Introduction

1. This paper provides a high level analysis of the advantages and disadvantages of the following expected loss models:

   (a) the three bucket model, including an overview of the proposed clarifications to the criteria for lifetime expected loss recognition. 

   **Agenda Paper 5B** includes a more detailed analysis of the alternatives and possible clarifications to the criteria for recognition of lifetime expected losses under the three bucket model.

   (b) the approach in the 2011 Supplementary Document *Financial Instruments: Impairment* (excluding the foreseeable future floor) (the SD). **Agenda Paper 5D** provides a more detailed overview of the responses to the SD, including a preliminary analysis of the concerns raised in comment letters.

2. This paper is structured as follows:

   (a) Background (paragraphs 3 – 7)
(b) Objectives of a dual measurement approach\(^1\) (paragraphs 8 – 12)

(i) Comparison of the benefits of a dual measurement approach, ie how faithfully the models represent expected credit losses (paragraphs 13 – 21)

(ii) Comparison of the costs of a dual measurement approach, ie the cost and complexity of the models (paragraphs 22 – 31)

(c) Summary of proposed clarifications to criteria of the three bucket model (paragraph 32 – 35)

(d) Summary of issues raised in comments on the SD approach (paragraph 36 – 37)

(e) Conclusion and staff recommendation (paragraph 38 – 42)

Background

3. In July 2012 the IASB and the FASB finished deliberating all joint matters in developing the general framework of a three bucket impairment model.\(^2\)

4. In response to feedback received from US constituents about that model, in August 2012 the FASB directed their staff to explore an alternative expected loss model that:

(a) does not use a dual-measurement approach; and

(b) reflects all credit risk in the portfolio at each reporting date.

\(^1\) ie a model where some financial asset allowance balances reflect lifetime expected losses and others only a portion of lifetime expected losses.

\(^2\) On completion of developing the impairment model the boards tentatively agreed that it was only necessary to distinguish between assets with a 12-month allowance balance and those with a life time expected loss balance. Thus, the impairment model is now essentially a ‘two-bucket model’. However, because of general familiarity with the ‘three-bucket’ description and because a third stage of deterioration (ie incurred losses) triggers a change in the way in which interest revenue is presented, the IASB staff will continue to use the term ‘three-bucket’ when discussing the IASB’s own proposed impairment model.
5. At the October 2012 meeting, the IASB staff presented a summary of the feedback received on the three bucket model. **Overall the majority of outreach participants, including users of financial statements, support an impairment model that distinguishes assets that have deteriorated in credit quality from those that have not.** However, additional clarification was requested to determine when a lifetime loss is measured and how to apply the criteria to retail loans. In addition, some participants noted that their support for the approach was dependent on whether the benefits of the information provided outweighed the costs of determining which assets have deteriorated. In particular, some noted that if assets were to move too readily to a lifetime loss measurement (for example, on the basis of minor credit deterioration) the costs of the model might not be justified.

6. A few participants in the outreach questioned the conceptual merits of the model in the absence of convergence. They would prefer the IASB to reconsider the proposals in the 2011 Supplementary Document *Financial Instruments: Impairment* (but using the Time Proportional Allocation approach without the foreseeable future floor for the good book) (the SD), or the expected cash flow model in the original IASB Exposure Draft *Financial Instruments: Amortised Cost and Impairment* (the ED).

7. Given the above feedback, the IASB asked the staff to explore ways to address the concerns expressed regarding the three bucket model and to suggest clarifications to the criteria. While the IASB indicated that they wish to pursue the three-bucket impairment model, they also asked the IASB staff to prepare a paper summarising the feedback on the SD as a reminder of why the IASB decided to not further develop that approach in favour of the three-bucket impairment model.

**Objectives of a dual measurement approach**

8. In the staff’s view, the objective of the accounting for expected credit losses should be to represent faithfully the value of the related financial asset reflecting
expectations about future credit losses. Said differently, the objective should be to faithfully represent the economic phenomenon of expected credit losses.

