STAFF PAPER

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Project	Accounting for Macro Hedging		
Paper topic	Income statement and balance sheet presentation		
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Introduction

1. The purpose of this paper is to discuss how the proposed portfolio revaluation approach might be presented in the income statement and the balance sheet. No questions are asked of the Board. Rather the paper is intended to provide a basis to outline the presentation alternatives in the forthcoming Discussion Paper.

2. The main aim of this project is to develop an accounting model for macro hedging that conveys transparent information reflecting the macro hedging activities being undertaken, while balancing the benefits of such information with the costs of obtaining it. This involves addressing operational complexities with respect to the need for tracking and amortisation that is typical of the existing accounting solutions for hedges of open portfolios.

3. The solution which the IASB has been discussing, the portfolio revaluation approach, is in itself quite simple. There will not be any change to the accounting for derivatives, which will be at fair value through profit or loss irrespective of whether they are used for risk management purposes. Application of the revaluation approach requires the revaluation of risk managed portfolios with respect to the managed risk. The resultant revaluation adjustment will then need to be recognised in the balance sheet and profit or loss. An offsetting effect in profit or loss should be achieved to

the extent of the existence of offsetting risk positions, through the revaluation of the exposures within the risk managed portfolio for the managed risk and the fair value changes of derivatives.

4. The discussions so far on accounting for banks' macro hedging activities have predominantly focused on the net impact on profit or loss and the balance sheet from the revaluation adjustment for managed exposures. However, the 'geography' of the necessary accounting adjustments also plays an important part in presenting useful information on macro hedging activities.

5. As has been described before[1], the objective of risk managers within a bank is understood to be to transform the interest rate exposure profile to achieve a desired effect on the net interest margin[2]. Within an open portfolio, this risk management objective is usually achieved by focusing on valuation risk from fixed price exposures with respect to benchmark interest rate risk.

6. Therefore appropriate representation of net interest margin in line with that risk management objective in the income statement is paramount. In addition, information should also be provided on the effect of revaluation by market risk, reflecting the entity's exposure and how the entity managed that exposure. This is also a means to capture the effect of risk management activity on the future net interest margin.

7. At the September 2012 IASB meeting[3] it was discussed whether internal derivatives should have an impact on the income statement presentation in the accounting for macro hedging in the consolidated financial statements. The paper explained how permitting a gross-up of profit or loss from internal derivatives between risk management and trading desks would facilitate a meaningful representation of those separate risk management and trading activities. It was clarified that net profit or loss (of the reporting

[1] September 2011 Agenda paper 9A.

[2] Throughout this paper, 'net interest margin' is a risk management term and refers to the net interest achieved on the managed exposures for which risk management is undertaken. 'Net interest income' is an accounting term and refers to the net of reported interest revenue and interest expense in the income statement.

[3] September 2012 Agenda paper 4A.

entity) would *not* include any profit or loss from internal derivatives. This discussion also assumed the revaluation approach would have an impact on both net interest income and revaluation profit or loss.

8. Ordinarily, business units retain responsibility for earning the difference between the benchmark interest rate risk transferred to risk managers and the customer margin, often known as the product margin. The revaluation approach aims to represent risk management activity, which is typically only for benchmark/market risk elements. Therefore it is only the managed benchmark risk that is included within the revaluation model. There is no proposal to change the accounting for interest revenue or expense that is not part of the managed benchmark risk, such as the product margin. Revenue and expense from these sources will continue to be based on the relevant accounting standards appropriate for the underlying exposure, and so will be reflected in the normal income statement line items[4] without reference to the revalued portfolio.

9. This paper discusses the different ways in which accounting for macro hedging under the proposed portfolio revaluation approach could be presented in the income statement. The approaches considered for income presentation are as follows:

- **Stable net interest income approach**
- **Actual net interest income approach**

10. In addition, this paper also discusses appropriate presentation in the balance sheet for the revaluation adjustments to the managed portfolio. The approaches considered for balance sheet presentation are as follows:

- **Line-by-line balance sheet gross-up**
- **Separate lines for aggregate gross adjustments to assets and liabilities**
- **Single net balance sheet line item**

[4] For example, if a loan was risk managed with respect to changes in the benchmark rate as part of an open portfolio, any residual components of the loan such as the product margin will accrue to interest revenue as usual under IAS 39/IFRS 9 and IAS 18, outside of the revaluation approach.

