Project: **Financial Instruments: Replacement of IAS 39**

Topic: **Amortised Cost and Impairment – Analysis of Expected Loss (EL) allocation approaches**

Purpose of this paper

1. The Board has already discussed the *mechanics* and implications of several decoupling methods for allocating EL estimates[1].

2. This paper provides further information and analysis to support the diagrams in paper 9A.

3. The paper includes an attempt to label different methods in terms of whether the statement of financial position ('balance sheet') includes all information in the measurement, or only some. And whether profit or loss amounts reflect only some or all information that became available and events that happened in the reporting period itself, or some other set of information. In financial reporting, we *measure* assets/liabilities, and try to relate profit or loss amounts to economic phenomena in that period. However, as you will see, that is sometimes challenging in this paper.

4. The paper also summarises (a) arguments provided by respondents to the exposure draft *Amortised Cost and Impairment* (ED) for the methods; and (b) challenges for the methods.

5. This paper asks the Board for some direction.

[1] See agenda paper 3 of the 5 October 2010 meeting.

Background, and some reference points

6. Remember, it has not been possible to identify a way in an open portfolio to distinguish between initial estimates of EL and the effects of subsequent changes in EL estimates. That means a 'full' catch-up approach is not feasible in an open portfolio. Hence the following sections focus on other possible allocation approaches.

7. Before moving on, to provide you with some reference points, let us briefly characterise what the information arising from the IAS 39 approach and the proposed approach in the ED represents.

8. The information arising from the proposed ED approach is easy to characterise. It could be termed to be a 'full' balance sheet and profit or loss approach. That means that (1) the balance sheet measurement captures all expected cash flows at the reporting date, and (2) the amount in profit or loss includes the effects of all information that became available and events that happened in the reporting period itself.

9. IAS 39 is more difficult. Until a loss event recognition trigger is identified, the balance sheet measurement only captures 'some' expected cash flows (it ignores expected credit losses and hence includes more than the expected cash flows—for ease of reference this paper refers to that circumstance as 'some' of the cash flows). So it might be labeled a 'partial' balance sheet approach, because it only captures some of the cash flows. However, once a loss event recognition trigger is identified, it becomes a more complete balance sheet approach because the measurement includes expected credit losses arising from that loss event (and subsequent changes to those expected credit losses).

10. Profit or loss is somewhat similar. Until a loss event recognition trigger is identified, effects of credit loss expectations (and changes in those expectations) that happen in the reporting period are ignored. (Hence the concern that reported interest revenue is too high in early periods because it ignores losses that are expected for the asset).

11. In the period a loss event recognition trigger is identified, profit or loss includes the whole effect of the related expected credit losses (although some of that

effect is likely to relate to information that was actually available in preceding reporting periods). That is the 'big bath' effect resulting from an incurred recognition trigger approach.

Approaches for EL estimates in an open portfolio

12. The following discussion focuses on the EL component in the balance sheet or profit or loss. (So the following discussion ignores the effects of all cash flows other than those relating to credit losses—ie the lost cash flows).

Time-proportionate approach ('Partial' catch-up)

13. Under a time-proportionate approach, a constantly updated EL estimate is allocated over the *total* life of the portfolio with recognition of EL in the current period representing the expected loss amount apportioned to the portfolio time period that has passed (ie the life-to-date).

Financial statements

14. In terms of expected credit losses, the balance sheet therefore reflects that apportioned EL at each reporting date. Because the EL is updated at each reporting date, that apportioned EL at each reporting date is as if the updated EL had been known and used from the beginning of the portfolio life. So the allowance amount could be described as a time-apportioned current lifetime EL estimate. Because it is time apportioned, the balance sheet measure does not include all of the expected cash flows – only some.

15. The amount in profit or loss in each period is the amount needed to reach the time-apportioned amount described above[2].

16. This amount will include *some* effects of changes in EL estimates as at the reporting date as well as the effects of *some* changes in the portfolio composition and tenor. *Some* because the EL estimate is time apportioned. This

[2] When using an annuity approach as a non-linear decoupled method for allocating the EL estimate, the effect of changes to EL estimates would also include notional interest on the accumulated annuity.

amount could be a debit or credit—depending on the updated EL estimate and portfolio tenor. In addition, profit or loss would typically include an amount representing actual losses in excess of the cumulative allowance previously built up (for these actual losses). That is, profit or loss *would typically* include a *part* of the effects of actual losses that happened in the reporting period (because they have only been built up to a proportion until that point in time).

