

Proposed International Standard on Auditing 540 (Revised)

Auditing Accounting Estimates and Related Disclosures (Other than Those Involving Fair Value Measurements and Disclosures)



International Federation
of Accountants

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REQUEST FOR COMMENTS

This exposure draft of the International Auditing and Assurance Standards Board (IAASB) was approved for publication in December 2004. The proposed revised International Standard on Auditing (ISA) may be modified in light of comments received before being issued in final form.

Comments should be submitted so as to be received by **April 30, 2005**, preferably by e-mail or on computer disk, or in writing. All comments will be considered a matter for the public record. Comments should be addressed to:

Technical Director
International Auditing and Assurance Standards Board
545 Fifth Avenue, 14th Floor
New York, New York 10017 USA

Email responses should be sent to: Edcomments@ifac.org

The approved text of this exposure draft is published in the English language. In order to achieve maximum exposure and feedback, the International Federation of Accountants encourages the reproduction of this publication in any format.

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EXPLANATORY MEMORANDUM

Introduction

This memorandum provides some background to, and an explanation of, the proposed revised International Standard on Auditing (ISA) 540, under a new title of “Auditing Accounting Estimates and Related Disclosures (Other than Those Involving Fair Value Measurements and Disclosures),” approved for exposure by the International Auditing and Assurance Standards Board (IAASB) in December 2004.

Standards and guidance on auditing accounting estimates involving fair value measurements and disclosures are provided in ISA 545, “Auditing Fair Value Measurements and Disclosures.”

Background

Accounting estimates generally involve the development of assumptions by management based on judgments about the outcome of future conditions, transactions or events. Because the outcome of future events is not known, estimates are susceptible to a lack of precision, or estimation uncertainty, in their measurement.

Research undertaken by the United Kingdom’s Auditing Practices Board (UK APB) has highlighted that management may be motivated to choose accounting estimates that affect the carrying amount of assets or liabilities as a means of managing earnings. Such motivation may result in financial statements that lack neutrality, or freedom from bias. In light of this, the IAASB approved a project to revise ISA 540 and a joint Task Force was established comprising members drawn from the IAASB and the UK APB and other individuals from industry with relevant expertise.

Significant Proposals

The proposed revised ISA 540 introduces requirements for greater rigor and skepticism into the audit of accounting estimates, including the auditor’s consideration of indicators of possible management bias. It also conforms the approach taken to the audit of accounting estimates with the revised audit risk and fraud standards* issued by the IAASB.

The proposed revised ISA 540 provides standards and guidance on the auditor’s determination and documentation of misstatements and indicators of possible management bias relating to individual accounting estimates. These matters are evaluated in accordance with the standards and guidance in the proposed revised ISA 320, “Materiality in the Identification and Evaluation of Misstatements.” Based on this evaluation, the auditor communicates with those charged with governance in accordance with ISA 260, “Communication of Audit Matters with Those Charged with Governance,” and reports in accordance with ISA 700 (Revised), “The Independent Auditor’s Report on a Complete Set of General Purpose Financial Statements” or ISA 701, “Modifications to the Independent Auditor’s Report.”

* These standards are ISA 315, “Understanding the Entity and Its Environment and Assessing the Risks of Material Misstatement,” ISA 330, “The Auditor’s Procedures in Response to Assessed Risks,” and ISA 240 (Revised), “The Auditor’s Responsibility to Consider Fraud in an Audit of Financial Statements.”

Risk Assessment Procedures

The proposed revised ISA 540 introduces risk assessment procedures that are more comprehensive than those in the extant ISA. Among other procedures, it requires the auditor to obtain an understanding of the processes, including relevant internal controls, used by management to make accounting estimates. The requisite level of understanding encompasses the assumptions underlying the estimates and how management has assessed the effect of estimation uncertainty. The proposed revised ISA 540 also requires the auditor to review the outcome of accounting estimates made in the prior period financial statements. This is consistent with ISA 240 (Revised), “The Auditor’s Responsibility to Consider Fraud in an Audit of Financial Statements,” but is not a requirement of the extant ISA 540.

Estimation Uncertainty

The proposed revised ISA 540 defines estimation uncertainty as the susceptibility of a financial statement item to a lack of precision in its measurement because the outcome of future events is not known. Some accounting estimates, however, are highly sensitive to changes in assumptions such that the use of different reasonable assumptions could materially affect the accounting estimate recognized in an entity’s financial statement. Accordingly, the proposed revised ISA 540 focuses the auditor’s work effort not only on accounting estimates that have a risk of material misstatement, but in particular on those that have high estimation uncertainty. It requires the auditor to use the information gathered from the risk assessment procedures to determine which accounting estimates have high estimation uncertainty and may therefore be significant risks that require special audit consideration.

Substantive Procedures to Respond to Estimation Uncertainty

Where the auditor has determined that an accounting estimate gives rise to a significant risk, the proposed revised ISA 540 guides the auditor to consider how management has assessed the effect of estimation uncertainty. In particular, it requires the auditor to evaluate:

- (a) Whether the significant assumptions made by management provide a reasonable basis for the accounting estimate; and
- (b) Whether and how management has considered alternative assumptions or outcomes, and why they have rejected them.

