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Project **Macro Hedge Accounting**

Topic **Considerations for a macro hedge accounting concept**

Tensions between hedge accounting and risk management

Introduction

1. The purpose of this paper is to discuss differences between common interest rate risk management approaches as applied by financial institutions and the current hedge accounting requirements, considering both IAS 39 *Financial Instruments: Recognition and Measurement* and the exposure draft on the general hedge accounting model (ED).

2. The analysis in this paper is based on a common interest rate risk management approach as described in agenda paper 9A and should be read in conjunction with that.

3. The conceptual differences identified in this paper serve as a basis for a discussion of alternatives for a macro hedge accounting model that leads to a closer alignment between risk management and accounting—see agenda paper 9C.

4. There are no questions to the Board in this paper.

Risk management approach versus current accounting requirements

Overview

5. When comparing the risk management approach as described in agenda paper 9A with the current accounting requirements of IAS 39 and the changes resulting from the ED, there are the following areas of difference:

   (a) Net open portfolio as the unit of account.

   (b) Net interest margin as hedged risk.

   (c) Management of optionality:

      (i) Prepayment risk.

      (ii) Core demand deposits.

      (iii) Pipeline trades[1] and other transactions.

   (d) Cash flow hedges.

   (e) Internal derivatives as hedging instruments.

Net open portfolio as the unit of account

6. Although IAS 39 and the ED both permit the designation of a group or portfolio[2] of hedged items as the unit of account, the hedging relationship still refers to the individual items rather than the group or portfolio itself. The rejection of the designation of a portfolio as the unit of account has two consequences:

   (a) Firstly, the dynamic characteristic of an open portfolio cannot be reflected.

   (b) Secondly, risk management strategies that address the risk of the portfolio as a whole cannot be reflected.

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[1] Refer to agenda paper 9A par. 37 for a definition of pipeline trades.
[2] This refers to the portfolio fair value hedge of interest rate risk as well as the cash flow hedge model to address the management of interest rate risk in financial institutions (both introduced by IAS 39).

7. The risk management strategy focus on the entire portfolio as one aggregated risk position leads to the following key characteristics:

   (a) There is no distinction between derivatives (hedging instruments) and non-derivatives (hedged items).

   (b) There is no distinction between different types of hedged items that are managed for a common risk (component).

   (c) There is no consideration of changes that do not impact the risk of the portfolio (replacements).

   (d) Often a combined target is set for the portfolio that addresses different goals and risk limits are used to reflect the dynamic nature of the portfolio.

8. In contrast, hedge accounting focuses on individual items setting the following requirements:

   (a) Distinction between hedging instruments and hedged items to determine the effectiveness of the hedging relationship and to measure the ineffectiveness to be accounted for in profit or loss.

   (b) Distinction between different types of hedged items that might or might not qualify for hedge accounting. For example, a portfolio might consist of balance sheet items, firm commitments, forecast transactions that qualify for fair value and / or cash flow hedge accounting as well as further items like non-interest bearing core demand deposits that do not qualify for hedge accounting at all.

   (c) Changes in the portfolio have to be treated as discontinuations and additions even when they have no impact on the overall risk of the

portfolio (replacements).[3]

(d) The target of hedge accounting is either to hedge fair value changes or cash flow changes on the basis of fixed pre-determined hedged volumes and hedged percentages. There is no risk limit concept.

9. The conceptual differences listed above impact the alignment between risk management and hedge accounting with consequences on the treatment of changes within the portfolio and the measurement of effectiveness.

Designation of hedging relationships

10. Although risk management considers the entire portfolio as homogeneous (regarding its transactions and the managed risk) the restrictions in IAS 39 require the portfolio to be split into separate hedging relationships for the following reasons:

(a) Gross designation—the hedged item has to be a gross risk position, no designation of a net position.

(b) Distinction between hedging instruments and hedged items—hedge accounting requires the determination of hedging instruments (usually derivatives) and hedged items (usually balance sheet items accounted for at cost and other transactions) for accounting purposes while risk management considers the portfolio as a whole without further distinction.

(c) Risk components—the definition of hedged risk for risk management purposes might not always qualify for hedge accounting. A common

[3] For IAS 39 this is the consequence as changes in the hedged portfolio require changing the documentation of the hedging relationship in accordance with IAS 39.88. For fair value hedges this leads to the discontinuation consequences of IAS 39.91 and .92. Especially with a portfolio fair value hedge of interest rate risk a derecognition leads to the release of the related hedge adjustment and changes in expectations/hedged percentages to amortisation (IAS 39.BC210–BC212). In contrast, the adoption of layer approaches like the designation of the first 100 of sales in a specified period which is possible for cash flow hedges addresses this topic. For the ED agenda paper 13 for the 20-22 July 2011 IASB meeting discusses alternatives for a cash flow hedge of a net risk position.

example is prepayment risk that is often managed separately for risk management purposes but does not qualify as a separate risk component for hedge accounting.

(d) Differences in hedged items—not all portfolio items might qualify for the *same* hedge accounting model, ie some might only qualify as forecast transactions in a cash flow hedge while others are to be designated as a fair value hedge.

(e) Restrictions regarding the designation of hedged items—some items of the portfolio might not qualify for designation as a hedged item for the purposes of hedge accounting (eg core demand deposits).