17. One could characterise the time-proportionate approach as a partial balance-sheet approach, whereby the allowance amount is remeasured and recognised on a time-proportionate basis and hence only measures some of the expected cash flows. It is difficult to relate the components of profit or loss that arise under a time-proportionate approach to information that became available and events that happened in the reporting period itself.

Support

18. **Allowance balance.** Respondents who support a time-proportionate approach believe the balance on the balance sheet should present what would have been recorded had the current estimate always been in place (ie a time-proportionate amount). This approach does that.

19. **Future expenses to future revenue.** Because expected losses are based on estimates, many respondents feel that changes in estimates are inevitable and may not always relate to a change in credit quality of the asset (but may just be based on better information). Therefore, they feel applying a time-proportionate approach better allocates the provision expense to the correct period in which the revenue is earned, at least for the future periods (the current period may have some amount related to prior periods included in the amount).

20. **Revenue recognition.** Similarly, some respondents suggested that allocating the changes in EL estimates over the entire life of the assets would be consistent with revenue recognition.

21. They believe:

> "that income from an asset recorded at amortised cost should be recognised over the period of the lender's performance obligation, i.e., the life of the asset. As set out in Exposure Draft 2010/6 *Revenue from Contract with Customers,* paragraph 53, a change in

> transaction price should be allocated "to all performance obligations". Similarly, it is appropriate that changes in the expectations of cash flows on a financial asset should be allocated to income in proportion to the amount of the performance obligation that has been discharged."[3]

22. **Ceiling not required and no need to consider *'How much?'*** As mentioned in agenda paper 3 of the 5 October 2010 meeting, unlike a single period allocation approach (see *Challenges* section related to single period allocation), a time-proportionate approach would not require a ceiling, nor would the question of *how much* allowance to transfer in a 'good' book / 'bad' book approach be relevant.

Challenges

23. **Possible operational difficulties.** One of the challenges of a time-proportionate approach is that it requires calculation of a weighted average life and weighted average age (ie life-to-date) for the open portfolio. Whilst we have heard that the origination date and maturity date are kept as historical information, we are still in the process of confirming that calculating these amounts for open portfolios would not create the same type of operational complexity as with the approach in the ED. We will further analyse these considerations depending on the direction of the Board's decisions.

24. **Components of provision expense.** Another challenge is alluded to in paragraph 16 above; the effect on profit or loss is a combination of several different factors which cannot all be separately identified. It would be possible to identify the additional provision expense needed for an actual loss in the current period, but it would not always be possible to specifically identify which changes were related to a change in the portfolio balance (ie possibly new loans) and which were related to changes in credit quality of existing loans in the portfolio.

[3] See comment letter 119.

Single period allocation approach ('No' catch-up)

25. Under a single period allocation approach, no consideration is given to the amount of time that has passed in the portfolio; the EL estimates are updated at each reporting date, and allocated only over current and future periods (for example, by reference to the average life of the portfolio).

26. This method is an allowance accumulation approach. The accumulated allowance will then be used when actual losses occur. This is of course essentially a banking-driven approach, with possibly little or no relevance outside to non-financial entities. Also, as you will see, this makes it difficult to explain in terms of balance sheet measures of assets, or amounts in a reporting period that can be explained by information that became available and events that happened in the reporting period itself.

Financial statements

27. The amount on the balance sheet in a single period allocation approach can really only be explained by a mathematical equation. At times the allowance balance could be one period of the EL estimate (no matter how many years into the portfolio you may be). At other times, it could be 2 years, etc, into the portfolio using different annual EL allocations. Or, if the ceiling was reached, it could be the lifetime EL. In summary, you might describe it as an 'n-period' current lifetime EL, where n might range from 1 period (if there is a floor) to the life of the portfolio. Clearly this balance sheet amount only captures (measures) all of the expected cash flows in the situation that n=portfolio lifetime. This approach also means that 'history matters' because the allowance build up is affected by whether and how the ceiling or floor were hit in the past or not and when credit losses were determined to have become actual.

