
IASB[®] meeting

Date **June 2023**
Project **Rate-regulated Activities**
Topic **Estimating uncertain future cash flows**
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Objective

1. This paper sets out staff analysis and recommendations on the proposals in the Exposure Draft *Regulatory Assets and Regulatory Liabilities* (Exposure Draft) dealing with estimating uncertain future cash flows.

Staff recommendations

2. The staff recommend that the final Accounting Standard:
 - (a) retains the proposal to require that an entity estimates uncertain future cash flows using whichever of two methods—the ‘most likely amount’ method or the ‘expected value’ method—the entity expects to better predict the cash flows.
 - (b) states that the most likely amount method may better predict the cash flows only if the most likely amount is highly probable and is expected to remain highly probable.
 - (c) requires an entity to reassess the method of estimating uncertain future cash flows if and only if there is a significant change in facts and circumstances such that the entity no longer expects that the method will better predict the cash flows.

- (d) clarifies that when an entity uses the expected value method to estimate uncertain future cash flows, the entity should consider the entire range of outcomes, including those outcomes in which a regulatory asset or a regulatory liability does not exist or exists but will result in no future cash flows.
- (e) retains the proposal not to require a separate impairment test for regulatory assets.

Structure of the paper

3. This paper is structured as follows:
 - (a) proposals in the Exposure Draft (paragraphs 5–8);
 - (b) feedback received (paragraphs 9–16); and
 - (c) staff analysis (paragraphs 17–48).
4. The appendix to this paper illustrates the application of the most likely amount method in specific scenarios.

Proposals in the Exposure Draft

5. Paragraph 31 of the Exposure Draft proposes that in measuring a regulatory asset or regulatory liability, an entity is required to include all estimated future cash flows arising from the regulatory asset or regulatory liability, and only those cash flows.
6. Paragraph 39 of the Exposure Draft proposes to require that an entity estimates uncertain future cash flows using whichever of the following two methods the entity expects to better predict the cash flows:
 - (a) the ‘most likely amount’ method—this method provides an estimate of the single most likely amount in a range of possible outcomes (that is, possible cash flow amounts). This method may better predict the uncertain cash flows if the possible outcomes are clustered around one outcome or if there are only two possible outcomes and they differ widely.

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- (b) the ‘expected value’ method—this method provides an estimate of the sum of probability-weighted amounts in a range of possible outcomes. This method may better predict the uncertain cash flows if there is a wide range of more than two possible outcomes.
7. Paragraph 42 of the Exposure Draft proposes to require that an entity continues to apply the selected method until the entity has recovered the regulatory asset or fulfilled the regulatory liability.
8. The Exposure Draft does not propose a separate impairment test for regulatory assets. This is because the measurement of regulatory assets would be based on updated estimates of future cash flows, including any estimated changes caused by demand risk or credit risk.¹

Feedback received

9. Most respondents who commented agreed with the proposals on estimating uncertain future cash flows.
10. A few respondents raised concerns about using the *most likely amount* method to estimate the cash flows when the probability of existence is not high (for example, at or slightly above the ‘more likely than not’ threshold). These respondents said the most likely amount does not reflect in the measurement any uncertainty associated with the cash flows.
11. A few respondents also raised concerns about using the *expected value* method when the probability of particular outcomes is low. These respondents said assigning a low probability to particular outcome(s) when calculating the expected value could negatively influence regulatory approval.
12. A few respondents suggested the IASB requires the use of the expected value method for all regulatory assets and regulatory liabilities that have uncertain cash flows. A

¹ Paragraph BC141 of the Basis for Conclusions accompanying the Exposure Draft.

- standard-setter in Latin America said requiring the use of a single method would improve comparability.
13. A few respondents suggested the IASB provides more guidance on factors to consider in assessing which method of estimating uncertain future cash flows better predicts the cash flows.
 14. A few European national-standard setters explicitly supported the proposal to require that an entity continues to apply the same method of estimating uncertain future cash flows until the entity has recovered the regulatory asset or fulfilled the regulatory liability. However, a few other respondents suggested the IASB requires an entity to change the method selected at initial recognition when facts and circumstances change such that the method may not better predict the cash flows.
 15. A few respondents—mainly accounting firms—asked questions about the interaction between the existence uncertainty and the methods for estimating uncertain future cash flows in specific circumstances. These respondents said it is unclear whether an entity, when applying the methods for estimating uncertain future cash flows, should consider only those outcomes in which a regulatory asset or regulatory liability exists.
 16. A national standard-setter in Africa disagreed with not requiring an impairment test for regulatory assets.