9. In the staff’s view, the IASB’s original exposure draft *Amortised Cost and Impairment* published in November 2009 (the original ED) best reflected that economic phenomenon. That ED proposed a single measurement objective: that an entity should measure a financial asset at amortised cost at the present value of expected cash flows discounted at the credit adjusted effective interest rate. Those proposals resulted in the allocation of the initial expected credit losses through a reduction in the effective interest rate (EIR) and the immediate recognition of the full effect of subsequent changes in expected credit losses. An entity would recognise:

(a) initial expected credit losses (priced in to the asset) through the EIR;

and

(b) all changes in expected credit losses subsequent to initial recognition (ie those not priced in) when they occurred.

10. Most respondents accepted the conceptual arguments. However concerns were raised about the significant costs of implementing the proposals—specifically the requirement to determine and track the credit adjusted effective interest rate and what were the changes in estimates of expected cash flows. To address these difficulties, the IASB decided to decouple the measurement of the allowance for expected losses from the determination of the credit-adjusted effective interest rate so the asset and the allowance for expected credit losses would be measured separately using the contractual effective interest rate (ie not adjusted for credit).

11. As a result of the simplifications a distinction between initial loss expectations and changes in the estimates was no longer used. Full recognition of changes in expected credit losses was no longer required. As a consequence of this simplification, the IASB split the recognition of the full expected credit losses so that an entity would recognise:
(a) a portion of the full expected credit losses from initial recognition; and

(b) the full expected credit losses when credit quality reached a specified level.

12. The approach in the three bucket model and the SD implement this in different ways:

(a) The three bucket model requires an entity to recognise:

(i) 12 months expected losses if an asset has not met the criteria for recognition of lifetime expected losses; and

(ii) lifetime expected losses if the asset has deteriorated in credit quality from initial recognition (a level that is earlier than the ‘bad book’ under the SD approach).

(b) The SD approach required an entity to recognise:

(i) the higher of the time proportional amount and the expected losses over the foreseeable future for assets within the ‘good book’; and

(ii) lifetime expected losses for the ‘bad book’.

Comparison of the benefits of a dual measurement approach

13. The three bucket model and the approach proposed in the SD are different ways of simplifying the original ED. As a result of the simplifications, these models cannot replicate the outcome of the original ED. In the staff’s view, the benefits of the respective model can be expressed in terms of how closely the model represents faithfully the economic phenomenon of expected credit losses consistent with the original ED. Those benefits are achieved by

(a) minimising the overstatements and understatements of expected losses compared to the original ED; and

(b) responsive recognition of expected losses to substantive changes in credit quality.
14. The timing of recognition of the full lifetime expected loss needs to be considered in the light of the portion of the full expected loss recognised initially. Thus, if 12 months expected losses are recognised initially, the recognition of the full lifetime expected loss should be earlier than if the time proportional amount of the full expected losses are recognised.

15. Both approaches were developed as compromises to address operational concerns regarding the IASB’s original ED. This is true particularly when considering the SD without the floor for the good book.

**The SD approach (excluding the effect of the floor)**

16. The approach in the SD (excluding the effect of the floor) recognised the full lifetime expected loss rateably over the weighted average life of the portfolio of assets (the TPA) in the good book, switching to the recognition of the full lifetime expected loss when assets met the criteria for the ‘bad book’. The advantage of that approach is that it has a closer conceptual link to the original ED and pricing.

17. The TPA attempts to reflect the relationship with interest revenue as expected losses are reflected over time ‘adjusting’ the contractual interest. However, it does this through a shortcut, and therefore the result is not as faithful a representation of the economics as the original ED. In particular, because the allocation is of the entire lifetime loss at a given point in time, it does not differentiate initial expected losses from subsequent changes in expected losses. Because both the initial lifetime expected losses and the subsequent changes in lifetime expected losses are recognised rateably, the measurement results in an understatement of changes in expected losses until the full lifetime expected losses are recognised. This effect is particularly problematic for assets with early loss patterns (refer Agenda Paper 5D). The effect of this allocation of the change in loss estimates (catch-up)results in the deferral of part of the full amount of this catch-up, and thus, only in situations where the losses are back-end loaded does the TPA truly replicate the outcome of the ED.
18. If the SD (excluding the effect of the floor) is applied to an individual asset, it does not give rise to a day 1 loss. However, a day 1 loss (or gain) may arise if the TPA allowance is calculated on a pool of assets depending on how the averaging is done.

