AICPA

Agenda Item 4A

Estimates – Appendix to Agenda Item 4

This document if for informational purposes and contains excerpts of ISA 540 (Revised), *Auditing Accounting Estimates and Related Disclosures*, extant AU-C section 540, *Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures*, and PCAOB AS 2501, *Auditing Accounting Estimates, Including Fair Value Measurements*, to provide the ASB with a side-by-side comparison of related paragraphs. This document contains the following exhibits:

Exhibit Number	***Title***
Exhibit 1	Definitions (issue 3 from agenda item 4)
Exhibit 2	Separate Assessment of Inherent and Control Risk (issue 4 from agenda item 4)
Exhibit 3	Retrospective Review (issue 6 from agenda item 4)
Exhibit 4	Documentation (issue 7 of agenda item 4)
Exhibit 5	Written Representations (issue 8 of agenda item 4)

Exhibit 6	Risk Assessment Procedures and Related Activities (issue 9 of agenda item 4)
Exhibit 7	Responses to Risk of Material Misstatement (issue10 of agenda item 4)
Exhibit 8	Professional Skepticism (issue 11 of agenda item 4)
Exhibit 9	Overall Evaluation (issue 12 of agenda item 4)
Exhibit 10	Determining Whether Accounting Estimates are Reasonable (issue 13 of agenda item 4)
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Note: The requirements and application material discussed in issue 5 of agenda item 4 are contained in exhibits 6 and 7.

Exhibit 1 — Definitions (Issue 3 from agenda item 4)

(ISA 540 (Revised) paragraphs 12 and A14-A18; extant AU-C section 540 paragraphs .07 and .A9-.A10; PCAOB AS 2501 paragraph 2)

The following are excerpts of the definitions from ISA 540 (Revised), extant AU-C section 540, and PCAOB AS 2501 for reference purposes.

ISA 540 (Revised)[1]	Extant AU-C 540	PCAOB AS 2501
Definitions		
12. For purposes of the ISAs, the following terms have the meanings attributed below:	.07 For purposes of generally accepted auditing standards, the following terms have the meanings attributed as follows:	
a. Accounting estimate – A monetary amount for which the measurement, in accordance with the requirements of the applicable financial reporting framework, is subject to estimation uncertainty. (Ref: Para. A14)	**Accounting estimate.** An approximation of a monetary amount in the absence of a precise means of measurement. This term is used for an amount measured at fair value when there is estimation uncertainty, as well as for other amounts that require estimation. When this section addresses only accounting estimates involving measurement at fair value, the term *fair value accounting estimates* is used.	.02 An accounting estimate is a measurement or recognition in the financial statements of (or a decision to not recognize) an account, disclosure, transaction, or event that generally involves subjective assumptions and measurement uncertainty. For purposes of this standard, a fair value measurement is a form of accounting estimate.
b. Auditor's point estimate or auditor's range – An amount, or range of amounts, respectively, developed by the auditor in evaluating management's point estimate. (Ref: Para. A15)	**Auditor's point estimate or auditor's range.** The amount or range of amounts, respectively, derived from audit evidence for use in evaluating the recorded or disclosed amount(s).	

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ISA 540 (Revised)[1]	Extant AU-C 540	PCAOB AS 2501
*c. **Estimation uncertainty*** – Susceptibility to an inherent lack of precision in measurement. (Ref: Para. A16, Appendix 1)	**Estimation uncertainty.** The susceptibility of an accounting estimate and related disclosures to an inherent lack of precision in its measurement.	
*d. **Management bias*** – A lack of neutrality by management in the preparation of information. (Ref: Para. A17)	**Management bias.** A lack of neutrality by management in the preparation and fair presentation of information.	
*e. **Management's point estimate*** – The amount selected by management for recognition or disclosure in the financial statements as an accounting estimate.	**Management's point estimate.** The amount selected by management for recognition or disclosure in the financial statements as an accounting estimate.	
*f. **Outcome of an accounting estimate*** – The actual monetary amount that results from the resolution of the transaction(s), event(s) or condition(s) addressed by an accounting estimate. (Ref: Para. A18)	**Outcome of an accounting estimate.** The actual monetary amount that results from the resolution of the underlying transaction(s), event(s), or condition(s) addressed by the accounting estimate.	
APPLICATION MATERIAL		
Definitions		
Accounting Estimate (Ref: Para. 12(a))		
A14. Accounting estimates are monetary amounts that may be related to classes of transactions or account balances recognized or disclosed in the financial statements. Accounting estimates also include monetary		

ISA 540 (Revised)[1]	Extant AU-C 540	PCAOB AS 2501
amounts included in disclosures or used to make judgments about recognition or disclosure relating to a class of transactions or account balance.		
Auditor's Point Estimate or Auditor's Range (Ref: Para. 12(b))		
A15. An auditor's point estimate or range may be used to evaluate an accounting estimate directly (for example, an impairment provision or the fair value of different types of financial instruments), or indirectly (for example, an amount to be used as a significant assumption for an accounting estimate). A similar approach may be taken by the auditor in developing an amount or range of amounts in evaluating a non-monetary item of data or an assumption (for example, an estimated useful life of an asset).		
Estimation Uncertainty (Ref: Para. 12(c))		
A16. Not all accounting estimates are subject to a high degree of estimation uncertainty. For example, some financial statement items may have an active and open market that provides readily available and reliable information on the prices at which actual exchanges occur. However, estimation uncertainty may exist even when the valuation method and data are well defined. For example, valuation of securities quoted on an active and open market at the listed market price may require		

ISA 540 (Revised)[1]	Extant AU-C 540	PCAOB AS 2501
adjustment if the holding is significant or is subject to restrictions in marketability. In addition, general economic circumstances prevailing at the time, for example, illiquidity in a particular market, may impact estimation uncertainty.		
Management Bias (Ref: Para. 12(d))	***Management Bias***	
A17. Financial reporting frameworks often call for neutrality, that is, freedom from bias. Estimation uncertainty gives rise to subjectivity in making an accounting estimate. The presence of subjectivity gives rise to the need for judgment by management and the susceptibility to unintentional or intentional management bias (for example, as a result of motivation to achieve a desired profit target or capital ratio). The susceptibility of an accounting estimate to management bias increases with the extent to which there is subjectivity in making the accounting estimate.	.A9 Financial reporting frameworks often call for neutrality (that is, freedom from bias). However, accounting estimates are imprecise and can be influenced by management judgment. Such judgment may involve unintentional or intentional management bias (for example, as a result of motivation to achieve a desired result). The susceptibility of an accounting estimate to management bias increases with the subjectivity involved in making it. Unintentional management bias and the potential for intentional management bias are inherent in subjective decisions that are often required in making an accounting estimate. For continuing audits, indicators of possible management bias identified during the audit of the preceding periods influence the planning and risk identification and assessment activities of the auditor in the current period.	
	.A10 Management bias can be difficult to detect at an account level. It may only be identified when considered in the aggregate of groups of accounting estimates or all accounting estimates or when observed over a number of accounting periods. Although some form of management bias	

ISA 540 (Revised)[1]	Extant AU-C 540	PCAOB AS 2501
	is inherent in subjective decisions, in making such judgments, there may be no intention by management to mislead the users of financial statements. However, when intention to mislead exists, management bias is fraudulent in nature.	
Outcome of an Accounting Estimate (Ref: Para. 12(f))		
A18. Some accounting estimates, by their nature, do not have an outcome that is relevant for the auditor's work performed in accordance with this ISA. For example, an accounting estimate may be based on perceptions of market participants at a point in time. Accordingly, the price realized when an asset is sold or a liability is transferred may differ from the related accounting estimate made at the reporting date because, with the passage of time, the market participants' perceptions of value have changed.		

Exhibit 2 — Separate Assessment of Inherent and Control Risk (issue 4 from agenda item 4)

(ISA 540 (Revised) paragraphs 16-17 and A64-A80; extant AU-C section 540 paragraphs .10-.11 and .A45-.A51; PCAOB AS 2501 paragraph A1)

The following are excerpts of ISA 540 (Revised), extant AU-C section 540, and PCAOB AS 2501 for reference purposes.

ISA 540 (Revised)[2]	Extant AU-C 540	PCAOB AS 2501
Identifying and Assessing the Risks of Material Misstatement	**Identifying and Assessing the Risks of Material Misstatement**	
16. In identifying and assessing the risks of material misstatement relating to an accounting estimate and related disclosures at the assertion level, as required by ISA 315 (Revised),[3] the auditor shall separately assess inherent risk and control risk. The auditor shall take the following into account in identifying the risks of material misstatement and in assessing inherent risk: (Ref: Para. A64– A71)	.10 In identifying and assessing the risks of material misstatement, as required by section 315, the auditor should evaluate the degree of estimation uncertainty associated with an accounting estimate.[fn 4] (Ref: par. .A45-.A46)	.A1 [Appendix A] To identify and assess risks of material misstatement related to the fair value of financial instruments, the auditor should obtain an understanding of the nature of the financial instruments being valued. Matters that the auditor should take into account include: a. The terms and characteristics of the financial instruments; b. The extent to which the fair value of the type of financial instruments is based on inputs that are

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[3] ISA 315 (Revised), paragraph 25 and 26

[fn 4] Paragraph .26 of section 315.

ISA 540 (Revised)[2]	Extant AU-C 540	PCAOB AS 2501
		observable directly or indirectly; and c. Other factors affecting the valuation of the financial instruments, such as credit or counterparty risk, market risk, and liquidity risk. Note: In general, fair values of financial instruments based on trades of identical financial instruments in an active market have a lower risk of material misstatement than fair values derived from observable trades of similar financial instruments or unobservable inputs.
a. The degree to which the accounting estimate is subject to estimation uncertainty; and (Ref: Para. A72–A75)		
b. The degree to which the following are affected by complexity, subjectivity, or other inherent risk factors: (Ref: Para. A76–A79)		
(i) The selection and application of the method, assumptions and data in making the accounting estimate; or		
(ii) The selection of management's point estimate and related disclosures for		

ISA 540 (Revised)[2]	Extant AU-C 540	PCAOB AS 2501
inclusion in the financial statements.		
17. The auditor shall determine whether any of the risks of material misstatement identified and assessed in accordance with paragraph 16 are, in the auditor's judgment, a significant risk.[4] If the auditor has determined that a significant risk exists, the auditor shall obtain an understanding of the entity's controls, including control activities, relevant to that risk.[5] (Ref: Para. A80)	.11 The auditor should determine whether, in the auditor's professional judgment, any of those accounting estimates that have been identified as having high estimation uncertainty give rise to significant risks. (Ref: par. .A47-.A51)	
Application Material		
Identifying and Assessing the Risks of Material Misstatement (Ref: Para. 4, 16)		
A64. Identifying and assessing risks of material misstatement at the assertion level relating to accounting estimates is important for all accounting estimates, including not only those that are recognized in the financial statements, but also those that are included in the notes to the financial statements.		

[4] ISA 315 (Revised), paragraph 27
[5] ISA 315 (Revised), paragraph 29

ISA 540 (Revised)[2]	Extant AU-C 540	PCAOB AS 2501
A65. Paragraph A42 of ISA 200 states that the ISAs do not ordinarily refer to inherent risk and control risk separately. However, this ISA requires a separate assessment of inherent risk and control risk to provide a basis for designing and performing further audit procedures to respond to the risks of material misstatement, including significant risks, at the assertion level for accounting estimates in accordance with ISA 330.[6]		
A66. In identifying the risks of material misstatement and in assessing inherent risk, the auditor is required to take into account the degree to which the accounting estimate is subject to, or affected by, estimation uncertainty, complexity, subjectivity, or other inherent risk factors. The auditor's consideration of the inherent risk factors may also provide information to be used in determining:		
• Where inherent risk is assessed on the spectrum of inherent risk; and		
• The reasons for the assessment given to the risks of material misstatement at the assertion		

[6] ISA 330, paragraph 7(b)

ISA 540 (Revised)[2]	Extant AU-C 540	PCAOB AS 2501
level, and that the auditor's further audit procedures in accordance with paragraph 18 are responsive to those reasons.		
• The interrelationships between the inherent risk factors are further explained in Appendix 1.		
A67. The reasons for the auditor's assessment of inherent risk at the assertion level may result from one or more of the inherent risk factors of estimation uncertainty, complexity, subjectivity or other inherent risk factors. For example:		
a. Accounting estimates of expected credit losses are likely to be complex because the expected credit losses cannot be directly observed and may require the use of a complex model. The model may use a complex set of historical data and assumptions about future developments in a variety of entity specific scenarios that may be difficult to predict. Accounting estimates for expected credit losses are also likely to be subject to high estimation uncertainty and significant subjectivity in making		

ISA 540 (Revised)[2]	Extant AU-C 540	PCAOB AS 2501
judgments about future events or conditions. Similar considerations apply to insurance contract liabilities.		
b. An accounting estimate for an obsolescence provision for an entity with a wide range of different inventory types may require complex systems and processes, but may involve little subjectivity and the degree of estimation uncertainty may be low, depending on the nature of the inventory.		
c. Other accounting estimates may not be complex to make but may have high estimation uncertainty and require significant judgment, for example, an accounting estimate that requires a single critical judgment about a liability, the amount of which is contingent on the outcome of the litigation.		
A68. The relevance and significance of inherent risk factors may vary from one estimate to another. Accordingly, the inherent risk factors may, either individually or in combination, affect simple accounting estimates to a lesser		

ISA 540 (Revised)[2]	Extant AU-C 540	PCAOB AS 2501
degree and the auditor may identify fewer risks or assess inherent risk at the lower end of the spectrum of inherent risk.		
A69. Conversely, the inherent risk factors may, either individually or in combination, affect complex accounting estimates to a greater degree, and may lead the auditor to assess inherent risk at the higher end of the spectrum of inherent risk. For these accounting estimates, the auditor's consideration of the effects of the inherent risk factors is likely to directly affect the number and nature of identified risks of material misstatement, the assessment of such risks, and ultimately the persuasiveness of the audit evidence needed in responding to the assessed risks. Also, for these accounting estimates the auditor's application of professional skepticism may be particularly important.		
A70. Events occurring after the date of the financial statements may provide additional information relevant to the auditor's assessment of the risks of material misstatement at the assertion level. For example, the outcome of an accounting estimate may become known during the audit. In such cases, the auditor may assess or revise the assessment of the		

ISA 540 (Revised)[2]	Extant AU-C 540	PCAOB AS 2501
risks of material misstatement at the assertion level,[7] regardless of the degree to which the accounting estimate was subject to, or affected by estimation uncertainty, complexity, subjectivity or other inherent risk factors. Events occurring after the date of the financial statements also may influence the auditor's selection of the approach to testing the accounting estimate in accordance with paragraph 18. For example, for a simple bonus accrual that is based on a straightforward percentage of compensation for selected employees, the auditor may conclude that there is relatively little complexity or subjectivity in making the accounting estimate, and therefore may assess inherent risk at the assertion level at the lower end of the spectrum of inherent risk. The payment of the bonuses subsequent to period end may provide sufficient appropriate audit evidence regarding the assessed risks of material misstatement at the assertion level.		
A71. The auditor's assessment of control risk may be done in different ways depending on preferred audit techniques or methodologies. The control risk		

[7] ISA 315 (Revised), paragraph 31

ISA 540 (Revised)[2]	Extant AU-C 540	PCAOB AS 2501
assessment may be expressed using qualitative categories (for example, control risk assessed as maximum, moderate, minimum) or in terms of the auditor's expectation of how effective the control(s) is in addressing the identified risk, that is, the planned reliance on the effective operation of controls. For example, if control risk is assessed as maximum, the auditor contemplates no reliance on the effective operation of controls. If control risk is assessed at less than maximum, the auditor contemplates reliance on the effective operation of controls.		
Estimation Uncertainty (Ref: Para. 16(a))	***Estimation Uncertainty (Ref: par. .10)***	
A72. In taking into account the degree to which the accounting estimate is subject to estimation uncertainty, the auditor may consider:	.A45 The degree of estimation uncertainty associated with an accounting estimate may be influenced by factors such as • the extent to which the accounting estimate depends on judgment. • the sensitivity of the accounting estimate to changes in assumptions. • the existence of recognized measurement techniques that may mitigate the estimation uncertainty (though the subjectivity of the assumptions used as inputs may,	

ISA 540 (Revised)[2]	Extant AU-C 540	PCAOB AS 2501
	nevertheless, give rise to estimation uncertainty). • the length of the forecast period and the relevance of data drawn from past events to forecast future events. • the availability of reliable data from external sources. • the extent to which the accounting estimate is based on observable or unobservable inputs. The degree of estimation uncertainty associated with an accounting estimate may influence the estimate's susceptibility to bias.	
	.A46 Matters that the auditor considers in assessing the risks of material misstatement may also include the following: • The actual or expected magnitude of an accounting estimate • The recorded amount of the accounting estimate (that is, management's point estimate) in relation to the amount expected by the auditor to be recorded • Whether management has used a specialist in making the accounting estimate	

ISA 540 (Revised)[2]	Extant AU-C 540	PCAOB AS 2501
	The outcome of the review of prior period accounting estimates	
	High Estimation Uncertainty and Significant Risks (Ref: par. .11)	
	.A47 Examples of accounting estimates that may have high estimation uncertainty include the following: • Accounting estimates that are highly dependent upon judgment (for **example**, judgments about the outcome of pending litigation or the amount and timing of future cash flows dependent on uncertain events many years in the future) • Accounting estimates that are not calculated using recognized measurement techniques • Accounting estimates in which the results of the auditor's review of similar accounting estimates made in the prior period financial statements indicate a substantial difference between the original accounting estimate and the actual outcome • Fair value accounting estimates for which a highly specialized, entity-developed	

ISA 540 (Revised)[2]	Extant AU-C 540	PCAOB AS 2501
	model is used or for which there are no observable inputs	
	.A48 A seemingly immaterial accounting estimate may have the potential to result in a material misstatement due to the estimation uncertainty associated with the estimation (that is, the size of the amount recognized or disclosed in the financial statements for an accounting estimate may not be an indicator of its estimation uncertainty).	
	.A49 In some circumstances, the estimation uncertainty is so high that a reasonable accounting estimate cannot be made. The applicable financial reporting framework may, therefore, preclude recognition of the item in the financial statements or its measurement at fair value. In such cases, the significant risks relate not only to whether an accounting estimate should be recognized or whether it should be measured at fair value but also to the adequacy of the disclosures. With respect to such accounting estimates, the applicable financial reporting framework may require disclosure of the accounting estimates and the high estimation uncertainty associated with them (see paragraphs .A128–.A131).	