11. There are no questions to the Board. The next proposed step for the staff would be to include these alternative presentations within the planned Discussion Paper in order to obtain feedback from stakeholders on the most appropriate presentation.

Stable net interest income approach

12. This income presentation[5] assumes that a bank's risk management objective is to fully stabilise net interest margin against changes in benchmark interest rates - irrespective of the entity's actual risk management. Reported net interest income is recognised on the assumption that this objective has been achieved. Revaluation profit or loss will then provide information on how good the bank has been at achieving that objective, for both realised and future net interest margin.

13. Similar to the usual FVTPL accounting, all changes to the revaluation adjustment for the managed portfolio and to the fair value of risk management instruments would be taken to a single profit or loss line item, possibly called 'profit or loss from dynamic interest rate risk management'. This new line would not form part of net interest income. Any open risk positions would result in volatility in this new profit or loss line item.

14. In order to reflect the assumed risk management objective to stabilise net interest, the 'managed accrued interest' would be reclassified from 'profit or loss from dynamic risk management' to interest revenue or expense. This managed accrued interest would be the same as the floating leg accrual on the 'perfect swap'[6] that would have hedged the external risk exposure. Another way of thinking about the managed accrual is as being calculated based on the items included within the managed portfolio (eg notional and payment dates) but with respect to the risk that is being managed (eg not the contractual coupon but the variable rate to which the exposure is being managed eg 3m LIBOR).

[5] See example in paragraph 21

[6] If the actual derivatives eliminated all interest rate mismatches, then the managed accrual would be the same as the floating leg on the actual derivatives, however this will not be the case where open positions remain.

15. This presentation reflects a stable net interest income that the approach assumes the bank was trying to achieve through its management of interest rate risk. Net interest income would reflect a combination of all managed exposures refixing to the identified variable index, eg 3m LIBOR (although the managed exposures will not necessarily fix on the same days), plus accrual of the other margins earned or payable incremental to the interest rate risk being managed (eg product margin). In addition, the revaluation profit or loss would line demonstrate how successful the bank has been at achieving the risk management objective to stabilise net interest margin, as it reflects profit or loss volatility from any remaining open risk positions[7], both realised and unrealised.

Actual net interest income approach

16. Under this income presentation[8] there would be no change to the existing income presentation for managed exposures. Interest would be recognised in interest revenue and expense using the effective interest method[9], irrespective of whether exposures were included within macro hedging activity or not.

17. In addition, a new line will be included on the face of the income statement within net interest income, called 'net interest income from risk management instruments'. Net accruals from all risk management instruments[10] would be reported within this new interest line.

18. Hence interest revenue and expense would reflect the position before risk management, but net interest income would reflect the actual net interest achieved after risk management.

[7] Open positions here include any intentionally unhedged positions as well as any market or bank management barriers to achieving complete elimination of variability in net interest income resulting from changes in the managed risk. The extent of the open positions that would be reflected in revaluation profit or loss will also be influenced by the Board discussion on 'What the model should be applied to' May 2013 Agenda paper 4B.

[8] See example in paragraph 21

[9] As described in IAS 39/IFRS 9.

[10] Accrued interest is an implicit part of the valuation of financial instruments, as the value of all future cash flows is included in the valuation calculation.

19. Given the dynamic nature of the macro hedging activity of the portfolio as a whole, and the fact that the portfolio will often be a net position, it is not possible to attribute net accruals from risk management instruments to either interest revenue or expense in any meaningful way. However, presenting reported interest revenue and expense before risk management, and presenting the net interest accrual from risk management derivatives in a separate interest line, provides useful information on a bank's business and is consistent with the macro hedging activity.

20. A profit or loss line item for the effect of dynamic interest rate risk management would also be presented. In this case, 'revaluation profit or loss' reflects changes to the revaluation adjustment for the managed portfolio excluding their accruals, net of changes to the fair value of risk management instruments excluding their accruals[11]. This net amount would be reported in profit or loss from dynamic interest rate risk management. This would only reflect unrealised profit or loss, or more specifically, any mismatches in anticipated future net interest income.

