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Introduction

1. The purpose of this paper is to discuss how the proposed portfolio revaluation approach might be applied with respect to accounting for macro hedging activities for risks other than interest rate risk.
2. The discussions so far on accounting for macro hedging activities have focused on a portfolio revaluation approach where macro hedging activity for interest rate risk is undertaken by banks. At the September 2011 IASB meeting¹ it was discussed that the intention of the IASB was to develop an accounting model for macro hedging activities that would accommodate different types of risk (ie would not be limited to accounting for macro hedging activities of interest rate risk or the needs of financial institutions).
3. At the same meeting it was noted that macro hedging activities are applied outside of financial institutions for other risks as well. For example, risk management activities exist where foreign exchange (FX) risk or commodity price risk² is managed dynamically on the basis of an open portfolio.

¹ September 2011 Agenda paper 9.

² Commodity price risk in the context of this paper is the existence of fixed price exposures which expose the entity to transactions that become 'off market'.

4. Outreach has been performed by the staff to understand how and where macro hedging activity for open portfolios is undertaken for risks other than interest rate risk. This paper outlines what we have heard and provides analysis on the potential applicability of the proposed portfolio revaluation approach discussed so far by the IASB, to those identified macro hedging activities. These are the initial findings based on the limited outreach undertaken to date.
5. The most common risks the staff are aware of that are managed dynamically for open portfolios are commodity price risk and FX risk. We will consider these risks separately in this paper.
6. The hedge accounting model of the draft IFRS 9 *Financial Instruments*³ includes some significant changes to hedge accounting for both commodity price risk and FX risk. Therefore the staff have focused on identifying possible remaining needs for solutions for macro hedging activity of these risks, after considering the use of the new hedge accounting model.

Commodity Price Risk

7. It is very common for corporates to hedge commodity price risk where it occurs within their business. However, a revaluation approach for accounting purposes will not be helpful for all such risk management activity. This paper concentrates only on macro hedging activity of open portfolios for commodity price risk.
8. Based on our outreach the staff have identified a number of risk management strategies applied to open portfolios for commodity price risk:
 - (a) Stabilisation of net margin: Net commodity price risk arising from purchases and sales (and inventory⁴). When applying a stabilisation of net margin approach, there is an assumption that the pricing of both purchase and sales contracts are based on the market price of the

³ Available on the IASB website.

⁴ For some commodities, inventory positions are included within the net risk position. Inventory is like a fixed price position, as the purchase price, once paid, becomes a fixed amount.

commodity. Risk management activity focuses on identifying pricing mismatches in purchases and sales (and inventory). For example where a fixed price has been agreed for purchase (or sales) contracts for a particular commodity, but the ultimate sales (or purchase) price of the commodity is not fixed and hence remains sensitive to movements in the market price of the commodity. Without risk management activity this will result in an unstable net margin. An example would be an energy company buying gas to supply to customers.

In order to eliminate the commodity price risk from that net fixed price position, risk managers would sell forward (or buy forward) the commodity at a fixed price using derivatives, reducing the risk of variability in net margin. Such an approach is similar to a bank's management of interest rate risk, whereby they identify and reduce mismatches between fixed and floating rate exposures with a view to locking in an interest margin.

(b) Commodity price risk is dynamically managed for either purchases or sales. Let us consider the following examples:

(i) An entity purchases a commodity as part of the production process to create a finished product for onward sale to customers. The purchase price of the commodity is driven by the market price for the commodity, however the sales price of the finished product is insensitive to the commodity price. This could be because of price regulation, customer expectations (price inelasticity) or other factors.

The entity still wishes to earn a stable margin and so may make assumptions about the period for which they expect the sales price to remain stable and then try to match that pricing profile for the purchases. Therefore active risk management of the commodity purchases is undertaken in order to fix purchase prices. Examples of this strategy could include airlines hedging the price of jet fuel, or a wholesaler hedging the wheat price for onward sale of pasta to supermarkets.