ISA 540 (Revised)[2]	Extant AU-C 540	PCAOB AS 2501
	.A50 If the auditor determines that an accounting estimate gives rise to a significant risk, the auditor is required by section 315 to obtain an understanding of the entity's controls, including control activities. [fn 13]	
	.A51 In some cases, the estimation uncertainty of an accounting estimate may lead the auditor to consider whether such estimation uncertainty indicates that substantial doubt could exist about the entity's ability to continue as a going concern. Section 570, *The Auditor's Consideration of an Entity's Ability to Continue as a Going Concern*, addresses such circumstances.	
• Whether the applicable financial reporting framework requires:		
o The use of a method to make the accounting estimate that inherently has a high level of estimation uncertainty. For example, the financial reporting framework may require the use of		

[fn 13] Paragraph .30 of section 315.

ISA 540 (Revised)[2]	Extant AU-C 540	PCAOB AS 2501
unobservable inputs.		
o The use of assumptions that inherently have a high level of estimation uncertainty, such as assumptions with a long forecast period, assumptions that are based on data that is unobservable and are therefore difficult for management to develop, or the use of various assumptions that are interrelated.		
o Disclosures about estimation uncertainty.		
• The business environment. An entity may be active in a market that experiences turmoil or possible disruption (for example, from major currency movements or inactive markets) and the accounting estimate may therefore be dependent on data that is not readily observable.		
• Whether it is possible (or practicable, insofar as permitted by the applicable financial reporting framework) for management:		

ISA 540 (Revised)[2]	Extant AU-C 540	PCAOB AS 2501
o To make a precise and reliable prediction about the future realization of a past transaction (for example, the amount that will be paid under a contingent contractual term), or about the incidence and impact of future events or conditions (for example, the amount of a future credit loss or the amount at which an insurance claim will be settled and the timing of its settlement); or		
o To obtain precise and complete information about a present condition (for example, information about valuation attributes that would reflect the perspective of market participants at the date of the financial statements, to develop a fair value estimate).		
A73. The size of the amount recognized or disclosed in the financial statements for an accounting estimate is not, in itself, an indicator of its susceptibility to misstatement because, for example, the accounting estimate may be understated.		

ISA 540 (Revised)[2]	Extant AU-C 540	PCAOB AS 2501
A74. In some circumstances, the estimation uncertainty may be so high that a reasonable accounting estimate cannot be made. The applicable financial reporting framework may preclude recognition of an item in the financial statements, or its measurement at fair value. In such cases, there may be risks of material misstatement that relate not only to whether an accounting estimate should be recognized, or whether it should be measured at fair value, but also to the reasonableness of the disclosures. With respect to such accounting estimates, the applicable financial reporting framework may require disclosure of the accounting estimates and the estimation uncertainty associated with them (see paragraphs A112–A113, A143–A144).		
A75. In some cases, the estimation uncertainty relating to an accounting estimate may cast significant doubt about the entity's ability to continue as a going concern. ISA 570 (Revised)[8] establishes requirements and provides guidance in such circumstances.		

[8] [43] ISA 570, (Revised), *Going Concern*

ISA 540 (Revised)[2]	Extant AU-C 540	PCAOB AS 2501
Complexity or Subjectivity (Ref: Para. 16(b))		
The Degree to Which Complexity Affects the Selection and Application of the Method		
A76. In taking into account the degree to which the selection and application of the method used in making the accounting estimate are affected by complexity, the auditor may consider:		
• The need for specialized skills or knowledge by management which may indicate that the method used to make an accounting estimate is inherently complex and therefore the accounting estimate may have a greater susceptibility to material misstatement. There may be a greater susceptibility to material misstatement when management has developed a model internally and has relatively little experience in doing so, or uses a model that applies a method that is not established or commonly used in a particular industry or environment.		

ISA 540 (Revised)[2]	Extant AU-C 540	PCAOB AS 2501
• The nature of the measurement basis required by the applicable financial reporting framework, which may result in the need for a complex method that requires multiple sources of historical and forward-looking data or assumptions, with multiple interrelationships between them. For example, an expected credit loss provision may require judgments about future credit repayments and other cash flows, based on consideration of historical experience data and the application of forward looking assumptions. Similarly, the valuation of an insurance contract liability may require judgments about future insurance contract payments to be projected based on historical experience and current and assumed future trends.		
The Degree to Which Complexity Affects the Selection and Application of the Data		
A77. In taking into account the degree to which the selection and application of the data used in making the accounting estimate are affected by complexity, the		

ISA 540 (Revised)[2]	Extant AU-C 540	PCAOB AS 2501
auditor may consider:		
• The complexity of the process to derive the data, taking into account the relevance and reliability of the data source. Data from certain sources may be more reliable than from others. Also, for confidentiality or proprietary reasons, some external information sources will not (or not fully) disclose information that may be relevant in considering the reliability of the data they provide, such as the sources of the underlying data they used or how it was accumulated and processed.		
• The inherent complexity in maintaining the integrity of the data. When there is a high volume of data and multiple sources of data, there may be inherent complexity in maintaining the integrity of data that is used to make an accounting estimate.		
• The need to interpret complex contractual terms. For example, the determination of cash inflows or outflows arising from a commercial		

ISA 540 (Revised)[2]	Extant AU-C 540	PCAOB AS 2501
supplier or customer rebates may depend on very complex contractual terms that require specific experience or competence to understand or interpret.		
The Degree to Which Subjectivity Affects the Selection and Application of the Method, Assumptions or Data		
A78. In taking into account the degree to which the selection and application of method, assumptions or data are affected by subjectivity, the auditor may consider:		
• The degree to which the applicable financial reporting framework does not specify the valuation approaches, concepts, techniques and factors to use in the estimation method.		
• The uncertainty regarding the amount or timing, including the length of the forecast period. The amount and timing is a source of inherent estimation uncertainty, and gives rise to the need for management judgment in selecting a point estimate, which in turn creates an opportunity for management bias. For example, an accounting estimate		

ISA 540 (Revised)[2]	Extant AU-C 540	PCAOB AS 2501
that incorporates forward looking assumptions may have a high degree of subjectivity which may be susceptible to management bias.		
Other Inherent Risk Factors (Ref: Para. 16(b))		
A79. The degree of subjectivity associated with an accounting estimate influences the susceptibility of the accounting estimate to misstatement due to management bias or fraud. For example, when an accounting estimate is subject to a high degree of subjectivity, the accounting estimate is likely to be more susceptible to misstatement due to management bias or fraud and this may result in a wide range of possible measurement outcomes. Management may select a point estimate from that range that is inappropriate in the circumstances, or that is inappropriately influenced by unintentional or intentional management bias, and that is therefore misstated. For continuing audits, indicators of possible management bias identified during the audit of preceding periods may influence the planning and risk assessment procedures in the current period.		

ISA 540 (Revised)[2]	Extant AU-C 540	PCAOB AS 2501
Significant Risks (Ref: Para. 17)		
A80. The auditor's assessment of inherent risk, which takes into account the degree to which an accounting estimate is subject to, or affected by estimation uncertainty, complexity, subjectivity or other inherent risk factors, assists the auditor in determining whether any of the risks of material misstatement identified and assessed are a significant risk.		

Exhibit 3 — Retrospective Review (issue 6 from agenda item 4)
(ISA 540 (Revised) paragraph 14 and A55-A60; extant AU-C 540 paragraphs .09 and .A38-.A44)

ISA 540 (Revised)[9]	**Extant AU-C 540**	**PCAOB AS 2501**
14. The auditor shall review the outcome of previous accounting estimates, or, where applicable, their subsequent re-estimation to assist in identifying and assessing the risks of material misstatement in the current period. The auditor shall take into account the characteristics of the accounting estimates in determining the nature and extent of that review. The review is not intended to call into question judgments about previous period accounting estimates that were appropriate based on the information available at the time they were made. (Ref: Para. A55–A60)	**.09** The auditor should review the outcome of accounting estimates included in the prior period financial statements or, when applicable, their subsequent reestimation for the purpose of the current period. The nature and extent of the auditor's review takes account of the nature of the accounting estimates and whether the information obtained from the review would be relevant to identifying and assessing risks of material misstatement of accounting estimates made in the current period financial statements. However, the review is not intended to call into question the auditor's professional judgments made in the prior periods that were based on information available at the time. (Ref: par. .A38-.A44)	
Reviewing the Outcome or Re-Estimation of Previous Accounting Estimates (Ref: Para. 14)	***Reviewing Prior Period Accounting Estimates (Ref: par. .09)***	

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A55. A review of the outcome or re-estimation of previous accounting estimates (retrospective review) assists in identifying and assessing the risks of material misstatement when previous accounting estimates have an outcome through transfer or realization of the asset or liability in the current period, or are re-estimated for the purpose of the current period. Through performing a retrospective review, the auditor may obtain:	.A38 The nature and extent of the review of the outcome of accounting estimates included in the prior period financial statements is a matter of professional judgment. In performing the procedures required in paragraph .09, it may not be necessary to review the outcome of every accounting estimate included in the prior period. .A39 The outcome of an accounting estimate will often differ from the accounting estimate recognized in the prior period financial statements. By performing risk assessment procedures to identify and understand the reasons for such differences, the auditor may obtain	
• Information regarding the effectiveness of management's previous estimation process, from which the auditor can obtain audit evidence about the likely effectiveness of management's current process	• information regarding the effectiveness of management's prior period estimation process, from which the auditor can judge the likely effectiveness of management's current process;	
	• audit evidence that is pertinent to the reestimation, in the current period, of prior period accounting estimates; or	
• Audit evidence of matters, such as the reasons for changes that may be	• audit evidence of matters that may be required to be disclosed in the financial	

required to be disclosed in the financial statements.	statements, such as estimation uncertainty.	
• Information regarding the complexity or estimation uncertainty pertaining to the accounting estimates.		
• Information regarding the susceptibility of accounting estimates to, or that may be an indicator of, possible management bias. The auditor's professional skepticism assists in identifying such circumstances or conditions and in determining the nature, timing and extent of further audit procedures.		
A56. A retrospective review may provide audit evidence that supports the identification and assessment of the risks of material misstatement in the current period. Such a retrospective review may be performed for accounting estimates made for the prior period's financial statements, or may be performed over several periods or a shorter period (such as half-yearly or quarterly). In some cases, a retrospective review over several periods may be appropriate when the outcome of an accounting estimate is resolved over a longer period.	.A40 The review of prior period accounting estimates may also assist the auditor, in the current period, in identifying circumstances or conditions that increase the susceptibility of accounting estimates to, or indicate the presence of, possible management bias. The auditor's professional skepticism assists in identifying such circumstances or conditions and in determining the nature, timing, and extent of further audit procedures.	

A57. A retrospective review of management judgments and assumptions related to significant accounting estimates is required by ISA 240.[10] As a practical matter, the auditor's review of previous accounting estimates as a risk assessment procedure in accordance with this ISA may be carried out in conjunction with the review required by ISA 240.	.A41 A retrospective review of management judgments and assumptions related to significant accounting estimates is also required by section 240, *Consideration of Fraud in a Financial Statement Audit*. [fn 12] That review is conducted as part of the requirement for the auditor to design and perform procedures to review accounting estimates for biases that could represent a risk of material misstatement due to fraud, in response to the risks of management override of controls. As a practical matter, the auditor's review of prior period accounting estimates as a risk assessment procedure in accordance with this section may be carried out in conjunction with the review required by section 240.	
A58. Based on the auditor's previous assessment of the risks of material misstatement, for example, if inherent risk is assessed as higher for one or more risks of material misstatement, the auditor may judge that a more detailed retrospective review is required. As part of the detailed retrospective review, the auditor may pay	.A42 The auditor may judge that a more detailed review is required for those accounting estimates that were identified during the prior period audit as having high estimation uncertainty or for those accounting estimates that have changed significantly from the prior period. On the other hand, for example, for accounting estimates that arise	

[10] [37] ISA 240, *The Auditor's Responsibilities Relating to Fraud in an Audit of Financial Statements*, paragraph 32(b)(ii)

[fn 12] Paragraph .32 of section 240, *Consideration of Fraud in a Financial Statement Audit*.

particular attention, when practicable, to the effect of data and significant assumptions used in making the previous accounting estimates. On the other hand, for example, for accounting estimates that arise from the recording of routine and recurring transactions, the auditor may judge that the application of analytical procedures as risk assessment procedures is sufficient for purposes of the review.	from the recording of routine and recurring transactions, the auditor may judge that the application of analytical procedures as risk assessment procedures is sufficient for purposes of the review.	
A59. The measurement objective for fair value accounting estimates and other accounting estimates, based on current conditions at the measurement date, deals with perceptions about value at a point in time, which may change significantly and rapidly as the environment in which the entity operates changes. The auditor may therefore focus the review on obtaining information that may be relevant to identifying and assessing risks of material misstatement. For example, in some cases, obtaining an understanding of changes in marketplace participant assumptions that affected the outcome of a previous period's fair value accounting estimates may be unlikely to provide relevant audit evidence. In this case, audit evidence may be obtained by understanding the outcomes of assumptions (such as a cash flow projections) and understanding the effectiveness of management's prior	.A43 For fair value accounting estimates and other accounting estimates based on current conditions at the measurement date, more variation may exist between the fair value amount recognized in the prior period financial statements and the outcome (or the amount reestimated for the purpose of the current period). This is because the measurement objective for such accounting estimates deals with perceptions about value at a point in time, which may change significantly and rapidly as the environment in which the entity operates changes. Therefore, the auditor may focus the review on obtaining information that would be relevant to identifying and assessing risks of material misstatement. For example, in some cases, obtaining an understanding of changes in market participant assumptions that affected the outcome of a prior period fair value accounting estimate may be unlikely to provide relevant information for audit	

estimation process that supports the identification and assessment of the risk of material misstatement in the current period.	purposes. If so, then the auditor's consideration of the outcome of prior period fair value accounting estimates may be more appropriately directed toward understanding the effectiveness of management's prior estimation process (that is, management's track record) from which the auditor can judge the likely effectiveness of management's current process.	
A60. A difference between the outcome of an accounting estimate and the amount recognized in the previous period's financial statements does not necessarily represent a misstatement of the previous period's financial statements. However, such a difference may represent a misstatement if, for example, the difference arises from information that was available to management when the previous period's financial statements were finalized, or that could reasonably be expected to have been obtained and taken into account in the context of the applicable financial reporting framework.[11] Such a difference may call into question management's process for taking information into account in making the accounting estimate. As a result, the auditor may reassess control risk and may	.A44 A difference between the outcome of an accounting estimate and the amount recognized in the prior period financial statements does not necessarily represent a misstatement of the prior period financial statements. However, it may do so if, for example, the difference arises from information that was available to management when the prior period's financial statements were finalized or that could reasonably be expected to have been obtained and taken into account in the preparation of those financial statements. Section 560, *Subsequent Events and Subsequently Discovered Facts*, addresses situations when facts become known to the auditor after the date of the auditor's report that, had they been known to the auditor at the date of the auditor's report, may have caused the auditor to revise the auditor's report. The applicable financial	

[11] [38] ISA 560, Subsequent Events, paragraph 14

determine that more persuasive audit evidence needs to be obtained about the matter. Many financial reporting frameworks contain guidance on distinguishing between changes in accounting estimates that constitute misstatements and changes that do not, and the accounting treatment required to be followed in each case.	reporting framework may contain guidance on distinguishing between changes in accounting estimates that constitute misstatements and changes that do not and the accounting treatment required to be followed.	

Exhibit 4 — Documentation (issue 7 from agenda item 4)
(ISA 540 (Revised) paragraph 39 and A149-A152; extant AU-C 540 paragraphs 22 and .A135)

ISA 540 (Revised)[12]	**Extant AU-C 540**	**PCAOB AS 2501**
Documentation	Documentation	
39. The auditor shall include in the audit documentation:[13] (Ref: Para. A149–A152)	**.22** The auditor should include in the audit documentation [fn 7]	
	a. for those accounting estimates that give rise to significant risks, the basis for the auditor's conclusions about the reasonableness of accounting estimates and their disclosure and	
a. Key elements of the auditor's understanding of the entity and its environment, including the entity's internal control related to the entity's accounting estimates;		

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[13] ISA 230, *Audit Documentation*, paragraphs 8–11, A6, A7 and A10

[fn 7] Paragraphs .08–.12 and .A8 of section 230, *Audit Documentation*.

b. The linkage of the auditor's further audit procedures with the assessed risks of material misstatement at the assertion level,[14] taking into account the reasons (whether related to inherent risk or control risk) given to the assessment of those risks;		
c. The auditor's response(s) when management has not taken appropriate steps to understand and address estimation uncertainty;		
d. Indicators of possible management bias related to accounting estimates, if any, and the auditor's evaluation of the implications for the audit, as required by paragraph 32; and	b. indicators of possible management bias, if any. (Ref: par. .A135)	
e. Significant judgments relating to the auditor's determination of whether the accounting estimates and related disclosures are reasonable in the context of the applicable financial reporting framework, or are misstated.		
Documentation (Ref: Para. 39)	**Documentation (Ref: par. .22)**	
	.A135 Documentation of indicators of possible management bias identified during	

[14] ISA 330, paragraph 28(b)

	the audit assists the auditor in concluding whether the auditor's risk assessment and related responses remain appropriate and in evaluating whether the financial statements as a whole are free from material misstatement. See paragraph .A134 for examples of indicators of possible management bias.	
A149. ISA 315 (Revised)[15] and ISA 330[16] provide requirements and guidance on documenting the auditor's understanding of the entity, risk assessments and responses to assessed risks. This guidance is based on the requirements and guidance in ISA 230.[17] In the context of auditing accounting estimates, the auditor is required to prepare audit documentation about key elements of the auditor's understanding of the entity and its environment related to accounting estimates. In addition, the auditor's judgments about the assessed risks of material misstatement related to accounting estimates, and the auditor's responses, may likely be further supported by documentation of communications with those charged with governance and management.		