If management has not considered alternative assumptions or outcomes, the proposed revised ISA 540 requires the auditor to consider whether it is practicable to develop a reasonable range of outcomes with which to evaluate the reasonableness of management’s estimate. Guidance is provided on the process of determining a reasonable range of outcomes such that the range is sufficiently narrow to be useful as an evaluation tool.

Where the auditor believes that management has not adequately supported an accounting estimate, the proposed revised ISA 540 requires the auditor to request management to perform further work to provide additional information to support the estimate. If management does not perform such further work, or if the auditor believes that management has failed to consider

information that is reasonably available to it, the proposed revised ISA 540 requires the auditor to consider the implications for the auditor's report.

Misstatements

In conformity with the proposed revised ISA 320, the difference between management's and the auditor's judgment concerning the reasonableness of accounting estimates is considered to be a "known misstatement involving subjective decisions." The proposed revised ISA 540 provides guidance on the auditor's consideration of whether such a misstatement exists. It also includes guidance on circumstances where management changes the relative location of an accounting estimate within management's range from the prior period.

Indicators of Possible Management Bias

The proposed revised ISA 540 requires the auditor to consider whether there are indicators of possible management bias in the making of individual accounting estimates. Examples are provided of such indicators. The implications of finding indicators of possible management bias form a part of the auditor's evaluation of whether the financial statements as a whole are free of material misstatement required by the proposed revised ISA 320.

Evaluating the Disclosure of Estimation Uncertainty

Where an accounting estimate falls within a reasonable range of outcomes that is greater than materiality, the proposed revised ISA 540 requires the auditor to determine whether the applicable financial reporting framework requires disclosure of the estimation uncertainty and if so, to evaluate the adequacy of such disclosure.

Guide for Commentators

The IAASB welcomes comments on the proposed revised ISA 540. The IAASB is seeking comments on all aspects of the exposure draft. Comments are most helpful when they refer to specific paragraphs, include the reasons for the comments, and, where appropriate, make explicit suggestions for any proposed changes to wording. When a respondent agrees with proposals in the exposure draft (especially those calling for change in current practice), it will be helpful for the IAASB to be made aware of this view.

Recognizing that the ISA will apply to audits of all sizes and in all sectors of the economy, the IAASB is also interested in comments on matters set out below:

Special Considerations in the Audit of Small Entities

Respondents are asked to comment on whether, in their opinion, considerations in the audit of small entities have been dealt with appropriately in the proposed revised ISA 540. Reasons should be provided if not in agreement, as well as suggestions for alternative or additional guidance.

Translations

Recognizing that many respondents intend to translate the revised ISA 540 for adoption in their own environments, the IAASB welcomes comment on potential translation issues noted in reviewing this exposure draft.

**PROPOSED INTERNATIONAL STANDARD ON AUDITING 540
(REVISED)**

**AUDITING ACCOUNTING ESTIMATES AND RELATED DISCLOSURES (OTHER
THAN THOSE INVOLVING FAIR VALUE MEASUREMENTS AND DISCLOSURES)**

(Effective for audits of financial statements for periods beginning on or after [date])

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PROPOSED INTERNATIONAL STANDARD ON AUDITING 540 (REVISED)

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International Standard on Auditing (ISA) 540 (Revised), “Auditing Accounting Estimates and Related Disclosures (Other than Those Involving Fair Value Measurements and Disclosures)” should be read in the context of the “Preface to the International Standards on Quality Control, Auditing, Assurance and Related Services,” which sets out the application and authority of ISAs.

Introduction

1. The purpose of this International Standard on Auditing (ISA) is to establish standards and provide guidance on auditing accounting estimates and related disclosures, other than those involving fair value measurements and disclosures. An “accounting estimate” is an approximation of a monetary amount in the absence of a precise means of measurement. Making an accounting estimate frequently requires management to develop assumptions about the outcome of future conditions, transactions or events that are uncertain at the time of the estimation. “Estimation uncertainty” is the susceptibility of a financial statement item to a lack of precision in its measurement because the outcome of future events is not known.
2. The term “accounting estimate” describes items recognized or disclosed in the financial statements. For example, accounting estimates may be required of:
 - Bad debts.
 - Inventory obsolescence.
 - Warranty obligations.
 - Environmental remediation costs.
3. Some financial reporting frameworks require certain assets, liabilities or specific components of equity to be measured at fair value. ISA 545, “Auditing Fair Value Measurements and Disclosures” provides standards and guidance on auditing accounting estimates involving such fair value measurements.
4. **The auditor should obtain sufficient appropriate audit evidence to evaluate the reasonableness of accounting estimates and related disclosures made by management, in the context of the entity’s applicable financial reporting framework.**
5. Because of the uncertainties inherent in business activities some financial statement items cannot be measured with precision but can only be estimated. Estimation involves judgments based on the latest available reliable information. Financial reporting frameworks do not always specify a precise way in which particular accounting estimates should be measured; indeed many acknowledge that the use of reasonable estimates is an essential part of the preparation of financial statements.
6. Accounting estimates may need revision if changes occur in the circumstances on which an accounting estimate was based, or as a result of new information or more experience. Many financial reporting frameworks recognize that such a revision does not relate to prior periods and is not the correction of a misstatement of a prior period.
7. Financial reporting frameworks often call for neutrality, that is, freedom from bias. Accounting estimates are, however, usually imprecise, and management may be motivated to bias accounting estimates to achieve a predetermined result. When performing audit

procedures, the auditor is therefore alert to indicators of possible management bias¹ in the making of accounting estimates.