Example

21. For example[12], a bank identified 3m LIBOR[13] as the managed risk component of a 3 year fixed rate £300m loan portfolio which pays quarterly coupons. The loan portfolio attracts an annual fixed rate of 3.8% which was based on a 3% market rate from the 3m LIBOR curve, plus 0.8% product spread. The loan portfolio was funded by 3m LIBOR deposits. The bank manages the interest rate risk on the loans and deposits as a net portfolio, with a view to stabilising net interest margin. The bank transacted a £300m 3 year interest rate swap, paying 3% fixed and receiving variable 3m LIBOR to eliminate the interest rate mismatch in the net portfolio. All quarterly fixing and coupon payment dates coincided on the exposures and swaps.

[11] Valuations excluding accruals are often described as 'clean valuations'.

[12] See Appendices for a more detailed example.

[13] 3m LIBOR curve in this context means the yield curve constructed from LIBOR and swap market data with 3m LIBOR as a reference rate.

	Stable net interest income	Actual net interest income
Interest revenue	0.8% product spread plus 3m LIBOR	3.8%
Interest expense	3m LIBOR	3m LIBOR
Net interest income from risk management instruments	-	Pay 3%, receive 3m LIBOR in swap
Net interest income	**0.8% credit spread**	**0.8% credit spread**
Profit or loss from dynamic interest rate risk management	Revaluation of managed exposures, plus derivative fair value changes, excluding 3m LIBOR managed risk accrual	Revaluation of managed exposures, plus derivative fair value changes, excluding accruals for actual managed rate and net accrual on derivatives

22. In the above example, the revaluation profit or loss from dynamic interest rate management will be zero under both income presentations. This is because the interest rate mismatch in the portfolio was eliminated in full.

23. If an open position did exist, the net effect on profit or loss would be the same for both presentations, reflecting volatility from the open position. However, under the stable net interest income presentation, the interest lines would still be reported as in the above table, and the full impact of the open position would be reported in profit or loss from dynamic interest rate risk management. Conversely, if the actual net interest income presentation was applied, the impact of any open positions on the margin (margin volatility from mismatches between fixed and variable exposures on an accrual basis) would be reported within net interest income and the revaluation impact within profit or loss from dynamic interest rate risk management.

24. For clarity, in the above example, the fixed leg of the swap exactly matched the fixed leg of the loans, and the floating leg of the swap exactly matched 3m LIBOR, the managed risk. Consequently the managed accrual taken to interest revenue to reflect the risk management objective would be the same

as the floating leg of the swap. However, this will not always be the case, for example if there are differences in fixing dates, or the interest basis of interest flows does not match the managed accrual will not be equal to the floating leg of the actual swap.

Comparison

Stable net interest income	**Actual net interest income**
Income presentation is based on the premise that a bank's risk management objective is to stabilise net interest margin by eliminating *all* interest rate mismatches. This presentation may not be considered a good representation of risk management for those banks that do not aim to fully stabilise net interest margin (ie not to eliminate *all* interest rate mismatches). The resultant net interest income from mismatches intentionally left open will not be presented as interest, but will be included as revaluation profit or loss.	Risk managers might prefer to reflect the net interest income they actually achieved rather than one that assumed an objective of eliminating all interest rate mismatches. In particular if their risk management objective is not to eliminate *all* interest rate mismatches.
Reflects the realised and unrealised profit or loss impact of open positions (interest rate mismatches) within a single revaluation line item. It could be argued that such a presentation provides transparency on the impact risk management activity has had on profit or loss over and above stabilising net margin. However, under this income presentation, it would be difficult to distinguish between a bank with *minimal* interest rate mismatches naturally occurring within its business before risk management (eg the duration of lending and funding activities are similar) and one with *significant* interest rate mismatches before risk management (eg long term lending is funded with short term liabilities).	Net interest income will include the realised profit or loss from open positions. However, this presentation does present interest earned before and after risk management activity. Thereby providing readers with information on the natural interest rate profile of a bank's balance sheet and the extent to which they have transformed that interest through risk management activities.