11. Risk management is based on net positions whereas IAS 39 requires gross designation for accounting purposes. Various different approaches are applied to address this restriction and achieve hedge accounting for the hedging instruments. The illustrative example at the end of this paper highlights different approaches to achieve this.

12. With the ED some of the restrictions listed above have been modified (eg regarding fair value hedges of net positions). But there are still restrictions in place that prevent a designation that is fully aligned of risk management. The ability to designate net positions as hedged items might in some cases lead to a closer alignment with risk management approaches that are based on a net risk position. However, in many situations full alignment still cannot be achieved for the reasons explained earlier (eg the portfolios include items that are ineligible as hedged items or some items that require a cash flow hedge whereas others require a fair value hedge)

Changes to the portfolio

13. When a group of hedged items is designated any change in the hedged items leads to an adjustment of the hedging relationship, ie any derecognition triggers the release of the related hedge adjustment or the amount recognised in other comprehensive income (OCI) and any addition only becomes subject to hedge

accounting from the moment of its designation as a hedged item.[4] To reflect the constant changes in an open portfolio the hedging relationship needs to be constantly adjusted (re-designation). However, as a consequence of any re-designation the entire balance of the hedge adjustment or OCI-amount related to the items that remain in the hedged portfolio has to be amortised for their remaining term.[5] So even when an item stays in the hedged portfolio for its entire term it will become subject to discontinued hedge accounting even though it is subsequently designated as part of a new hedging relationship. The amortisation can lead to significant deviations between the net income as presented in the financial statements and the risk management view over time.

14. To avoid amortisation banks can identify and designate stable portions (ie no removals are expected) of the entire net portfolio that are designated on a gross basis as separate hedging relationships in line with the available hedge accounting models. However, this approach cannot cover any additions to the portfolio. While risk management covers every change to the hedged portfolio whenever it occurs hedge accounting requires an explicit designation of new hedged items. As such an immediate designation of every addition is not operational this is usually done in intervals on a frequent basis (eg once a month or when the additions reach a critical size). This postponed designation usually results in a time lag between risk management and accounting. The derecognition of hedged items leads to the discontinuation of the hedging relationship with the consequences described above. When the hedging relationship is not adjusted that frequently the derecognised hedged items are not replaced immediately with the consequence that the fair value changes of the hedging instruments are not covered leading to an impact on profit or loss. This is especially the case when the portfolio fair value hedge is applied and the hedging relationship is only adjusted after a pre-defined period (eg on a monthly

[4] The description does not apply to changes within a designated bottom layer. However, when hedging interest rate risk the designation of a layer is limited, especially when hedge accounting is applied.
[5] Refer to IAS 39.92 and paragraph 28 of the ED.

basis). While the population of designated hedging instruments is usually quite stable for the entire hedging period the hedged items are subject to derecognition for various reasons which leads to the described impact.

15. When the described accounting requirements are applied to open portfolios discontinuations and new designations have to be considered even in situations where the overall risk position of the portfolio has not changed. While risk management considers this a stable hedge relationship to the extent that the exposure of the portfolio has not changed (taking a portfolio perspective) the financial statements consider this a 'turn-over' in the designated hedging relationships (taking a 'by instrument' perspective) and therefore results in a different portrayal of the situation.

16. These issues are best illustrated with a simple example as shown below. Take a portfolio that consists of assets (100) and liabilities (70) leading to a net position of 30 that is entirely hedged with derivatives. The net position of 30 cannot be simply designated as an 'abstract' amount of 30. After one period the volume of assets increases to 120 comprising additions of 35 and removals of 15. Assuming that the liabilities also increased by 20 the entire net position is unchanged at 30 (120 versus 90) and therefore no adjustment of the hedging relationship from a risk management perspective is required. However, hedge accounting would require adjustments to be made.

17. If the hedge accounting designation happens to result in instruments being designated that continue to be held, risk management and accounting can provide the same picture (for example, if 30 of assets were designated and they continued to be recognised). Thus, when the balance sheet structure allows the stable hedged items to be identified that most likely will not be derecognised this approach is close to risk management. However, dependent on the business model and product terms a stable position is not always available.

18. In contrast, when the entire assets of 100 have been designated as being hedged with a hedged percentage of 30% the proportion of the entire hedge adjustment that relates to the derecognised assets of 15 has to be released. In addition, the

hedged percentage has to be adjusted to reflect the net additions to the portfolio. The new hedged percentage in this example would be 25% (30/120). As such, assets that stay in the portfolio will carry a hedge adjustment after the second period that represents 30% of the hedged fair value change for the first period and 25% for the second period. The dynamic nature of an open portfolio therefore leads to a constant adjustment of the hedged percentage with the consequence that the cumulative change of the hedge adjustment cannot add up to zero. This can only be fixed with an on-going amortisation of the remaining hedge adjustments starting whenever the hedged percentage is adjusted. Finally, when the hedging relationship is only adjusted on a frequent basis (eg monthly) derecognitions lead to volatility in profit or loss resulting from the valuation of the remaining hedging instrument for the period to the next re-designation as described above (par. 14). The frequency of those adjustments determines how close hedge accounting is to risk management regarding the hedged populations but it also creates operational burden and the amortisation leads to net income that does not reflect risk management activities.