- (ii) An entity produces a commodity for onward sale, but has fixed production costs, eg labour. Sales include both fixed and variable contracts, but the pricing of sales contracts is heavily driven by market commodity prices. Risk management activity is focused on eliminating any fixed prices in sales contracts, as the entity wishes to be able to benefit from changes in the market commodity price. Examples where this strategy may be applied would be the mining industry where the extraction costs may be largely fixed or driven by other factors and investors in mining groups expect the group to be able to participate in changes in the market price of the commodities mined.
9. Risk management in all of the above scenarios is performed on an open portfolio of exposures. On a regular basis, possibly intraday, as new contracts are signed, or fixed price mechanisms start/end or assumptions on volume requirements under contracts change, risk managers assess the commodity price risk against their risk management strategy. They manage that risk by transacting commodity physical or financial (derivative) contracts to ensure the commodity price risk is compliant with their risk management strategy.
10. Much of the risk management activity discussed so far has been in relation to firm commitment sales and purchase contracts or recognised inventory. However, the staff are aware from the outreach that there are entities which advertise fixed price sales contracts and include estimations of exposure from new customers taking up those advertised contracts within their hedged exposures. This is similar to the issue of banks including fixed rate pipeline⁵ mortgages and deposits within their hedged portfolio, ie these relate to risks arising from anticipated exposures that are not yet contractually committed.

⁵ The difficulties of including interest rate pipeline transactions within a revaluation portfolio was discussed by the IASB in the October 2012 meeting (agenda paper 4B).

Application of a revaluation approach to macro hedging activities for open commodity portfolios

11. Where the proposed revaluation approach is applied, all exposures within the hedged portfolio (ie the firm commitments to buy or sell the commodity, plus inventory) would be revalued *with respect to the hedged risk*, (ie commodity price excluding other pricing factors). Changes in valuation of the hedged portfolio with respect to the hedged risk would be taken to profit or loss.
12. As noted in paragraph 7 above, a revaluation approach will not be suitable for all risk management activity of commodity risk.
13. Applying a revaluation approach to an open portfolio for which stabilisation of net margin is the risk management strategy (as discussed in paragraph 8(a)), may provide useful information⁶ in the financial statements that is largely consistent with risk management activities.
14. Let us consider the risk management strategy as described in paragraph 8(b)(i). Although the entity in this scenario also wishes to earn a stable net margin, it is not possible to include sales (or purchases) in the revaluation portfolio, as the sales (or purchase) price is not very sensitive to the hedged risk. An exposure cannot sensibly be revalued for changes in a particular commodity price if the value of that exposure is only very indirectly related to the commodity price. Therefore a revaluation approach can only be applied to exposures where it can be demonstrated their value changes quite directly with respect to the hedged risk.⁷
15. As the risk management activity from this strategy is to lock in the price of purchase contracts within the open portfolio, it more naturally fits with a cash flow hedge accounting approach⁸. Indeed applying a revaluation

⁶ This should not be a surprise as a stabilisation of net margin approach is very similar to a bank's net interest margin approach for which the revaluation approach has initially been derived.

⁷ The draft requirements under IFRS 9.6.3.7(a) for eligible risk components in hedge accounting relationships require that any valuation for a risk component must be *separately identifiable and reliably measureable*. The applicability of this specific requirement to the proposed revaluation approach or an alternative criterion will need to be considered.

⁸ This is similar to the application of a cash flow hedge accounting for variable interest rate assets *or* liabilities by financial institutions.

approach only to the purchases (or sales) would not present information that was consistent with risk management.

16. The preceding discussion has some relevance to the scenario described in 8(b)(ii) above as the production cost 8(b)(ii) is *insensitive* to the commodity price, and so cannot be included in a revaluation portfolio. However, the risk management strategy is quite different as the entity wishes to maintain variability in commodity price, rather than achieve a stable net margin. Hence the risk management activity here is to ‘unlock’ fixed price sales contracts so that the entity can benefit from value changes in the commodity. In this scenario, application of a revaluation approach only to the sales contracts would provide useful information that was consistent with risk management.

Accounting alternatives

17. IAS 39 *Financial Instruments: Recognition and Measurement* (and hence IFRS 9) requires that an entity considers some contracts to buy or sell non-financial instruments (such as certain commodities) to assess whether they should be accounted for as ‘own use’ contracts⁹ or as derivatives at FVTPL. Own use contracts are outside the scope of IAS 39. Profit or loss volatility occurs as a result of differences in recognition and measurement requirements (sometimes referred to as an ‘accounting mismatch’) where a mixture of ‘own use’ and derivative accounting is required for contracts within a portfolio that is considered as a whole for risk management purposes.
18. As noted in the introduction to the draft hedge accounting requirements of IFRS 9 (paragraph IN8(c))¹⁰, those draft requirements do not address specific accounting¹¹ issues for open portfolios. However, the draft consequential amendment to IAS 39 (paragraph 5A) introduces an irrevocable fair value option for contracts that meet the definition of ‘own

⁹ IAS 39.5 or IFRS 9.2.1.