[15] ISA 315 (Revised), paragraphs 32 and A152–A155
[16] ISA 330, paragraphs 28 and A63
[17] ISA 230, paragraph 8(c)

A150. In documenting the linkage of the auditor's further audit procedures with the assessed risks of material misstatement at the assertion level, in accordance with ISA 330, this ISA requires that the auditor take into account the reasons given to the risks of material misstatement at the assertion level. Those reasons may relate to one or more inherent risk factors or the auditor's assessment of control risk. However, the auditor is not required to document how every inherent risk factor was taken into account in identifying and assessing the risks of material misstatement in relation to each accounting estimate.		
A151. The auditor also may consider documenting:		
• When management's application of the method involves complex modeling, whether management's judgments have been applied consistently and, when applicable, that the design of the model meets the measurement objective of the applicable financial reporting framework.		
• When the selection and application of methods, significant assumptions, or the data is affected by complexity to a higher degree, the auditor's judgments in determining whether specialized		

skills or knowledge are required to perform the risk assessment procedures, to design and perform procedures responsive to those risks, or to evaluate the audit evidence obtained. In these circumstances, the documentation also may include how the required skills or knowledge were applied.		
A152. Paragraph A7 of ISA 230 notes that, although there may be no single way in which the auditor's exercise of professional skepticism is documented, the audit documentation may nevertheless provide evidence of the auditor's exercise of professional skepticism. For example, in relation to accounting estimates, when the audit evidence obtained includes evidence that both corroborates and contradicts management's assertions, the documentation may include how the auditor evaluated that evidence, including the professional judgments made in forming a conclusion as to the sufficiency and appropriateness of the audit evidence obtained. Examples of other requirements in this ISA for which documentation may provide evidence of the exercise of professional skepticism by the auditor include:		

• Paragraph 13(d), regarding how the auditor has applied an understanding in developing the auditor's own expectation of the accounting estimates and related disclosures to be included in the entity's financial statements and how that expectation compares with the entity's financial statements prepared by management;		
• Paragraph 18, which requires further audit procedures to be designed and performed to obtain sufficient appropriate evidence in a manner that is not biased toward obtaining audit evidence that may be corroborative or towards excluding audit evidence that may be contradictory;		
• Paragraphs 23(b), 24(b), 25(b) and 32, which address indicators of possible management bias; and		
• Paragraph 34, which addresses the auditor's consideration of all relevant audit evidence, whether corroborative or contradictory.		

Exhibit 5 — Written Representations (issue 8 from agenda item 4)
(ISA 540 (Revised) paragraph 37 and A145; extant AU-C 540 paragraph A126; extant AU-C 580 paragraphs 16 and .A13-.A14)

*References to AU-C section 580, *Written Representations* is shown in blue font.

ISA 540 (Revised)[18]	**Extant AU-C 540 or AU-C 580**	**PCAOB AS 2501**
Written Representations	Written Representations **(AU-C 540 and AU-C 580)**	
37. The auditor shall request written representations from management[19] and, when appropriate, those charged with governance about whether the methods, significant assumptions and the data used in making the accounting estimates and the related disclosures are appropriate to achieve recognition, measurement or disclosure that is in accordance with the applicable financial reporting framework. The auditor shall also consider the need to obtain representations about specific accounting estimates, including in relation to the methods, assumptions, or data used. (Ref: Para. A145)	**AU-C 580.16** The auditor should request management to provide written representations about whether it believes significant assumptions used by it in making accounting estimates are reasonable.	
Written Representations (Ref: Para. 37)	***Written Representations***	

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[19] ISA 580, *Written Representations*

	540.A126 Part of the auditor's audit evidence includes obtaining representations from management about whether management believes significant assumptions used in making accounting estimates are reasonable. See section 580, *Written Representations*. [fn 25]	
A145. Written representations about specific accounting estimates may include representations:	580.A13 Depending on the nature, materiality, and extent of estimation uncertainty, written representations about accounting estimates recognized or disclosed in the financial statements may include representations	
• That the significant judgments made in making the accounting estimates have taken into account all relevant information of which management is aware.		
• That appropriate specialized skills or expertise has been applied in making the accounting estimates.		
• About the consistency and appropriateness in the selection or application of the methods,	**580.A13** • about the appropriateness of the measurement processes, including related	

fn 25 Paragraph .16 of section 580, *Written Representations*.

assumptions and data used by management in making the accounting estimates.	assumptions and models, used by management in determining accounting estimates in the context of the applicable financial reporting framework and the consistency in the application of the processes.	
• That the assumptions appropriately reflect management's intent and ability to carry out specific courses of action on behalf of the entity, when relevant to the accounting estimates and disclosures.	**580.A13** • that the assumptions appropriately reflect management's intent and ability to carry out specific courses of action on behalf of the entity when relevant to the accounting estimates and disclosures.	
• That disclosures related to accounting estimates, including disclosures describing estimation uncertainty, are complete and are reasonable in the context of the applicable financial reporting framework.	**580.A13** • that disclosures related to accounting estimates are complete and appropriate under the applicable financial reporting framework.	
• That no subsequent event requires adjustment to the accounting estimates and related disclosures included in the financial statements.	**580.A13** • that no subsequent event has occurred that would require adjustment to the accounting estimates and disclosures included in the financial statements.	
	580.A14 For those accounting estimates not recognized or disclosed in the financial statements, written representations also may include representations about the following:	

• When accounting estimates are not recognized or disclosed in the financial statements, about the appropriateness of management's decision that the recognition or disclosure criteria of the applicable financial reporting framework have not been met.	**580.A14** • The appropriateness of the basis used by management for determining that the criteria of the applicable financial reporting framework for recognition or disclosure have not been met [fn 4]	
	580.A14 • The appropriateness of the basis used by management to overcome a presumption relating to the use of fair value set forth under the entity's applicable financial reporting framework for those accounting estimates not measured or disclosed at fair value	

Exhibit 6 — Risk Assessment Procedures and Related Activities (issue 9 from agenda item 4)
(ISA 540 (Revised) paragraphs 13-15 and A19-A63; extant AU-C 540 paragraphs 8-9, 14, A12-A19, A21-A35, A39-A44, A53-A57, A102-A107, A110, and A113-A115; PCAOB AS 2501 paragraphs 4 and 8)

ISA 540 (Revised)[20]	**Extant AU-C 540**	**PCAOB AS 2501**
Risk Assessment Procedures and Related Activities	Risk Assessment Procedures and Related Activities	***Identifying and Assessing Risks of Material Misstatement*** [Footnotes intentionally omitted]
13. When obtaining an understanding of the entity and its environment, including the entity's internal control, as required by ISA 315 (Revised),[21] the auditor shall obtain an understanding of the following matters related to the entity's accounting estimates. The auditor's procedures to obtain the understanding shall be performed to the extent necessary to provide an appropriate basis for the identification and assessment of risks of	.08 When performing risk assessment procedures and related activities to obtain an understanding of the entity and its environment, including the entity's internal control, as required by section 315, the auditor should obtain an understanding of the following in order to provide a basis for the identification and assessment of the risks of material misstatement for accounting estimates: [fn 3] (Ref: par. A11)	.04 AS 2110, Identifying and Assessing Risks of Material Misstatement, establishes requirements regarding the process of identifying and assessing risks of material misstatement. This process includes (1) identifying accounting estimates in significant accounts and disclosures; (2) understanding the process by which accounting estimates are developed;[22] and (3) identifying and assessing the risks of material

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[21] ISA 315 (Revised), paragraphs 3, 5–6, 9, 11–12, 15–17, and 20–21

[fn 3] Paragraphs .05–.06 and .12–.13 of section 315, *Understanding the Entity and Its Environment and Assessing the Risks of Material Misstatement*.

[22] See AS 2110.28.

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
material misstatement at the financial statement and assertion levels. (Ref: Para. A19–A22)		misstatement related to accounting estimates, which includes determining whether the components of estimates in significant accounts and disclosures are subject to significantly differing risks,[23] and which accounting estimates are associated with significant risks. Note: AS 2110.60 and .60A set forth risk factors relevant to the identification of significant accounts and disclosures involving accounting estimates. Paragraph .A1 in Appendix A of this standard sets forth matters that the auditor should take into account for identifying and assessing risks of material misstatement related to the fair value of financial instruments.
The Entity and Its Environment		
a. The entity's transactions and other events and conditions that may give rise to the need for, or changes in, accounting estimates to be recognized or disclosed in the financial statements. (Ref: Para. A23)		

[23] See AS 2110.63.

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
b. The requirements of the applicable financial reporting framework related to accounting estimates (including the recognition criteria, measurement bases, and the related presentation and disclosure requirements); and how they apply in the context of the nature and circumstances of the entity and its environment, including how transactions and other events or conditions are subject to, or affected by, inherent risk factors. (Ref: Para. A24–A25)	8 a. The requirements of the applicable financial reporting framework relevant to accounting estimates, including related disclosures. (Ref: par. .A12-.A14)	
	8 b. How management identifies those transactions, events, and conditions that may give rise to the need for accounting estimates to be recognized or disclosed in the financial statements. In obtaining this understanding, the auditor should make inquiries of management about changes in circumstances that may give rise to new, or the need to revise existing, accounting estimates. (Ref: par. .A15-.A20)	
c. Regulatory factors relevant to the entity's accounting *estimates*, including, when applicable, regulatory frameworks related to prudential		

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
supervision. (Ref: Para. A26)		
d. The nature of the accounting estimates and related disclosures that the auditor expects to be included in the entity's financial statements, based on the auditor's understanding of the matters in 13(a)–(c) above. (Ref: Para. A27)		
	8 c. How management makes the accounting estimates and the data on which they are based, including (Ref: par. .A21-.A22)	
The Entity's Internal Control		
e. The nature and extent of oversight and governance that the entity has in place over management's financial reporting process relevant to accounting estimates. (Ref: Para. A28–A30).		
f. How management identifies the need for, and applies, specialized skills or knowledge related to accounting estimates, including with respect to the use of a management's expert. (Ref: Para. A31)	8 c. iii. whether management has used a specialist; (Ref: par. .A28-.A29)	

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
g. How the entity's risk assessment process identifies and addresses risks relating to accounting estimates. (Ref: Para. A32–A33)		
h. The entity's information system as it relates to accounting estimates, including:		
(i) The classes of transactions, events and conditions, that are significant to the financial statements and that give rise to the need for, or changes in, accounting estimates and related disclosures; and (Ref: Para. A34–A35)	8 c. v. whether there has been or ought to have been a change from the prior period in the method(s) or assumption(s) for making the accounting estimates and, if so, why; and (Ref: par. .A36)	
(ii) For such accounting estimates and related disclosures, how management:		
a. Identifies the relevant methods, assumptions or sources of data, and the need for changes in them, that are appropriate in the context of the applicable financial reporting framework, including how management: (Ref: Para. A36– A37)	8 c. iv. the assumptions underlying the accounting estimates; (Ref: par. .A30-.A35)	

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
i. Selects or designs, and applies, the methods used, including the use of models; (Ref: Para. A38–A39)	8 c. i. the method(s), including, when applicable, the model, used in making the accounting estimate; (Ref: par. .A23-.A25)	
ii. Selects the assumptions to be used, including consideration of alternatives, and identifies significant assumptions; (Ref: Para. A40– A43); and		
iii. Selects the data to be used; (Ref: Para. A44)		
b. Understands the degree of estimation uncertainty, including through considering the range of possible measurement outcomes; and (Ref: Para. A45)	8 vi. whether and, if so, how management has assessed the effect of estimation uncertainty. (Ref: par. .A37)	
c. Addresses the estimation uncertainty, including selecting a point estimate and related disclosures for inclusion in the financial statements. (Ref: Para. A46– A49)		

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
i. Control activities relevant to the audit over management's process for making accounting estimates as described in paragraph 13(h)(ii). (Ref: Para. A50–A54)	8 ii. relevant controls; (Ref: par. .A26-.A27)	
j. How management reviews the outcome(s) of previous accounting estimates and responds to the results of that review.		
14. The auditor shall review the outcome of previous accounting estimates, or, where applicable, their subsequent re-estimation to assist in identifying and assessing the risks of material misstatement in the current period. The auditor shall take into account the characteristics of the accounting estimates in determining the nature and extent of that review. The review is not intended to call into question judgments about previous period accounting estimates that were appropriate based on the information available at the time they were made. (Ref: Para. A55–A60)	**.09** The auditor should review the outcome of accounting estimates included in the prior period financial statements or, when applicable, their subsequent reestimation for the purpose of the current period. The nature and extent of the auditor's review takes account of the nature of the accounting estimates and whether the information obtained from the review would be relevant to identifying and assessing risks of material misstatement of accounting estimates made in the current period financial statements. However, the review is not intended to call into question the auditor's professional judgments made in the prior periods that were based on information available at the time. (Ref: par. .A38-.A44)	

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
		Use of an Auditor's Specialist
15. With respect to accounting estimates, the auditor shall determine whether the engagement team requires specialized skills or knowledge to perform the risk assessment procedures, to identify and assess the risks of material misstatement, to design and perform audit procedures to respond to those risks, or to evaluate the audit evidence obtained. (Ref: Para. A61–A63)	**.14** In determining the matters identified in paragraph 12 or in responding to the assessed risks of material misstatement in accordance with paragraph 13, the auditor should consider whether specialized skills or knowledge with regard to one or more aspects of the accounting estimates is required in order to obtain sufficient appropriate audit evidence. (Ref: par. .A102-.A107)	.08 If the auditor engages a specialist to assist in obtaining or evaluating audit evidence, the auditor should also comply with the requirements of AS 1210, Using the Work of an Auditor-Engaged Specialist. If the auditor uses a specialist employed by the auditor to assist in obtaining or evaluating audit evidence, the auditor should also comply with the requirements set forth in Appendix C to AS 1201, Supervision of the Audit Engagement.[24]
Obtaining an Understanding of the Entity and Its Environment (Ref: Para. 13)	**Risk Assessment Procedures and Related Activities (Ref: par. .08)**	
	.A11 The risk assessment procedures and related activities required by paragraphs .08–.09 assist the auditor in developing an expectation of the nature and type of accounting estimates that an entity may have. The nature and extent of the risk assessment procedures and activities are matters of professional judgment. The auditor's primary consideration is whether the understanding	

[24] See paragraph .16 of AS 2101, Audit Planning, which describes the auditor's responsibility to determine whether specialized skill or knowledge is needed to perform appropriate risk assessments, plan or perform audit procedures, or evaluate audit results.

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
	that has been obtained is sufficient to identify and assess the risks of material misstatement related to accounting estimates and to plan the nature, timing, and extent of further audit procedures. When the risk of material misstatement related to an accounting estimate has been significantly reduced by audit evidence relating to events occurring after management has made the estimate (for example, if litigation has been settled, the entity has sold an impaired asset, or receivables have been collected), the nature and extent of the procedures and activities required by paragraphs .08c and .09 may be significantly reduced or may not be necessary at all.	
A19. Paragraphs 11–24 of ISA 315 (Revised) require the auditor to obtain an understanding of certain matters about the entity and its environment, including the entity's internal control. The requirements in paragraph 13 of this ISA relate more specifically to accounting estimates and build on the broader requirements in ISA 315 (Revised).		
Scalability		

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
A20. The nature, timing, and extent of the auditor's procedures to obtain the understanding of the entity and its environment, including the entity's internal control, related to the entity's accounting estimates, may depend, to a greater or lesser degree, on the extent to which the individual matter(s) apply in the circumstances. For example, the entity may have few transactions or other events and conditions that give rise to the need for accounting estimates, the applicable financial reporting requirements may be simple to apply, and there may be no relevant regulatory factors. Further, the accounting estimates may not require significant judgments, and the process for making the accounting estimates may be less complex. In these circumstances, the accounting estimates may be subject to or affected by estimation uncertainty, complexity, subjectivity, or other inherent risk factors to a lesser degree and there may be fewer controls relevant to the audit. If so, the auditor's risk assessment procedures are likely to be less extensive and may be obtained primarily through inquiries of management with appropriate responsibilities for the financial statements and simple walk-throughs of		

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
management's process for making the accounting estimate.		
A21. By contrast, the accounting estimates may require significant judgments by management, and the process for making the accounting estimates may be complex and involve the use of complex models. In addition, the entity may have a more sophisticated information system, and more extensive controls over accounting estimates. In these circumstances, the accounting estimates may be subject to or affected by estimation uncertainty, subjectivity, complexity or other inherent risk factors to a greater degree. If so, the nature or timing of the auditor's risk assessment procedures are likely to be different, or be more extensive, than in the circumstances in paragraph A20.		
A22. The following considerations may be relevant for entities with only simple businesses, which may include many smaller entities:		
• Processes relevant to accounting estimates may be uncomplicated because the business activities are simple or the required estimates may		

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
have a lesser degree of estimation uncertainty.		
• Accounting estimates may be generated outside of the general and subsidiary ledgers, controls over their development may be limited, and an owner-manager may have significant influence over their determination. The owner-manager's role in making the accounting estimates may need to be taken into account by the auditor both when identifying the risks of material misstatement and when considering the risk of management bias.		
The Entity and Its Environment		
The entity's transactions and other events and conditions (Ref: Para. 13(a))		
A23. Changes in circumstances that may give rise to the need for, or changes in, accounting estimates may include, for example, whether:		
• The entity has engaged in new types of transactions;		

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
• Terms of transactions have changed; or		
• New events or conditions have occurred.		
The requirements of the applicable financial reporting framework (Ref: Para. 13(b))		
A24. Obtaining an understanding of the requirements of the applicable financial reporting framework provides the auditor with a basis for discussion with management and, where applicable, those charged with governance about how management has applied those requirements relevant to the accounting estimates, and about the auditor's determination of whether they have been applied appropriately. This understanding also may assist the auditor in communicating with those charged with governance when the auditor considers a significant accounting practice that is acceptable under the applicable financial reporting framework, not to be the most appropriate in the circumstances of the		

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
entity.[25]		
A25. In obtaining this understanding, the auditor may seek to understand whether: • The applicable financial reporting framework: o Prescribes certain criteria for the recognition, or methods for the measurement of accounting estimates; o Specifies certain criteria that permit or require measurement at a fair value, for example, by referring to management's intentions to carry out certain courses of action with respect to an asset or liability; or o Specifies required or suggested disclosures, including disclosures concerning	.A12 Obtaining an understanding of the requirements of the applicable financial reporting framework assists the auditor in determining, for example, whether it • prescribes certain conditions for the recognition, [fn 8] or methods for the measurement, of accounting estimates. • specifies certain conditions that permit or require measurement at a fair value. • · specifies required or permitted disclosures. Obtaining this understanding also provides the auditor with a basis for discussion with management about how management has applied those requirements relevant to the accounting estimate and the auditor's	

[25] ISA 260 (Revised), paragraph 16(a).