19. Although the ED allows the designation of net positions as a hedged item in some circumstances it does not entirely solve the problem of achieving hedge accounting in dynamic situations as changes to the net position still lead to changes in designations. Furthermore the designation of a net position only leads to an alignment with the risk management approach when the managed exposure is identical to the designated exposure. This is not necessarily the case (or possible) when following the current accounting guidance. For this see the discussion below on pre-payable loans and core demand deposits.

Effectiveness

20. From a risk management perspective the effectiveness of the portfolio strategy is measured by comparing the expected portfolio return or value with the respective pre-determined target. Deviations outside a pre-determined level lead to adjustments to the portfolio, usually by entering into derivative transactions. In contrast, accounting requires the split of this comprehensive relationship into

various separate accounting hedges with their own effectiveness determination. This difference can lead to deviations between effectiveness as determined by risk management and that reported in the financial statements.

21. For a portfolio with a relatively simple target like hedging the entire net fair value change attributable to the hedged component of interest rate risk accounting and risk management are aligned when all (hedging) instruments in the portfolio that are accounted for at fair value through profit or loss become designated hedging instruments for accounting purposes. Accounting-only ineffectiveness might result from restrictions that are not reflected in risk management like the definition of risk components or non-qualifying hedged items as well as the rather static accounting concept.

22. This accounting approach does even work in a situation where not the entire risk position is hedged. For example, when only 70% of the entire fair value risk attributable to the hedged interest rate risk is subject to risk management while the remaining net position is left open. It will usually result in a smaller number of hedging relationships following a gross designation approach.

23. An additional problem might result from more sophisticated portfolio targets. For example, targets that aim to achieve a fixed return for the first three years and a fixed portfolio value for the remaining term. From an accounting perspective this is like running a short term cash flow hedge and a long term fair value hedge in one portfolio at the same time. Usually entities try to get the entire hedging relationship into one uniform hedge accounting model. In this simple example it would rather determine a fixed target return for the first three years and a floating return for the remaining term on the basis of the entire portfolio. Often it is complex to reflect this in hedge accounting. For example, a fixed rate asset for a term of 5 years would have to be treated as un-hedged for the first three years (as the return is already fixed) but as hedged for the remaining term in a fair value hedge to reflect the focus on fixed rate positions. On a dynamic basis this increases the level of required adjustments to hedge accounting relationships to keep aligned with risk management and it requires an even bigger variety of available qualifying hedged items to ensure that all

hedging instruments of the portfolio can be designated for hedge accounting purposes.

24. Finally, the measurement of hedge ineffectiveness contradicts the risk management practice of using risk limits. For accounting purposes the notion of offset is used to determine ineffectiveness. However, deviations that lead to ineffectiveness based on the described accounting concept are not considered ineffectiveness from a risk management perspective as long as they remain within the risk limits. They rather reflect accepted mismatches resulting from dynamic strategies as well as the possibility of adjusting the target of the hedging relationship within pre-determined limits.

25. Risk management strategies that consider portfolio effects like the law of large numbers are discussed in detail in the section 'Management of optionality'.

Net interest margin as hedged risk

26. The focus of the current hedge accounting models is to hedge either a fair value change or the volatility in cash flows attributable to the hedged risk and does not allow the designation of a net margin as a hedged risk. Hence, it is difficult to designate a hedging relationship that appropriately addresses net margin hedging. The approach of the cash flow hedge accounting model introduced in the Implementation Guidance to IAS 39 to address interest rate risk management in financial institutions picks up the idea of hedging a margin with the designation of the reinvestment and refinancing risk of the current positions as forecast transactions as a provisional solution for an alignment.[6]

27. Consequently, a bank that is required to designate its hedged risk as a hedge of a fixed rate (fair value hedge) or a floating rate (cash flow hedge) financial instrument automatically uses a different focus for accounting purposes compared to risk management because it requires following either a fair value or

[6] IAS 39 IG F.6.1 to F.6.3.

cash flow risk view. The ability to designate a net position as a hedged item does not address this as the focus is still on the net fair value or cash flow risk.

28. IAS 39.81 allows the designation of an identifiable and separately measureable component of the interest rate exposure of an interest-bearing financial instrument as a hedged risk such as a risk-free interest rate or a benchmark interest rate component. Usually the transfer prices allocated to each financial instrument that are also considered for the pricing of the external financial instruments qualify as a benchmark interest rate.

29. However, the definition of risk components in combination with the limitations regarding hedged risks create the following issues:

    (a) Sub-Libor issue.

    (b) Designating elements of the overall interest rate risk.

Sub-Libor Issue

30. IAS 39 contains the restriction that the designated interest rate component must be less than the entire effective interest rate of the hedged item.[7] This contradicts with the risk management goal of hedging the net interest margin on the basis of transfer prices. As explained in agenda paper 9A, especially the pricing of liabilities for the retail market often leads to situations in which the interest rate of the external financial instruments is lower than the transfer price as the funding unit aims to achieve a fixed margin in comparison to the inter-bank market.