The stable net interest income presentation is likely to require changes to systems. Most probably a linkage to the prevailing managed risk will be required within the existing transfer pricing processes in order to calculate the managed accrual. However, once systems were in place to present income in this way, there should not be any requirement for further adjustment such as amortisations. Furthermore, for some banks, application of the revaluation approach may require enhancements to the existing transfer pricing anyway, to be able to calculate the revaluation of the managed exposure. Therefore a further amendment for income presentation may not be incrementally significant.	The staff expect that smaller incremental changes would be required to existing processes just to apply the actual net interest income presentation. This is because there are some similarities to the mechanics for faior value hedge accounting income presentation[14] which many banks apply today.
No amortisations should be required, as interest accruals will be based on exposures still on the balance sheet for the stated managed risk.	Where risk management instruments are closed out[15] in order to eliminate an open position, any protection those instruments may have provided so far for future net interest income will not ordinarily be reflected in net interest income. Amortisation[16] from revaluation P&L to net income of the close out values of risk management instruments over their residual contractual life prior to close out would be required.

[14] Accruals from hedging instruments would ordinarily be presented net in either interest revenue or expense, depending on the designated hedged item.

[15] Because of the dynamic open nature of the managed portfolio, where interest rate mismatches arise in the portfolio it may be both economically and operationally preferable to settle (ie close out) an existing derivative to eliminate the open position, rather than transact a new derivative to create an offsetting position. For example: a bank has 100 of fixed rate assets funded by 100 of variable liabilities, so it transacts a swap for 100. Subsequently the liability profile changes so that now 20 of liabilities are fixed. The risk managers could either cancel 20 of the existing swap or transact a new 20 swap the other way round to eliminate the cumulative pay 20 fixed position.

[16] Although this amortisation increases the operational complexity of the revaluation approach, once the amortisation is set up there should be no need for tracking to individual exposures, as the instrument was managing the portfolio risk as a whole.

If fair value changes of internal derivatives signifying the risk transfer between risk management and trading desks are reflected gross when presenting both risk management[17] and trading profit or loss, fair value changes from internal risk management derivatives will all be recognised in revaluation profit or loss.	If fair value changes of internal derivatives signifying the risk transfer between risk management and trading desks are reflected gross when presenting both risk management and trading profit or loss, the net accrual from internal risk management derivatives will be recognised in net interest income, and the clean fair value changes recognised in revaluation profit or loss.
A large variety of risk management instruments are available to eliminate interest rate mismatches. The contractual representation of the market yield from those risk management instruments can vary widely. As all changes in fair value from risk management instruments are presented in revaluation profit or loss, the contractual representation of market interest rate within those instruments is not relevant for presentation of net interest income.	This income presentation requires that the net interest accrual from risk management instruments is reported within a separate line in net interest income. Careful consideration may be required to ensure the appropriate accrual is calculated, consistent with risk management activity. For example, identification of the appropriate accrual for instruments transacted at off market rates, plus zero coupon or other instruments without a contractually specified interest rate.

Balance sheet presentation

25. The application of the portfolio revaluation approach will not result in any change to their IFRS 9 *Financial Instruments* balance sheet treatment for risk management instruments. All external derivatives will be held in the balance sheet at fair value. Internal derivatives signifying the risk transfer between risk management and trading desks will net to zero and not appear in the consolidated balance sheet.

26. However when revaluing the managed portfolio for the managed risk, there are a number of balance sheet presentation alternatives that could be applied to recognise the revaluation adjustment for the managed portfolio. The below example demonstrates the alternative presentations:

[17] There will no net reported profit or loss from internal derivatives in the financial statements. Trading profit or loss will include offsetting fair value changes on the internal derivatives, from the perspective of the trading desk.

DR/(CR)				Balance sheet presentation alternatives		
Assets	Amortised cost	Revaluation adjustment	Fair value	Line by line	Gross aggregate	Net adjust
Retail Loans	1,000	11		1,011	1,000	1,000
Commercial Loans	750	30		780	750	750
Debt securities	500	(20)		480	500	500
Macro hedging revaluation					21	
Derivatives			25	25	25	25
Liabilities						
Deposits	(400)	5		(395)	(400)	(400)
Issued debt securities	(1,500)	(40)		(1,540)	(1,500)	(1,500)
Firm commitments		(15)		(15)		
Macro hedging revaluation					(50)	(29)
		(29)	25			
P&L from risk management activities		4				

Line-by-line balance sheet gross-up

27. Individual exposures included within the managed portfolio would be recognised in the balance sheet at the default carrying amount under IFRSs (eg amortised cost) **plus** the associated revaluation adjustment for the managed risk.