[fn 8] Most 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, including accounting estimates.

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
judgments, assumptions, or other sources of estimation uncertainty relating to accounting estimates; and Changes in the applicable financial reporting framework require changes to the entity's accounting policies relating to accounting estimates.	determination of whether they have been appropriately applied.	
	.A13 Financial reporting frameworks may provide guidance for management on determining point estimates when alternatives exist. For example, some financial reporting frameworks require that the point estimate selected be the alternative that reflects management's judgment of the most likely outcome; [fn 9] others may require the use of a discounted probability-weighted expected value. In some cases, management may be able to make a point estimate directly. In other cases, management may be able to make a reliable point estimate only after considering alternative assumptions or outcomes from which it is able to determine a point estimate.	

fn 9 Different financial reporting frameworks may use different terminology to describe point estimates determined in this way.

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
	.A14 Financial reporting frameworks may require the disclosure of information concerning the significant assumptions to which the accounting estimate is particularly sensitive. Furthermore, when a high degree of estimation uncertainty exists, some financial reporting frameworks do not permit an accounting estimate to be recognized in the financial statements, but certain disclosures may be required in the notes to the financial statements.	
	Application of the Requirements of the Applicable Financial Reporting Framework (Ref: par. .12a)	
	.A53 Many financial reporting frameworks prescribe certain conditions for the recognition of accounting estimates and specify the methods for making them and required disclosures. Such requirements may be complex and require the application of judgment. Based on the understanding obtained in performing risk assessment procedures, the requirements of the applicable financial reporting framework that may be susceptible to misapplication or differing interpretations become the focus of the auditor's attention.	

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
	.A54 Determining whether management has appropriately applied the requirements of the applicable financial reporting framework is based, in part, on the auditor's understanding of the entity and its environment. For example, the measurement of the fair value of some items, such as intangible assets acquired in a business combination, may involve special considerations that are affected by the nature of the entity and its operations.	
	.A55 In some situations, additional audit procedures, such as the inspection by the auditor of the current physical condition of an asset, may be necessary to determine whether management has appropriately applied the requirements of the applicable financial reporting framework.	
	.A56 Collateral often is assigned for certain types of investments in debt instruments that either are required to be measured at fair value or are evaluated for possible impairment. If the collateral is an important factor in measuring the fair value of the investment or evaluating its carrying amount, it may be necessary for the auditor—in determining whether management has appropriately applied the requirements of the applicable financial reporting framework—to obtain	

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
	sufficient appropriate audit evidence regarding the existence; value; rights; and access to, or transferability of, such collateral (including consideration of whether all appropriate liens have been filed and appropriate disclosures have been made).	
	.A57 The application of the requirements of the applicable financial reporting framework requires management to consider changes in the environment or circumstances that affect the entity. For example, the introduction of an active market for a particular class of asset or liability may indicate that the use of discounted cash flows to estimate the fair value of such asset or liability is no longer appropriate.	
	Obtaining an Understanding of How Management Identifies the Need for Accounting Estimates (Ref: par. .08b)	
	.A15 The preparation and fair presentation of the financial statements requires management to determine whether a transaction, an event, or a condition gives rise to the need to make an accounting estimate and that all necessary accounting estimates have been recognized, measured, and disclosed in the financial statements in	

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
	accordance with the applicable financial reporting framework.	
	.A16 Management's identification of transactions, events, and conditions that give rise to the need for accounting estimates is likely to be based on • management's knowledge of the entity's business and the industry in which it operates. • management's knowledge of the implementation of business strategies in the current period. • when applicable, management's cumulative experience of preparing the entity's financial statements in prior periods. In such cases, the auditor may obtain an understanding of how management identifies the need for accounting estimates primarily through inquiry of management. In other cases, when management's process is more structured (for example, when management has a formal risk management function), the auditor may perform risk assessment procedures directed at the methods and practices followed by management for periodically reviewing the circumstances that	

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	give rise to the accounting estimates and reestimating the accounting estimates as necessary. The completeness of accounting estimates is often an important consideration of the auditor, particularly accounting estimates relating to liabilities. .A21 The preparation and fair presentation of the financial statements also requires management to establish financial reporting processes for making accounting estimates, including adequate internal control. Such processes include the following: • Selecting appropriate accounting policies and prescribing estimation processes, including appropriate estimation or valuation techniques, including, when applicable, the appropriate models • Developing or identifying relevant data and assumptions that affect accounting estimates • Periodically reviewing the circumstances that give rise to the accounting estimates and reestimating the accounting estimates as necessary	
	.A22 Matters that the auditor may consider in obtaining an understanding of how	

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	management makes the accounting estimates include, for example • the types of accounts or transactions to which the accounting estimates relate (for example, whether the accounting estimates arise from the recording of routine and recurring transactions or whether they arise from nonrecurring or unusual transactions). • whether and, if so, how management has used recognized measurement techniques for making particular accounting estimates. • whether the accounting estimates were made based on data available at an interim date and, if so, whether and how management has taken into account the effect of events, transactions, and changes in circumstances occurring between that date and the period end.	
Regulatory factors (Ref: Para. 13(c))		
A26. Obtaining an understanding of regulatory factors, if any, that are relevant to accounting estimates may assist the auditor in identifying applicable		

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regulatory frameworks (for example, regulatory frameworks established by prudential supervisors in the banking or insurance industries) and in determining whether such regulatory framework(s):		
• Addresses conditions for the recognition, or methods for the measurement, of accounting estimates, or provides related guidance thereon;		
• Specifies, or provides guidance about, disclosures in addition to the requirements of the applicable financial reporting framework;		
• Provides an indication of areas for which there may be a potential for management bias to meet regulatory requirements; or		
• Contains requirements for regulatory purposes that are not consistent with requirements of the applicable financial reporting framework, which may indicate potential risks of material misstatement. For example, some regulators may seek to influence minimum levels for		

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expected credit loss provisions that exceed those required by the applicable financial reporting framework.		
The nature of the accounting estimates and related disclosures that the auditor expects to be included in the financial statements (Ref: Para. 13(d))		
A27. Obtaining an understanding of the nature of accounting estimates and related disclosures that the auditor expects to be included in the entity's financial statements assists the auditor in understanding the measurement basis of such accounting estimates and the nature and extent of disclosures that may be relevant. Such an understanding provides the auditor with a basis for discussion with management about how management makes the accounting estimates.		
The Entity's Internal Control Relevant to the Audit		
The nature and extent of oversight and	*Relevant Controls (Ref: par. .08c(ii))*	

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governance (Ref: Para. 13(e))		
	.A26 Matters that the auditor may consider in obtaining an understanding of relevant controls include, for example, the experience and competence of those who make the accounting estimates and controls related to	
A28. In applying ISA 315 (Revised),[26] the auditor's understanding of the nature and extent of oversight and governance that the entity has in place over management's process for making accounting estimates may be important to the auditor's required evaluation as it relates to whether:	.A17 The auditor's understanding of the entity and its environment obtained during the performance of risk assessment procedures, together with other audit evidence obtained during the course of the audit, assist the auditor in identifying circumstances or changes in circumstances that may give rise to the need for an accounting estimate.	
	.A18 Inquiries of management about changes in circumstances may include, for example, inquiries about whether • the entity has engaged in new types of transactions that may give rise to accounting estimates. • terms of transactions that gave rise to accounting estimates have changed. • accounting policies relating to accounting	

[26] ISA 315 (Revised), paragraph 14

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	estimates have changed as a result of changes to the requirements of the applicable financial reporting framework or otherwise. • regulatory or other changes outside the control of management have occurred that may require management to revise, or make new, accounting estimates. • new conditions or events have occurred that may give rise to the need for new or revised accounting estimates.	
• Management, with the oversight of those charged with governance, has created and maintained a culture of honesty and ethical behavior; and		
• The strengths in the control environment elements collectively provide an appropriate foundation for the other components of internal control and whether those other components are undermined by deficiencies in the control environment.		
A29. The auditor may obtain an understanding of whether those charged with governance:		

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• Have the skills or knowledge to understand the characteristics of a particular method or model to make accounting estimates, or the risks related to the accounting estimate, for example, risks related to the method or information technology used in making the accounting estimates;		
• Have the skills and knowledge to understand whether management made the accounting estimates in accordance with the applicable financial reporting framework;		
• Are independent from management, have the information required to evaluate on a timely basis how management made the accounting estimates, and the authority to call into question management's actions when those actions appear to be inadequate or inappropriate;		
• Oversee management's process for making the accounting estimates, including the use of models; or		

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• Oversee the monitoring activities undertaken by management. This may include supervision and review procedures designed to detect and correct any deficiencies in the design or operating effectiveness of controls over the accounting estimates.		
A30. Obtaining an understanding of the oversight by those charged with governance may be important when there are accounting estimates that:		
• Require significant judgment by management to address subjectivity;		
• Have high estimation uncertainty;		
• Are complex to make, for example, because of the extensive use of information technology, large volumes of data or the use of multiple data sources or assumptions with complex- interrelationships;		
• Had, or ought to have had, a change in the method, assumptions or data compared to previous periods; or		

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• Involve significant assumptions.		
Management's application of specialized skills or knowledge, including the use of management's experts (Ref: Para. 13(f))	*Management's Use of Specialists* [fn 11] *(Ref: par. .08c(iii))*	
A31. The auditor may consider whether the following circumstances increase the likelihood that management needs to engage an expert:[27]	.A28 Management may have, or the entity may employ individuals with, the experience and competence necessary to make estimates. In some cases, however, management may need to engage a specialist to make estimates or assist in making them. This need may arise because of, for example	
• The specialized nature of the matter requiring estimation, for example, the accounting estimate may involve measurement of mineral or hydrocarbon reserves in extractive industries or the evaluation of the likely outcome of applying complex contractual terms.	A28 • the specialized nature of the matter requiring estimation (for example, the measurement of mineral or hydrocarbon reserves in extractive industries).	

fn 11 *See paragraph .08 of section 500, Audit Evidence, which addresses management's specialists.*

[27] ISA 500, paragraph 8

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• The complex nature of the models required to apply the relevant requirements of the applicable financial reporting framework, as may be the case in certain measurements, such as level 3 fair values.[28]		
• The unusual or infrequent nature of the condition, transaction or event requiring an accounting estimate.	A28 • the unusual or infrequent nature of the condition, transaction, or event requiring an accounting estimate.	
	.A29 *Considerations specific to smaller, less complex entities*. Discussion with the owner-manager early in the audit process about the nature of any accounting estimates, the completeness of the required accounting estimates, and the adequacy of the estimating process may assist the owner-manager in determining the need to use a specialist.	
The entity's risk assessment process (Ref: Para. 13(g))		
A32. Understanding how the entity's risk assessment process identifies and		

[28] See, for example, International Financial Reporting Standard (IFRS) 13, *Fair Value Measurement*.

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addresses risks relating to accounting estimates may assist the auditor in considering changes in:		
• The requirements of the applicable financial reporting framework related to the accounting estimates;		
• The availability or nature of data sources that are relevant to making the accounting estimates or that may affect the reliability of the data used;		
• The entity's information system or IT environment; and		
• Key personnel.		
A33. Matters that the auditor may consider in obtaining an understanding of how management identified and addresses the susceptibility to misstatement due to management bias or fraud in making accounting estimates, include whether, and if so how, management:		
• Pays particular attention to selecting or applying the methods, assumptions and data used in making		

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accounting estimates.		
• Monitors key performance indicators that may indicate unexpected or inconsistent performance compared with historical or budgeted performance or with other known factors.		
• Identifies financial or other incentives that may be a motivation for bias.		
• Monitors the need for changes in the methods, significant assumptions or the data used in making accounting estimates.		
• Establishes appropriate oversight and review of models used in making accounting estimates.		
• Requires documentation of the rationale for, or an independent review of, significant judgments made in making accounting estimates.		

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The entity's information system relating to accounting estimates (Ref: Para. 13(h)(i))		
A34. The classes of transactions, events and conditions within the scope of paragraph 13(h) are the same as the classes of transactions, events and conditions relating to accounting estimates and related disclosures that are subject to paragraphs 18(a) and (d) of ISA 315 (Revised). In obtaining the understanding of the entity's information system as it relates to accounting estimates, the auditor may consider:		
• Whether the accounting estimates arise from the recording of routine and recurring transactions or whether they arise from non-recurring or unusual transactions.		
• How the information system addresses the completeness of accounting estimates and related disclosures, in particular for accounting estimates related to liabilities.		

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A35. During the audit, the auditor may identify classes of transactions, events and conditions that give rise to the need for accounting estimates and related disclosures that management failed to identify. ISA 315 (Revised) deals with circumstances where the auditor identifies risks of material misstatement that management failed to identify, including determining whether there is a significant deficiency in internal control with regard to the entity's risk assessment process.[29]	**.A19** 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. Section 315 addresses circumstances in which the auditor identifies risks of material misstatement that management failed to identify, including determining whether a significant deficiency or material weakness in internal control exists with regard to the entity's risk assessment processes. [fn 10]	
Management's Identification of the Relevant Methods, Assumptions and Sources of Data (Ref: Para. 13(h)(ii)(a)		
A36. If management has changed the method for making an accounting estimate, considerations may include whether the new method is, for example, more appropriate, is itself a response to changes in the environment or circumstances affecting the entity, or to		

[29] ISA 315 (Revised), paragraph 17
[fn 10] Paragraph .17 of section 315.

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changes in the requirements of the applicable financial reporting framework or regulatory environment, or whether management has another valid reason.		
A37. If management has not changed the method for making an accounting estimate, considerations may include whether the continued use of the previous methods, assumptions and data is appropriate in view of the current environment or circumstances.		
Methods (Ref: Para. 13(h)(ii)(a)(i))		
A38. The applicable financial reporting framework may prescribe the method to be used in making an accounting estimate. In many cases, however, the applicable financial reporting framework does not prescribe a single method, or the required measurement basis prescribes, or allows, the use of alternative methods.	.A23 In some cases, the applicable financial reporting framework may prescribe the method of measurement for an accounting estimate (for example, a particular model that is to be used in measuring a fair value estimate). In many cases, however, the applicable financial reporting framework does not prescribe the method of measurement or may specify alternative methods for measurement.	
	.A24 When the applicable financial reporting framework does not prescribe a particular method to be used in the circumstances, matters that the auditor may	

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	consider in obtaining an understanding of the method or, when applicable, the model used to make accounting estimates include, for example • how management considered the nature of the asset or liability being estimated when selecting a particular method. • whether the entity operates in a particular business, industry, or environment in which methods commonly used to make the particular type of accounting estimate exist.	
	.A25 There may be greater risks of material misstatement, for example, in cases when management has internally developed a model to be used to make the accounting estimate or is departing from a method commonly used in a particular business, industry, or environment.	
Models		
A39. Management may design and implement specific controls around models used for making accounting estimates, whether management's own model or an external model. When the	.A27 Other controls may be relevant to making the accounting estimates, depending on the circumstances. For example, if the entity uses specific models for making accounting estimates, management may put	

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model itself has an increased level of complexity or subjectivity, such as an expected credit loss model or a fair value model using level 3 inputs, controls that address such complexity or subjectivity may be more likely to be identified as relevant to the audit. When complexity in relation to models is present, controls over data integrity are also more likely to be relevant to the audit. Factors that may be appropriate for the auditor to consider in obtaining an understanding of the model and of control activities relevant to the audit include the following:	into place specific policies and procedures around such models. These may include, for example, those established over • the design and development or selection of a particular model for a particular purpose. • the use of the model. • the maintenance and periodic validation of the integrity of the model. • security, such as controls that prevent changes to the model or data without authorization.	
• How management determines the relevance and accuracy of the model;		
o The validation or back testing of the model, including whether the model is validated prior to use and revalidated at regular intervals to determine whether it remains suitable for its intended use. The entity's validation of the model may include evaluation of:		
o The model's theoretical soundness;		

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o The model's mathematical integrity; and		
o The accuracy and completeness of the data and the appropriateness of data and assumptions used in the model.	A26 • how management determines the completeness, relevance, and accuracy of the data used to develop accounting estimates.	
• How the model is appropriately changed or adjusted on a timely basis for changes in market or other conditions and whether there are appropriate change control policies over the model;		
• Whether adjustments, also referred to as overlays in certain industries, are made to the output of the model and whether such adjustments are appropriate in the circumstances in accordance with the requirements of the applicable financial reporting framework. When the adjustments are not appropriate, such adjustments may be indicators of possible management bias; and		
• Whether the model is adequately documented, including its intended		

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applications, limitations, key parameters, required data and assumptions, the results of any validation performed on it and the nature of, and basis for, any adjustments made to its output.		
Assumptions (Ref: Para. 13(h)(ii)(a)(ii))		
	.A31 In some cases, assumptions may be referred to as *inputs* (for example, when management uses a model to make an accounting estimate), though the term *inputs* may also be used to refer to the underlying data to which specific assumptions are applied.	
	.A32 Management may support assumptions with different types of information drawn from internal and external sources, the relevance and reliability of which will vary. In some cases, an assumption may be reliably based on applicable information from either external sources (for example, published interest rate or other statistical data) or internal sources (for example, historical information or previous conditions experienced by the entity). In other cases, an assumption may be more subjective (for example, when the entity has no experience or	

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	external sources from which to draw).	
	.A33 In the case of fair value accounting estimates, assumptions reflect, or are consistent with, what knowledgeable, willing arm's length parties (sometimes referred to as *market participants* or equivalent) would use in determining fair value when exchanging an asset or settling a liability. Specific assumptions also will vary with the characteristics of the asset or liability being valued; the valuation technique used (for example, a market approach or an income approach); and the requirements of the applicable financial reporting framework.	
A40. Matters that the auditor may consider in obtaining an understanding of how management selected the assumptions used in making the accounting estimates include, for example:		
• The basis for management's selection and the documentation supporting the selection of the assumption. The applicable financial reporting framework may provide criteria or guidance to be used in the selection of an assumption.	A30 • the nature and extent of documentation, if any, supporting the assumptions.	

