) demonstrating statistical correlation between 3M LIBOR and 6M LIBOR would not by itself be sufficient to support a valid conclusion that an economic relationship exists for this hedging relationship. It is necessary to analyse the behaviour of the specific hedging relationship during its term to determine whether it can be expected to meet the risk management objective for the hedge.

(2) The effect of credit risk does not dominate the value changes that result from that economic relationship.

The analysis here would be the same as that performed for the matched terms example above.

(3) The hedge ratio is consistent with that used for risk management purposes without a deliberate imbalance to derive an inappropriate accounting outcome.

Entity A economically hedges a bond with principal of £100m using a swap with a matched notional of £100m but mismatched terms. The mismatch terms and the embedded financing in the swap are sources of hedge ineffectiveness and should be considered if they affect the required hedge ratio. In this example, Entity A uses the results of its regression analysis to demonstrate that the hedge ratio selected for risk management purposes (which was based on a qualitative risk management assessment) does not result in an imbalance of the hedged item and hedging instrument. It should be noted that the proposed IFRS 9 permits the use of a hedge ratio that is different to the optimal hedge ratio if there is a commercial reason for the existence of the imbalance. The IASB provides the example where due to lot sizes of futures contracts it is not possible for the entity to match the weightings of the hedged item with the weightings of the hedging instrument and in such cases the imbalance is permitted. The proposals do not provide further examples of what may be considered valid commercial reasons for an imbalance and hence judgement would be required in such situations where an imbalance exists between the hedged item and hedging instrument.

In subsequent periods, if the designated hedge ratio no longer meets the hedge ratio requirements discussed above, the quantities of the hedged item and the hedging instrument may need to be "rebalanced" in order to continue to comply with the requirements. This is another area where judgement will be required as to whether rebalancing is necessary. The proposed IFRS 9 does clarify however that not all changes in the extent of offset between the hedged item and hedging instrument would lead to rebalancing – for example fluctuations around a constant hedge ratio would not require or permit rebalancing of the hedge ratio.

What is rebalancing?

Rebalancing refers to adjustments to the designated quantities of the hedged item or hedging instrument of an already existing hedging relationship for the purpose of maintaining a hedge ratio that complies with the hedge effectiveness requirements. This is a new requirement that is mandatory under the proposed IFRS 9. Rebalanced hedges are regarded as continuing hedges for the amounts that continue to be hedged. This is in contrast to IAS 39 where rebalancing a hedge is elective and generally treated as a dedesignation of the original hedge and the start of a new hedge.

- **Documented method of assessing hedge effectiveness:** As noted above the hedge documentation must specify the method Entity A will use to assess hedge effectiveness and contain:

- an analysis of the sources of ineffectiveness; and
- how the hedge ratio has been determined.

In this example this will include documenting the quantitative analysis performed that was used to demonstrate compliance with the three components of the effectiveness requirements.

- **Measurement of hedge ineffectiveness:** As noted above, at each reporting date during the life of the hedge, ineffectiveness must be measured and recognised accordingly. Retrospective hedge effectiveness assessment is not required. Hence, in contrast to IAS 39, hedge accounting may be permitted under IFRS 9 for the full duration of the hedge regardless of whether the offset is within the 80 – 125 per cent range. For example, if a hedge is only 60% effective in a period, the resulting hedge ineffectiveness would still be measured and recognised accordingly. This results in a closer reflection of the performance of the hedge.

It should be noted that it is possible in an example such as this (where the underlyings are not the same but are economically related), for hedge accounting to be applied when the values of the hedged item and hedging instrument move in the same direction in a particular period (rather than the opposite, so are not an offset in the period), provided, they are still typically *expected in future periods* to move in the opposite direction when the underlyings move. Hence the initial analysis of effectiveness for each period will be one of the key factors as to whether hedge accounting can be applied.

Summary comparison of IAS 39 and IFRS 9 hedge effectiveness requirements

IAS 39 summary of hedge effectiveness requirements

Assessing hedge effectiveness: For hedge accounting to be applied results of both prospective and retrospective testing must be within the 80 – 125 per cent range. The methodology used to demonstrate hedge effectiveness must be specified at inception and applied consistently throughout the life of the hedge. Methods of testing that would generally be acceptable for different hedges are discussed below.

Hedge ratio: The offset threshold of 80 – 125 per cent restricts the hedge ratios of hedged item and hedging instrument that would be eligible for hedge accounting. Furthermore, deliberate under-hedging in a cash flow hedge is not permitted.