_Three bucket model_

19. In contrast to the SD, the three bucket model converts the approach in the original exposure draft to a tiered approach wherein an entity recognises a lifetime expected loss allowance if credit quality and deterioration criteria are met, and a 12 month expected loss allowance for all other assets. Because of this simplification, the model results in a stepped profile because of:

   (a) an overstatement of losses at initial recognition (12 months of expected losses are immediately recognised as an expense even though priced into the asset)

   (b) followed by an understatement of losses (in that only the change in the 12 month expected losses rather than in the lifetime expected losses is recognised)

   (c) until the asset deteriorates to the point where lifetime expected losses are recognised – when losses are overstated again because all expected losses are recognised (including losses priced into the asset in addition to changes in loss expectations).

20. The advantage of an approach that switches recognition based on deterioration is that the timing of recognition of expected losses is more responsive to deterioration in credit quality than the approach in the SD that allocates changes over time. The three bucket model more readily moves to full lifetime loss recognition in response to deterioration. However, a disadvantage of the approach is that, in the absence of (sufficient) deterioration, the model only recognises a 12 month expected loss regardless of the passage of time.

21. The staff discuss in Agenda Paper 5B how the criteria could be clarified to optimise these benefits. If lifetime expected losses are recognised too early (such as at initial recognition) the value of the assets will be understated. In
contrast, if the lifetime expected losses are recognised too late (such as at default) the model will fail to recognise deterioration on a timely basis.

**Comparison of the costs of a dual measurement approach**

22. The costs of a dual measurement approach relate to the costs and complexity required to:

(a) calculate the portion of the full measurement to be recognised initially; and

(b) assess the criteria for recognition of the full lifetime expected losses.

**Three bucket model**

23. Under the three bucket model, the cost and complexity arises from:

(a) tracking assets for assessing the deterioration criterion and the difficulty of making that assessment.

(b) calculating 12 months expected losses.

24. The extent of the cost and complexity associated with (a) is dependent on the clarification of the criteria and the balance between the deterioration criterion and the credit quality criterion (as discussed in Agenda Paper 5B and summarised in paragraphs 32 – 35). Thus:

(a) a higher credit quality criterion will increase the population of assets subject to tracking, thus the cost. This is because it is assumed that for assets originated with a quality above the credit quality criterion simply by knowing the asset is now below that credit quality indicates that the asset has deteriorated with no further analysis (ie only the credit quality criterion is used). Assets originated with a quality lower the credit quality criterion have to be assessed based on the deterioration criterion.
(b) clarifying the deterioration criterion in a way that requires the degree of deterioration to be assessed or that requires a precise calculation will increase the complexity of the assessment.

25. The staff analyse this further in Agenda Paper 5B, the conclusions of that analysis are repeated below. Thus, depending on the criteria, the benefits of simplification the IASB sought compared to the original ED may not be realised to the extent intended. During our outreach, it was apparent that the cost of implementing the criteria would also depend on how entities segment their portfolios. Some banks noted that they might implement the deterioration criteria by segregating their portfolios by credit quality at origination. Then, they would perform the assessment of deterioration by comparing the credit quality at the reporting date with the initial credit quality for that segment of the portfolio. Thus, the costs of applying the deterioration criteria would vary depending on the diversity of credit quality at origination in a bank’s business.

26. The IASB’s tentative decision to switch interest revenue recognition from a gross basis to a net basis under the three bucket model at a different level of deterioration compared to when lifetime losses are recognized adds a further level of complexity.

