Project	**Financial Instruments: Replacement of IAS 39**
	Amortised Cost and Impairment
Topic	**Allocation of lifetime expected losses under decoupling in open portfolios**

Introduction

Background

1. The Board learnt from the Expert Advisory Panel (EAP) and other outreach activities that applying the proposals in the exposure draft *Financial Instruments: Amortised Cost and Impairment* (the ED) is operationally challenging. Two key operational challenges are:

    (a) an integrated effective interest rate (EIR) calculation—financial institutions typically store accounting and EL data separately; and

    (b) tracking of initial expected losses (EL)—in an open portfolio setting, there is no distinction between initial EL and subsequent changes[1] .

2. To address these two key operational challenges, the Board in its redeliberations to date tentatively decided to adopt a non-integrated (ie 'decoupled') approach to allocate lifetime expected losses (EL)[2] and requested the staff to further develop the time-proportionate approach.[3]

3. Under the (lifetime) time-proportionate approach, the EL is allocated over the *total* life of the portfolio of the 'good' book by building up an allowance that at

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[1] 16 July 2010 meeting (agenda paper 9B).
[2] 13 September 2010 meeting (agenda paper 15).
[3] 18 October 2010 meeting (agenda paper 9B).

each measurement date is equal to a proportion of the current EL estimate determined on the basis of the portfolio time period that has passed (ie the life-to-date) divided by the total life. The full amount of updated total expected loss would be recognised for the loans in the 'bad' book. Hence the allocation discussion is only relevant for the 'good' book.

4. Alternative 5 set out in agenda paper 13B of the 17 November 2010 IASB/FASB meeting has been discussed as an overlay to the time-proportionate approach with the aim of creating a yet closer approximation to the ED outcomes. Under this alternative the allocation of lifetime EL (both initial EL and subsequent changes) is also based on a time-proportionate approach—but for subsets of the life of the financial instrument. In other words, the portfolios are subdivided into portfolios with shorter lives that—taken together—equate to the total life of the portfolio.

5. There are two broad approaches for allocating the (updated) lifetime EL under decoupling:

    (a) straight-line (linear); and

    (b) the annuity approach (non-linear).[4]

    These two broad approaches were discussed at the 13 September 2010 meeting (agenda paper 15) and 5 October 2010 meeting (agenda paper 3).

Purpose

6. The purpose of this paper is to ask the Board for direction on the question whether a particular approach should be specified for allocating lifetime EL (updated every period) for open portfolios under a 'decoupled' approach for the 'good' book.

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[4] The Board discussed these two broad approaches at the), 13 September 2010 meeting (agenda paper 15) and 5 October 2010 meeting (agenda paper 3).

IASB Staff paper

Allocation approaches under the time-proportionate approach

7. Due to operational considerations in the context of open portfolios both initial EL and subsequent changes are allocated in the same way under the time-proportionate approach. For that purpose a target allowance is established based on the updated EL, life-to-date and average life of the portfolio. The development of that target allowance over time achieves the allocation of the EL.

8. The table below illustrates the interaction between the two broad allocation approaches under 'decoupling' and EL.

	Allocation approaches	
	Linear	**Non-linear**
Undiscounted EL	Straight-line	N/A
Discounted EL (ie present value)	Straight-line (part non-linear)	Annuity

Straight-line approach for undiscounted EL

9. Under the straight-line approach for undiscounted EL, lifetime EL is calculated every period (in an open portfolio) and the undiscounted amount is then allocated. The target allowance is determined as the ratio of life-to-date divided by the total life (both calculated as weighted averages of the portfolio).

10. Agenda paper 3 of the 5 October 2010 meeting describes the mechanics of the straight-line approach under a time-proportionate approach (refer to Appendix B).

Straight-line approach for discounted EL

11. Under the straight-line approach for discounted EL, lifetime EL is calculated every period (in an open portfolio) and then discounted to arrive at the present value of EL. That present value is then allocated. The target allowance is determined as the ratio of life-to-date divided by the total life (both calculated as

weighted averages of the portfolio). Appendix A sets out an example to illustrate this approach.

12.   Combining a straight-line allocation approach with a present value of EL has the *overall* effect of a *non-linear* allocation pattern.