Risk Assessment Procedures

8. ISA 315, “Understanding the Entity and Its Environment and Assessing the Risks of Material Misstatement” requires the auditor to obtain an understanding of the entity and its environment, including its internal control, sufficient to identify and assess the risks of material misstatement of the financial statements whether due to fraud or error, and design and perform further procedures. The auditor obtains this understanding by performing risk assessment procedures, which calls for gathering, updating and analyzing information throughout the audit.
9. **The auditor should perform risk assessment procedures to identify accounting estimates for which there is a risk of material misstatement, by:**
 - (a) **Obtaining an understanding of the requirements of the entity’s applicable financial reporting framework relevant to the accounting estimates;**
 - (b) **Obtaining an understanding of how management identifies those transactions, events and conditions that may give rise to the need for accounting estimates in the financial statements;**
 - (c) **Obtaining an understanding of the processes, including relevant internal controls, used to make accounting estimates, including the assumptions underlying them and whether, and if so how, management has assessed the effect of estimation uncertainty; and**
 - (d) **Reviewing the outcome, or re-estimation, of accounting estimates made in the prior period financial statements.**

Understanding the Requirements of the Financial Reporting Framework

10. Financial reporting frameworks require incorporation in the balance sheet or income statement of items that satisfy their “criteria for recognition.” Disclosure of accounting policies or adding notes to the financial statements does not rectify a failure to recognize such items.
11. The single monetary amount recognized by management as an accounting estimate is referred to in this ISA as a “point estimate.” In some cases, management may be able to make such an estimate directly. In other cases, management may be able to make a reliable estimate by developing a range of outcomes from which it is able to determine a point estimate. Financial reporting frameworks may, or may not, provide guidance for management on determining point estimates from within the range of outcomes. Some

¹ In this ISA, the word “bias” has the meaning attached to it in the “Framework for the Preparation and Presentation of Financial Statements” issued by the International Accounting Standards Board. Paragraph 36 of the Framework states, “To be reliable, the information contained in financial statements must be neutral, that is free from bias. Financial statements are not neutral if, by the selection or presentation of information, they influence the making of a decision or judgment in order to achieve a predetermined result or outcome.”

financial reporting frameworks, for example, require the point estimate from the range of outcomes to reflect management's judgment of the most likely outcome of the uncertain future conditions, transactions or events that led it to make the accounting estimate. Point estimates determined in this way are sometimes described as "best estimates."

12. "Estimation uncertainty" is the susceptibility of a financial statement item to a lack of precision in its measurement because the outcome of future events is not known. Factors affecting estimation uncertainty include the following:
 - The extent to which the accuracy of an accounting estimate depends on management's judgment about the outcome of uncertain future conditions, transactions or events.
 - The degree of sensitivity of the accounting estimate to changes in assumptions.
 - The existence of recognized measurement techniques that may mitigate the estimation uncertainty.
13. Some accounting estimates are highly sensitive to changes in assumptions such that the use of different reasonable assumptions could materially affect the estimate recognized in the entity's financial statements. With respect to such accounting estimates, financial reporting frameworks may require the disclosure of information on the key assumptions to which the estimate is particularly sensitive. An assumption in respect of which an accounting estimate is highly sensitive is referred to as a "significant assumption."
14. The sensitivity of an accounting estimate to changes in assumptions may be so great that a reliable estimate cannot be made. In such instances, financial reporting frameworks often do not permit an accounting estimate to be recognized in the financial statements, but disclosures may be required in the notes to the financial statements.

Management's Identification of Accounting Estimates

15. Management is responsible for making accounting estimates and, where necessary, establishing financial reporting processes for measuring them, including adequate internal controls. Such processes include the following:
 - Selecting appropriate accounting policies and prescribing estimation processes.
 - Developing assumptions about future conditions, transactions or events that affect accounting estimates.
 - Periodically reviewing the circumstances that give rise to the accounting estimates and re-estimating the accounting estimates as necessary.
16. Management's identification of transactions, events and conditions that give rise to the need for accounting estimates is likely to be based on its cumulative experience of preparing the entity's financial statements in previous periods. Nevertheless, the auditor inquires whether management has given consideration to changes in circumstances such as the following:

- The entity may have engaged in new types of transactions that give rise to accounting estimates.
 - Terms of transactions that gave rise to accounting estimates may have changed.
 - The requirements of the applicable financial reporting framework may have changed.
 - Regulatory or other changes outside the control of management may require management to revise, or make new, accounting estimates.
 - New conditions or events that give rise to accounting estimates.
17. During the audit the auditor may identify transactions, events and conditions that give rise to the need for accounting estimates that management failed to identify. If so, the auditor considers whether the entity's risk assessment procedures should have identified them. If they should have, the auditor considers why those procedures failed to do so. ISA 315 provides guidance when the auditor identifies material weaknesses in the entity's risk assessment processes.