27. In terms of the measurement, the three bucket model 12month expected loss measurement would be closer to Basel II 12month PD (advanced approach) requirements. However even for banks already required to measure this for prudential regulations, the measure would have to be adjusted to remove bias for financial reporting purposes. In addition, in some cases entities can use information such as loss rates to calculate the 12 months expected loss measurement, thus building on information already used for risk management purposes. However, measuring a 12 months expected loss for non-Basel II banks will increase the costs as it is a unique calculation that would not normally be required for other purposes.

3 The prudential measures have inbuilt conservatism.
28. Because of the cost and complexity of the three bucket model the IASB tentatively decided that a simplified approach should be available for trade and lease receivables, to avoid the need to measure 12 months expected losses and assess the criteria for recognition of lifetime expected losses.

The SD approach (excluding the effect of the floor)

29. Under the SD approach (excluding the effect of the floor), these costs include:

(a) determining which assets are in the bad book and which are in the good book.

(b) calculating the time proportional allowance amount.

30. The time proportionate calculation is unique and would not be required for other purposes. This will require the estimation of the full lifetime expected loss that will then be allocated according to the weighted average age compared to the weighted average life. Thus lifetime expected loss measures would be used for all assets. However, the SD approach may also be less costly to reconcile to the FASB full lifetime loss approach, because an entity would be required to estimate the full lifetime loss for the purposes of the allocation in the good book. Under the three bucket model, to calculate the allowance balance an entity would only be required to measure a lifetime expected loss when required to recognise that amount. Requiring the disclosure of lifetime losses for all assets is therefore less burdensome for those using the SD approach.

31. Furthermore, under the SD approach, the criteria for recognition of lifetime expected losses are determined on the basis of how close the asset is to default, instead of how far it has moved since initial recognition. Therefore the assessment is based on the credit quality at a point in time and an entity is not required to assess how much credit quality has changed since initial recognition. Compared to the three bucket model, the costs of implementing this would be much lower as no tracking would be required (for example, many have said they would base the bad book on delinquency information).
Clarification of criteria under three bucket model

32. Agenda Paper 5B includes an analysis of the alternatives for the criteria for lifetime expected loss recognition under the three bucket model. The objective of that analysis is to address constituents’ concerns raised during recent outreach regarding the clarity of the criteria in the light of the overall objectives as discussed above.

33. The results of that analysis are summarised in the following combinations that set the boundaries of acceptable alternatives that would meet those objectives and provide a reasonable amount of clarity:

(a) **Combination A**

(i) Deterioration criterion – Significant deterioration (when considering the term of the asset and the original credit quality); and

(ii) Credit quality criterion – Credit quality below “Investment grade”

(b) **Combination B**

(i) Deterioration criterion – any deterioration; and

(ii) Credit quality criterion – Credit quality below “CCC”.

34. Setting the credit quality criterion lower than investment grade (such as “BB” or “B” level) should be offset with a smaller deterioration requirement. Likewise, setting the credit quality criterion above a “CCC” credit quality should be offset with a larger deterioration requirement.

35. As set out in Agenda Paper 5B, in the staff’s view:

(a) **Combination A better reflects the underlying economic deterioration in credit quality and thus is more consistent with the objective of the three bucket model to reflect that deterioration by ensuring the timely recognition of lifetime expected losses.** In taking this approach the IASB would clarify, in the three bucket model, that the term and initial credit quality should
be considered in the assessment of whether a change in credit quality is significant and that not all deterioration is relevant. It would also clarify the credit quality criterion. Unless the IASB wants to define the amount of deterioration that is relevant descriptive language would be required to articulate the deterioration criterion. This will result in a subjective assessment of deterioration—entities will need to determine if significant deterioration has occurred. However the assessment of credit quality is inherently subjective regardless of how precisely the criteria are defined. Agenda Paper 5C refers to information such as changes in pricing and changes in ratings to illustrate the concept.

