

STAFF PAPER

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IASB Meeting

Project	Conceptual Framework		
Paper topic	Measurement Appendix A: Cash-flow-based measurement techniques		
CONTACT(S)	Andrew Lennard		
	Rachel Knubley	rknubley@ifrs.org	+44 (0)20 7246 6904

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Purpose of paper

1. This paper asks the Board to decide whether the *Conceptual Framework for Financial Reporting* (the *Conceptual Framework*) should retain Appendix A ‘Cash-flow-based measurement techniques’ that was set out in the Exposure Draft *Conceptual Framework for Financial Reporting* (the Exposure Draft).

Staff recommendation

2. The staff recommends that Appendix A should be retained.

Exposure Draft proposals (paragraphs 6.5, A1–A10 and BC6.17(b) and BC6.31–BC6.33)

3. The Exposure Draft described cash-flow-based measurement techniques as a means of estimating a measure on a particular measurement basis, rather than as a separate category of measurement basis. Appendix A to the Exposure Draft addressed cash-flow based measurement techniques. The text of that Appendix A is set out in the appendix to this paper.

Feedback from respondents

4. There was no specific question on Appendix A in the Invitation to Comment on the Exposure Draft and very few respondents commented on the appendix.
5. No respondent questioned, and a few explicitly agreed, that cash-flow based measurement techniques are a means of estimating the measure of an asset or a liability, and that they are not a separate category of measurement basis.
6. Two standard-setters and two accounting firms suggested that the appendix should not form part of the *Conceptual Framework*. These respondents questioned its usefulness or suggested that, as Appendix A addressed practical rather than conceptual issues, it should be placed in a different document.
7. The International Actuarial Association expressed the view that the discussion in the appendix was incomplete. They urged that the appendix should discuss in greater depth the time value of money, and the margin for risk and uncertainty. They also suggested that, given the complexity of cash-flow-based measurement techniques, it would be appropriate to make reference to consulting with experts when deciding on the appropriate techniques. No other respondent suggested that the appendix should be expanded.

Staff analysis and recommendation

8. The discussion in Appendix A clarifies a number of points that need to be considered when developing a cash-flow-based measurement technique. Specifically, it explains the difference between expected value, the statistical median and the mode, which are frequently confused. It therefore seems desirable to retain it. If it were deleted from the *Conceptual Framework* it is not clear what other document it could be included in.
9. Expanding the discussion in the appendix seems undesirable. It would add to its complexity.
10. The staff therefore recommend that the *Conceptual Framework* should retain, subject only to drafting changes, Appendix A as set out in the Exposure Draft.

Question for Board members

Do you agree that the *Conceptual Framework* should retain Appendix A?

Appendix

This Appendix sets out the text of Appendix A presented in the Exposure Draft.

Cash-flow-based measurement techniques

This appendix is an integral part of the [draft] Conceptual Framework for Financial Reporting.

- A1 Sometimes, a measure determined using a measurement basis described in Chapter 6 cannot be observed. In some such cases, it can be estimated using cash-flow-based measurement techniques. In particular:
- (a) the value in use of an asset and the fulfilment value of a liability can only be determined using such a technique; and
 - (b) if fair value cannot be observed, it would need to be estimated using a cash-flow-based measurement technique or another technique.
- A2 Cash-flow-based measurement techniques are not measurement bases; they are a means of estimating a measure. Hence, when using such a technique, it is necessary to identify the objective of using that technique (ie which measurement basis is being used) and, in the light of that objective, whether the technique includes using the following factors:
- (a) estimates of future cash flows.
 - (b) possible variations in the estimated amount and timing of future cash flows for the asset or the liability being measured, caused by the uncertainty inherent in the cash flows (see paragraphs A6–A10).
 - (c) the time value of money.
 - (d) the price for bearing the uncertainty inherent in the cash flows (ie a risk premium or risk discount). That price is not captured by the techniques used to measure a single amount within the central part of the range of possible cash flows (see paragraphs A6–A10). That price depends on the extent of the uncertainty. It also reflects the fact that investors would generally pay less for an asset (or expect to receive more for taking on a liability) that has uncertain cash flows than for an asset (or liability) whose cash flows are certain.
 - (e) other factors, such as liquidity, that market participants would take into account in the circumstances.
- A3 For a liability, the factors mentioned in paragraph A2(b) and A2(d) include the possibility that the entity may fail to fulfil the liability (own credit risk).
- A4 Not all of the factors listed in paragraph A2 are considered in every cash-flow-based measurement. However, if such a technique is used to estimate fair value, it will need to capture all of the factors and adopt the perspective of market participants. Estimates of fulfilment value or value in use adopt the perspective of the entity.

A5 Cash-flow-based measurement techniques can be used to customise measurement bases (for example, departing from fair value by choosing to update only some of the factors listed in paragraph A2). Customising measurement bases may sometimes result in information that is more relevant to the users of financial statements. However, they may also be more difficult for users of financial statements to understand. Hence, the reasons for customisation in a Standard will need to be explained in the Basis for Conclusions on that Standard.

Possible variations in the estimated amount and timing of cash flows

A6 Uncertainties about the amount of any cash flows are important characteristics of assets and liabilities. When measuring an asset or a liability by reference to uncertain future cash flows, it is necessary to represent the range of possible cash flows by selecting a single amount. The most relevant amount is usually one from within the central part of the range (a central estimate).

A7 Different central estimates provide different information. For example:

- (a) the expected value (the probability-weighted average, also known as the statistical mean) reflects the entire range of outcomes and gives more weight to the outcomes that are more likely. It is not intended to predict the ultimate inflow or outflow of cash (or other economic benefits) arising from that asset or liability.
- (b) the maximum amount that is more likely than not to occur (similar to the statistical median) indicates that the probability of a subsequent loss is no more than 50 per cent and that the probability of a subsequent gain is no more than 50 per cent.
- (c) the most likely outcome (the statistical mode) predicts the ultimate inflow or outflow arising from an asset or a liability.

A8 Each of these central estimates is illustrated in the following example:

Example

Probability (%)	Cash flow (CU) ^(a)
40	100
30	200
30	500

(a) In this [draft] *Conceptual Framework*, monetary amounts are denominated in 'currency units' (CU).

In this example:

- (a) The expected value (the mean) is CU250 ($40\% \times \text{CU}100 + 30\% \times \text{CU}200 + 30\% \times \text{CU}500$).
- (b) The maximum amount that is more likely than not to occur (the median) is CU200. (The probability that the cash flow will be more than CU200 is less than 50 per cent and the probability that the cash flow will be less than CU200 is less than 50 per cent.)

(c) The most likely outcome (the mode) is CU100. It is the outcome with the highest probability.

A9 As noted in paragraph A2, a central estimate does not capture the price for bearing the uncertainty that the ultimate outcome may differ from that central estimate.

A10 No one central estimate gives complete information about the range of possible outcomes. To provide complete information, disclosure may be needed.