Annuity approach

13.   Under the annuity approach the updated lifetime EL is discounted to arrive at a present value. That present value is then transformed into an annuity used for allocation. The target allowance under the time-proportionate approach is the accumulated annuity including notional interest. The accumulation is based on the ratio of life-to-date divided by the total life (both calculated as weighted averages of the portfolio).

14.   The mechanics of the annuity approach under a time-proportionate approach are also described in Agenda paper 3 of the 5 October 2010 meeting (refer to Appendix B).

Discount rate

15.   The annuity approach and the straight-line approach for discounted EL involve discounting. Using the risk free rate plus a spread adjustment as the discount rate would be directionally consistent with the effective interest rate (EIR) used under the ED to discount EL. However, adjusting for a spread could be operationally challenging (for similar reasons as determining and maintaining EIR information). The Board could consider rates between (and including) the following two rates:

(a)   the risk free rate—can be more easily determined and would capture the time value of money; or

(b)   the ED's EIR.

16.   The staff note that the ED's EIR lies between the risk free rate (see (a) above) and the IAS 39 EIR. The IAS 39 EIR reflects the following:

(a)   time value of money ('risk-free rate');

(b)   compensation for initial expected credit losses;

(c)   compensation for accepting risk (eg unexpected credit loss, liquidity risk etc);

(d)   a profit margin; and

(e)   adjustments for premiums or discounts, fees and points paid, and/or transaction costs.

The ED's EIR reflects all the above components except for (b) above.

17.   In summary, the staff consider in the context of open portfolios that the discount rate should be updated and :

(a)   under the annuity approach, should correspond to the weighted average life of the portfolio (eg for a portfolio with a weighted average life of 5 years, the 5-year risk free rate (plus any spread, if applicable) should be used).

(b)   under the straight-line approach for discounted EL, should correspond to the *remaining* average life of the portfolio (eg if the weighted average life-to-date is 2 years and the weighted average total life of the portfolio is 5 years, the current 3-year risk free rate (plus any spread, if applicable) should be used).

Staff analysis

Allocation

18.   In allocating lifetime EL, the straight-line approach is operationally the simplest. It does not *require* the timing of losses to be estimated nor does it *require* any discounting. However it does not capture the timing of losses and the time value of money.

19.   The annuity approach is flexible in that it can be applied to various types of instruments (eg floating interest rate loans and loan commitments). It is a present value calculation (ie it takes into account the time value of money) and

is hence consistent with the amortised cost measurement basis of the related financial assets under IFRSs[5]. However, it is more complex and many financial institutions may face significant operational challenges in implementing the annuity approach.

20. The staff considers the straight-line approach for discounted EL as a 'crossover' between the linear and non-linear approaches. It results in a non-linear pattern that reflects the time value of money that is less complex to determine than using the annuity approach. However some financial institutions may still face operational challenges with implementing this approach.

Discount rate

21. Conceptually, the discount rate for cash flows of an asset cannot be below risk free. The discount rate used in the ED is conceptually appropriate for calculations in connection with amortised cost measurement. The staff note that taking into consideration the operational challenges of determining and maintaining discount rates the following aspects should be considered:

(a) the risk free rate is the minimum rate and has a clear conceptual meaning (it captures only the time value of money) but risk free rates are not always readily available (and have become a more hypothetical construct during recent market conditions);

(b) many financial institutions for internal valuation purposes use a benchmark-type rate (eg a swap rate), which reflects the interest level in the most liquid part of the market—using such a rate would provide significant operational relief;

(c) the ED's EIR is from an operational perspective the most difficult to determine and maintain;

(d) the IAS 39 EIR would be more readily available than the ED's EIR;

(e) the contractual rate might be more readily available than the IAS 39 EIR.

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[5] Amortised cost measurement is a present value calculation under IFRSs.

22. The staff consider that any rate that lies between the risk free rate and the ED's EIR could be considered reasonable—see paragraphs 15 and 16. The staff note that the ED sets out why the IAS 39 EIR is too high. Hence, this rate could only be considered as the 'upper limit' for practical reasons. The difference between the EIRs in IAS 39 and the ED is determined by the compensation for initial expected credit losses (see paragraph 16). Hence, the magnitude of this compensation will determine to what extent the IAS 39 EIR might be considered an approximation of the ED's EIR.