31. Taking the example of a fixed rate liability with an interest rate of 2% that is priced on the basis of a transfer price of 3% resulting in a margin of 1% for the funding unit. When fair value changes attributable to the hedged benchmark interest rate risk are hedged as a component, it is assumed that the margin stays fixed while the benchmark interest rate is subject to market change. If the

[7] IAS 39.AG99C-D and paragraph B24-B26 of the ED. The proposal in the ED was tentatively confirmed with the decision on agenda paper 9 at the 11-15 April 2011 IASB meeting.

transfer price drops to 2.5%, the entire external instrument would be discounted with a rate of 1.5% (current benchmark rate with original negative margin) to determine the fair value change attributable to the hedged interest rate risk. When the benchmark drops to 0.8% the respective discount rate would be a negative 0.2%, which actually assumes that the interest rate of a corresponding liability would be negative. Hence the restriction was established for both hedging fair value and cash flow changes.

32. However, interest rate risk management is solely focussed on protecting the interest rate *margin* from changes in market interest rates. In the example above the funding unit with the 2% liability would enter into an offsetting transaction with asset-liability management at 3% to lock in the calculated margin. Asset-liability management compares its resulting fixed rate liabilities with fixed rate assets to determine the need for entering into hedging instruments. To the extent that there are no offsetting fixed rate positions available swap transactions are used to turn the fixed rate transfer price liability into floating. This ensures that asset-liability management's result will not be influenced by changes in market rates and therefore the group's interest margin as represented by the margin of the funding unit is protected.[8]

33. The following table provides an overview to illustrate the explanations above. It is therefore assumed that the business unit has an offsetting floating rate asset with a positive spread. Both transactions are mirrored on current transfer pricing terms with asset-liability management that enters into swap transactions to hedge the repricing risk. As a simplistic scenario, Libor is assumed to increase to 10% and to decrease to 0%.

[8] For a detailed discussion of the transfer pricing concept please refer to agenda paper 9A, especially par. 8 to 18.

	Terms	**Libor at 3.0%**	**Libor at 10.0%**	**Libor at 0.0%**
Business Unit				
Interest Income	Libor + 0.5%	3.5%	10.5%	0.5%
Interest Expense	Libor	(3.0%)	(10.0%)	(0.0%)
Business Margin	0.5%	0.5%	0.5%	0.5%
Asset-liability management				
Interest Income	Libor	3.0%	10.0%	0.0%
Interest Expense	(3.0%)	(3.0%)	(3.0%)	(3.0%)
Margin (unhedged)		0.0%	7.0%	(3.0%)
Hedge		0.0%	(7.0%)	3.0%
Margin (hedged)		0.0%	0.0%	0.0%
Funding Unit				
Interest Income	3.0%	3.0%	3.0%	3.0%
Interest Expense	(2.0%)	(2.0%)	(2.0%)	(2.0%)
Funding Margin	1.0%	1.0%	1.0%	1.0%
Group				
Interest Income	Libor + 0.5%	3.5%	10.5%	0.5%
Interest Expense	(2.0%)	(2.0%)	(2.0%)	(2.0%)
Margin (unhedged)		1.5%	8.5%	(1.5%)
Hedge		0.0%	(7.0%)	3.0%
Margin (hedged)		1.5%	1.5%	1.5%

The example shows that the margin for the *business overall* is fixed in all scenarios at 1.5% although the swap transaction was identified for the fixed rate liability that is priced sub-Libor.

34. The designation of a fair value hedge with the liability in the above example leads to ineffectiveness as for the fair value calculation the original terms are compared to the potential current terms of the otherwise identical liability. This hedge objective would imply that the bank either wants to call the liabilities and therefore fixes the fair value or targets to hedge the margin of future funding

business. However, both objectives are not what interest rate risk management as described in agenda paper 9A intends.

35. As an alternative the bank could still designate a cash flow hedge relationship following the current accounting model to get around the sub-Libor problem. However, this assumes the floating rate assets are not sub-Libor, which should usually be the case but there are exceptions like transactions with low risk counterparties or promotional loan business. Furthermore a cash flow hedge indicates that the focus of risk management is on floating rate positions which is not the case. [9]

[9] Refer to agenda paper 9A for a general explanation of the interest rate risk management concept.

36. For illustration a second example is provided that assumes a floating rate asset with a negative margin and the restriction that no negative interest payment is possible (ie a floor). Beside this the example is the same as above:

	Terms	**Libor at 3.0%**	**Libor at 10.0%**	**Libor at 0.0%**
Business Unit				
Interest Income	Libor - 0.5%	2.5%	9.5%	0.0%
Interest Expense	Libor	(3.0%)	(10.0%)	(0.0%)
Business Margin	(0.5%)	(0.5%)	(0.5%)	0.0%
Asset-liability management				
Interest Income	Libor	3.0%	10.0%	0.0%
Interest Expense	(3.0%)	(3.0%)	(3.0%)	(3.0%)
Margin (unhedged)		0.0%	7.0%	(3.0%)
Hedge		0.0%	(7.0%)	3.0%
Margin (hedged)		0.0%	0.0%	0.0%
Funding Unit				
Interest Income	3.0%	3.0%	3.0%	3.0%
Interest Expense	(2.0%)	(2.0%)	(2.0%)	(2.0%)
Funding Margin	1.0%	1.0%	1.0%	1.0%
Group				
Interest Income	Libor - 0.5%	2.5%	9.5%	0.0%
Interest Expense	(2.0%)	(2.0%)	(2.0%)	(2.0%)
Margin (unhedged)		0.5%	7.5%	(2.0%)
Hedge		0.0%	(7.0%)	3.0%
Margin (hedged)		0.5%	0.5%	1.0%

Similar to the first example asset-liability management that determines the necessity for entering into hedging instruments stays with a balanced margin resulting from its hedging activities. The ‘margin risk’ (in this case it can only result in additional income from a declining negative margin) stays with the business unit and is therefore treated like an un-hedged component.