¹⁰ Also refer to draft hedge accounting requirements of IFRS 9 BC 6.9-15.

¹¹ Specific issues as discussed in Agenda paper 9B September 2011.

use' contracts, if doing so eliminates or significantly reduces an accounting mismatch.

19. Based on our outreach, the staff understand that there are situations (particularly in the energy sector) where commodity price risk for an open portfolio is dynamically managed on a fair value basis, for which the ability to designate 'own use' contracts at fair value would facilitate an accounting result¹² that is closely aligned to risk management.
20. If the fair value option is applied to 'own use' contracts, they would be held at full fair value, including all pricing factors, rather than just the effect of particular factors. Therefore, if the portfolio is managed on a 'by risk' basis, applying the fair value option would introduce profit or loss volatility that was not consistent with the way the business is managed. For example if a portfolio of petroleum products were managed only for the crude oil risk component, on application of a revaluation approach, the portfolio would only be revalued for changes in the crude oil. Under the FVO, all changes in the full fair value of the petroleum products would be taken to profit or loss.
21. Through outreach the staff are aware of situations where commodity price risk is dynamically managed by risk. However, for these situations, even if a revaluation by risk approach was applied, some accounting volatility will remain as only 'own use' contracts and inventory could be revalued by risk under a revaluation approach, while derivatives will always be accounted for at FVTPL.
22. Conversely there may also be some commodities for which physical sales and purchase contracts cannot be settled net in cash or another financial instrument. These contracts are therefore outside the scope of IAS 39 including the proposed fair value option for 'own use' contracts. Where these contracts are risk managed on a portfolio basis for commodity price risk, a revaluation approach may be required.

¹² In order to achieve this accounting result where inventory is included as part of the portfolio, it will need to be accounted for at fair value (less costs to sell) as permitted by IAS 2.3(b).

Conclusion

23. Given the similarity in risk management approach between banks managing interest rate risk and corporates managing commodity price risk for open portfolios, the staff anticipate that the proposed revaluation approach could be used in accounting for commodity price risk management activity. However, in some circumstances, existing accounting solutions such as the fair value option for ‘own use’ contracts and cash flow hedge accounting should also enable some corporates to present an accounting result consistent with risk management applied to open portfolios.
24. Some further consideration may be required on the eligibility of risk exposures within the hedged portfolio to be revalued. It only makes sense to revalue exposures by risk if they have price sensitivity to the hedged risk. Otherwise any valuation will not be *separately identifiable and reliably measurable*. For example, an entity may purchase a particular metal as an ingredient to a manufacturing process. At the end of the manufacturing process the finished product is sold. Unless it can be demonstrated that the sales price of the finished product is sensitive to changes in market price of the metal ingredient, it would not be possible to separately identify and reliably measure the revaluation impact on the finished product with respect to the metal price. However, the staff would not expect dynamic risk management of commodity price risk to occur for portfolios of exposures that do not demonstrate sensitivity to the hedged risk.
25. Additionally any special requirements for the inclusion of inventory¹³ within a revaluation approach will also need to be considered.

Foreign Exchange Risk

26. Many entities, including both financial institutions and corporates, are exposed to FX risk¹⁴ and often choose to economically hedge that risk on an

¹³ The inclusion of inventory within fair value hedges is illustrated by IAS 39 IG F3.6.

¹⁴ FX risk for the purposes of this paper is the risk of changes in the functional currency equivalent of a fixed foreign currency amount.

open portfolio basis. FX risk can occur on recognised items or on unrecognised items.

27. Recognised foreign currency monetary items are revalued for spot FX as required by IAS 21 *The Effects of Changes in Foreign Exchange Rates*. If a revaluation approach for FX risk were applied to recognised foreign currency monetary items that would also result in a spot FX revaluation, hence we have not focused on these items in this paper¹⁵.
28. Common scenarios where FX risk occurs include the following¹⁶:
 - (a) forecast or committed foreign currency sales or purchases;
 - (b) forecast or committed foreign currency capitalised infrastructure or project spend;
 - (c) foreign currency recognised non monetary items, eg some inventory such as crude oil; and
 - (d) net investments in foreign operations.
29. Risk management for FX risk is often performed centrally by a treasury function. The central treasury would obtain details of all FX exposures within the group or business. It is likely that FX exposures would be allocated into time buckets and the FX exposure per time bucket is calculated. Treasury would then reduce that FX risk per bucket in accordance with an approved FX risk policy.
30. The FX risk policy would normally include guidance on the level of hedging required, dependent on when an exposure/bucket is expected to occur. For example the policy may be to hedge out 60% of FX risk occurring in the 2 year bucket, but to hedge out 90% of FX risk within the next 12 months.
31. Risk management is usually dynamic as new exposures are frequently added to the portfolio and the timing of existing exposures may change. This

¹⁵ The FX revaluation from recognised foreign currency monetary items may however be considered as part of FX risk management, as it might provide some offset to FX risk from other exposures. Therefore, the inclusion of recognised foreign currency monetary items within an FX portfolio subject to a revaluation approach should be permitted.