Management's Process for Making Accounting Estimates

18. To obtain an understanding of management's process for making accounting estimates, the auditor considers the following matters:
- The types of accounts or transactions to which the accounting estimates relate (for example, whether the estimates arise from the recording of routine and recurring transactions or whether they arise from non-recurring or unusual transactions).
 - The experience and competence of those who determine the accounting estimates, including any use of experts within or outside the entity.
 - How management ensures the completeness, relevance and accuracy of the data used to develop accounting estimates.
 - The existence of generally accepted techniques for making particular accounting estimates.
 - The assumptions underlying the accounting estimates and how management ensures that the estimates are based on assumptions that are internally consistent, and conform to the entity's business plans and the external environment.
 - Whether management has performed a sensitivity analysis to determine the effect on an accounting estimate of changes in the assumptions.
 - How management determines the accounting estimate when management's sensitivity analysis concludes that there may be a number of outcome scenarios.
 - Whether management monitors the outcome of accounting estimates made in the prior period.
 - Other internal controls over the accounting estimation process.

19. Management uses judgment to make assumptions about the outcome of future conditions, transactions or events. Management's attitudes and motivations influence these judgments. The auditor therefore obtains an understanding of the controls for reviewing and approving accounting estimates by appropriate levels of management and, where appropriate, those charged with governance. The auditor also obtains an understanding of how management ensures that assumptions are internally consistent.

Reviewing the Outcome or Re-Estimation of Prior Period Accounting Estimates

20. The auditor's review of the outcome, or re-estimation, of accounting estimates made in the prior period financial statements is usually carried out in conjunction with the requirements of paragraph 80(b) of ISA 240 (Revised), "The Auditor's Responsibility to Consider Fraud in an Audit of Financial Statements."
21. The actual outcome of the condition, transaction or event that gave rise to an accounting estimate will often differ from the accounting estimate recognized in the prior period financial statements. This does not necessarily mean that there was a misstatement in the prior period's financial statements. By understanding the reasons for any variance between the actual outcome and the prior period's accounting estimate, however, the auditor:
 - (a) Obtains information regarding the effectiveness of management's prior period estimation process, from which the auditor can judge the likely effectiveness of management's current period process;
 - (b) Obtains audit evidence that is pertinent to the re-estimation, in the current period, of prior period accounting estimates; and
 - (c) Obtains audit evidence of matters, such as estimation uncertainty, that may be required to be disclosed in the financial statements.
22. A change in an accounting estimate that results from changes in the circumstances on which an accounting estimate was based, or from new information or more experience, does not represent the correction of a misstatement² in the prior period's financial statements. Subsequent changes in accounting estimates arising from information that:
 - (a) Was available to management when the prior period's financial statements were finalized; or
 - (b) Could reasonably be expected to have been obtained and taken into account in preparing and presenting those financial statements,do, however, provide evidence of misstatements in prior period financial statements. Such misstatements include the effects of mathematical mistakes, mistakes in applying accounting policies, oversights or misinterpretation of facts, and fraud. Many financial reporting frameworks contain guidance on distinguishing between changes in accounting estimates that constitute misstatements and changes in accounting estimates that do not constitute misstatements.

² Such misstatements are sometimes referred to as "errors" in financial reporting frameworks.

Assessment of the Risks of Material Misstatement

23. ISA 315 requires the auditor, as part of the risk assessment, to identify and assess the risks of material misstatement at the assertion level and to determine which of the identified risks are, in the auditor’s judgment, risks that require special audit consideration. Such risks are described as “significant risks.”
24. **Using information gathered from the risk assessment procedures, the auditor should determine which accounting estimates have high estimation uncertainty and may, therefore, be significant risks that require special audit consideration.**
25. Factors that indicate high estimation uncertainty include the following:
 - Accounting estimates that are highly dependent upon management’s judgment of the outcome of uncertain future conditions, transactions or events.
 - Accounting estimates that are not capable of being calculated from generally accepted techniques or derived with some degree of precision from available data.
 - The results of the auditor’s review of the outcome, or re-estimation, of accounting estimates made in the prior period financial statements indicate a substantial difference between the original estimate and the outcome.
26. In some circumstances, the estimation uncertainty is so high that a reasonable estimate cannot be made. The applicable financial reporting framework may, therefore, preclude recognition of the item being estimated in the financial statements. In such cases, the significant risks relate not only to whether an accounting estimate should be recognized but also to the adequacy of the disclosures. With respect to such accounting estimates the auditor considers whether the financial reporting framework requires disclosure of the accounting estimates and the high estimation uncertainty associated with them.

Responses to the Risks of Material Misstatement

27. ISA 330, “The Auditor’s Procedures in Response to Assessed Risks” requires the auditor to design and perform audit procedures whose nature, timing, and extent respond to the assessed risks of material misstatement of accounting estimates at both the financial statement and assertion levels. This ISA focuses on specific responses at the assertion level only.

Events Occurring Up to the Date of the Auditor’s Report

28. **For accounting estimates that the auditor has identified and assessed as having risks of material misstatement, the auditor should determine whether events occurring up to the date of the auditor’s report confirm, or contradict, the accounting estimate.**
29. Transactions and events that occur up to the date of the auditor’s report may provide audit evidence regarding the measurement of an accounting estimate. For example, sale of inventory of a superseded product, shortly after the period end, may provide audit evidence relating to the estimate of the net realizable value of that inventory. For such events to

confirm the estimate made, and to remove the need to perform additional audit procedures on the estimate, the auditor obtains sufficient appropriate evidence about the events. When such events contradict the accounting estimate made the auditor considers whether this may be indicative of management having ineffective processes over the making of accounting estimates.