23. An important consideration is that if the Board wants to allow entities to use a discount rate from within a range of reasonable rates, specifying the ED's EIR as the upper limit would have the effect of requiring the complexity of determining this rate for the purpose of ascertaining whether a more readily obtainable rate could be used. Hence, the operational complexity of determining the ED's EIR would not be avoided, which would defeat the purpose of providing operational relief. For this practical reason the Board might consider the IAS 39 EIR even though it is (conceptually) too high.

24. For the contractual rate a general assessment whether it might be an appropriate discount rate is impossible. For example, for an instrument acquired at a significant discount or an instrument with uneven coupons the contractual rate can differ significantly from an EIR. Hence, the staff do not consider that a reference to the contractual rate is appropriate when describing discount rates that an entity might use.

Closing and direction

25. In our outreach activities, we have learnt that the level of systems sophistication differs considerably across different financial institutions and in different jurisdictions. Hence the staff think that the Board could consider not specifying a particular allocation approach, but rather require that the lifetime EL should be allocated using either a straight-line approach for undiscounted EL or any other approach discussed in this paper.

26. The staff considers that the straight-line approach for undiscounted EL is best suitable to address operational concerns. However, the staff also consider that

the other allocation approaches discussed in this paper are at least just as appropriate and hence should be available to entities that use a more sophisticated approach.

27. The staff think that the Board could consider allowing entities to use a discount rate that would lie between (and include) the risk free rate and (in order to provide operational relief) the IAS 39 EIR.

Question
Does the Board think it is appropriate to pursue the direction as set out in paragraphs 25-27 above?
If not, what does the Board propose instead and why?

Appendix A—Straight-line approach for discounted EL (an example)

A1.   Appendix A sets out a simple example to illustrate the mechanics of the straight-line approach for discounted EL.

A2.   This simplistic example assumes a closed portfolio[6] of loans with a 5 year life. All losses are expected to occur at the end of the life. The discount rate is assumed to be constant and the same regardless of maturity.

A3.   The table below sets out the assumptions

Year	1	2	3	4	5
EL at end of life	100	100	100	100	100
Discount rate	10%				

A4.   The table below sets out the results under the straight-line approach for discounted EL.

Year	1	2	3	4	5
EL discounted	68	75	83	91	100
Loan loss allowance	14	30	50	73	100
P/L impact	(14)	(16)	(20)	(23)	(27)

At the end of year 1, EL at end of life is 100 and is discounted by 4 years (remaining life) to arrive at a present value (PV) of 68. The loan loss allowance is established as one-fifth (1/5) of 68 which equals 14.

In year 2, EL at end of life is 100 and is discounted by 3 years to arrive at PV of 75. The loan loss allowance is established as two-fifths (2/5) of 75 which equals 30.

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[6] Choosing a closed portfolio enables to illustrate the effect of unwinding the discount. In a steady state open portfolio the effect cannot be demonstrated as the discounting period would not change.

A5.   To compare the difference in the loan loss allowance and profit or loss impact between the straight-line for discounted EL and the annuity approach, the results under the annuity approach is set out below:

Year	1	2	3	4	5
EL annuity	16				
Loan loss allowance	16	34	54	76	100
P/L impact	(16)	(18)	(20)	(22)	(24)

A6.   The graphs below illustrate the resulting (slightly non-linear) allocation pattern of the straight-line for discounted EL approach. The allocation pattern under the annuity approach is also graphed for comparison. If discount rates are low (eg 10% in this example) the accumulation pattern of the loan loss allowance is quite similar under straight-line for discounted EL and the annuity approach. (The staff note that the higher the discount rate the greater the difference would be.)