¹⁶ This is not an exhaustive list.

dynamic aspect makes the application of a general hedge accounting model very difficult as it requires frequent re-designations. The ability to account for this risk management activity on a portfolio basis *may* therefore be beneficial.

Forecast Transactions

32. For many corporates, a large proportion of FX risk arises through forecast foreign currency denominated sales and purchases. For example, a corporate with JPY functional currency may expect sales revenue of USD100k each month over the next year. In order to protect themselves against changes in the USD/JPY exchange rates they may sell forward USD for JPY using 12 FX forwards, one for each month. In particular for retail businesses, where a sale is not contractual until the customer walks into a shop and buys an item, the foreign currency exposure is purely based on a forecast transaction, with no contractual element.
33. In October 2012¹⁷ the IASB discussed the conceptual difficulties of recognising changes in the valuation of ‘interest rate pipeline transactions’ such as expected volume from fixed rate mortgage or deposit product advertisements, as assets or liabilities in the balance sheet. There are some similarities¹⁸ between FX risk management of forecast transactions and the net interest margin approach for interest rate pipeline trades, as both consider the risk from potential future transactions for which there is no contractual basis. Therefore the conceptual difficulties discussed by the IASB on interest rate pipeline transactions may also be applicable to FX risk management of forecast transactions.
34. However, given that FX risk from forecast transactions often composes a large proportion of the hedged FX exposure for many corporates, the issue is as pertinent. Consequently, for many corporates that dynamically manage FX risk, a revaluation approach would only work if forecast exposures were

¹⁷ Agenda paper 4B.

¹⁸ Although there are some similarities, the risk management strategy is usually different. Risk management of fixed interest rate pipeline transactions is to protect the bank against valuation changes in the pipeline, whereas corporates focus more on fixing a functional currency cash equivalent for FX forecast exposures.

eligible for inclusion. If pursued, this issue would need to be further considered.

Unrecognised exposures

35. As noted above¹⁹ it is also common for corporates to manage the FX risk on committed exposures. In particular, from committed project expenditure, as well as the purchase or sale of significant fixed assets in foreign currency. Where FX risk on such exposures is close to being eliminated, an accounting revaluation approach could provide a good representation of risk management, as follows:
- (a) recognise FX derivatives at FVTPL; and
 - (b) recognise change in functional currency equivalent of fixed foreign currency amounts due to changes in FX rates, on the balance sheet and in profit or loss.
36. The profit or loss reflects any residual FX position or mismatches between the timing of hedged exposures and FX derivatives, which would be consistent with the economics.
37. However, it is common place for corporates not to immediately hedge the full identified exposure, even for committed exposures. This is to avoid risk management activity that could result in increasing the FX exposure by transacting a derivative that is larger than the ultimate exposure. As FX flows get closer to their expected occurrence date, the proportion of the exposure being hedged will often increase, consistent with the FX risk policy.
38. In September 2012 the IASB²⁰ discussed the potential outcome of applying a revaluation approach to an interest rate portfolio that had not been fully hedged. Many of the same issues would arise if a revaluation approach was applied to an FX portfolio that was not fully hedged. However, for an FX portfolio of unrecognised items the issues are exacerbated.

¹⁹ Paragraph 28.

²⁰ Agenda paper 4B.