30. **If confirming transactions or events are not expected to occur up to the date of the auditor’s report, the auditor should perform one or more of the following procedures:**
- (a) **Test management’s process used to make the accounting estimate.**
 - (b) **Test the operating effectiveness of the controls over management’s process for making the accounting estimate, together with appropriate substantive procedures.**
 - (c) **Make, or use an expert to make, an independent estimate for comparison with management’s accounting estimate.**

Testing Management’s Process

31. Testing the process used by management to develop the accounting estimate is likely to be an appropriate response when, for example:
- The accounting estimate is derived from the routine processing of data by the entity’s accounting system.
 - The auditor’s review of the outcome, or re-estimation, of accounting estimates of a similar nature made in the prior period financial statements, suggests that management’s current period process is likely to be effective.
 - The accounting estimate is based on a large population of items of a similar nature that individually are not significant.
32. Testing the process used to make the accounting estimate involves:
- (a) Testing whether the internal data on which the accounting estimate is based, is accurate, complete and relevant;
 - (b) Verifying the source of relevant external data;
 - (c) Recalculating the accounting estimate, and reviewing information about an accounting estimate for internal consistency;
 - (d) Considering whether the significant assumptions made by management provide a reasonable basis for the accounting estimate;
 - (e) Considering management’s approval processes; and
 - (f) Considering whether there are any indicators of possible management bias in the making of the accounting estimate.

33. In developing many accounting estimates, management makes assumptions about matters both within and outside its control. Examples of assumptions outside the control of management include: interest rates, exchange rates, mortality rates, inflation rates, and potential judicial or regulatory actions.
34. The auditor considers the assumptions, collectively and individually, in evaluating whether they reasonably support the accounting estimates. Assumptions are frequently interdependent, and therefore need to be internally consistent. An assumption that may appear reasonable when taken in isolation may not be reasonable when used in conjunction with other assumptions. Assumptions made by an expert used by management to assist in making accounting estimates are treated as though they were management's.
35. Support for significant assumptions can usually be obtained from management's continuing processes of strategic analysis and risk management. Even without formalized processes, the auditor may be able to evaluate the assumptions through inquiries of management and external corroborative procedures such as obtaining confirmations from legal counsel.
36. The auditor's consideration of management's assumptions can only be based on information available to the auditor. The auditor is not responsible for predicting future conditions, transactions or events that, if known at the time of the audit, might have significantly affected management's actions or management's assumptions underlying the accounting estimates and disclosures.
37. The auditor's testing of the process used to develop an accounting estimate may suggest or establish that its reliability is highly dependent on management's assumptions, indicating that the accounting estimate may give rise to a significant risk. Additional responses to significant risks are described in paragraphs 45-63.

Testing the Operating Effectiveness of the Controls Over the Process

38. ISA 330 requires the auditor to perform tests of control when:
 - (a) The auditor's assessment of risks of material misstatement at the assertion level is based on an expectation that controls over the process are operating effectively; or
 - (b) Substantive procedures alone do not provide sufficient appropriate audit evidence at the assertion level. As described in more detail in paragraphs 115-118 of ISA 315, audit evidence may be available only in electronic form such that its sufficiency and appropriateness depend on the effectiveness of controls over its accuracy and completeness.
39. Testing the operating effectiveness of the controls over the process is likely to be an appropriate response when, for example:
 - Controls exist for the review and approval of the accounting estimates by appropriate levels of management and, where appropriate, by those charged with governance.

- The accounting estimate is derived from the routine processing of data by the entity's accounting system.
40. When performing tests of the operating effectiveness of controls, the auditor obtains audit evidence that controls operate effectively. This includes obtaining audit evidence about how controls were applied at relevant times during the period under audit, the consistency with which they were applied, and by whom or by what means they were applied. Guidance on testing controls is set out in paragraphs 28-47 of ISA 330.

Making an Independent Estimate

41. Making an independent estimate (for example by using an auditor-developed model) to compare with management's accounting estimate is likely to be an appropriate response when, for example:
- An accounting estimate is not derived from the routine processing of data by the accounting system.
 - The auditor's review of the outcome, or re-estimation, of accounting estimates of a similar nature made in the prior period financial statements, suggests that management's current period process is unlikely to be effective.
 - The entity's controls within and over management's processes for determining accounting estimates are not well designed or properly implemented.
 - Events or transactions between the period end and the date of the auditor's report contradict the accounting estimate.
42. When making an independent estimate the auditor may use assumptions different from those used by management. In these circumstances, the auditor still obtains an understanding of management's assumptions in order to establish that the auditor's model takes account of all the significant variables. The auditor also tests the underlying internal data when the auditor uses such internal data to make the independent estimate.
43. The auditor may have the necessary skill and knowledge to make an independent estimate or may decide to use the work of an expert. When using the work of an expert, the auditor obtains sufficient appropriate audit evidence that such work is adequate for the purposes of the audit, and complies with the requirements of ISA 620, "Using the Work of an Expert."
44. An independent estimate may reveal that the reliability of an accounting estimate is highly sensitive to assumptions and therefore subject to high estimation uncertainty. This would indicate that the accounting estimate gives rise to a significant risk. Additional responses to significant risks are described in paragraphs 45-63.