Staff analysis

17. The analysis is structured as follows:
 - (a) methods of estimating uncertain future cash flows (paragraphs 18–21);
 - (b) selection of method (paragraphs 22–32);
 - (c) subsequent change to the selected method (paragraphs 33–37);
 - (d) interaction between the methods and existence uncertainty (paragraphs 38–43); and
 - (e) separate impairment test for regulatory assets (paragraphs 44–48).

Methods of estimating uncertain future cash flows

18. Paragraph 39 of the Exposure Draft proposes to require that an entity estimates uncertain future cash flows using whichever of two methods—the ‘most likely amount’ method or the ‘expected value’ method—the entity expects to better predict the cash flows. This paragraph also includes scenarios in which each of the methods may better predict the cash flows (paragraph 6(a)).
19. As mentioned in paragraph 9, most respondents who commented agreed with the proposal. However, a few respondents expressed concerns about the use of the methods in specific circumstances. The next section of the paper deals with some of these concerns.
20. The proposals in the Exposure Draft are consistent with the *Conceptual Framework for Financial Reporting* (the *Conceptual Framework*) and other IFRS Accounting Standards:
- (a) The *Conceptual Framework* says that when selecting a single amount from within a range of possible cash flows, an amount within the central part of that range (a central estimate) usually provides the most relevant information. The central estimates include the most likely amount (the statistical mode) and the expected value (the probability-weighted average or statistical mean).²
 - (b) The proposal to require the use of either the most likely amount method or the expected value method is consistent with the requirements in:
 - (i) IFRS 15 *Revenue from Contracts with Customers* on estimating the amount of variable consideration included in the calculation of the transaction price in a revenue contract; and
 - (ii) IFRIC 23 *Uncertainty over Income Tax Treatments* on predicting the resolution of an uncertainty over a tax treatment.³

² The *Conceptual Framework* identifies a third central estimate—the maximum amount that is more likely than not to occur, similar to the statistical median (paragraph 6.93 of the *Conceptual Framework*).

³ Paragraphs BC136–BC137 of the Basis for Conclusions accompanying the Exposure Draft.

21. Therefore, we recommend that the final Standard retains the proposal to require that an entity estimates uncertain future cash flows using whichever of two methods—the ‘most likely amount’ method or the ‘expected value’ method—the entity expects to better predict the cash flows.

Question for the IASB

1. Does the IASB agree with the staff recommendation in paragraph 21?

Selection of method

22. As mentioned in paragraph 10, a few respondents raised concerns about using the most likely amount method to estimate the cash flows when the probability of existence—and hence, the probability associated with the most likely amount—is not high. A few respondents also suggested the IASB provides more guidance on factors to consider in assessing which method better predicts the cash flows (paragraph 13).
23. The most likely amount method is simple to understand and easy to apply. As mentioned in paragraph 20, the most likely amount is the statistical mode of the distribution. Although an entity must identify all possible outcomes in order to pick out the most likely one, there is no need to quantify the less probable outcomes or calculate probability-weighted averages.
24. The proposed guidance in the Exposure Draft implies that the most likely amount may be the method that better predicts the cash flows when the possible outcomes are clustered around one outcome (Example 1 in the appendix) or when there are only two possible outcomes and they differ widely (both in terms of amount and probability).
25. However, we think that the guidance around when to use the most likely amount could be improved. In particular, there are two features of the most likely amount that may make its use unsuitable in some situations:
- (a) the most likely amount does not reflect in its measure its associated probability (paragraphs 26–27); and

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- (b) the probability associated to the most likely amount may significantly change without the most likely amount changing (paragraphs 28–30).

Most likely amount does not reflect its associated probability

26. We think that in determining whether the most likely amount better predicts the cash flows, an entity also needs to consider that the most likely amount does not reflect in the measure its associated probability. In both Examples 1A and 2 in the appendix the most likely amount is CU100.⁴ However, the probability distributions of both examples are different:
- (a) Example 1A—the probability of the most likely amount of CU100 is high (80%) and the possible outcomes are clustered around the most likely amount. In this scenario, the most likely amount is expected to provide useful information because it is highly probable.
- (b) Example 2—the probability of the most likely amount of CU100 is low (40%) and the other possible outcomes differ widely from the most likely amount. In such scenario, we think the most likely amount would not better predict the cash flows because it is more likely than not the future cash flows that will arise from the regulatory asset or regulatory liability will be significantly different from the most likely amount.
27. Example 3 in the appendix illustrates another case in which the probability of the most likely amount is low (40%). In this example, the most likely amount is CU0. Therefore, the regulatory asset or regulatory liability would be measured at zero using the most likely amount method, even though it is more likely than not that the regulatory asset or regulatory liability will result in future cash flows.

⁴ Monetary amounts are denominated in 'currency units' (CU).