37. From a group perspective the margin cannot be entirely fixed. However, the risk management approach significantly reduces the potential variability in the net interest margin which is also sometimes referred to as the concept of *stabilising* the net margin. For this example the spread of the possible group margin is limited to the range from 0.5% to 1.0% whereas un-hedged the range was from a negative 2% to a positive 7.5%. However, on an open portfolio basis the designation of this static range as a hedged risk would not be operational as the range is subject to on-going change as a consequence of the turn-over in the portfolio. Also asset-liability management that enters into the hedging instruments cannot name each underlying business transaction, especially as their focus is on fixed rate instruments. It is rather the set-up of the entire risk management function that ensures that the risk mitigating activities of asset-liability management stabilise the margin from a group perspective.

Elements of interest rate risk

38. From designating only a part of the total interest rate risk as the hedged item as a substitute for hedging a net interest margin a further topic arises. The benchmark interest rate that is designated as hedged risk component usually corresponds with the transfer price of the hedged item. The justification for using the transfer price as a component is usually the fact that it is part of the hedged item's pricing, i.e. the reference rate used for setting the transfer price does also qualify as benchmark interest rate for accounting purposes. As the transfer price is commonly derived from an interest rate index the criteria 'separately identifiable' and 'reliably measureable' are met. However, dependent on the way the transfer price and therefore the interest rate is set it addresses only some types of elements of the entire interest rate risk but not others. The most common example is the optionality risk resulting from a prepayment option or similar features that is usually not addressed by a standard transfer price. But also other elements of interest rate risk like differences in reference rates might not be addressed when a uniform transfer price is used for all transactions.

Management of optionality

39. When discussing hedge accounting for interest rate risk for financial instruments with embedded optionality, the main difference between hedge accounting and risk management results from the risk management strategy usually focussing on the portfolio as the unit of account. As a consequence the optionality risk is often defined as a separate risk element with different risk management approaches compared to other interest rate risk elements that are sometimes referred to as 'core' interest rate risk. These specific aspects regarding the management of optionality will be discussed on the basis of typical examples.

Prepayment risk

40. When pre-payable loans are accounted for at cost on the basis of expected cash flows the prepayment does not result in any impact on profit or loss as long as the amount at which the loan can be repaid and the carrying amount are identical. This would be the case when the loan is granted at par and the prepayment is determined on the basis of the notional amount. For this result it does not matter whether the prepayment occurs earlier or later than expected because the prepayment option is not treated like an embedded derivative subject to separation.[10]

41. Applying fair value hedge accounting to pre-payable loans requires including in the designation of the fair value change attributable to the interest rate risk the impact of interest rate changes on the value of the embedded prepayment option.[11] When portfolio fair value hedge accounting of interest rate risk in accordance with IAS 39 is applied, only the impact of changes in interest rates that impact the exercise and therefore the value of the prepayment option has to

[10] The only effect on profit or loss as a result from changes in prepayment assumptions could be 'catch up'-adjustments in accordance with IAS 39.AG8 when the strike price of the prepayment option differs from the carrying amount.

[11] Refer for example to IAS 39. BC176 and BC201(f) as well as IAS 39.IG.F.2.12 that also requires an offsetting optionality for the hedging instrument. In its redeliberations of the ED the IASB tentatively decided that the change in fair value of the hedged item must include that related to a prepayment option when affected by the hedged risk (IASB meeting on 27 April 2011).

be considered given that it can be determined on an isolated basis. As an alternative to the described determination of the fair value changes attributable to interest rate risk, IAS 39 allows to use the expected cash flows as a basis whereby each change of the expected cash flows is treated as ineffectiveness when triggered by the development of market interest rates.

42. However, having changes in prepayment expectations leading to ineffectiveness being recognised in profit or loss is often not considered to be consistent with risk management. For an un-hedged pre-payable loan accounted for at cost changes in the fair value of the prepayment option do not impact profit or loss beside the described limited impact from applying IAS 39.AG8. This changes when the underlying expected cash flows are hedged for interest rate risk. In addition, the risk management perspective of changes in expected prepayments is simply that the volume of cash flows to be managed changes. The focus is not on the valuation consequence of the changes in expectations. This is a result of risk management being focussed on fixed rate cash flows rather than fair values. For example, prepayment rates that are lower than expected would lead to the business unit entering into additional offsetting transactions at then current transfer prices that become subject to asset-liability management. This impacts the margin earned but does not lead to an immediate one-time consequence on income from a management perspective.