Loan loss allowance

Legend: — · — Straigh-line for discounted EL   —— Annuity approach

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Profit or loss impact
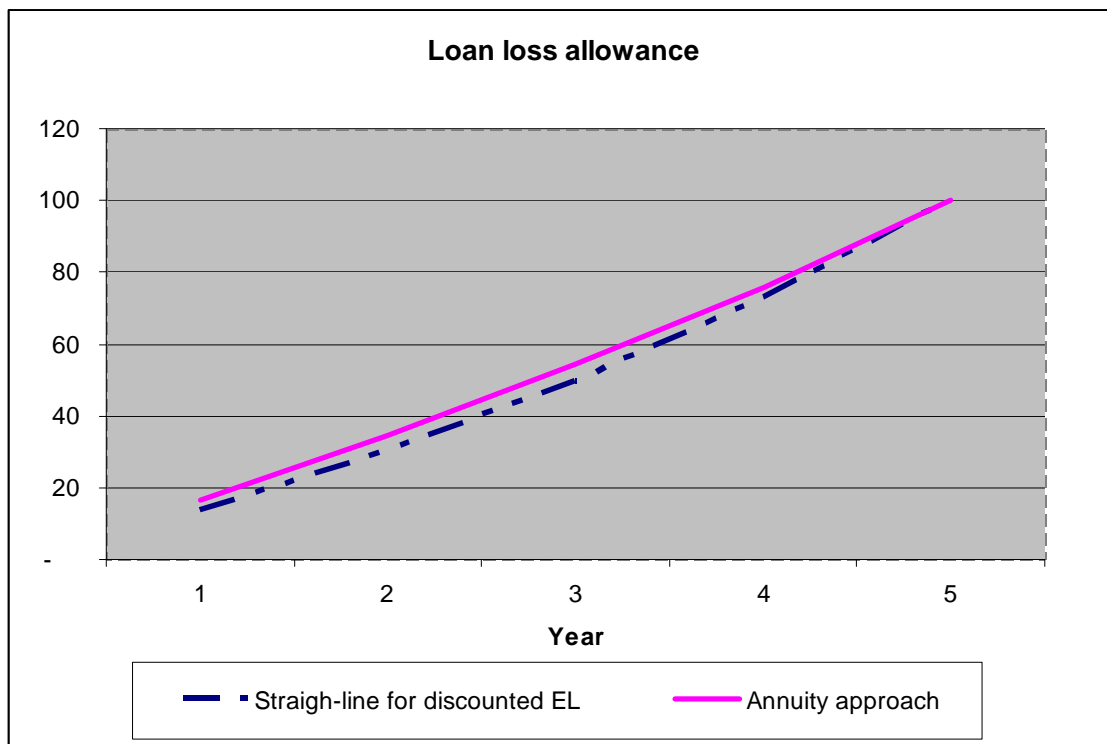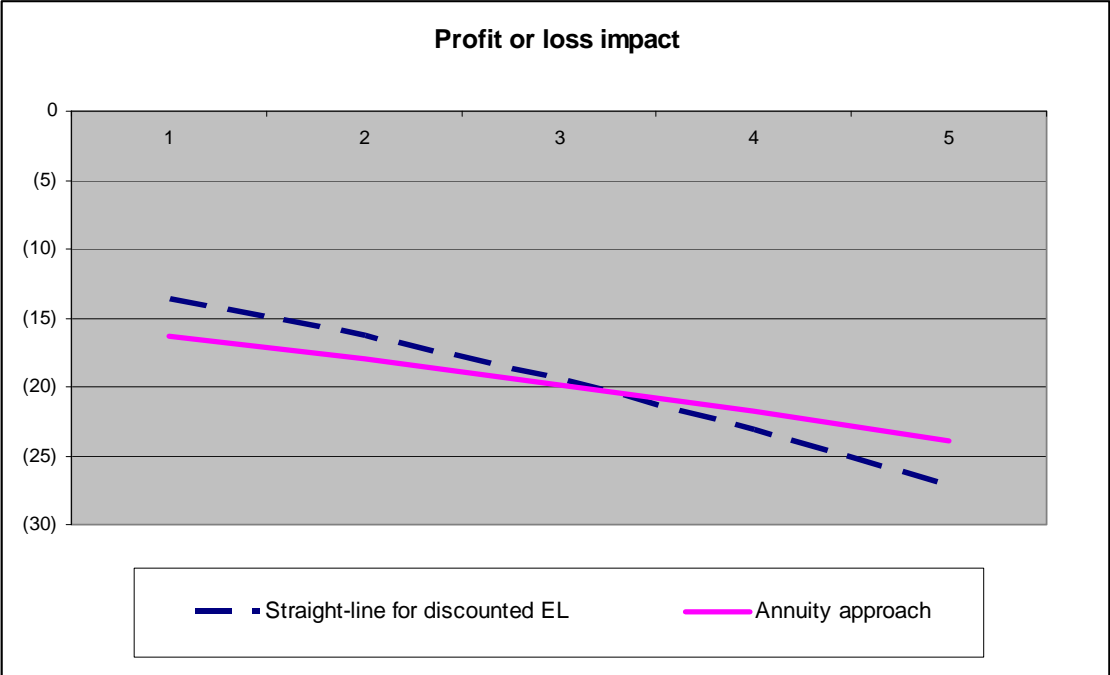
Appendix B—Extracts from previous agenda paper 3 of 5 October 2010 meeting