Changes in probability may not affect the most likely amount

28. Significant changes in the probability associated with the most likely amount may not affect its measure. Consequently, the most likely amount method may not better predict the cash flows if the probability distribution of the outcomes is likely to change significantly.
29. For example, a change in facts and circumstances could cause the probability distribution in Example 1A in the appendix to change to the distribution in Example 2. In such a scenario, the probability of the most likely amount of CU100 reduces from 80% to 40%. When a change in facts and circumstances reduces the probability of the most likely amount but the most likely amount remains unchanged, it may indicate that the most likely amount method no longer better predicts the cash flows.
30. In addition, the Exposure Draft does not propose a separate impairment test for regulatory assets (paragraphs 44–48). In the absence of an impairment test, the measurement of the regulatory asset at the most likely amount may not reflect a significant decrease in the probability associated with that amount.
31. We think the features of the most likely amount described in paragraphs 26–30 and the lack of a separate impairment test increase the need for further guidance around the use of the most likely amount method.
32. Therefore, we recommend that the final Standard states that the most likely amount method may better predict the cash flows only if the most likely amount is highly probable (paragraphs 26–27) and is expected to remain highly probable (paragraph 28–30).^{5, 6}

Question for the IASB

2. Does the IASB agree with the staff recommendation in paragraph 32?

⁵ IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations* defines 'highly probable' as significantly more likely than probable. It defines 'probable' as more likely than not.

⁶ We also plan to retain in the final Standard the proposed guidance around the use of the most likely amount method (paragraph 24).

Subsequent change to the selected method

33. Paragraph 42 of the Exposure Draft proposes to require that an entity continues to apply the same method of estimating uncertain future cash flows until the entity has recovered the regulatory asset or fulfilled the regulatory liability. When developing the proposal, the IASB considered that applying the same method would improve consistency and understandability of the information.⁷
34. As mentioned in paragraph 14, a few respondents suggested the IASB requires an entity to subsequently change the method of estimating uncertain future cash flows when facts and circumstances change such that the selected method no longer better predicts the cash flows. A respondent said an entity should change from the expected value method to the most likely amount method when the level of uncertainty decreases and vice versa.
35. A change in facts and circumstances may result in a method of estimating uncertain future cash flows no longer better predicting the cash flows. For example, if there is a significant *decrease* in the probability of the most likely outcome, the most likely amount method may not reflect the change in facts and circumstances because the most likely amount may remain the same (paragraph 29). In this case, the most likely amount method may no longer better predict the cash flows and may result in less useful information for users of financial statements. Conversely, there may be scenarios when the expected value method no longer better predicts the cash flows. This may be the case, for example, if facts and circumstances change so that the probability distribution coalesces around two very different amounts, one of which is highly probable. Therefore, we agree with those respondents in paragraph 34 that an entity should be required to reassess whether the selected method continues to better predict the cash flows when facts and circumstances change significantly.
36. Any requirement for reassessment would increase compliance costs and may allow entities to change the method to achieve a particular accounting outcome. To address these implications of reassessment, we think reassessment should be required only

⁷ [Agenda Paper 9B](#) discussed by the IASB at its July 2018 meeting.

when a specified trigger occurs—for example, a significant change in facts and circumstances that significantly changes the uncertainty—and thus, the probability—of the possible outcomes. Including such a trigger would avoid the need to reassess at the end of each reporting period which method better predicts the cash flows and may reduce the potential for opportunistic changes between the methods.

37. Consequently, we recommend that the final Standard requires an entity to reassess the method of estimating uncertain future cash flows if and only if there is a significant change in facts and circumstances such that the entity no longer expects that the method will better predict the cash flows. We think these conditions for reassessment may achieve a reasonable balance between providing useful information when facts and circumstances change and incurring compliance costs.

Question for the IASB

3. Does the IASB agree with the staff recommendation in paragraph 37?

Interaction between the methods and existence uncertainty

38. A few respondents suggested the IASB clarifies whether the most likely amount method and the expected value method should consider only those possible outcomes in which a regulatory asset or regulatory liability exists (paragraph 15). The paragraphs that follow analyse how these methods consider existence uncertainty and outcome uncertainty.

The most likely amount method

39. An entity recognises a regulatory asset or regulatory liability only if the regulatory asset or regulatory liability is more likely than not to exist. If the IASB agrees with our recommendation in paragraph 32, we expect that an entity would use the most likely amount method only if the most likely amount is *highly probable*.

Consequently, an entity would only use the most likely amount method to measure regulatory assets or regulatory liabilities that are subject to low existence uncertainty.