43. Another accounting issue that creates differences from the risk management approach is the release of the related hedge adjustment. Although the portfolio fair value hedge accounting approach in IAS 39 allows the calculation of the adjustment on a portfolio basis it is required to assign related parts of the hedge adjustment to each instrument for which hedge accounting is discontinued, which creates one-time gains or losses and triggers amortisation effects for the remaining instruments. The amortisations are also driven by the requirement to designate gross risk positions although the risk management approach is based on a net position. Therefore the hedged percentage that has to be used for accounting purposes is subject to on-going changes, which requires amortisation

to balance the hedge adjustment at maturity[12] (see discussion above in the section 'Changes to the portfolio').

44. The described accounting consequences contradict with the risk management perspective that is focused on the entire portfolio without considering hedged percentages. For example, un-hedged parts might result from the application of the risk limit system (as described in agenda paper 9A) rather than designating a certain percentage of the portfolio as hedged. Furthermore, the release of hedge adjustments for actually prepaid loans is not reflected in risk management because it takes into account replacements that stabilise the risk position. When using a transfer pricing system prepayments that occur earlier than expected would only lead to one-time adjustments of the portfolio value in case that the back-up transaction[13] with asset-liability management is adjusted, which is dependent on how the link between the business unit and asset-liability management is set up.

Core demand deposits

45. The current hedge accounting requirements do not allow the designation of core demand deposits as a hedged item on the basis of their expected behaviour in a fair value hedge.[14] As risk management approaches typically consider core demand deposits as fixed rate positions and manage them on the basis of their behaviour, this restriction limits the alignment between accounting and risk management. However, sometimes the derivatives being used as hedging instruments are designated as part of other hedging relationships dependent on the balance sheet structure of a bank. As currently only gross positions are designated as hedged items while the risk management approach is focussed on a net risk position it is often possible to find different financial instruments as substitutes that can be designated as hedged items. So hedge accounting may be

[12] IAS 39.AG114 on portfolio fair value hedge accounting.
[13] This assumes a back to back cash transaction. Refer to agenda paper 9A for a general explanation of the transfer pricing system.
[14] The only exception to this principle is in IAS 39.IG F.2.3 on core deposit intangibles.

applied—but in a way that is only directionally consistent with the actual risk management activity.

46. The risk management concept is basically the same as for pre-payable loan portfolios managed on an expected cash flow basis and therefore the same discussion applies. The main reasons that lead to the non-acceptance of core deposits as hedged items for fair value hedge accounting result from the inability to designate portfolios as the unit of account and the sub-Libor issue that raised the question of whether such a hedge relationship could be effective.[15] Main concerns regarding the fair value hedge designation on a portfolio basis are that this would lead to a de facto designation of forecast replacements in a fair value hedge although those are considered forecast transactions[16] and that the designation of a fair value hedge would conflict with the general assumption of IAS 39[17] that liabilities with a demand feature are not subject to significant fair value changes given the very short term of the instruments.[18] However, as demand deposits are often non-interest bearing, they also do not qualify for cash flow hedge accounting as there is no volatility of cash flows.[19]

47. The gross designation approach of IAS 39 for portfolio fair value hedge accounting of interest rate risk in combination with providing flexibility regarding the designation of hedge accounting relationships is supposed to compensate for the prohibition on designating other hedged items like core demand deposits. However, the Board at the time also recognised that the gross designation approach might not solve this problem for every entity, dependent on balance sheet structures.[20] Although the ED aims to align accounting more closely with risk management hedging relationships must still meet qualifying

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[15] Refer to the discussion above regarding the sub-Libor topic.
[16] IAS 39.BC187(a) which outlines that the stability of the core demand deposits does not result from an extended repayment period but rather from the on-going replacement of withdrawals.
[17] This assumption is now carried over to IFRS 13.47.
[18] Refer to IAS 39.BC187(d) and BC182 to BC192 for a general discussion for the Board's previous considerations regarding the designation of financial instruments with a demand feature as hedged items.
[19] IAS 39.IG F.6.3 and IAS 39.BC192.
[20] IAS 39.BC190-BC192.

criteria. This also applies to the designation of net positions that is subject to specific qualifying criteria.[21]

Pipeline trades and other transactions

48. The discussion above also applies to pipeline trades and other instruments like loan commitments that are managed on a portfolio level on the basis of their expected behaviour. From the current accounting perspective these instruments might qualify as forecast transactions and therefore cash flow hedge accounting could be applied (depending on the actual terms) unless the balance sheet structure allows the designation of other instruments as hedged items in a fair value hedge.

Cash flow hedges

49. Although various restrictions exist in IAS 39 regarding the designation of fair value hedges the basis for conclusions of IAS 39 notes that the Board pointed out that sometimes using cash flow hedge accounting as an alternative designation it might still be possible to achieve hedge accounting. This is because the whole concept of hedging expected cash flows and interest rate margins dependent on future transactions conceptually corresponds with the definition of hedging forecast transactions.[22] In addition, the risk management concept of hedging an interest rate margin links fixed and floating rate positions. As such there is usually the alternative to designate a cash flow hedge with the floating rate instrument on a gross basis when hedge accounting with the fixed rate instrument is restricted.