28. The amount recorded each period in profit or loss is, like the balance sheet, the net effect of various mechanisms. As a base, it will include the EL period allocation. That reflects *some* effects of changes in EL estimates/portfolio composition and tenor in the period (only some, because the estimates, which incorporate changes to previous estimates, are only recognised over current and future periods). The relationship to changes in EL estimates etc is weaker than

in the time-proportionate approach, because under that approach a time apportioned amount (rather than single period amount) is recognised in the period. (This becomes obvious when the EL estimate is revised downwards as loss severity declines).

29. Profit or loss under a single period approach may also include the effects of a ceiling or floor—which will reflect *some* of the effects of actual losses in the period. Or *some* of the effects of a ceiling, if any allowance excess is allocated over a period rather than released immediately.

30. One could not characterise the single-period approach as a balance-sheet approach in all but the extreme situation that a ceiling is reached. Moreover, part of the allowance balance can remain from loans that have matured in the meantime. This is because there is no automatic release mechanism in relation to items maturing but only to changes in the portfolio size as a whole. Hence, when the portfolio size remains constant but the portfolio age decreases, allowance amounts can be implicitly transferred from matured loans to new loans.

31. Maybe it may have a greater claim to being labelled as partly a profit or loss approach in that the current period profit or loss effect reflects an average (expected) period loss (akin to a period loss rate).

Support

32. **EL estimate only allocated forward.** Some respondents who supported a single period allocation approach believe EL estimates should always be spread forward because:

    (a) it is operationally simpler than calculating a life-to-date amount; and

    (b) the changes in EL estimates are likely to relate to future periods.

33. **Accumulating allowance balance.** Also, some proponents believe that the allowance balance should be built up in order to be available to use once an actual loss occurs. When that happens, they will use the allowance, and start to build up the reserve again. They believe it is important to have an allowance

balance for possible future use, but not necessarily that the allowance balance should represent anything other than a reserve for when losses actually occur.

Challenges

34. **Ceiling requirement.** One of the challenges in a single period allocation approach was discussed in agenda paper 3 of the 5 October 2010 meeting related to a possible ceiling requirement. Because this approach continually builds up an allowance balance, it is possible (in an open portfolio environment) to build up to an amount that could surpass the total EL estimate for the entire portfolio. In those situations, a ceiling would be needed in order to keep the EL estimate from continuing to increase. Triggering that ceiling amount would cause additional difficulties related to how you would treat the amount of the allowance that is above the ceiling amount (ie the remainder after ceiling).

35. There have been suggestions that would require different treatment for the release of that remainder amount depending on the reason for reaching the ceiling. We will analyse these suggestions further depending on the direction of the Board. But, in summary, the suggestions are to either:

    (a) immediately release the entire amount through profit or loss (as shown in Appendix C of agenda paper 3 at the 5 October 2010 board meeting); or

    (b) allocate over a particular time period (eg remaining life of the instrument, or until needed again, etc).

36. **Sequencing of actual losses recognition.** Another challenge with the single period allocation approach is that the effect on profit or loss, and the ending allowance balance, is dependent on whether the actual losses for the period are taken against the allowance account before or after the current period allocation of the EL estimate.

37. For example, assume the prior period allowance balance was 110,000. The current period allocation is 47,500 and current period actual losses (eg write-offs or transfer to 'bad' book) are 250,000 (see periods 11 and 12 in Appendix C of agenda paper 3 of 5 October 2010 meeting).

(a) Taking actual losses against prior period balance has an effect on profit or loss of 187,500 (as shown in Appendix C of agenda paper 3).

(i) (110,000 – 250,000 = 140,000 for additional write-offs + 47,500 current period allocation = 187,500 loss)

(ii) 47,500 allowance balance remaining

(b) Allocating the EL estimate first and then taking actual losses against the total allowance balance has an effect on profit or loss of 140,000.

(i) (110,000 + 47,500 = 157,500 current period balance – 250,000 write-offs = 92,500 for additional write-offs + the 47,500 current period allocation = 140,000 loss)

(ii) No allowance balance remaining at the end of the period because the entire amount was used for current period write-offs.

38. This sequencing also means that the frequency of revising estimates can have an impact on the balance sheet and profit or loss. For example, a quarterly frequency means that the EL allocation for the first quarter would be available to cover actual losses in the second quarter etc. In contrast, when using an annual frequency the EL allocation for all four quarters would not be available to cover any actual loss in that year.