40. The recommendation in paragraph 32 would not rule out measuring a regulatory asset or regulatory liability at zero. This could be the case if the regulatory asset or regulatory liability exists (that is, the entity has an enforceable present right or enforceable present obligation), but the most likely amount of nil is highly probable. Having said that, based on the evidence we have gathered, we think the probability of flows of economic benefits arising from regulatory assets and regulatory liabilities is generally high and therefore that case would not be common.⁸

The expected value method

41. The expected value method provides an estimate of the sum of probability-weighted amounts in a range of possible outcomes. Because the expected value is a statistical mean, we think the estimate should reflect the entire range of outcomes, including outcomes in which:
- (a) a regulatory asset or regulatory liability does not exist; or
 - (b) a regulatory asset or regulatory liability exists but will result in no future cash flows.
42. This approach would result in better information than an approach that considers only those possible outcomes in which a regulatory asset or regulatory liability exists (paragraph 38). Ignoring outcomes in which a regulatory asset or regulatory liability does not exist would overstate the expected cash flows from the regulatory assets and regulatory liabilities.
43. Therefore, we recommend that the final Standard clarifies that when an entity uses the expected value method to estimate uncertain future cash flows, the entity should consider the entire range of outcomes, including those outcomes in which a regulatory

⁸ [Agenda Paper 9B](#) discussed at the IASB meeting in February 2023.

asset or regulatory liability does not exist or exists but will result in no future cash flows.

Question for the IASB

4. Does the IASB agree with the staff recommendation in paragraph 43?

Separate impairment test for regulatory assets

44. The Exposure Draft does not propose a separate impairment test for regulatory assets. This is because the measurement of regulatory assets would be based on updated estimates of future cash flows, including any estimated changes caused by demand risk or credit risk.
45. When cash flows are estimated using the *expected value* method, the subsequent measurement would reflect any changes to the amount and probability of the entire range of outcomes. In other words, the expected value method does not need a separate impairment test to reflect the cash flows that are expected to arise from a regulatory asset.
46. When cash flows are estimated using the *most likely amount* method, subsequent measurement may not reflect any decreases in the probability of the most likely amount (paragraph 29). In the absence of an impairment test, the subsequent measurement of a regulatory asset at the most likely amount may not reflect any effects arising from these changes (from Example 1A to Example 2 in the appendix).
47. We think, however, the staff recommendations in paragraphs 32 and 37 may alleviate this issue. When an entity uses the most likely amount method to estimate the cash flows of a regulatory asset, the entity is expected to have determined that the most likely amount is highly probable and is expected to remain highly probable until the regulatory asset is recovered. Moreover, the entity is required to reassess the method if there is a significant change in facts and circumstances such that the entity no longer expects that the method will better predict the cash flows.

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48. On balance, we think introducing a separate impairment test for regulatory assets would add complexity to the model, while providing limited benefits. Therefore, we recommend that the final Standard retains the proposal not to include a separate impairment test for regulatory assets.

Question for the IASB

5. Does the IASB agree with the staff recommendation in paragraph 48?

Appendix—Application of the most likely amount method in specific scenarios

A1. In Example 1A, the most likely amount reflects a highly probable outcome. Because the possible outcomes are clustered around one outcome, the most likely amount and the expected value are similar.

Example 1A			
Outcome	Probability	Amount (CU)	Probability-weighted amount (CU)
1	80%	100	80
2	10%	90	9
3	10%	80	8
<i>Most likely amount</i>			<i>100</i>
<i>Expected value</i>			<i>97</i>

A2. Even if the most likely amount reflects a highly probable outcome, it is possible that the most likely amount and the expected value are dissimilar. This may be the case, for example, if the other possible outcomes differ widely from the most likely outcome. This is illustrated in Example 1B.

Example 1B			
Outcome	Probability	Amount (CU)	Probability-weighted amount (CU)
1	80%	100	80
2	10%	10	1
3	10%	0	0
<i>Most likely amount</i>			<i>100</i>
<i>Expected value</i>			<i>81</i>

A3. In Example 2, the outcomes differ widely and none of the outcomes are highly probable. In this scenario, the most likely amount method may not better predict the cash flows because it is more likely than not that the most likely amount will be significantly different from the future cash flows that will arise from a regulatory asset or regulatory liability.

Example 2			
Outcome	Probability	Amount (CU)	Probability-weighted amount (CU)
1	40%	100	40
2	30%	50	15
3	30%	10	3
<i>Most likely amount</i>			<i>100</i>
<i>Expected value</i>			<i>58</i>

- A4. In Example 3, the most likely amount is zero even though it is more likely than not that future cash flows will arise from a regulatory asset or regulatory liability.

Example 3			
Outcome	Probability	Amount (CU)	Probability-weighted amount (CU)
1	40%	0	0
2	20%	60	12
3	20%	80	16
4	20%	100	20
<i>Most likely amount</i>			<i>0</i>
<i>Expected value</i>			<i>48</i>