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• How management assesses whether the assumptions are relevant and complete.		
• When applicable, how management determines that the assumptions are consistent with each other, with those used in other accounting estimates or areas of the entity's business activities, or with other matters that are:		
o Within the control of management (for example, assumptions about the maintenance programs that may affect the estimation of an asset's useful life), and whether they are consistent with the entity's business plans and the external environment; and	A30 • whether the assumptions relate to matters within the control of management (for example, assumptions about the maintenance programs that may affect the estimation of an asset's useful life) and how they conform to the entity's business plans and the external environment or to matters that are outside its control (for example, assumptions about interest rates, mortality rates, potential judicial or regulatory actions, or the variability and timing of future cash flows).	
o Outside the control of management (for example, assumptions about interest rates,		

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mortality rates or potential judicial or regulatory actions).		
• The requirements of the applicable financial reporting framework related to the disclosure of assumptions.		
A41. With respect to fair value accounting estimates, assumptions vary in terms of the sources of the data and the basis for the judgments to support them, as follows: *a.* Those that reflect what marketplace participants would use in pricing an asset or liability, developed based on market data obtained from sources independent of the reporting entity. *b.* Those that reflect the entity's own judgments about what assumptions marketplace participants would use in pricing the asset or liability, developed based on the best data available in the circumstances. In practice, however, the distinction between (a) and (b) may not always be apparent and distinguishing between them depends on understanding the sources of data and the basis for the judgments that support the assumption. Further, it may be necessary for management to select from a	.A34 With respect to fair value accounting estimates, assumptions or inputs vary in terms of their source and bases, as follows: *a.* Those that reflect what market participants would use in pricing an asset or a liability, developed based on market data obtained from sources independent of the reporting entity (sometimes referred to as *observable inputs* or equivalent) *b.* Those that reflect the entity's own judgments about what assumptions market participants would use in pricing the asset or liability, developed based on the best information available in the circumstances (sometimes referred to as *unobservable inputs* or equivalent) In practice, however, the distinction between *a* and *b* is not always apparent. Further, it may be necessary for management to select from a number of different assumptions used by	

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number of different assumptions used by different marketplace participants.	different market participants.	
	.A35 The extent of subjectivity, such as whether an assumption or input is observable, influences the degree of estimation uncertainty and, thereby, the auditor's assessment of the risks of material misstatement for a particular accounting estimate.	
A42. Assumptions used in making an accounting estimate are referred to as significant assumptions in this ISA if a reasonable variation in the assumption would materially affect the measurement of the accounting estimate. A sensitivity analysis may be useful in demonstrating the degree to which the measurement varies based on one or more assumptions used in making the accounting estimate.	.A113 An assumption used in making an accounting estimate may be deemed to be significant if a reasonable variation in the assumption would materially affect the measurement of the accounting estimate.	
	.A110 A sensitivity analysis may demonstrate that an accounting estimate is not sensitive to changes in particular assumptions. Alternatively, it may demonstrate that the accounting estimate is sensitive to one or more assumptions that then become the focus of the auditor's attention.	

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	.A114 Support for significant assumptions derived from management's knowledge may be obtained from management's continuing processes of strategic analysis and risk management. Even without formal established processes, such as may be the case in smaller entities, the auditor may be able to evaluate the assumptions through inquiries of, and discussions with, management, along with other audit procedures, in order to obtain sufficient appropriate audit evidence.	
	.A115 The auditor's considerations in evaluating assumptions made by management are described in paragraphs .A78–.A89.	
Inactive or illiquid markets		
A43. When markets are inactive or illiquid, the auditor's understanding of how management selects assumptions may include understanding whether management has:		
• Implemented appropriate policies for adapting the application of the method in such circumstances. Such adaptation may include making model adjustments or developing		

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new models that are appropriate in the circumstances;		
• Resources with the necessary skills or knowledge to adapt or develop a model, if necessary on an urgent basis, including selecting the valuation technique that is appropriate in such circumstances;		
• The resources to determine the range of outcomes, given the uncertainties involved, for example by performing a sensitivity analysis;		
• The means to assess how, when applicable, the deterioration in market conditions has affected the entity's operations, environment and relevant business risks and the implications for the entity's accounting estimates, in such circumstances; and		
• An appropriate understanding of how the price data, and the relevance thereof, from particular external information sources may vary in such circumstances.		

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Data (Ref: Para. 13(h)(ii)(a)(iii))		
A44. Matters that the auditor may consider in obtaining an understanding of how management selects the data on which the accounting estimates are based include:		
• The nature and source of the data, including information obtained from an external information source.		
• How management evaluates whether the data is appropriate.		
• The accuracy and completeness of the data.		
• The consistency of the data used with data used in previous periods.		
• The complexity of the information technology systems used to obtain and process the data, including when this involves handling large volumes of data.		
• How the data is obtained, transmitted and processed and how its integrity is maintained.		

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How management understands and addresses estimation uncertainty (Ref: Para. 13(h)(ii)(b)– 13(h)(ii)(c))		
A45. Matters that may be appropriate for the auditor to consider relating to whether and how management understands the degree of estimation uncertainty include, for example:		
• Whether, and if so, how management identified alternative methods, significant assumptions or sources of data that are appropriate in the context of the applicable financial reporting framework.		
• Whether, and if so, how management considered alternative outcomes by, for example, performing a sensitivity analysis to determine the effect of changes in the significant assumptions or the data used in making the accounting estimate.		
A46. The requirements of the applicable financial reporting framework may specify the approach to selecting management's point estimate from the reasonably possible measurement outcomes. Financial		

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reporting frameworks may recognize that the appropriate amount is one that is appropriately selected from the reasonably possible measurement outcomes and, in some cases, may indicate that the most relevant amount may be in the central part of that range.		
A47. For example, with respect to fair value estimates, IFRS[30] indicates that, if multiple valuation techniques are used to measure fair value, the results (i.e., respective indications of fair value) shall be evaluated considering the reasonableness of the range of values indicated by those results. A fair value measurement is the point within that range that is most representative of fair value in the circumstances. In other cases, the applicable financial reporting framework may specify the use of a probability-weighted average of the reasonably possible measurement outcomes, or of the measurement amount that is most likely or that is more likely than not.		
A48. The applicable financial reporting framework may prescribe disclosures or disclosure objectives related to accounting estimates, and some entities may choose to		

[30] IFRS 13, Fair Value Measurement, paragraph 63

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disclose additional information. These disclosures or disclosure objectives may address, for example:		
• The method of estimation used, including any applicable model and the basis for its selection.		
• Information that has been obtained from models, or from other calculations used to determine estimates recognized or disclosed in the financial statements, including information relating to the underlying data and assumptions used in those models, such as:		
o Assumptions developed internally; or		
o Data, such as interest rates, that are affected by factors outside the control of the entity.		
• The effect of any changes to the method of estimation from the prior period.		
• The sources of estimation uncertainty.		

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• Fair value information.		
• Information about sensitivity analyses derived from financial models that demonstrates that management has considered alternative assumptions.		
A49. In some cases, the applicable financial reporting framework may require specific disclosures regarding estimation uncertainty, for example:	.A30 Assumptions may be characterized by predictions of future conditions, transactions, or events used in making an estimate and are integral components of accounting estimates. Matters that the auditor may consider in obtaining an understanding of the assumptions underlying the accounting estimates include, for example	
• The disclosure of information about the assumptions made about the future and other major sources of estimation uncertainty that give rise to a higher likelihood or magnitude of material adjustment to the carrying amounts of assets and liabilities after the period end. Such requirements may be described using terms such as "Key Sources of Estimation Uncertainty" or "Critical Accounting Estimates." They may relate to accounting		

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estimates that require management's most difficult, subjective or complex judgments. Such judgments may be more subjective and complex, and accordingly the potential for a consequential material adjustment to the carrying amounts of assets and liabilities may increase, with the number of items of data and assumptions affecting the possible future resolution of the estimation uncertainty. Information that may be disclosed includes:		
o The nature of the assumption or other source of estimation uncertainty;	A30 • the nature of the assumptions, including which of the assumptions are likely to be significant assumptions.	
o The sensitivity of carrying amounts to the methods and assumptions used, including the reasons for the sensitivity;		
o The expected resolution of an uncertainty and the range of reasonably possible outcomes in respect of the carrying amounts of the assets and liabilities affected; and		

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o An explanation of changes made to past assumptions concerning those assets and liabilities, if the uncertainty remains unresolved.		
• The disclosure of the range of possible outcomes, and the assumptions used in determining the range.		
• The disclosure of specific information, such as:		
o Information regarding the significance of fair value accounting estimates to the entity's financial position and performance; and		
o Disclosures regarding market inactivity or illiquidity.		
• Qualitative disclosures such as the exposures to risk and how they arise, the entity's objectives, policies and procedures for managing the risk and the methods used to measure the risk and any changes from the previous period of these qualitative concepts.		

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• Quantitative disclosures such as the extent to which the entity is exposed to risk, based on information provided internally to the entity's key management personnel, including credit risk, liquidity risk and market risk.		
Control Activities Relevant to the Audit Over Management's Process for Making Accounting Estimates (Ref: Para 13(i))		
A50. The auditor's judgment in identifying controls relevant to the audit, and therefore the need to evaluate the design of those controls and determine whether they have been implemented,		
relates to management's process described in paragraph 13(h)(ii). The auditor may not identify relevant control activities in relation to all the elements of paragraph 13(h)(ii), depending on the complexity associated with the accounting estimate.		
A51. As part of obtaining an understanding of the control activities relevant to the audit, the auditor may consider:		

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• How management determines the appropriateness of the data used to develop the accounting estimates, including when management uses an external information source or data from outside the general and subsidiary ledgers.	A30 • how management assesses whether the assumptions are relevant and complete (that is, that all relevant variables have been taken into account).	-
• The review and approval of accounting estimates, including the assumptions or data used in their development, by appropriate levels of management and, where appropriate, those charged with governance.	A26 • the review and approval of accounting estimates, including the assumptions or inputs used in their development, by appropriate levels of management and, when appropriate, those charged with governance.	
• The segregation of duties between those responsible for making the accounting estimates and those committing the entity to the related transactions, including whether the assignment of responsibilities appropriately takes account of the nature of the entity and its products or services. For example, in the case of a large financial institution, relevant segregation of duties may consist of an independent function responsible for estimation and validation of fair value pricing of the entity's financial	A26 • the segregation of duties between those committing the entity to the underlying transactions and those responsible for making the accounting estimates, including whether the assignment of responsibilities appropriately takes account of the nature of the entity and its products or services (for example, in the case of a large financial institution, relevant segregation of duties may include an independent function responsible for	

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products staffed by individuals whose remuneration is not tied to such products.	estimation and validation of fair value pricing of the entity's proprietary financial products staffed by individuals whose remuneration is not tied to such products).	
	• services provided by a service organization, if any, to provide fair value or other accounting estimates measurements or the data that supports the measurement. When an entity uses a service organization, section 402, *Audit Considerations Relating to an Entity Using a Service Organization*, applies.	
• The effectiveness of the design of the control activities. Generally, it may be more difficult for management to design controls that address subjectivity and estimation uncertainty in a manner that effectively prevents, or detects and corrects, material misstatements, than it is to design controls that address complexity. Controls that address subjectivity and estimation uncertainty may need to include more manual elements, which may be less reliable than automated controls as		

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they can be more easily bypassed, ignored or overridden by management. The design effectiveness of controls addressing complexity may vary depending on the reason for, and the nature of, the complexity. For example, it may be easier to design more effective controls related to a method that is routinely used or over the integrity of data.		
A52. When management makes extensive use of information technology in making an accounting estimate, controls relevant to the audit are likely to include general IT controls and application controls. Such controls may address risks related to:		
• Whether the information technology system has the capability and is appropriately configured to process large volumes of data;		
• Complex calculations in applying a method. When diverse systems are required to process complex transactions, regular reconciliations between the systems are made, in particular when the systems do not		

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have automated interfaces or may be subject to manual intervention;		
• Whether the design and calibration of models is periodically evaluated;		
• The complete and accurate extraction of data regarding accounting estimates from the entity's records or from external information sources;		
• Data, including the complete and accurate flow of data through the entity's information system, the appropriateness of any modification to the data used in making accounting estimates, the maintenance of the integrity and security of the data. When using external information sources, risks related to processing or recording the data;		
• Whether management has controls around access, change and maintenance of individual models to maintain a strong audit trail of the accredited versions of models and to prevent unauthorized access or amendments to those models; and		

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
• Whether there are appropriate controls over the transfer of information relating to accounting estimates into the general ledger, including appropriate controls over journal entries.		
A53. In some industries, such as banking or insurance, the term governance may be used to describe activities within the control environment, monitoring of controls, and other components of internal control, as described in ISA 315 (Revised).[31]		
A54. For entities with an internal audit function, its work may be particularly helpful to the auditor in obtaining an understanding of:		
• The nature and extent of management's use of accounting estimates;		
• The design and implementation of control activities that address the risks related to the data, assumptions and models used to make the		

[31] ISA 315 (Revised) paragraph A77

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
accounting estimates;		
• The aspects of the entity's information system that generate the data on which the accounting estimates are based; and		
• How new risks relating to accounting estimates are identified, assessed and managed.		
Reviewing the Outcome or Re-Estimation of Previous Accounting Estimates (Ref: Para. 14)	***Reviewing Prior Period Accounting Estimates (Ref: par. .09)***	
A55. A review of the outcome or re-estimation of previous accounting estimates (retrospective review) assists in identifying and assessing the risks of material misstatement when previous accounting estimates have an outcome through transfer or realization of the asset or liability in the current period, or are re-estimated for the purpose of the current period. Through performing a retrospective review, the auditor may obtain:	.A39 The outcome of an accounting estimate will often differ from the accounting estimate recognized in the prior period financial statements. By performing risk assessment procedures to identify and understand the reasons for such differences, the auditor may obtain	

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
• Information regarding the effectiveness of management's previous estimation process, from which the auditor can obtain audit evidence about the likely effectiveness of management's current process	• information regarding the effectiveness of management's prior period estimation process, from which the auditor can judge the likely effectiveness of management's current process;	
	• audit evidence that is pertinent to the reestimation, in the current period, of prior period accounting estimates; or	
• Audit evidence of matters, such as the reasons for changes that may be required to be disclosed in the financial statements.	• audit evidence of matters that may be required to be disclosed in the financial statements, such as estimation uncertainty.	
• Information regarding the complexity or estimation uncertainty pertaining to the accounting estimates.		
• Information regarding the susceptibility of accounting estimates to, or that may be an indicator of, possible management bias. The auditor's professional skepticism assists in identifying such circumstances or conditions and in determining the nature, timing and		

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
extent of further audit procedures.		
A56. A retrospective review may provide audit evidence that supports the identification and assessment of the risks of material misstatement in the current period. Such a retrospective review may be performed for accounting estimates made for the prior period's financial statements, or may be performed over several periods or a shorter period (such as half-yearly or quarterly). In some cases, a retrospective review over several periods may be appropriate when the outcome of an accounting estimate is resolved over a longer period.	.A40 The review of prior period accounting estimates may also assist the auditor, in the current period, in identifying circumstances or conditions that increase the susceptibility of accounting estimates to, or indicate the presence of, possible management bias. The auditor's professional skepticism assists in identifying such circumstances or conditions and in determining the nature, timing, and extent of further audit procedures.	
A57. A retrospective review of management judgments and assumptions related to significant accounting estimates is required by ISA 240.[32] As a practical matter, the auditor's review of previous	.A41 A retrospective review of management judgments and assumptions related to significant accounting estimates is also required by section 240, *Consideration of Fraud in a Financial Statement Audit*. [fn 12]	

[32] [37] ISA 240, *The Auditor's Responsibilities Relating to Fraud in an Audit of Financial Statements*, paragraph 32(b)(ii)

[fn 12] Paragraph .32 of section 240, *Consideration of Fraud in a Financial Statement Audit*.