39. Therefore, if a single period allocation method is used, both a ceiling and a floor (ie one period's allocation) would be required to ensure that the balance never exceeds the total lifetime estimate EL nor goes below one period's allocation of current EL estimate.

40. **Delayed loss recognition.** Some respondents felt that by not having the allowance balance (and therefore profit or loss) reflect the allowance that would have been recorded had the estimate been in place from the beginning, loss recognition would be delayed. For example, if you increase your EL estimate on a portfolio, some respondents feel that some of that increase may be due to existing loans and the change in estimate could be related to credit quality and not recording a portion of it now would delay the loss recognition.

41. **Financial statements.** Some respondents feel that if there is no amount reflected for previous periods, the financial statements would not reflect the current economics of the financial instruments. For example, if the credit quality of an instrument deteriorated just before the reporting date, the actual effect of the deterioration may be diluted because only one period of that change is included in the current period.

42. **'Good' book / 'bad' book – '*how much*'.** Agenda paper 3 of the 5 October 2010 board meeting describes the challenges related to a 'good' book / 'bad' book approach in the context of a single period allocation approach. The question of *'when'* relates to both a time-proportionate and a single period allocation approach and will be discussed below.

43. As mentioned in the previous agenda paper, there are at least two possible methods for determining *'how much'* to transfer from a 'good' book to a 'bad' book:

    (a) total transfer; or

    (b) proportionate transfer.

44. These will be analysed further depending on the direction of the Board's decisions.

Challenges similar to both allocation approaches

45. As discussed in agenda paper 3 of the 5 October 2010 board meeting, the following table summarises the effect on profit or loss under the various approaches for treating EL estimates:

'Good' book treatment and effect on profit or loss			
	'Full' catch-up	**Time-proportionate**	**Single period allocation**
'When' to transfer between 'good' and 'bad' book?	Irrelevant	Makes a difference	Makes a difference
'How much' to transfer between 'good' and 'bad' book?	Irrelevant	Irrelevant	Makes a difference

46. The question of *'how much'* to transfer only relates to a single period allocation approach and was discussed above briefly.

47. However, the question of *'when'* presents a challenge whether applying either a time-proportionate or single period allocation approach. Both approaches permit allocating EL estimates over a time period, so keeping a 'bad' loan in the 'good' book would permit the effects of the revised EL estimate to be allocated over a time period. Whereas, moving it to the 'bad' book would require the effects of the revised EL estimate to be recognised immediately. So, the sooner the transfer to the 'bad' book, the sooner the losses are recognised.

48. Another way of thinking of this is not necessarily transferring loans to a separate book, but rather *'when'* is a loan performing so poorly that it is no longer appropriate to allocate the expected losses over the life of the instrument?

49. Some suggestions for possible solutions to *'when'* could be:

    (a) when a loan is no longer performing as expected;

    (b) when a loan is 90 days past due (or some other amount of days);

    (c) when a debtor has declared bankruptcy;

    (d) based on management's judgement, or current policies;

    (e) all loans included in the portfolios which contain the bottom quartile (or some other percent) of credit risk included in the entity's overall portfolio; or

    (f) some form of the loss event indicators in IAS 39.

50. It is important to understand that if a time-proportionate or single period allocation approach is used with a 'good' book / 'bad' book approach (meaning that loans that are not performing to some possibly-defined level should be fully provided for), then it will likely be important to put clear parameters around the question of *'when'* to fully provide for certain loans versus allocating the expected loss over the life.

Closing and request for direction

51. As previously discussed, the staff believes the Board needs to reconsider the model in the ED in order to address various operational complexities. However, regardless of whether a time-proportionate or single period allocation approach is used, there will be challenges that will need to be addressed from a conceptual (and, to a certain extent, operational) view point. The question will be what trade-offs are acceptable to the Board in order to develop an operationally simpler model.

52. To further develop the tentative approach in an **efficient** way, the staff would like some direction from the Board, if that is possible. Obviously, based on the results of that further work and subsequent discussions, the Board can change direction in the future.

Question 1 – Which approach would the Board like the staff to further investigate at this point?
Can you provide some direction to the staff as to which approach you would like the staff to further develop at this point? If not, what further information or analysis would you like so that such direction can be provided?