Matched terms <i>Hedged item and hedging instrument have matched terms and the fair value of the hedging instrument is nil at inception of the hedge.</i>	Closely matched terms <i>The terms of the hedged item and hedging instrument are closely matched.</i>	Significantly mismatched terms <i>There is significant mismatch between the terms of the hedged item and hedging instrument but underlyings of each are the same or related.</i>
Prospective hedge effectiveness: Critical terms matching, with due consideration for credit risk, is generally sufficient for assessing prospective hedge effectiveness when the terms of the hedged item and hedging instrument match and the hedging instrument has nil fair value at inception. Retrospective hedge effectiveness: IAS 9 requires quantitative analysis to demonstrate that a hedge has performed within the 80 – 125 per cent range. Where the terms match simple ratio analysis or “dollar offset” is usually sufficient to demonstrate effectiveness in the 80-125% range.	Prospective hedge effectiveness: Critical terms matching will not be sufficient for assessing prospective hedge effectiveness when there is a mismatch in terms of the hedged item and hedging instrument. As a result sufficient quantitative analysis would be necessary. Retrospective hedge effectiveness: IAS 39 requires quantitative analysis to demonstrate that a hedge has performed within the 80 – 125 per cent range. Where the terms do not match simple ratio analysis or “dollar offset” may fail to demonstrate hedge effectiveness in the 80-125% range. In such cases more advanced statistical analysis may be required, such as regression analysis.	Prospective hedge effectiveness: In this case sufficient quantitative analysis considering a range of potential changes in market rates would be necessary to demonstrate that the hedging relationship is expected to comply with the 80 – 125% offset requirement. In general as the level of mismatch increases it becomes less likely the hedge will comply with the offset requirements for all of the hedged periods and as a result hedge accounting may not be permitted. Retrospective hedge effectiveness: In this case it is likely that a more advanced statistical analysis would be required, such as regression analysis, to demonstrate offset within the range of 80 – 125 per cent range. With a greater level of mismatch there is an increased likelihood that the hedge will not comply with the strict 80 – 125 per cent requirement resulting in no hedge accounting being permitted.

Assessing hedge effectiveness: For hedge accounting to be applied the proposals require the following:

- (1) there should be an economic relationship between the hedging instrument and the hedged item;
- (2) the effect of credit risk should not dominate the value changes that result from that economic relationship; and
- (3) the hedge ratio should reflect the actual quantity of hedging instrument used to hedge the actual quantity of hedged item (provided this does not deliberately attempt to achieve an inappropriate accounting outcome).

These requirements are a prospective test; retrospective hedge effectiveness is not required. The proposed IFRS 9 states that the level of analysis required to assess compliance with its hedge effectiveness requirements may vary for different hedging relationships. The methodology adopted must be documented at inception of a hedge and may change if the method originally set out ceases to capture all the relevant characteristics of the hedge relationship.

Given that these requirements do not include a numerical threshold for offset, there is more scope for a qualitative assessment of effectiveness to be sufficient to comply with the requirements. An analysis of the potential sources of ineffectiveness and the reason for the hedge ratio used must be documented. Methods of testing that would generally be acceptable for different hedges are discussed below. Deliberate under-hedging for a cash flow hedge to mask hedge ineffectiveness is not permitted.

Matched terms

<i>Hedged item and hedging instrument have matched terms and the fair value hedging instrument is nil at inception of the hedge.</i>	Closely matched terms <i>The terms of the hedged item and hedging instrument are closely matched.</i>	Significantly mismatched terms <i>There is significant mismatch between the terms of the hedged item and hedging instrument but underlyings of each are the same or related.</i>
Critical terms matching would generally be sufficient to demonstrate an economic relationship and support the use of a 1:1 hedge ratio. An analysis of sources of hedge ineffectiveness, such as credit risk, would be required which would in most cases where terms match be qualitative.	Judgement would be required to determine whether a qualitative assessment would be sufficient to demonstrate compliance with the three components of the effectiveness requirements listed above. Rudimentary quantitative analysis may well be necessary to demonstrate that the mismatch in terms does not negate the underlying economic relationship and to support the hedge ratio used. Analysis that adequately captures the potential sources of hedge ineffectiveness, such as credit risk, should be documented.	Where there are significant mismatches in terms or differences in underlyings, quantitative analysis would be necessary to demonstrate an economic relationship and compliance with the hedge ratio requirements. The analysis is likely to be similar to that performed under IAS 39 for such hedges (eg. regression analysis). However, with the absence of the 80 – 125 per cent offset requirement it is more likely that hedge accounting would be achieved under the proposed IFRS 9 (although statistical correlation alone is not sufficient and the economic relationship should be explained). Analysis that adequately captures the potential sources of hedge ineffectiveness, such as credit risk and basis risk, should be documented.