28. If managed exposures are **not** yet recognised under the relevant IFRS, but **do** meet the definition of (at least as being a part of) an asset or liability, the revaluation adjustment for those unrecognised managed exposures, such as firm commitments, would be recorded in a new balance sheet line, possibly called 'revaluation of firm commitments'.

29. Where exposures are eligible for inclusion in the managed portfolio but do not meet the criteria to be recognised assets or liabilities[18], consideration

[18] This could include equity model book or pipeline transactions. The balance sheet presentation for these items has previously been discussed by the IASB in July 2012 (agenda paper 4) and October 2012 (agenda paper 4B).

may need to be given to presenting the revaluation adjustment for those exposures in other comprehensive income (OCI)[19].

30. It is understood that the risk management activity is undertaken on the managed portfolio as a whole, and not in respect of individual exposures. However, the expectation is that in order to capture the value of the managed risks within the managed portfolio, the portfolio revaluation adjustment will be calculated as the total of the revaluation adjustments for each exposure[20] within the portfolio. A line by line presentation of the revaluation adjustment in the balance sheet reflects this calculation and provides transparent information on the value of exposures that are managed.

31. Conversely, it could be argued that this gross presentation[21] in the balance sheet is not consistent with the risk management focus on the net portfolio. In addition, the volatility in the line by line presentation due to changes in interest rates, may not provide transparent information on a bank's ability to generate yield from its underlying assets and liabilities.

Separate lines for gross aggregate adjustments to assets and liabilities

32. Revaluation adjustments for all assets included within the managed portfolio would be summed and reported in a single asset revaluation line in the balance sheet. A similar adjustment for the valuation adjustment for liabilities included within the managed portfolio would be reported as single liability.

33. Similarly a single net adjustment to OCI could be made to reflect the revaluation adjustments for all managed exposures that do not meet the criteria for recognition as an asset or liability.

[19] The Board is in the process of discussing the use of OCI as part of the conceptual framework project, the outcome of that discussion may impact these alternatives.

[20] Although we expect the portfolio revaluation adjustment to be calculated as the sum of the revaluation adjustments for each managed exposure, we understand there may be operational difficulties attributing the calculated individual revaluation adjustments to associated balance sheet lines in the financial statements. This is because there may be a disconnect between the calculation of revaluation adjustments by risk management, and financial reporting of external exposures by the business units. Hence for some reporters this presentation may only be achieved via a top level allocation.

[21] IFRS 9 (Staff Draft) paragraph 6.6.5 requires an adjustment to individual balance sheet line items when hedging a net position in a fair value hedge.

34. This presentation should be operationally easy to achieve and avoids the introduction of market risk volatility into individual balance sheet lines where that market risk is managed on a portfolio basis. However, disclosure of the breakdown of the gross revaluation adjustments to reflect the makeup of the underlying portfolio may be required in order that transparent information on the risk management activity is provided in the financial statements.

Single net balance sheet line item

35. The suggestion under this presentation is to report the net revaluation adjustment for the whole managed portfolio in a single line in the balance sheet.

36. It could be argued that this approach reflects the fact that risk management is undertaken on a net basis and would be operationally easy to achieve. However, additional disclosures on the makeup of the net revaluation adjustment may be required to provide useful information for readers of financial statements.

Overall Summary

37. In the staff's view, given the pros and cons for each presentation alternative described in this paper, it would be helpful to include all those alternatives within the Discussion Paper, in order to obtain information on stakeholders' views as to which would be the most useful presentation for macro hedging activities. The Board may wish to state a preference in the Discussion Paper and outline the arguments for that preference. We look to the Board for guidance on this.

Appendices

Below is a more detailed example demonstrating both income presentations discussed above:

A bank has a portfolio of fixed rate loans which are funded by a portfolio of variable rate liabilities. The bank manages the interest rate risk on the net portfolio. As part of its risk management strategy it has chosen to eliminate 80% of the existing interest rate mismatch using an interest rate swap. The bank applies the revaluation approach to this net portfolio.