39. For unrecognised firm commitments, such as foreign currency denominated sales contracts, considered for FX risk management by corporates, they could be revalued for changes in FX rates since first included in the risk portfolio. The revaluation of the firm commitment might be recorded in a special balance sheet account²¹ (eg revaluation of firm commitment receivables) with the other side in profit or loss. Once the firm commitment is settled, the revaluation amount attributable to that firm commitment will need to be calculated and removed from the special balance sheet account to appropriately reflect risk management as part of recognition of the hedged commitment.
40. Conversely, for risk management of unrecognised interest rate exposures, the cumulative revaluation adjustment is automatically recorded as the recognised exposure is immediately revalued²² with respect to the hedged risk as it continues to be part of the risk managed portfolio.
41. In addition, the calculation of FX revaluation of an exposure may be operationally more complex than the revaluation of an interest rate or commodity exposure. When revaluing an FX position, it is necessary to know what the starting functional currency equivalent is for comparison purposes. Just applying prevailing FX rates will provide information on the current functional currency equivalent, but not the *change* in valuation which is what is required under a revaluation approach. Therefore there will be a need to track the FX rate²³ on the date an exposure was included in the hedged portfolio.

²¹ The exact presentation of the revaluation approach is still to be discussed by the IASB.

²² For example a fixed rate loan was priced 2 months ago (at say 4%) and revalued within the hedged portfolio as a firm commitment. When the loan is drawn down (settled), and continues to be revalued within the portfolio, the valuation will include all value changes in the loan since it was first priced, to settlement date (eg when rates are 4.5%).

²³ If the portfolio is being managed for FX forward rates (as is usually the case), then the operational impact is more problematic as the relevant forward points when first hedged will also need to be known, rather than just the spot FX rate.

42. A requirement to track FX rates when exposures are first included in the hedged portfolio is very similar to the tracking required when applying the draft hedge accounting guidance in IFRS 9²⁴ for cash flow hedging.

Summary

43. Benefits from implementing a revaluation approach for dynamic risk management of open portfolios for FX risk would exist in only limited circumstances. The need to track FX exposures making up the revaluation portfolio result in operational requirements that are very similar to existing hedge accounting solutions in draft IFRS 9 (and IAS 39).
44. Furthermore, a revaluation approach has some added conceptual difficulties for forecast transactions which may suggest that the hedge accounting solutions within draft IFRS 9 provides a better accounting solution for FX in most (but not all) circumstances.
45. Therefore the staff recommend that FX risk should be an eligible risk within a revaluation approach for risk management of open portfolios; however the staff would not expect it to be widely applied, particularly where hedge accounting solutions are embedded in underlying systems and procedures.

Net investment hedges

46. FX risk management of open portfolios of net investment hedges in foreign operations were not generally mentioned in our outreach. The staff believe that is because typically²⁵, management of FX risk from portfolios of net investments in foreign operations is not dynamic and is performed separately from FX risk in other exposures such as foreign currency denominated forecast or committed transactions. Net investment hedges are therefore only included in this paper for completeness.

²⁴ Draft IFRS 9.6.5.11.

²⁵ The staff would however be interested to hear of any instances where net investment hedges are managed as part of an open portfolio including other FX exposures.

47. FX risk on net investments is however, often managed as a closed portfolio of net investments, one for each currency. Also it would be relatively common for a consolidated group to hedge a proportion of the FX exposure from a portfolio of net investments, rather than the full exposure. Such a risk management strategy for net investment hedges under a revaluation approach would have similar issues as those discussed²⁶ for other portfolio risk management strategies that have a policy of not eliminating risks in full.
48. In addition, net investment hedges have a requirement²⁷ to reclassify the gain or loss on the hedging instrument relating to the effective portion, into profit or loss on the disposal of the hedged net investment, such that any profit or loss on disposal of a net investment includes the impact of FX risk management activity.
49. If a portfolio revaluation approach was permitted for net investments in foreign operations, there would be a need to override this IAS 21 requirement or artificially allocate the valuation of hedging instruments to each hedged net investment, which would be inconsistent with a portfolio approach to risk management.
50. Unless it was possible to override the IAS 21 requirement for the impact of FX risk management to be considered when calculating profit or loss on the disposal of a net investment in a foreign operation, application of a revaluation approach may not be appropriate for FX exposure from net investments in foreign operations.

Overall Summary

51. In the staff's view, although the revaluation approach will be most widely applied by financial institutions managing interest rate risk on open portfolios, it should not be restricted to interest rate risk.
52. Given the similarities in risk management activity, the staff expect the majority of guidance on the revaluation approach to be applicable to macro

²⁶ See paragraph 38.

²⁷ IAS 39.102, IAS 21.32 and IAS 21.48.

hedging activity of open portfolios regardless of the particular hedged risk. However some specific guidance may be required for particular aspects of different risks.

53. As only limited outreach was performed by staff on macro hedging of other risks, the staff will seek to obtain further insight on the application of a revaluation approach where risk management of open portfolios for other risks is undertaken.