Alternative examples where the terms of the hedged item and hedging instrument match to varying degrees

Below is a summary of alternative examples of hedging relationships which would warrant varying degrees of analysis to demonstrate compliance with the effectiveness requirements of IFRS 9 discussed in this paper.

Hedge type	Cash flow hedge			Net investment hedge (consolidated financial statements)
	Foreign exchange	Commodity	Fair value hedge	
Hedged item	A sale of goods for Chinese ¥15m on 31 March 2013 by an entity with GBP functional currency (highly probable forecast sale).	Purchase of 1,000 metric tonnes of Gasoil on 30 April 2013. The purchase price will be the benchmark Cargoes gasoil spot price (Northwest Europe) plus a fixed margin agreed with the supplier (highly probable forecast purchase).	Investment in fixed rate EUR bond with principal of €100m, interest of 5% payable semi-annually in arrears and maturity of 25 June 2015.	The first \$50m of net assets of a USD subsidiary consolidated by a parent with GBP functional currency.
Hedging instrument: with matched terms	Intrinsic value component of a purchased option contract to sell ¥15m on 31 March 2013 in exchange for a £1.4m to hedge for changes in the ¥/£ exchange rate above 10.7.	Gas oil forward to receive the benchmark Cargoes gasoil spot price (Northwest Europe) for 1,000 metric tonnes on 30 April 2013 in exchange for a fixed amount in the same currency to hedge the benchmark Cargoes gasoil Northwest Europe component of the forecast purchase.	On market interest rate swap which pays 5% and receives 6M EURIBOR + margin where the terms of the fixed leg exactly match those of the bond to hedge the interest rate risk on the bond.	Issued bond with principal of US\$50m
Hedging instrument: with closely matched terms	On-market foreign exchange forward to sell ¥15m on 28 August 2013 in exchange for a £1.5m to hedge for changes in ¥/£ exchange rates.	Gas oil forward to receive the benchmark Barges gasoil spot price (Rotterdam) for 1,000 metric tonnes of the underlying on 30 April 2013 in exchange for a fixed amount in the same currency to hedge the benchmark Cargoes gasoil (Northwest Europe) component of the forecast purchase.	On-market interest rate swap which pays 5% and receives 6M EURIBOR + margin where the terms of the fixed leg exactly match those of the bond with the exception of the payment dates which are the end of June and December each year rather than the 25th to hedge the interest rate risk on the bond.	On-market cross currency interest rates swap that pays floating USD and receives floating GBP with \$50m notional exchanged (paid) for £31m on maturity designated as a hedge of spot foreign exchange risk. Note: The hedged risk is spot foreign exchange risk, so movements in the fair value of the derivative due to currency basis will result in ineffectiveness under the proposed IFRS 9 guidance on determining the hypothetical derivative.
Hedging instrument: with significant mismatch terms or different underlying to the hedged item	On-market foreign exchange forward to sell US\$2.4m in exchange for £1.5m designated as a proxy hedge for changes in ¥/£ exchange rates.	Crude oil forward to receive the Brent crude spot price for 7,300 barrels of Brent crude oil on 30 April 2013 in exchange for a fixed amount in the same currency designated as a proxy hedge of the benchmark Cargoes gasoil (Northwest Europe) component of the forecast purchase. Note: This is a proxy hedge. If the entity was able to separately identify and reliably measure a crude oil risk component in the gas oil price as an alternative the analysis required to demonstrate effectiveness requirements may be more simple due to fewer sources of hedge ineffectiveness. However, the analysis required to demonstrate that there is such a component may itself be complex.	Off-market cross currency interest rate swap that pays 5.2% and receives 6M UK LIBOR + 330 bps with payment dates which are the end of June and December each year rather than the 25th to hedge the interest rate and foreign exchange risk on the bond.	Purchased option contract to sell \$50m for £28m designated in its entirety (ie. time value and intrinsic value) as a hedge of spot foreign exchange risk for increases in the \$/£ rate above 1.79.

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