(b) Combination B is easier to articulate and implement and would be a simple and pragmatic solution because it would not require the IASB to define the deterioration criterion further. However this combination will result in the recognition of lifetime expected losses on good quality assets after a large deterioration, and after a minimal deterioration for low quality assets. Such an outcome does not reflect the relationship between credit risk and pricing well.

**Issues to be addressed in the SD approach**

36. Agenda Paper 5D provides a review of the responses the IASB received to the SD. That paper identifies, and provides a preliminary analysis of, the following issues that would need to be addressed in any re-deliberations of the model in the SD:

(a) Early loss patterns – In the staff’s preliminary view, the delayed recognition of early loss patterns is an inherent limitation of the SD approach. Addressing the issue will require either the inclusion of a floor (as proposed in the original SD) or added complexity in the allocation of the expected losses. The added complexity will likely negate the benefits of simplifying the original ED. Thus the staff’s
preliminary view is that it should not be addressed in the context of the TPA calculation if the SD approach were pursued. However, if the board requests it, the staff could explore the possibility of bringing the recognition of lifetime losses earlier to help address the limitations arising from the TPA calculation relating to early loss patterns.

(b) Calculation of the weighted average life and age – In the staffs’ preliminary view, the concerns do not appear insurmountable and could be addressed with additional guidance. However this might be another area that requires entities to apply judgment.

(c) Distinction between good book and bad book – In the staffs’ preliminary view further clarification can be provided, for example with a delinquency backstop.

37. In addition to the matters above, the IASB would have to re-deliberate other aspects of the SD that have been discussed in the context of the three bucket model, but will need to be either reconfirmed or modified for the purposes of the SD approach. These matters include, but are not limited to, the following:

(a) Scope – The scope of the SD was open portfolios, however the IASB asked respondents whether the approach would be applicable elsewhere. The IASB has considered that feedback for the three bucket model (for example for loan commitments and financial guarantee contracts).

(b) Disclosures and Presentation – The IASB will need to redeliberate disclosures that were specific for the SD approach and revisit the presentation of interest revenue. The IASB has already considered both disclosure and presentation in the three bucket model and will be able to draw upon those conclusions.

(c) Transition – The IASB will need to redeliberate the transition requirements. No transition requirements were proposed in the SD given its scope.
Conclusion and staff recommendation

38. In Agenda Paper 5B, the staff recommend that clarifying that recognition of lifetime expected losses under the three bucket model be required, consistent with Combination A above, ie if:

(a) there has been a deterioration in credit quality since initial recognition that is significant when considering the term of the asset and the original credit quality; and

(b) the credit quality of the asset would not be considered investment grade.

39. In the staff’s view, the above would strike the best balance between the benefits of distinguishing deteriorated assets (ie reflecting an economic deterioration in credit quality) and the costs and complexity of making that assessment. The assessment required is clearly articulated. However significant judgment would still be required to apply the model. The approach is still operationally burdensome. Significant tracking will still be required for assets originated below investment grade.

40. In contrast to the alternatives suggested for clarifying the criteria under the three bucket model, the SD approach (excluding the floor) would avoid the need to make the complex assessments of deterioration in credit risk that the three bucket model requires. That approach would require recognition of lifetime expected losses using a single credit quality criterion (the ‘bad book’ – later than the credit quality criterion in Combination B), that would be offset by a higher portion of the full expected loss recognised before that time than the three bucket model. However, the clearest limitation of the SD approach is the lack of a full recognition of changes in expected losses. The model is less responsive to credit deterioration than the three bucket model (as clarified) in that changes in full lifetime expected losses are recognised later. That limitation results in the model’s inability to faithfully represent expected losses when they are front-end loaded (early loss patterns).
41. A benefit of the SD is that **entities could more readily disclose lifetime expected losses**. This would assist with comparability if the boards do not find a converged approach to impairment.

42. The staff do not think that there is a clear basis to prefer the three bucket model (clarified as recommended) versus the SD. However, on balance given the information content, the responsiveness to credit deterioration and the timeline, the staff leaning is toward the three bucket model as rearticulated.

**Question for the IASB**

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