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
accounting estimates as a risk assessment procedure in accordance with this ISA may be carried out in conjunction with the review required by ISA 240.	That review is conducted as part of the requirement for the auditor to design and perform procedures to review accounting estimates for biases that could represent a risk of material misstatement due to fraud, in response to the risks of management override of controls. As a practical matter, the auditor's review of prior period accounting estimates as a risk assessment procedure in accordance with this section may be carried out in conjunction with the review required by section 240.	
A58. Based on the auditor's previous assessment of the risks of material misstatement, for example, if inherent risk is assessed as higher for one or more risks of material misstatement, the auditor may judge that a more detailed retrospective review is required. As part of the detailed retrospective review, the auditor may pay particular attention, when practicable, to the effect of data and significant assumptions used in making the previous accounting estimates. On the other hand, for example, for accounting estimates that arise from the recording of routine and recurring transactions, the auditor may judge that the application of analytical procedures as risk assessment procedures	.A42 The auditor may judge that a more detailed review is required for those accounting estimates that were identified during the prior period audit as having high estimation uncertainty or for those accounting estimates that have changed significantly from the prior period. On the other hand, for example, for accounting estimates that arise from the recording of routine and recurring transactions, the auditor may judge that the application of analytical procedures as risk assessment procedures is sufficient for purposes of the review.	

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
is sufficient for purposes of the review.		
A59. The measurement objective for fair value accounting estimates and other accounting estimates, based on current conditions at the measurement date, deals with perceptions about value at a point in time, which may change significantly and rapidly as the environment in which the entity operates changes. The auditor may therefore focus the review on obtaining information that may be relevant to identifying and assessing risks of material misstatement. For example, in some cases, obtaining an understanding of changes in marketplace participant assumptions that affected the outcome of a previous period's fair value accounting estimates may be unlikely to provide relevant audit evidence. In this case, audit evidence may be obtained by understanding the outcomes of assumptions (such as a cash flow projections) and understanding the effectiveness of management's prior estimation process that supports the identification and assessment of the risk of material misstatement in the current period.	.A43 For fair value accounting estimates and other accounting estimates based on current conditions at the measurement date, more variation may exist between the fair value amount recognized in the prior period financial statements and the outcome (or the amount reestimated for the purpose of the current period). This is because the measurement objective for such accounting estimates deals with perceptions about value at a point in time, which may change significantly and rapidly as the environment in which the entity operates changes. Therefore, the auditor may focus the review on obtaining information that would be relevant to identifying and assessing risks of material misstatement. For example, in some cases, obtaining an understanding of changes in market participant assumptions that affected the outcome of a prior period fair value accounting estimate may be unlikely to provide relevant information for audit purposes. If so, then the auditor's consideration of the outcome of prior period fair value accounting estimates may be more appropriately directed toward understanding the effectiveness of management's prior	

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
	estimation process (that is, management's track record) from which the auditor can judge the likely effectiveness of management's current process.	
A60. A difference between the outcome of an accounting estimate and the amount recognized in the previous period's financial statements does not necessarily represent a misstatement of the previous period's financial statements. However, such a difference may represent a misstatement if, for example, the difference arises from information that was available to management when the previous period's financial statements were finalized, or that could reasonably be expected to have been obtained and taken into account in the context of the applicable financial reporting framework.[33] Such a difference may call into question management's process for taking information into account in making the accounting estimate. As a result, the auditor may reassess control risk and may determine that more persuasive audit evidence needs to be obtained about the matter. Many financial reporting	.A44 A difference between the outcome of an accounting estimate and the amount recognized in the prior period financial statements does not necessarily represent a misstatement of the prior period financial statements. However, it may do so if, for example, the difference arises from information that was available to management when the prior period's financial statements were finalized or that could reasonably be expected to have been obtained and taken into account in the preparation of those financial statements. Section 560, *Subsequent Events and Subsequently Discovered Facts*, addresses situations when facts become known to the auditor after the date of the auditor's report that, had they been known to the auditor at the date of the auditor's report, may have caused the auditor to revise the auditor's report. The applicable financial reporting framework may contain guidance on distinguishing between changes in accounting estimates that constitute misstatements and	

[33] [38] ISA 560, Subsequent Events, paragraph 14

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
frameworks contain guidance on distinguishing between changes in accounting estimates that constitute misstatements and changes that do not, and the accounting treatment required to be followed in each case.	changes that do not and the accounting treatment required to be followed.	
Specialized Skills or Knowledge (Ref: Para. 15)		
	.A102 In planning the audit, the auditor is required by section 300, Planning an Audit, to ascertain the nature, timing, and extent of resources necessary to perform the audit engagement. [fn 22] This may include, as necessary, the involvement of those with specialized skills or knowledge. In addition, section 220, Quality Control for an Engagement Conducted in Accordance With Generally Accepted Auditing Standards, requires the engagement partner to be satisfied that the engagement team and any auditor's specialists who are not part of the engagement team collectively have the appropriate competence and capabilities to perform the	

[fn 22] Paragraph .08 of section 300, *Planning an Audit*.

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	audit engagement. [fn 23] During the course of the audit of accounting estimates, the auditor may identify, in light of the experience of the auditor and the circumstances of the engagement, the need for specialized skills or knowledge to be applied regarding one or more aspects of the accounting estimates.	
A61. Matters that may affect the auditor's determination of whether the engagement team requires specialized skills or knowledge, include, for example:[34]	.A103 Matters that may affect the auditor's consideration of whether specialized skills or knowledge is required include, for example, the following:	
• The nature of the accounting estimates for a particular business or industry (for example, mineral deposits, agricultural assets, complex financial instruments, insurance contract liabilities).	• The nature of the underlying asset, liability, or component of equity in a particular business or industry (for example, mineral deposits, agricultural assets, or complex financial instruments)	
• The degree of estimation uncertainty.	• A high degree of estimation uncertainty	

fn 23 Paragraph .16 of section 220, *Quality Control for an Engagement Conducted in Accordance With Generally Accepted Auditing Standards*.

34 [39] ISA 220, *Quality Control for an Audit of Financial Statements*, paragraph 14 and ISA 300, *Planning an Audit of Financial Statements*, paragraph 8(e)

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• The complexity of the method or model used.	• Complex calculations or specialized models are involved (for example, when estimating fair values when no observable market exists)	
• The complexity of the requirements of the applicable financial reporting framework relevant to accounting estimates, including whether there are areas known to be subject to differing interpretation or practice or areas where there are inconsistencies in how accounting estimates are made.	• The complexity of the requirements of the applicable financial reporting framework relevant to accounting estimates, including whether there are areas known to be subject to differing interpretation or practice is inconsistent or developing	
• The procedures the auditor intends to undertake in responding to assessed risks of material misstatement.	• The procedures that the auditor intends to undertake in responding to assessed risks	
• The need for judgment about matters not specified by the applicable financial reporting framework.		
• The degree of judgment needed to select data and assumptions.		
• The complexity and extent of the entity's use of information technology in making accounting		

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
estimates.		
• The nature, timing and extent of the involvement of individuals with specialized skills and knowledge may vary throughout the audit.		
A62. The auditor may not possess the specialized skills or knowledge necessary when the matter involved is in a field other than accounting or auditing (for example, valuation skills) and may need to use an auditor's expert.[35]	.A105 However, the auditor may not possess the specialized skills or knowledge required when the matter involved is in a field other than accounting or auditing and may need to obtain it from an auditor's specialist. Section 620, *Using the Work of an Auditor's Specialist*, addresses determining the need to employ or engage an auditor's specialist and the auditor's responsibilities when using the work of an auditor's specialist.	
A63. Many accounting estimates do not require the application of specialized skills or knowledge. For example, specialized skills or knowledge may not be needed for a simple inventory obsolescence calculation. However, for example, for expected credit losses of a banking institution or an insurance contract liability for an insurance entity, the auditor is likely to conclude that it is necessary to apply specialized skills or	.A104 For the majority of accounting estimates, even when estimation uncertainty exists, it is unlikely that specialized skills or knowledge will be required. For example, it is unlikely that specialized skills or knowledge would be necessary for an auditor to evaluate an allowance for doubtful accounts.	

[35] ISA 620, *Using the Work of an Auditor's Expert*

ISA 540 (Revised)[20]	Extant AU-C 540	PCAOB AS 2501
knowledge.		
	.A106 Further, in some cases, the auditor may conclude that it is necessary to obtain specialized skills or knowledge related to specific areas of accounting or auditing. Individuals with such skills or knowledge may be employed by the auditor's firm or engaged from an external organization outside of the auditor's firm. When such individuals perform audit procedures on the engagement, they are part of the engagement team, and accordingly, they are subject to the requirements in section 220.	
	.A107 Depending on the auditor's understanding of, and experience working with, the auditor's specialist or those other individuals with specialized skills or knowledge, the auditor may consider it appropriate to discuss matters such as the requirements of the applicable financial reporting framework with the individuals involved to establish that their work is relevant for audit purposes.	

Exhibit 7 — Responses to Risk of Material Misstatement (issue 10 from agenda item 4)
(ISA 540 (Revised) paragraph 18-31 and A81-A132; extant AU-C 540 paragraphs 12-13, 15-17, A36-A37, A58-A59, A63-A88, A90-A101, A108-A109, A111-A112, and A116-A121; PCAOB AS 2501 paragraph 5-7, 9-29 and 31)

ISA 540 (Revised)[36]	**Extant AU-C 540**	**PCAOB AS 2501**
Responses to the Assessed Risks of Material Misstatement	**Responding to the Assessed Risks of Material Misstatement**	***Responding to the Risks of Material Misstatement***
	.12 Based on the assessed risks of material misstatement, the auditor should determine (Ref: par. .A52) *a.* whether management has appropriately applied the requirements of the applicable financial reporting framework relevant to the accounting estimate and (Ref: par. .A53-.A57) *b.* whether the methods for making the accounting estimates are appropriate and have been applied consistently and whether changes from the prior period, if any, in accounting estimates or the method for making them are appropriate in the circumstances. (Ref: par. .A58-.A59)	.05 AS 2301, The Auditor's Responses to the Risks of Material Misstatement, requires the auditor to design and implement appropriate responses that address risks of material misstatement. This includes applying substantive procedures to accounting estimates in significant accounts and disclosures.

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ISA 540 (Revised)[36]	Extant AU-C 540	PCAOB AS 2501
		Note: Responding to the risks of material misstatement involves evaluating whether the accounting estimates are in conformity with the applicable financial reporting framework[37] and reasonable in the circumstances, as well as evaluating potential management bias in accounting estimates and its effect on the financial statements.[38] Note: If different components of an accounting estimate in a significant account or disclosure are subject to significantly differing risks of material misstatement, the auditor's responses should include procedures that are responsive to the differing risks of material misstatement. Note: The auditor's responses to the assessed risks of material misstatement, particularly fraud risks, should involve the application of professional skepticism in gathering and evaluating audit evidence.[39] Audit evidence consists of both information that supports and corroborates management's assertions regarding the financial statements and information that contradicts such assertions.[40]

ISA 540 (Revised)[36]	Extant AU-C 540	PCAOB AS 2501
18. As required by ISA 330,[41] the auditor's further audit procedures shall be responsive to the assessed risks of material misstatement at the assertion level,[42] considering the reasons for the assessment given to those risks. The auditor's further audit procedures shall include one or more of the following approaches:	**.13** In responding to the assessed risks of material misstatement, as required by section 330, the auditor should undertake one or more of the following, taking into account the nature of the accounting estimate: [fn 5] (Ref: par. .A60-.A62)	.07 In performing substantive procedures[43] to respond to the identified and assessed risks of material misstatement associated with accounting estimates, the auditor should test an accounting estimate using one or a combination of the following approaches:
a. Obtaining audit evidence from events occurring up to the date of the auditor's report (see paragraph 21);	13 a. Determine whether events occurring up to the date of the auditor's report provide audit evidence regarding the accounting estimate. (Ref: pr. .A63-.A67)	c. Evaluate audit evidence from events or transactions occurring after the measurement date related to the accounting estimate for comparison to the company's estimate (see paragraphs .27–.29 of this standard).
b. Testing how management made the accounting estimate (see paragraphs 22–	13b. Test how management made the accounting estimate and the data on which it is	a. Test the company's process used to develop the accounting estimate (see

[37] See AS 2301.36.
[38] See also paragraphs .24–.27 of AS 2810, Evaluating Audit Results, which describe the auditor's responsibilities for evaluating the qualitative aspects of the company's accounting practices, including evaluating potential management bias in accounting estimates and its effect on the financial statements.
[39] See AS 2301.07.
[40] See paragraph .02 of AS 1105, Audit Evidence.
[41] ISA 330, paragraphs 6–15 and 18
[42] ISA 330, paragraphs 6–7 and 21
[fn 5] Paragraphs .05–.06 of section 330, *Performing Audit Procedures in Response to Assessed Risks and Evaluating the Audit Evidence Obtained*.

[43] AS 2301.36 states that the auditor should perform substantive procedures for each relevant assertion of each significant account and disclosure, regardless of the assessed level of control risk.

ISA 540 (Revised)[36]	Extant AU-C 540	PCAOB AS 2501
27); or	based. In doing so, the auditor should evaluate whether (Ref: par. .A68-.A71) i. the method of measurement used is appropriate in the circumstances, (Ref: par. .A72-.A77) ii. the assumptions used by management are reasonable in light of the measurement objectives of the applicable financial reporting framework, and (Ref: par, .A78-.A89) iii. the data on which the estimate is based is sufficiently reliable for the auditor's purposes. (Ref: par. .A70)	paragraphs .09–.20 of this standard);
	13 c. Test the operating effectiveness of the controls over how management made the accounting estimate, together with appropriate substantive procedures. (Ref: par. .A90-.A92)	
c. Developing an auditor's point estimate or range (see paragraphs 28–29).	13 d. Develop a point estimate or range to evaluate management's point estimate. For this purpose (Ref: par. .A93-.A97) i. if the auditor uses assumptions or methods that differ from management's, the auditor should obtain an understanding of management's assumptions or methods sufficient to establish that the auditor's point estimate or range takes into account relevant variables and to evaluate any significant	b. Develop an independent expectation for comparison to the company's estimate (see paragraphs .21–.26 of this standard); and

ISA 540 (Revised)[36]	Extant AU-C 540	PCAOB AS 2501
	differences from management's point estimate. (Ref: par. .A98) ii. if the auditor concludes that it is appropriate to use a range, the auditor should narrow the range, based on audit evidence available, until all outcomes within the range are considered reasonable. (Ref: par. .A99-.A101)	
		Note: The auditor may use any of the three approaches (individually or in combination). However, the auditor's decisions about the approach he or she takes to auditing an estimate should necessarily be informed by the auditor's understanding of the process the company used to develop the estimate and, if relevant controls are tested, the results of those tests.
	Further Substantive Procedures to Respond to Significant Risks (Ref: par. .A108)	
	Estimation Uncertainty	
	.15 For accounting estimates that give rise to significant risks, in addition to other substantive procedures performed to meet the	

ISA 540 (Revised)[36]	Extant AU-C 540	PCAOB AS 2501
	requirements of section 330, the auditor should evaluate the following: [fn 6] a. How management has considered alternative assumptions or outcomes and why it has rejected them or how management has otherwise addressed estimation uncertainty in making the accounting estimate (Ref: par. .A109-.A112) b. Whether the significant assumptions used by management are reasonable (Ref: par. .A113-.A115) c. When relevant to the reasonableness of the significant assumptions used by management or the appropriate application of the applicable financial reporting framework, management's intent to carry out specific courses of action and its ability to do so (Ref: par. .A116)	
	.16 If, in the auditor's professional judgment, management has not addressed adequately the effects of estimation uncertainty on the accounting estimates that give rise to significant risks, the auditor	

fn 6 Paragraph .18 of section 330.

ISA 540 (Revised)[36]	Extant AU-C 540	PCAOB AS 2501
	should, if considered necessary, develop a range with which to evaluate the reasonableness of the accounting estimate. (Ref: par. .A117-.A118)	
	Recognition and Measurement Criteria	
	.17 For accounting estimates that give rise to significant risks, the auditor should obtain sufficient appropriate audit evidence about whether *a.* management's decision to recognize or not recognize the accounting estimates in the financial statements and (Ref: par. .A119-.A120) *b.* the selected measurement basis for the accounting estimates (Ref: par. .A121)	
The auditor's further audit procedures shall take into account that the higher the assessed risk of material misstatement, the more persuasive the audit evidence needs to be.[44] The auditor shall design and perform further audit procedures in a manner that is not biased towards obtaining audit evidence that may be corroborative or		.06 AS 2301 provides that as the assessed risk of material misstatement increases, the evidence from substantive procedures that the auditor should obtain also increases. The evidence provided by substantive procedures depends upon the mix of the nature, timing, and extent of those procedures.[45]

[44] ISA 330, paragraph 7(b)
[45] See AS 2301.37.

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towards excluding audit evidence that may be contradictory. (Ref: Para. A81–A84)		
19. As required by ISA 330,[46] the auditor shall design and perform tests to obtain sufficient appropriate audit evidence as to the operating effectiveness of relevant controls, if:		
a. The auditor's assessment of risks of material misstatement at the assertion level includes an expectation that the controls are operating effectively, or		
b. Substantive procedures alone cannot provide sufficient appropriate audit evidence at the assertion level.		
In relation to accounting estimates, the auditor's tests of such controls shall be responsive to the reasons for the assessment given to the risks of material misstatement. In designing and performing tests of controls, the auditor shall obtain more persuasive audit evidence the greater the reliance the auditor places on the effectiveness of a control.[47] (Ref: Para.		