Responses to Significant Risks

45. With respect to accounting estimates that the auditor has identified as giving rise to significant risks, it is possible that events and transactions occurring up to the date of the auditor's report may confirm the estimate and thus mitigate or eliminate the significant risk.

The auditor, therefore, evaluates whether confirming transactions or events identified in meeting the requirements of paragraph 28 mitigate or eliminate significant risks identified by the auditor as part of the risk assessment procedures.

46. Where significant risks have not been mitigated or eliminated by confirming events, the auditor:
- (a) To the extent not already done, evaluates the design of the entity's controls, including relevant control procedures, and determines whether they have been implemented (paragraph 113 of ISA 315);
 - (b) Obtains audit evidence about the operating effectiveness of internal controls (on which the auditor plans to rely) from tests of control performed in the current period³ (paragraph 44 of ISA 330); and
 - (c) Performs substantive procedures that specifically respond to the significant risks (paragraph 51 of ISA 330 and paragraphs 47-63 of this ISA).

Substantive Procedures to Respond to Significant Risks

47. ISA 330 requires the auditor to perform substantive procedures that specifically respond to significant risks.
48. **For accounting estimates that give rise to significant risks, in addition to any other substantive procedures performed to meet the requirements of ISA 330, the auditor should evaluate:**
- (a) **Whether the significant assumptions made by management taken individually, and as a whole, provide a reasonable basis for the accounting estimate; and**
 - (b) **Whether and how management has considered alternative assumptions or outcomes, and why they have rejected them.**

Evaluating Significant Assumptions

49. The auditor's evaluation of significant assumptions builds on the audit procedures described in paragraphs 33-36. The significant assumptions often reflect management's intent to carry out courses of action relevant to the accounting estimate. Management often documents plans and intentions relevant to specific assets or liabilities and the financial reporting framework may require it to do so. While the extent of audit evidence to be obtained about management's intent is a matter of professional judgment, the auditor's procedures ordinarily include the following:

- Considering management's history of carrying out its stated intentions.

³ Such audit evidence is obtained only when the auditor has adopted an approach of "testing the operating effectiveness of the controls over management's process for making the accounting estimate," described in paragraphs 30(b) and 38-40.

- Reviewing written plans and other documentation, including, where applicable, formally approved budgets, authorizations, minutes, etc.
- Considering management’s stated reasons for a particular course of action.
- Considering management’s ability to carry out a particular course of action given the entity’s economic circumstances, including the implications of its existing commitments.

Evaluating Whether and How Management has Considered Alternative Assumptions or Outcomes

50. The auditor obtains audit evidence to draw reasonable conclusions concerning the adequacy of management’s support for a point estimate from understanding management’s process for evaluating alternative assumptions or outcomes, and management’s reasoning for selecting the point estimate and rejecting other alternatives.
51. Management may evaluate alternative assumptions or outcomes by applying a sensitivity analysis. Such a sensitivity analysis might involve determining the degree of variation in the monetary amount of an accounting estimate from varying assumptions. A sensitivity analysis could lead to the development of a number of outcome scenarios that may be considered to be, for example, “pessimistic”, “optimistic” or “neutral.”
52. A sensitivity analysis may demonstrate that the outcome of an accounting estimate is not sensitive to changes in particular assumptions. Alternatively, it may demonstrate that the outcome is sensitive to one or more particular assumptions that then become the focus of the auditor’s attention.
53. The scenario used to determine the point estimate recognized by management in the financial statements is determined by the requirements of the applicable financial reporting framework. In many cases, the scenario used will lead to the most likely outcome being the point estimate. The auditor evaluates the rigor with which management determined the outcome scenario.
54. **If management has not applied a sensitivity analysis or considered alternative outcomes, the auditor should consider whether it is practicable to develop a reasonable range of outcomes with which to evaluate the reasonableness of management’s point estimate.**
55. To be useful to the auditor as an evaluation tool, the “reasonable range of outcomes” is not the range of all possible outcomes. Such a range would be too wide as it would include too many unlikely outcomes. To determine a range of reasonable outcomes that is sufficiently narrow to be useful, the auditor undertakes a process of eliminating from the range of possible outcomes:
 - (a) High and low outcome values whose likelihood of occurrence is judged, by the auditor, to be remote; and

- (b) Those outcome values judged by the auditor to be outcomes that are unlikely to occur.⁴
56. The auditor may develop a reasonable range of outcomes in a number of ways. The auditor may:
- (a) Use a model, proprietary or commercial, into which the auditor introduces entity-specific data; or
 - (b) Further develop management's sensitivity analysis by applying greater rigor to determining the appropriate outcome scenario; or
 - (c) Employ or engage an expert with specialized expertise to develop or execute the model, or to provide relevant assumptions.
57. In determining a reasonable range of outcomes, the auditor takes into account considerations similar to those that apply to the making of an independent accounting estimate described in paragraphs 41-44. In particular, if management's point estimate is not within the auditor's reasonable range of outcomes, the auditor seeks to understand why.