50. The consequence is that preparers apply cash flow hedge accounting when fair value hedges are not possible, ie an insufficient volume of qualifying hedged

[21] See paragraph 34 of the ED and the IASB's tentative decision at its 20-22 July 2011 meeting (agenda paper 13).
[22] See for example IAS 39 IG F.2.12 for pre-payable loans, IAS 39.BC192 for alternatives regarding core demand deposits and IAS 39.IG F.6.2 for prepayment risk.

items is available. As a result banks follow different hedge accounting approaches in their financial statements even when they have the same risk management strategies. The choice of applying fair value or cash flow hedge accounting is a result of different product terms and balance sheet structures that allow or do not facilitate the application of fair value hedges. This leads to a lack of comparability, indicates non-existing differences in risk management and leads to misinterpretations by users regarding different consequences for equity.

Illustrative example

51. The differences between the application of fair value and cash flow hedge accounting as well as criteria that may result in the selection made can be illustrated with the following examples:

Example 1

Fixed Rate Loans (no prepayment risk as the amount prepayable is adjusted for interest rate changes)	100	**Deposits** (modelled as core demand deposits to reflect the stickiness)	40
		Other liabilities (fixed rate)	40
		Other liabilities (floating rate)	20

On the basis of this balance sheet structure risk management will identify a net fixed rate asset position of 20 that is hedged with swap transactions (pay fixed, receive floating swap). Regarding the designation of hedge accounting there are two possibilities:

Fair value hedge accounting – A portion of 20 or 20% of the fixed rate loans are designated as hedged items. Ineffectiveness mainly results from differences in the terms of the fixed rate assets and the hedging instruments. The discontinuation of the hedge relationship is triggered by changes to the hedged loans which is in line with risk management's focus on fixed rate instruments.

Cash flow hedge accounting – The swaps are designated as a hedge of floating rate liabilities. As a consequence ineffectiveness results from differences in the cash flow profiles of the swaps and the designated hedged liabilities. The effective portion of the fair value changes of the derivatives is reflected in equity

(ie OCI). As a consequence the entire volatility resulting from fair value changes of the hedging instruments is reflected in equity, which is sensitive for some financial institutions. The discontinuation of the hedge accounting relationship is triggered by changes to the hedged liabilities, which is *not* in line with risk management.

Example 2

Fixed Rate Loans (prepayment risk as prepayable amounts are not adjusted for interest rate changes)	100	**Deposits** (modelled as core demand deposits to reflect the stickiness)	40
		Other liabilities (fixed rate)	40
		Other liabilities (floating rate)	20

In this adjusted example risk management would enter into the same derivative position assuming that the expected cash flows of the pre-payable loans are the same as in example 1. Regarding the designation of hedge accounting the following alternatives apply:

Fair value hedge accounting—The pre-payable loans might qualify for a designation of a portfolio fair value hedge of interest rate risk with the consequence that changes in expected cash flows that result from interest rate changes lead to ineffectiveness. For the designation of fair value hedges with individual loans the prepayment option would have to be considered a fair value change attributable to the hedged risk, which also leads to ineffectiveness. Dependent on the extent the prepayment option impacts the effectiveness assessment and can force the discontinuation of the hedging relationship. For the portfolio hedge the level of ineffectiveness sometimes can be reduced by a high re-designation frequency but leads to amortization (as discussed above for 'Changes to the portfolio').

Cash flow hedge accounting—Like in the example above, the swaps can be designated as hedging instruments of the floating rate liabilities with the same consequences as described there.

Example 3

Fixed Rate Loans (with and without prepayment risk)	80	**Deposits** (modelled as core demand deposits to reflect the stickiness)	90
Floating Rate Loans	40	**Other liabilities** (fixed rate)	10
		Other liabilities (floating rate)	20

In this situation risk management would identify a net fixed rate liability of 20 mainly resulting from core demand deposits which is hedged by entering into receive fixed, pay floating swaps. For the application of hedge accounting the following possibilities occur:

Fair value hedge accounting – The only liability position that qualifies for fair value hedge accounting are the other fixed rate liabilities. However, those do not cover the entire volume of hedging instruments. Therefore the full application of fair value hedge accounting that would reflect risk management's focus on fixed rate positions is not possible. However, another bank with a slightly different balance sheet structure might achieve fair value hedge accounting when sufficient fixed rate liabilities are available.

Cash flow hedge accounting – In this case cash flow hedge accounting could be designated for the floating rate loans with the same consequences as explained above for the other examples in respect of applying cash flow hedge accounting.

52. The examples demonstrate that different balance sheet structures and product-types in combination with accounting choices regarding the application of hedge accounting can lead to significant differences in the financial statement presentation although the basic concept of interest rate risk management is identical.

Internal derivatives as hedging instruments

53. Using internal derivatives is an integral part of risk management and their impact on hedge accounting has already been discussed in detail in IAS 39.[23] The ED acknowledges the requirements and concerns raised there (paragraph BC45). Those can be summarised as follows:

    (a) Elimination of internal transactions is a key principle of consolidated financial statements to avoid accounting for internal gains and losses (IAS 27.20 and 21). The final consolidated financial statements should be the same with or without internal derivatives.

    (b) There is a risk of abuse when internal derivatives impact consolidated financial statements.