[46] ISA 330, paragraph 8
[47] ISA 330, paragraph 9

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A85–A89)		
20. For a significant risk relating to an accounting estimate, the auditor's further audit procedures shall include tests of controls in the current period if the auditor plans to rely on those controls. When the approach to a significant risk consists only of substantive procedures, those procedures shall include tests of details.[48] (Ref: Para. A90)		
Obtaining Audit Evidence from Events Occurring up to the Date of the Auditor's Report		***Evaluating Audit Evidence from Events or Transactions Occurring After the Measurement Date***
		.27 Events and transactions that occur after the measurement date can provide relevant evidence to the extent they reflect conditions at the measurement date.[49]
21. When the auditor's further audit procedures include obtaining audit evidence from events occurring up to the		.28 When the auditor obtains audit evidence from events or transactions that occur after the measurement date, the

[48] ISA 330, paragraphs 15 and 21

[49] Evaluating audit evidence from events or transactions occurring after the measurement date, as contemplated in this standard, is a substantive test that differs from the other auditing procedures performed under paragraph .12 of AS 2801, Subsequent Events. See also paragraph .11 of AS 1015, Due Professional Care in the Performance of Work, which provides that the auditor's evaluation of accounting estimates is to be based on information that could reasonably be expected to be available through the date of the auditor's report.

ISA 540 (Revised)[36]	Extant AU-C 540	PCAOB AS 2501
date of the auditor's report, the auditor shall evaluate whether such audit evidence is sufficient and appropriate to address the risks of material misstatement relating to the accounting estimate, taking into account that changes in circumstances and other relevant conditions between the event and the measurement date may affect the relevance of such audit evidence in the context of the applicable financial reporting framework. (Ref: Para. A91–A93)		auditor should evaluate whether the audit evidence is sufficient, reliable, and relevant to the company's accounting estimate and whether the evidence supports or contradicts the company's estimate.
		.29 In evaluating whether an event or transaction provides evidence relevant[50] to the accounting estimate at the measurement date, the auditor should take into account changes in the company's circumstances and other relevant conditions between the event or transaction date and the measurement date. Note: As the length of time from the measurement date increases, the likelihood that events and conditions have changed during the intervening period also increases.

[50] AS 1105.07 provides factors regarding the relevance of audit evidence.

ISA 540 (Revised)[36]	**Extant AU-C 540**	**PCAOB AS 2501**
Testing How Management Made the Accounting Estimate		***Testing the Company's Process Used to Develop the Accounting Estimate***
22. When testing how management made the accounting estimate, the auditor's further audit procedures shall include procedures, designed and performed in accordance with paragraphs 23–26, to obtain sufficient appropriate audit evidence regarding the risks of material misstatement relating to: (Ref: Para. A94)		.09 Testing the company's process involves performing procedures to test and evaluate the methods, data, and significant assumptions used in developing the estimate, in order to form a conclusion about whether the estimate is properly accounted for and disclosed in the financial statements.
a. The selection and application of the methods, significant assumptions and the data used by management in making the accounting estimate; and		
b. How management selected the point estimate and developed related disclosures about estimation uncertainty.		
Methods		**Evaluating the Company's Methods**
23. In applying the requirements of paragraph 22, with respect to methods, the auditor's further audit procedures shall address:		.10 The auditor should evaluate whether the methods used by the company to develop the accounting estimates are:

ISA 540 (Revised)[36]	Extant AU-C 540	PCAOB AS 2501
a. Whether the method selected is appropriate in the context of the applicable financial reporting framework, and, if applicable, changes from the method used in prior periods are appropriate; (Ref: Para. A95, A97)		a. In conformity with the requirements of the applicable financial reporting framework; and
		b. Appropriate for the nature of the related account or disclosure, taking into account the auditor's understanding of the company and its environment.[51]
		Note: Evaluating whether the methods are in conformity with the requirements of the applicable financial reporting framework includes evaluating whether the data is appropriately used and significant assumptions are appropriately applied under the applicable financial reporting framework.
b. Whether judgments made in selecting the method give rise to indicators of possible management bias; (Ref: Para. A96)		

[51] AS 2110.12–.13 describes the auditor's responsibilities for obtaining an understanding of the company's selection and application of accounting principles, as part of understanding the company and its environment. In addition, AS 2301.05d provides that the auditor should evaluate whether the company's selection and application of significant accounting principles, particularly those related to subjective measurements and complex transactions, are indicative of bias that could lead to material misstatement of the financial statements.

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c. Whether the calculations are applied in accordance with the method and are mathematically accurate;		
d. When management's application of the method involves complex modelling, whether judgments have been applied consistently and whether, when applicable: (Ref: Para. A98– A100)		
(i) The design of the model meets the measurement objective of the applicable financial reporting framework, is appropriate in the circumstances, and, if applicable, changes from the prior period's model are appropriate in the circumstances; and		
(ii) Adjustments to the output of the model are consistent with the measurement objective of the applicable financial reporting framework and are appropriate in the circumstances; and		
e. Whether the integrity of the significant assumptions and the data has been maintained in applying the method. (Ref: Para. A101)		

ISA 540 (Revised)[36]	Extant AU-C 540	PCAOB AS 2501
		.11 If the company has changed the method for determining the accounting estimate, the auditor should determine the reasons for such change and evaluate the appropriateness of the change. This includes evaluating changes in methods that represent changes in accounting principles in accordance with AS 2820, Evaluating Consistency of Financial Statements.[52] In circumstances where the company has determined that different methods result in significantly different estimates, the auditor should obtain an understanding of the reasons for the method selected by the company and evaluate the appropriateness of the selection.[53]
Significant Assumptions		**Identification of Significant Assumptions**
24. In applying the requirements of paragraph 22, with respect to significant assumptions, the auditor's further audit procedures shall address:		.15 The auditor should identify which of the assumptions used by the company are significant assumptions to the accounting estimate, that is, the assumptions that are important to the

[52] See also AS 2820.06, which describes the auditor's responsibility for evaluating a change in accounting estimate effected by a change in accounting principle.
[53] See also AS 2301.05d.

ISA 540 (Revised)[36]	Extant AU-C 540	PCAOB AS 2501
		recognition or measurement of the accounting estimate in the financial statements. In identifying the significant assumptions, the auditor should take into account the nature of the accounting estimate, including related risk factors,[54] the requirements of the applicable financial reporting framework, and the auditor's understanding of the company's process for developing the estimate. Examples of assumptions that ordinarily would be considered significant assumptions include those that: a. Are sensitive to variation, such that minor changes in the assumption can cause significant changes in the estimate; b. Are susceptible to manipulation or bias; c. Involve unobservable data or company adjustments of observable data; or d. Depend on the company's intent and ability to carry out specific courses of action.[55]

[54] For this purpose, related risk factors are those risk factors in AS 2110.60–.60A that are relevant to the accounting estimate.
[55] See paragraph .17 of this standard.

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		.16 The auditor should evaluate the reasonableness of the significant assumptions used by the company to develop the estimate, both individually and in combination. This includes evaluating whether: a. The company has a reasonable basis for the significant assumptions used and, when applicable, for its selection of assumptions from a range of potential assumptions; and b. The significant assumptions are consistent with the following, when applicable: (1) Relevant industry, regulatory, and other external factors, including economic conditions; (2) The company's objectives, strategies, and related business risks;[56] (3) Existing market information; (4) Historical or recent experience, taking into account changes in conditions and events affecting the company; and

[56] The understanding of the company and its environment obtained in performing the procedures required by AS 2110.07–.09 can provide information relevant to evaluating the reasonableness of significant assumptions pursuant to paragraphs.16b(1) and .16b(2) of this standard.

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		(5) Other significant assumptions used by the company in other estimates tested. Note: If the auditor evaluates the reasonableness of a significant assumption by developing an expectation of that assumption, the auditor should have a reasonable basis for that expectation. Note: Paragraph .A10 in Appendix A of this standard sets forth additional requirements related to evaluating the reasonableness of unobservable inputs used in the valuation of financial instruments.
a. Whether the significant assumptions are appropriate in the context of the applicable financial reporting framework, and, if applicable, changes from prior periods are appropriate; (Ref: Para. A95, A102–A103)		
b. Whether judgments made in selecting the significant assumptions give rise to indicators of possible management bias; (Ref: Para. A96)		

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c. Whether the significant assumptions are consistent with each other and with those used in other accounting estimates, or with related assumptions used in other areas of the entity's business activities, based on the auditor's knowledge obtained in the audit; and (Ref: Para. A104)		
d. When applicable, whether management has the intent to carry out specific courses of action and has the ability to do so. (Ref: Para. A105)		
		.17 When a significant assumption is based on the company's intent and ability to carry out a particular course of action, the auditor should take into account the following factors in evaluating the reasonableness of the assumption: a. The company's past history of carrying out its stated intentions; b. The company's written plans or other relevant documentation, such as budgets or minutes; c. The company's stated reasons for choosing a particular course of action; and

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		d. The company's ability to carry out a particular course of action, which includes consideration of whether: (1) The company has the financial resources and other means to carry out the action; (2) Legal, regulatory, or contractual restrictions could affect the company's ability to carry out the action; and (3) The company's plans require the action of third parties and, if so, whether those parties are committed to those actions.
		.18 For critical accounting estimates,[57] the auditor should obtain an understanding of how management analyzed the sensitivity of its significant assumptions to change, based on other reasonably likely outcomes that would have a material effect on its financial condition or operating performance.[58] The auditor should take that understanding into account when evaluating the reasonableness of the significant assumptions and potential

[57] See paragraph .A3 of AS 1301, Communications with Audit Committees.
[58] See U.S. Securities and Exchange Commission, Financial Reporting Release No. 72, Interpretation: Commission Guidance Regarding Management's Discussion and Analysis of Financial Condition and Results of Operations (Dec. 19, 2003), 68 FR 75056 (Dec. 29, 2003), at Section V ("Critical Accounting Estimates") for management's responsibilities related to critical accounting estimates.

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		management bias.[59]
Data		**Testing Data Used**
		.12 AS 1105 requires the auditor, when using information produced by the company as audit evidence, to evaluate whether the information is sufficient and appropriate for purposes of the audit by performing procedures to (1) test the accuracy and completeness of the information or test the controls over the accuracy and completeness of that information, and (2) evaluate whether the information is sufficiently precise and detailed for purposes of the audit.[60]
25. In applying the requirements of paragraph 22, with respect to data, the auditor's further audit procedures shall address:		.14 The auditor should also evaluate whether the data is appropriately used by the company in developing the accounting estimate by evaluating whether: a. The data is relevant to the measurement objective for the accounting estimate; b. The data is internally consistent

[59] See AS 2810.27.
[60] See AS 1105.10.

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		with its use by the company in other significant accounts and disclosures; and c. The source of the company's data has changed from the prior year and, if so, whether the change is appropriate.
a. Whether the data is appropriate in the context of the applicable financial reporting framework, and, if applicable, changes from prior periods are appropriate (Ref: Para. A95, A106);		
b. Whether judgments made in selecting the data give rise to indicators of possible management bias; (Ref: Para. A96)		
c. Whether the data is relevant and reliable in the circumstances; and (Ref: Para. A107)		.13 If the company uses data from an external source, the auditor should evaluate the relevance and reliability of the data in accordance with AS 1105.[61]
d. Whether the data has been appropriately understood or interpreted by management, including with respect to contractual terms. (Ref: Para. A108)		

[61] See AS 1105.07–.08. Appendix B of AS 1105 describes the auditor's responsibilities for obtaining sufficient appropriate evidence in situations in which the valuation of an investment is based on the investee's financial results.

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Management's Selection of a Point Estimate and Related Disclosures about Estimation Uncertainty		
26. In applying the requirements of paragraph 22, the auditor's further audit procedures shall address whether, in the context of the applicable financial reporting framework, management has taken appropriate steps to:		
a. Understand estimation uncertainty; and (Ref: Para. A109)		
b. Address estimation uncertainty by selecting an appropriate point estimate and by developing related disclosures about estimation uncertainty. (Ref: Para. A110–A114)		
27. When, in the auditor's judgment based on the audit evidence obtained, management has not taken appropriate steps to understand or address estimation uncertainty, the auditor shall: (Ref: Para. A115–A117)		
a. Request management to perform additional procedures to understand estimation uncertainty or to address it by		

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reconsidering the selection of management's point estimate or considering providing additional disclosures relating to the estimation uncertainty, and evaluate management's response(s) in accordance with paragraph 26;		
b. If the auditor determines that management's response to the auditor's request does not sufficiently address estimation uncertainty, to the extent practicable, develop an auditor's point estimate or range in accordance with paragraphs 28–29; and		
c. Evaluate whether a deficiency in internal control exists and, if so, communicate in accordance with ISA 265.[62]		
Developing an Auditor's Point Estimate or Range		***Developing an Independent Expectation of the Estimate***
28. When the auditor develops a point estimate or range to evaluate management's point estimate and related disclosures about estimation uncertainty, including when required by paragraph		.21 Developing an independent expectation involves the auditor using some or all of his or her own methods, data, and assumptions to develop an expectation of the estimate for comparison to the

[62] ISA 265, *Communicating Deficiencies in Internal Control to Those Charged with Governance and Management*

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27(b), the auditor's further audit procedures shall include procedures to evaluate whether the methods, assumptions or data used are appropriate in the context of the applicable financial reporting framework. Regardless of whether the auditor uses management's or the auditor's own methods, assumptions or data, these further audit procedures shall be designed and performed to address the matters in paragraphs 23–25. (Ref: Para. A118–A123)		company's estimate. The auditor's responsibilities with respect to developing an independent expectation depend on the source of the methods, data, and assumptions used, as discussed below. Note: In developing an independent expectation, the auditor should take into account the requirements of the applicable financial reporting framework and the auditor's understanding of the company's process, including the significant assumptions used by the company, so that the auditor's expectation considers the factors relevant to the estimate.
		.22 When the auditor independently derives assumptions or uses his or her own method in developing an independent expectation, the auditor should have a reasonable basis for the assumptions and method used.
29. If the auditor develops an auditor's range, the auditor shall:		
		Developing an Independent Expectation as a Range
a. Determine that the range includes only amounts that are supported by		.25 If the auditor's independent expectation consists of a range rather than

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sufficient appropriate audit evidence and have been evaluated by the auditor to be reasonable in the context of the measurement objectives and other requirements of the applicable financial reporting framework; and (Ref: Para. A124–A125)		a point estimate, the auditor should determine that the range encompasses only reasonable outcomes, in conformity with the applicable financial reporting framework, and is supported by sufficient appropriate evidence.
b. Design and perform further audit procedures to obtain sufficient appropriate audit evidence regarding the assessed risks of material misstatement relating to the disclosures in the financial statements that describe the estimation uncertainty.		
		Comparing the Auditor's Independent Expectation to the Company's Accounting Estimate
		.26 The auditor should compare the auditor's independent expectation to the company's estimate and should evaluate the differences in accordance with AS 2810.13.[63]

[63] AS 2810.13 states, among other things, that if a range of reasonable estimates is supported by sufficient appropriate audit evidence and the recorded estimate is outside of the range of reasonable estimates, the auditor should treat the difference between the recorded accounting estimate and the closest reasonable estimate as a misstatement. See also paragraph .30 of this standard.

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		Data and Assumptions Obtained from a Third Party
		.23 If the auditor uses data or assumptions obtained from a third party in developing an independent expectation, the auditor should evaluate the relevance and reliability of the data and assumptions obtained in accordance with AS 1105. Note: If the auditor develops an independent expectation of the fair value of financial instruments using pricing information from a third party, the auditor should evaluate whether the pricing information provides sufficient appropriate evidence. Paragraphs .A2–.A9 in Appendix A of this standard set forth procedures for evaluating whether third-party pricing information provides sufficient appropriate evidence.
		Use of Company Data, Assumptions, or Methods
		.24 If the auditor uses data produced by the company, significant assumptions used by the company, or the company's methods in developing an independent expectation, the auditor

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		should: a. Test such data in accordance with paragraphs .12–.14 of this standard; b. Evaluate the reasonableness of such significant assumptions in accordance with paragraphs .16–.18 of this standard; and c. Evaluate such company methods in accordance with paragraphs .10–.11 of this standard Note: If the company's data, assumptions, or methods were those of a company's specialist, the auditor should look to the requirements of Appendix A of AS 1105 with respect to using the work of the specialist as audit evidence.
Other Considerations Relating to Audit Evidence		
		Company's Use of a Specialist or Third-Party Pricing Information
30. In obtaining audit evidence regarding the risks of material misstatement relating to accounting estimates, irrespective of the sources of information to be used as audit evidence, the auditor shall comply with the		

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relevant requirements in ISA 500.		
When using the work of a management's expert, the requirements in paragraphs 21–29 of this ISA may assist the auditor in evaluating the appropriateness of the expert's work as audit evidence for a relevant assertion in accordance with paragraph 8(c) of ISA 500. In evaluating the work of the management's expert, the nature, timing and extent of the further audit procedures are affected by the auditor's evaluation of the expert's competence, capabilities and objectivity, the auditor's understanding of the nature of the work performed by the expert, and the auditor's familiarity with the expert's field of expertise. (Ref: Para. A126–A132)		.19 Using the Work of a Company's Specialist. When a specialist employed or engaged by the company assists the company in developing an accounting estimate, the auditor should look to the requirements in Appendix A of AS 1105 with respect to using the work of a company's specialist as audit evidence to support a conclusion regarding a relevant assertion of a significant account or disclosure. .20 Using Pricing Information from a Third Party for Valuation of Financial Instruments. When the auditor is auditing the fair values of financial instruments, the company's use of pricing information from a third party affects the necessary procedures for testing the company's process. When third-party pricing information used by the company is significant to the valuation of financial instruments, the auditor should evaluate whether the company has used that information appropriately and whether it provides sufficient appropriate evidence.