Concluding on the Reasonableness of the Accounting Estimate

58. The auditor may obtain audit evidence from performing the audit procedures to respond to significant risks, that management's accounting estimates are reasonable in the context of the applicable financial reporting framework. This would be the case, for example, when management's point estimate was within the reasonable range of outcomes determined by the auditor. Alternatively, the auditor may conclude that the evidence points to an estimate that differs from management's estimate, and that the difference between the auditor's estimate and management's estimate constitutes a financial statement misstatement.
59. If the auditor believes, based on audit procedures undertaken, that management has not adequately supported the accounting estimate, the auditor requests management to perform further work to provide additional information to support the recognition of the point estimate. Management may need to engage an expert to assist in obtaining the support, or management may need to perform analysis of data or obtain information from industry or other sources to support its view.
60. **If management does not perform further work requested by the auditor, or if the auditor believes that management has failed to consider information that is reasonably available to it, the auditor should consider the implications for the auditor's report.** ISA 701, "Modifications to the Independent Auditor's Report" provides standards and guidance regarding expressing either an except for or disclaimer of opinion, when it is not possible for the auditor to obtain sufficient appropriate audit evidence about matters that could be material to the financial statements.

⁴ In some financial reporting frameworks such outcome values are described in terms of "less likely to occur than not."

Evaluating the Reliability of the Measurement of the Accounting Estimate

61. **For accounting estimates that give rise to significant risks, the auditor should evaluate whether the audit evidence obtained is sufficient and appropriate to support management’s judgment as to whether or not to recognize the accounting estimate in the financial statements in accordance with the entity’s applicable financial reporting framework.**
62. The auditor evaluates the sufficiency and appropriateness of audit evidence supporting management’s judgments about the appropriateness of recognizing an accounting estimate. Where management has recognized an accounting estimate in the financial statements, the auditor evaluates whether its measurement is sufficiently reliable to meet the recognition criteria of the applicable financial reporting framework. The auditor also evaluates whether the measurement of an accounting estimate that has not been recognized is, in fact, sufficiently reliable to meet the recognition criteria of the applicable financial reporting framework.
63. With respect to accounting estimates that have not been recognized the auditor considers the adequacy of the disclosures in the notes to the financial statements and whether the auditor’s report needs to be modified, to draw the reader’s attention to the significant uncertainty, by adding an emphasis of matter paragraph. ISA 701 provides standards and guidance concerning such paragraphs.

Evaluating Audit Evidence and Determining Misstatements

64. **The auditor should determine whether accounting estimates and related disclosures are reasonable in the context of the entity’s applicable financial reporting framework.**
65. To determine whether accounting estimates and related disclosures are reasonable in the context of the entity’s applicable financial reporting framework, the auditor evaluates the sufficiency and appropriateness of the audit evidence obtained. This ISA provides standards and guidance on the auditor’s determination and documentation of misstatements relating to individual accounting estimates. This ISA does not, however, provide the auditor with standards and guidance on evaluating the effect of uncorrected misstatements. Paragraphs 35-38 of proposed ISA 320 (Revised), “Materiality in the Identification and Evaluation of Misstatements” provide standards and guidance on the auditor’s evaluation of the effect on the financial statements of all misstatements identified during the audit, including those relating to accounting estimates.
66. Proposed ISA 320 (Revised) divides misstatements into the following categories:
 - (a) Known misstatements;
 - (i) Misstatements of fact;
 - (ii) Misstatements involving subjective decisions; and
 - (b) Likely misstatements.

The following paragraphs provide the auditor with guidance on classifying misstatements relating to accounting estimates.

Known Misstatements—Misstatements of Fact

67. A misstatement of fact relating to an accounting estimate is found to exist if the auditor obtains audit evidence that, in making an accounting estimate, management has:
- (a) Made mistakes in gathering or processing data;
 - (b) Not followed the requirements of the applicable financial reporting framework; or
 - (c) Misinterpreted or overlooked facts.

Known Misstatements—Misstatements Involving Subjective Decisions

68. A misstatement involving subjective decisions arises from differences between management's and the auditor's judgment concerning the reasonableness of accounting estimates, in the context of the applicable financial reporting framework. Such misstatements differ from misstatements of fact because the audit evidence is often less persuasive.
69. As discussed in paragraphs 54-57, where management has not applied a sensitivity analysis or considered alternative outcomes, the auditor may develop a reasonable range of outcomes with which to evaluate the reasonableness of management's point estimate. If the auditor is able to make a probability assessment concerning the likelihood of various outcomes within the reasonable range being the actual outcome, the known misstatement involving subjective decision is the difference between management's point estimate and the auditor's point estimate. This applies regardless of whether management's point estimate falls inside or outside the auditor's reasonable range of outcomes.
70. If the auditor is unable to make an assessment concerning the likelihood of outcomes within the reasonable range of outcomes, the auditor concludes that an accounting estimate is not misstated if it falls within the range and the relative location of the accounting estimate within the range has not changed from the prior period.
71. If management's accounting estimate lies outside the auditor's reasonable range of outcomes, where each outcome is equally likely to occur, there is a known misstatement involving subjective decisions of, at least, the difference between management's accounting estimate and the nearest point of the reasonable range.

Management Changes the Location of an Accounting Estimate within a Reasonable Range of Outcomes from Period to Period

72. An accounting estimate is misstated if, without good reason, management changes the relative location of the accounting estimate within management's reasonable range from the prior period. For example, management may, without good reason, change its recognition of a warranty liability from the mid-point of the range to the low end of the range. This would result in inconsistent financial statements over time, in that recognized income would

increase without any corresponding improvement in the underlying quality of the entity's earnings. In this example, the auditor measures the misstatement as the difference between the accounting estimate made by management, and what it would have been if management had used the same relative location in the reasonable range used in the prior period.