    (c) The acceptance of internal derivatives might lead to the application of hedge accounting in situations where it would otherwise be prohibited, which relates to:

        (i) The fact that internal derivatives are netted before entering into offsetting external derivatives could (from a consolidated perspective) lead to a de facto application of hedge accounting for non-qualifying net positions or the implicit designation of hedging instruments that otherwise would be prohibited. This addresses situations where different hedge accounting approaches would be mixed at a group-level, for example the forecast transaction of a cash flow hedge is hedged by the firm commitment of a fair value hedge as the internal hedging instruments offset each other. This would not qualify for hedge accounting.

        (ii) The application of hedge accounting although the hedged risk has not been entirely transferred to an external counterparty (missing so called ‘externalisation’ of the internal derivatives).

[23] IAS 39.BC165-BC172A; IAS 39.IG F.1.4-F.1.7.

Comparing the listed requirements with a risk management approach that is based on internal derivatives the crucial topics for the qualification for hedge accounting purposes are listed in (c).

54. To address the requirements above there are currently two approaches applied:

    (a) The application of hedge accounting on the basis of internal derivatives. However, this is accompanied by a second step where external derivatives are identified that offset the internal ones to confirm the eligibility of hedge accounting.

    (b) External derivatives that are similar to the internal ones are identified and designated as hedging instruments for accounting purposes.

55. Meeting the requirement that all hedging relationships that are linked through the netting of internal derivatives have to qualify for hedge accounting on a consolidated basis is dependent on the 'homogeneity' of the designated hedging relationships on the basis of internal derivatives. This is achieved when all hedge accounting relationships designated individually qualify for the same combined designation, eg individual fair value hedges that also meet the criteria for a consolidated net portfolio fair value hedge. Although the ED removed some restrictions regarding the designation of hedging relationships there are still many situations where the designation of one homogenous hedging relationship for interest rate risk is not possible and therefore this criterion cannot be met.

56. For example, when the entire hedged position as identified for risk management purposes qualifies as one comprehensive hedged item in a uniform hedge accounting model the criterion that the hedging relationships designated on the basis of internal derivatives and the hedging relationship that remains after consolidation both qualify for hedge accounting would be met. In contrast, when hedge accounting requires the split of the hedged position into different hedging relationships for different hedged items the criterion could not be met on a group level. Let's assume a financial asset is designated as a fair value hedge and a forecast transaction is designated as cash flow hedge, both with internal derivatives as hedging instruments. To the extent that the internal derivatives

offset each other the hedging relationship that remains after elimination would be a net position consisting of a financial asset and an offsetting forecast transaction which does not qualify for hedge accounting.

57. The topic of externalisation (ie entering into a derivative with an external counterparty) is primarily an operational issue. The approach of a bank is typically to externalise the exposure transferred via internal derivatives as part of the trading activities. The trading book aggregates all of its exposures and takes account of its pre-defined risk limits. It then enters into necessary derivative transactions with the market. As a consequence, there is *no direct link* between internal and external derivatives, ie some will be mirrored by external transactions and some will not. Also, the external derivatives are usually subject to a higher turn-over than the internal hedging derivatives. The difference in turn-over of the external derivatives necessitates a more frequent discontinuation and re-designation of the hedge accounting relationships than occurs internally at the asset-liability management level. This all makes alignment of hedge accounting and the actual risk management difficult. Steps can be taken to improve the alignment, for example external transactions could be undertaken to match each internal one. The external transactions identified for hedge accounting can also be blocked for future trading activities. However, these steps would be 'artificial' and unnecessarily increase the number of (external) derivative transactions.

58. The described risk management approach on the basis of internal derivatives does not necessarily conflict with the requirement to fully eliminate internal derivatives. Internal derivatives are rather used to create a *link* between hedged items and hedging instruments (external trading transactions) and lead to a reclassification from trading to non-trading income with no net impact on consolidated net income. However, the application of hedge accounting on the basis of internal derivatives changes the valuation of the hedged items (fair value hedge) or leads to OCI amounts (cash flow hedge). This effect is offset by the valuation of the external derivatives given that a proper externalisation has been achieved.

59. For example, a financial asset is hedged with an internal derivative. The fair value change attributable to the hedged risk of the financial asset is 10 and the offsetting effect of the derivative is (11). The trading desk that serves as internal counterparty enters into an offsetting external derivative with a fair value change of (13). Ignoring the internal derivative completely would require to identify and designate the external derivative as hedging instrument of the financial asset leading to ineffectiveness of (3) accounted for in the banking book and trading income of 0. In contrast, the consideration of the internal derivative leads to ineffectiveness of (1) and trading income of (2) which reflects the actual activities of the financial institution. The impact on net income is identical for both situations.

60. As the internal derivatives are set up to address banking book risks they are a better indicator for the quality of the risk management activities as the external ones. Mismatches between hedged items and external (trading) derivatives are not only the result of an ineffective hedge approach but also due to trading considerations.

61. The risk of abuse is addressed by limiting the consideration of internal derivatives for accounting purposes to situations where they qualify as hedging instruments for hedge accounting, the terms and pricing are set at arm's length and the risk is externalised as described above. These are typical criteria when internal derivatives are used as a risk management tool.