Paragraphs 18-23 and 33-42

'Decoupled' approaches

The straight-line approach – a linear method

18. This type of method for 'decoupling' would determine the EL estimate and allocate it over the weighted average life of the portfolio linearly. For example, if the weighted average total life of the open portfolio is 5 years, the initial EL estimate would be allocated as one-fifth each year.

19. A linear approach may be useful in practice because of its relative calculation simplicity (compared to an 'annuity' approach, for example), and its ability to use undiscounted amounts. However, such an approach does not capture all aspects of the timing of losses and may have limitations regarding the ability to faithfully represent more complex scenarios.

20. In some situations, a linear method may approximate to the allocation pattern (for initial EL estimates) that would be obtained under an integrated EIR approach. In other situations (for example, an irregular loss pattern, high interest rates), it may not.

The 'annuity' approach – a non-linear method

21. As described in agenda paper 4B of the 3 August 2010 Board meeting, an 'annuity approach' would require performing a separate discounted cash flow (DCF) calculation on the EL estimate to determine a present value of the EL estimate. That amount is then transformed into an annuity, allocated over the weighted average life of the portfolio and recognised in profit or loss as a periodic charge (including the notional interest related to an annuity).

22. For example, after determining the present value of the EL estimate, one year of the annuity amount would be allocated to profit or loss for the period (including the notional interest related to the annuity balance).

23. Since the annuity method is a flexible tool rather than a particular impairment model, the risk-free or any other reasonable rate (eg risk-free rate—to which a spread could be added) could be used to perform the DCF calculation. The closer the discount rate used in the DCF calculation is to the integrated EIR that would have been calculated in the ED's model, the closer the approximation (for allocating initial EL) to the approach proposed in the ED.

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'Partial' catch-up

Allocate 'partial' catch-up linearly

33. In order to determine the 'partial' catch-up under a linear (eg a straight-line) method, the weighted average age (or some proxy) of the portfolio (ie how many years you are into the portfolio) should first be calculated based on the activity of loans being issued and repaid / removed from a portfolio.

34. Once that age is calculated, the proportionate amount of that average age to the weighted average life of the portfolio is applied to the total EL estimate.

35. For example, if an open portfolio is deemed to have a weighted average age to date of 2 years, and has a weighted average total life of 5 years, the required allowance account level would be equal to two-fifths of the EL estimate, and profit or loss would be adjusted accordingly.

Allocate 'partial' catch-up non-linearly

36. When using a non-linear (eg 'annuity') method, a 'partial' catch-up could also be determined based on the weighted average age of the portfolio to date.

37. In one non-linear method, an annuity is first calculated based on the present value of the revised EL estimate. Then that annuity would be accumulated, including notional interest, to determine the allowance target balance and profit or loss impact for the period. For example, if an open portfolio is deemed to have a weighted average age of 1.5 years, the target balance is the total of applying the annuity for 1.5 years (ie one complete annuity charge with notional interest for 6 months plus a 6-month accrual of an annuity charge).

'No' catch-up

38. Under a 'no' catch-up approach, the EL estimate is made at the end of each period for the assets in the portfolio at that date (as in the 'partial' catch-up approach).

39. That EL estimate is allocated over the current and future periods, for example, by reference to the average life of the portfolio. No consideration is given to the amount of time that has passed in the portfolio; the revisions are allocated only over current and future periods.

Allocate 'no' catch-up linearly

40. Under a 'no' catch-up approach, if allocating the amount in a linear fashion (eg straight-line), the equivalent EL amount of one period of the total average life of the open portfolio is taken in the current period.

Allocate 'no' catch-up non-linearly

41. Alternatively, the 'no' catch-up could be treated non-linearly by calculating the annuity. The one period equivalent of that amount is then taken in the current period. For example, in a portfolio with an average life of 5 periods, the annuity would be calculated based on a 5-year accumulation period and recognised in profit or loss during the period.