73. What constitutes a good reason for changing the location from one period to another is a matter of judgment. For example, if there has been a change in management the new management may have different intentions and as a result evaluate business risks differently. When management contends that a change in circumstances provides a good reason for a change in location, the auditor considers the adequacy of the support for this contention. Even if the audit evidence supports management's explanation, the auditor, nevertheless, considers whether the change is an indicator of possible management bias. Indicators of possible management bias are discussed further in paragraphs 75-78.

Likely Misstatements

74. Likely misstatements are misstatements the auditor considers likely to exist from an extrapolation from audit evidence, for example, the amount obtained by projecting known misstatements identified in an audit sample to the entire population from which the sample was drawn. Audit evidence relating to accounting estimates may give rise to likely misstatements when the auditor finds sampling errors when testing the data underlying an accounting estimate.

Indicators of Possible Management Bias

75. **The auditor should consider whether there are indicators of possible management bias in the making of individual accounting estimates.** The implications of the findings arising from the auditor's consideration of indicators of possible management bias, form a part of the auditor's evaluation of whether the financial statements as a whole are free of material misstatement as required by paragraph 39 of proposed ISA 320 (Revised).
76. When performing the risk assessment and other audit procedures described in this ISA, the auditor is alert for indicators of possible management bias, that is, lack of neutrality in the making of accounting estimates. For example, management may be motivated to choose an accounting estimate or assumptions that tend to increase (or avoid decreasing) the carrying amount of assets and accounting estimates that tend to understate liabilities, as a means of managing earnings. With respect to a reasonable range of outcomes where each outcome in the range is equally likely to occur, some financial reporting frameworks consider the mid-point of the range to be neutral and therefore free from bias.
77. The following provide examples of indicators of possible management bias with respect to accounting estimates:
- Management has made a point estimate for a provision for bad debts of \$105,000. The point estimate was determined with reference to management's reasonable range of outcomes of \$100,000 to \$120,000. The auditor has not obtained any audit

evidence to indicate that any one outcome in management’s range is more likely than any other. It follows that:

- The provision for bad debts, when considered individually, is not misstated because it falls within the reasonable range of outcomes.
- When the relative location of the provision for bad debts within the range is considered in conjunction with the location of other accounting estimates within their respective ranges, and with other qualitative aspects of the entity’s accounting practices, the auditor may have grounds to be concerned that there is a cumulative risk that the financial statements as a whole may be misstated. Qualitative aspects of an entity’s accounting practices are described further in proposed ISA 320 (Revised).
- As described in paragraph 73, even if the audit evidence tends to support management’s explanation for changing the location of an estimate from one period to another the auditor, nevertheless, considers whether the change is an indicator of possible management bias.

78. This ISA provides standards and guidance relating to the auditor’s consideration and documentation of indicators of possible management bias with respect to individual accounting estimates. Proposed ISA 320 (Revised) provides the auditor with guidance on evaluating whether possible management bias identified during the audit gives rise to an uncorrected misstatement with respect to the financial statements taken as a whole.

Evaluating the Disclosure of Estimation Uncertainty in the Financial Statements

79. **Where an accounting estimate falls within a reasonable range of outcomes that is greater than materiality, the auditor should determine whether the applicable financial reporting framework requires disclosure of the estimation uncertainty and, if so, evaluate the adequacy of such disclosure.**
80. Some financial reporting frameworks prescribe the disclosure of key assumptions about the future and other sources of estimation uncertainty that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities. Such requirements are described using terms such as the following:
- Key sources of estimation uncertainty.
 - Critical Accounting Estimates.
81. Where the applicable financial reporting framework does not prescribe disclosure of estimation uncertainty, the auditor nevertheless encourages management to describe, in the notes to the financial statements, the circumstances giving rise to a reasonable range that is wider than materiality. ISA 701 provides guidance on the implications for the auditor’s report when the auditor believes that management’s disclosure of estimation uncertainty in the financial statements is inadequate.

Management Representations

82. **The auditor should obtain written representations from management regarding the reasonableness of significant assumptions used by them in making accounting estimates.**
83. ISA 580, “Management Representations” discusses the use of management representations. Depending on the nature, materiality and extent of estimation uncertainty, management representations about accounting estimates recognized or disclosed in the financial statements may include representations:
- About the appropriateness of the measurement processes, including related assumptions, used by management in determining accounting estimates in the context of the applicable financial reporting framework, and the consistency in application of the processes;
 - That disclosures related to accounting estimates are complete and appropriate under the entity’s financial reporting framework; and
 - That no subsequent events require adjustment to the accounting estimates and disclosures included in the financial statements.

Documentation

84. **The auditor should document:**
- (a) **The results of the auditor’s risk assessment procedures;**
 - (b) **The assessed risks of material misstatement of accounting estimates at the assertion level, and the nature, timing and extent of further audit procedures responsive to the risks;**
 - (c) **The results of tests of controls and substantive procedures that respond to significant risks;**
 - (d) **Misstatements identified by the auditors; and**
 - (e) **Indicators of possible management bias.**

Effective Date

85. This ISA is effective for audits of financial statements for periods beginning on or after [date].



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