Instrument	Notional	Interest rate basis	Interest rate	Interest rate risk included in revaluation approach
Loan	£100m	Receive fixed rate annually on 31 December (initial market + product spread)	4% (=3%+1%)	3%
Deposit	£100m	Pay 6m LIBOR on 31 Dec and 30 June	6m LIBOR	6m LIBOR
Interest rate swap	£80m	Receive 6m LIBOR on 31 Dec and 30 June Pay fixed rate annually on 31 December	6m LIBOR 3%	6m LIBOR 3%

The bank has stabilised its net interest margin to the desired extent (ie 80%).

Market rates*	31-Dec-12	30-Jun-13	31-Dec-13	30-Jun-14	31-Dec-14
Annualised LIBOR rate	3.0%	2.8%	2.5%	3.3%	4%
LIBOR for 6 month period	1.49%	1.37%	1.24%	1.61%	1.98%

* Assuming a flat yield curve

Stable net interest income approach

		6m to 30-Jun-13	6m to 31-Dec-13	6m to 30-Jun-14	6m to 31-Dec-14
Interest revenue	(a)	1.99[22]	1.87	1.74	2.11
Interest expense	(b)	(1.49)	(1.37)	(1.24)	(1.61)
Net interest income	(c)	0.5	0.5	0.5	0.5
Revaluation profit or loss from dynamic risk management	(d)	0.25	0.24	(0.62)	(0.54)
Total profit or loss for the 6 month period	(e)	0.75	0.74	(0.12)	(0.04)

(a) Accrual interest revenue for the product spread not included within the revalued portfolio (ie 1% annually), plus interest accrual for the exposure at market rates (ie 6m LIBOR) of the risk that is being managed. In this example, the managed interest accrual is exactly the same as the floating leg on the derivative, but that will not always be the case.

(b) Accrual interest expense, as for interest revenue, but in this fact pattern actual coupons are the same as the risk for which the exposure is revalued, (both 6m LIBOR).

(c) Net interest income is consistent with the assumed risk management objective to stabilise net interest income. In this fact pattern NII reflects a locked in net annual margin of 1.0% (0.5% for 6 month reporting period). This presentation is not wholly consistent with the actual risk management objective to eliminate 80% of the interest rate mismatches in the portfolio.

(d) Net impact of fair value changes from derivatives and revaluation changes from exposures, reflecting the valuation of the unhedged position (20% in this fact pattern), less the stabilisation impact reported in NII that was not actually achieved through risk management.

(e) Net profit or loss is the same under both presentations

[22] Interest revenue for 6 month period is calculated as: 1% spread for 6 months (0.5%) plus LIBOR for that 6 month period (1.49%)

Actual net interest income approach

		6m to 30-Jun-13	6m to 31-Dec-13	6m to 30-Jun-14	6m to 31-Dec-14
Interest revenue	(a)	2.0[23]	2.0	2.0	2.0
Interest expense	(b)	(1.49)	(1.37)	(1.24)	(1.61)
Net interest from dynamic risk mgt	(c)	(0.01)	(0.10)	(0.21)	0.09
Net interest income	(d)	0.5	0.53	0.55	0.48
Revaluation profit or loss from dynamic risk management	(e)	0.25	0.21	(0.67)	(0.52)
Total profit or loss for the 6 month period	(f)	0.75	0.74	(0.12)	(0.04)

(a) Actual interest revenue accrued for the loan portfolio (ie 4% annually), no change to existing interest recognition guidance

(b) Actual interest revenue accrued for the deposit portfolio (ie 6m LIBOR), no change to existing interest recognition guidance.

(c) Net interest accrual from risk management instruments (ie receive 6m LIBOR and pay 3% annually on £80m in this fact pattern)

(d) Reported net interest income is consistent with the actual risk management objective, as a stable margin is achieved for 80% of the portfolio, but net interest income achieved on the unhedged 20% varies as 6m LIBOR varies.

(e) Net of fair value changes from derivatives and revaluation changes from exposures. In this fact pattern it will represent the valuation of the 20% unhedged portion.

(f) Net profit or loss is the same under both presentations

[23] Interest revenue for 6 month period is calculated as: contractual 4% coupon for 6 months