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		Paragraphs .A2–.A9 in Appendix A of this standard set forth procedures for determining whether third-party pricing information provides sufficient appropriate evidence.[64]
Disclosures Related to Accounting Estimates		
31. The auditor shall design and perform further audit procedures to obtain sufficient appropriate audit evidence regarding the assessed risks of material misstatement at the assertion level for disclosures related to an accounting estimate, other than those related to estimation uncertainty addressed in paragraphs 26(b) and 29(b).		
Application Material		
Reponses to the Assessed Risks of Material Misstatement		
The Auditor's Further Audit Procedures (Ref. Para. 18)		

[64] If the third party is a service organization that is part of the company's information system over financial reporting, AS 2601, Consideration of an Entity's Use of a Service Organization, describes the auditor's responsibilities for obtaining an understanding of controls at the service organization.

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A81. In designing and performing further audit procedures the auditor may use any of the three testing approaches (individually or in combination) listed in paragraph 18. For example, when several assumptions are used to make an accounting estimate, the auditor may decide to use a different testing approach for each assumption tested.		
Obtaining Relevant Audit Evidence Whether Corroborative or Contradictory		
A82. Audit evidence comprises both information that supports and corroborates management's assertions, and any information that contradicts such assertions.[65] Obtaining audit evidence in an unbiased manner may involve obtaining evidence from multiple sources within and outside		
the entity. However, the auditor is not required to perform an exhaustive search to identify all possible sources of audit evidence.		
A83. ISA 330 requires the auditor to obtain more persuasive audit evidence the higher		

[65] ISA 500, paragraph A1

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the auditor's assessment of the risk.[66] Therefore, the consideration of the nature or quantity of the audit evidence may be more important when inherent risks relating to an accounting estimate is assessed at the higher end of the spectrum of inherent risk.		
Scalability		
A84. The nature, timing and extent of the auditor's further audit procedures are affected by, for example:		
• The assessed risks of material misstatement, which affect the persuasiveness of the audit evidence needed and influence the approach the auditor selects to audit an accounting estimate. For example, the assessed risks of material misstatement relating to the existence or valuation assertions may be lower for a straightforward accrual for bonuses that are paid to employees shortly after period end. In this situation, it may be more practical for the auditor to obtain sufficient appropriate audit evidence by		

[66] ISA 330, paragraph 7(b), A19

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evaluating events occurring up to the date of the auditor's report, rather than through other testing approaches.		
• The reasons for the assessed risks of material misstatement.		
When the Auditor Intends to Rely on the Operating Effectiveness of Relevant Controls (Ref: Para: 19)		
A85. Testing the operating effectiveness of relevant controls may be appropriate when inherent risk is assessed as higher on the spectrum of inherent risk, including for significant risks. This may be the case when the accounting estimate is subject to or affected by a high degree of complexity. When the accounting estimate is affected by a high degree of subjectivity, and therefore requires significant judgment by management, inherent limitations in the effectiveness of the design of controls may lead the auditor to focus more on substantive procedures than on testing the operating effectiveness of controls.	.A90 Testing the operating effectiveness of the controls over how management made the accounting estimate may be an appropriate response when management's process has been well-designed, implemented, and maintained. For example	
	• when controls exist for the review and approval of the accounting estimates by appropriate levels of management and,	

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	when appropriate, those charged with governance. • when the accounting estimate is derived from the routine processing of data by the entity's accounting system.	
	.A91 Testing the operating effectiveness of the controls is required by section 330 when [fn 20] *a.* the auditor's assessment of risks of material misstatement at the relevant assertion level includes an expectation that controls over the process are operating effectively or *b.* substantive procedures alone do not provide sufficient appropriate audit evidence at the relevant assertion level.	
	.A92 *Considerations specific to smaller, less complex entities*. Controls over the process to make an accounting estimate may exist in smaller entities, but the formality with which they operate varies. Further, smaller entities may determine that certain types of controls	

fn 20 Paragraph .08 of section 330.

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	are not necessary because of active management involvement in the financial reporting process. In the case of very small entities, however, there may not be many controls that the auditor can identify. For this reason, the auditor's response to the assessed risks is likely to be substantive in nature, with the auditor performing one or more of the other responses in paragraph .13.	
A86. In determining the nature, timing and extent of testing of the operating effectiveness of controls relating to accounting estimates, the auditor may consider factors such as:		
• The nature, frequency and volume of transactions;		
• The effectiveness of the design of the controls, including whether controls are appropriately designed to respond to the assessed inherent risk, and the strength of governance;		
• The importance of particular controls to the overall control objectives and processes in place at the entity, including the sophistication of the information system to support		

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transactions;		
• The monitoring of controls and identified deficiencies in internal control;		
• The nature of the risks the controls are intended to address, for example, controls related to the exercise of judgment compared with controls over supporting data;		
• The competency of those involved in the control activities;		
• The frequency of performance of the control activities; and		
• The evidence of performance of control activities.		
Substantive Procedures Alone Cannot Provide Sufficient Appropriate Audit Evidence		
A87. In some industries, such as the financial services industry, management makes extensive use of IT to conduct business. It may therefore be more likely		

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that there are risks related to certain accounting estimates for which substantive procedures alone cannot provide sufficient appropriate audit evidence.		
A88. Circumstances when risks for which substantive procedures alone cannot provide sufficient appropriate audit evidence at the assertion level may exist include:		
• When controls are necessary to mitigate risks relating to the initiation, recording, processing, or reporting of information obtained from outside of the general and subsidiary ledgers.		
• Information supporting one or more assertions is electronically initiated, recorded, processed, or reported. This is likely to be the case when there is a high volume of transactions or data, or a complex model is used, requiring the extensive use of information technology to ensure the accuracy and completeness of the information. A complex expected credit loss provision may be required for a financial institution or utility entity. For example, in the case of a utility		

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entity, the data used in developing the expected credit loss provision may comprise many small balances resulting from a high volume of transactions. In these circumstances, the auditor may conclude that sufficient appropriate audit evidence cannot be obtained without testing controls around the model used to develop the expected credit loss provision.		
In such cases, the sufficiency and appropriateness of the audit evidence may depend on the effectiveness of controls over the accuracy and completeness of the information.		
A89. As part of the audit of the financial statements for certain entities (such as a bank or insurer), the auditor also may be required by law or regulation to undertake additional procedures in relation to, or to provide an assurance conclusion on, internal control. In these and other similar circumstances, the auditor may be able to use information obtained in performing such procedures as audit evidence, subject to determining whether subsequent changes have occurred that may affect its		

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relevance to the audit.		
Significant Risks (Ref: Para. 20)		
	Further Substantive Procedures to Respond to Significant Risks (Ref: par. .15–.17 and .20)	
	.A108 In auditing accounting estimates that give rise to significant risks, the auditor's further substantive procedures are focused on the evaluation of *a.* how management has assessed the effect of estimation uncertainty on the accounting estimate and the effect that such uncertainty may have on the appropriateness of the recognition of the accounting estimate in the financial statements and *b.* the adequacy of related disclosures. estimates that give rise to significant risks, the procedures that the auditor is required to perform to address the requirements in paragraphs .12–.13 may be performed in conjunction with the procedures performed to address the requirements in paragraphs .15–.17.	

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A90. When the auditor's further audit procedures in response to a significant risk consist only of substantive procedures, ISA 330[67] requires that those procedures include tests of details. Such tests of details may be designed and performed under each of the approaches described in paragraph 18 of this ISA based on the auditor's professional judgment in the circumstances. Examples of tests of details for significant risks related to accounting estimates include:		
• Examination, for example, examining contracts to corroborate terms or assumptions.		
• Recalculation, for example, verifying the mathematical accuracy of a model.		
• Agreeing assumptions used to supporting documentation, such as third-party published information.		
Obtaining Audit Evidence from Events Occurring up to the Date of the Auditor's Report (Ref: Para. 21)		

[67] ISA 330, paragraph 21

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	.A63 Determining whether events occurring up to the date of the auditor's report provide audit evidence regarding the accounting estimate may be an appropriate response when such events are expected to • occur and • provide audit evidence that confirms or contradicts the accounting estimate.	
A91. In some circumstances, obtaining audit evidence from events occurring up to the date of the auditor's report may provide sufficient appropriate audit evidence to address the risks of material misstatement. For example, sale of the complete inventory of a discontinued product shortly after the period end may provide sufficient appropriate audit evidence relating to the estimate of its net realizable value at the period end. In other cases, it may be necessary to use this testing approach in connection with another approach in paragraph 18.	**.A64** Events occurring up to the date of the auditor's report may sometimes provide sufficient appropriate audit evidence about an accounting estimate. For example, sale of the complete inventory of a superseded product shortly after the period-end may provide audit evidence relating to the estimate of its net realizable value. In such cases, there may be no need to perform additional audit procedures on the accounting estimate, provided that sufficient appropriate evidence about the events is obtained.	
A92. For some accounting estimates, events occurring up to the date of the	**.A65** For some accounting estimates, events occurring up to the date of the auditor's report	

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auditor's report are unlikely to provide sufficient appropriate audit evidence regarding the accounting estimate. For example, the conditions or events relating to some accounting estimates develop only over an extended period. Also, because of the measurement objective of fair value accounting estimates, information after the period-end may not reflect the events or conditions existing at the balance sheet date and therefore may not be relevant to the measurement of the fair value accounting estimate.	are unlikely to provide audit evidence regarding the accounting estimate. For example, the conditions or events relating to some accounting estimates develop only over an extended period. Also, because of the measurement objective of fair value accounting estimates, information after the period-end may not reflect the events or conditions existing at the balance sheet date and, therefore, may not be relevant to the measurement of the fair value accounting estimate. Paragraph .13 identifies other responses to the risks of material misstatement that the auditor may undertake.	
	.A66 In some cases, events that contradict the accounting estimate may indicate that the amount recorded is misstated, that management has ineffective processes for making accounting estimates, or that management bias exists in the making of accounting estimates.	
A93. Even if the auditor decides not to undertake this testing approach in respect of specific accounting estimates, the auditor is required to comply with ISA 560. ISA 560 requires the auditor to perform audit procedures designed to obtain sufficient appropriate audit evidence that all events	**.A67** Even though the auditor may decide not to undertake the approach referred to in paragraph .13*a* with respect to specific accounting estimates, the auditor is required to comply with section 560. The auditor is required to perform audit procedures designed to obtain sufficient appropriate audit evidence	

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occurring between the date of the financial statements and the date of the auditor's report that require adjustment of, or disclosure in, the financial statements have been identified[68] and appropriately reflected in the financial statements.[69] Because the measurement of many accounting estimates, other than fair value accounting estimates, usually depends on the outcome of future conditions, transactions or events, the auditor's work under ISA 560 is particularly relevant.	that all subsequent events that require adjustment of, or disclosure in, the financial statements have been identified. [fn 16] Because the measurement of many accounting estimates, other than fair value accounting estimates, usually depends on the outcome of future conditions, transactions, or events, the auditor's work under section 560 is particularly relevant.	
Testing How Management Made the Accounting Estimate (Ref. Para. 22)		
A94. Testing how management made the accounting estimate may be an appropriate approach when, for example:	**.A68** Testing how management made the accounting estimate and the data on which it is based may be an appropriate response when the accounting estimate is a fair value accounting estimate developed on a model that uses observable and unobservable inputs. It may also be appropriate when, for example	

[68] ISA 560, paragraph 6
[69] ISA 560, paragraph 8

[fn 16] Paragraphs .09 and .11 of section 560, *Subsequent Events and Subsequently Discovered Facts*.

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• The auditor's review of similar accounting estimates made in the prior period financial statements suggests that management's current period process is appropriate.	• the auditor's review of similar accounting estimates 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.	• the accounting estimate is based on a large population of items of a similar nature that individually are not significant.	
• The applicable financial reporting framework specifies how management is expected to make the accounting estimate. For example, this may be the case for an expected credit loss provision.		
• The accounting estimate is derived from the routine processing of data.	• the accounting estimate is derived from the routine processing of data by the entity's accounting system.	
Testing how management made the accounting estimate may also be an appropriate approach when neither of the other testing approaches is practical to perform, or may be an appropriate		

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approach in combination with one of the other testing approaches.		
	.A69 Testing how management made the accounting estimate and the data on which it is based may involve, for example, the following: • Testing the extent to which data on which the accounting estimate is based is accurate, complete, and relevant and whether the accounting estimate has been properly determined using such data and management assumptions • Considering the source, relevance, and reliability of external data or information, including that received from management's specialists,[fn 17] to assist in making an accounting estimate • Determining how management has taken into account the effect of events, transactions, and changes in circumstances occurring between the date that the estimate or inputs to the estimate	

[fn 17] Paragraph .05 of section 500 defines a *management's specialist* as "[a]n individual or organization possessing expertise in a field other than accounting or auditing, whose work in that field is used by the entity to assist the entity in preparing the financial statements."

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	were determined and the reporting date, if the estimate was not made as of a date that coincides with the reporting date (for example, a valuation by an independent appraiser may be as of a different date) • Recalculating the accounting estimate and reviewing, for internal consistency, information used to determine the estimate • Considering management's review and approval processes	
	.A70 In accordance with section 500, *Audit Evidence*, the auditor is required to evaluate whether the data on which the estimate is based is sufficiently reliable for the auditor's purposes, including, as necessary [fn 18] *a.* obtaining audit evidence about the accuracy and completeness of the data. *b.* evaluating whether the data is sufficiently precise and detailed for the auditor's purposes.	

fn 18 Paragraph .09 of section 500.

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	.A71 *Considerations specific to smaller, less complex entities*. In smaller entities, the process for making accounting estimates is likely to be less structured than in larger entities. Smaller entities with active management involvement may have limited descriptions of accounting procedures, unsophisticated accounting records, or few written policies. Even if the entity has no formal established process, management may still be able to provide a basis upon which the auditor can test the accounting estimate.	
Changes in Methods, Significant Assumptions and the Data from Prior Periods (Ref: Para. 23(a), 24(a), 25(a))	*Changes in Methods or Assumptions for Making Accounting Estimates (Ref: par. .08c(v))*	
	.A36 In obtaining an understanding of how management makes the accounting estimates, the auditor is required to obtain an understanding about whether there has been or ought to have been a change from the prior period in the methods or assumptions for making the accounting estimates. A specific estimation method or assumption may need to be changed in response to changes in the environment or circumstances affecting the entity or in the requirements of the applicable financial reporting framework. If management has changed the method or	

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	assumption for making an accounting estimate, it is important that management can demonstrate that the new method or assumption is more appropriate or is responsive to such changes. For example, if management changes the basis of making an accounting estimate from a liquid market approach to an illiquid market approach, the auditor challenges whether management's assumptions about the marketplace are reasonable in light of economic circumstances. **.A72** Evaluating the method of measurement (Ref: par. .13b(i)). When the applicable financial reporting framework does not prescribe the method of measurement, evaluating whether the method used (including any applicable model) is appropriate in the circumstances is a matter of professional judgment.	
	.A73 For this purpose, matters that the auditor may consider include, for example, whether • management's rationale for the method selected is reasonable. • management sufficiently and appropriately has evaluated and applied the criteria, if any, provided in the	

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	applicable financial reporting framework to support the selected method. • the method is appropriate and sufficient data is available in the circumstances, given the nature of the asset or liability being estimated and the requirements of the applicable financial reporting framework relevant to accounting estimates. • the method is appropriate with regard to the business, industry, and environment in which the entity operates.	
	.A74 In some cases, management may have determined that different methods result in a range of significantly different estimates. In such cases, obtaining an understanding of how the entity has investigated the reasons for these differences may assist the auditor in evaluating the appropriateness of the method selected.	
A95. When a change from prior periods in a method, significant assumption, or the data is not based on new circumstances or new information, or when significant assumptions are inconsistent with each other and with those used in other accounting estimates, or with related		

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assumptions used in other areas of the entity's business activities, the auditor may need to have further discussions with management about the circumstances and, in doing so, challenge management regarding the appropriateness of the assumptions used.		
Indicators of Management Bias (Ref: Para. 23(b), 24(b), 25(b))		
A96. When the auditor identifies indicators of possible management bias, the auditor may need a further discussion with management and may need to reconsider whether sufficient appropriate audit evidence has been obtained that the method, assumptions and data used were appropriate and supportable in the circumstances. An example of an indicator of management bias for a particular accounting estimate may be when management has developed an appropriate range for several different assumptions, and in each case the assumption used was from the end of the range that resulted in the most favorable measurement outcome.		
Methods		

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The selection of the method (Ref: Para. 23(a))		
A97. Relevant considerations for the auditor regarding the appropriateness of the method selected in the context of the applicable financial reporting framework, and, if applicable, the appropriateness of changes from the prior period may include:		
• Whether management's rationale for the method selected is appropriate;		
• Whether the method is appropriate in the circumstances given the nature of the accounting estimate, the requirements of the applicable financial reporting framework, other available valuation concepts or techniques, regulatory requirements, and the business, industry and environment in which the entity operates;		
• When management has determined that different methods result in a range of significantly different estimates, how management has investigated the reasons for these differences; and		

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• Whether the change is based on new circumstances or new information. When this is not the case, the change may not be reasonable or in compliance with the applicable financial reporting framework. Arbitrary changes result in inconsistent financial statements over time and may give rise to financial statement misstatements or may be an indicator of possible management bias. (see also paragraphs A133–A136)		
These matters are important when the applicable financial reporting framework does not prescribe the method of measurement or allows multiple methods.		
	.A75 *Evaluating the use of models*. In some cases, particularly when making fair value accounting estimates, management may use a model. Whether the model used is appropriate in the circumstances may depend on a number of factors, such as the nature of the entity and its environment, including the industry in which it operates and the specific asset or liability being measured.	

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	.A76 The extent to which the considerations in paragraph .A77 are relevant depends on the circumstances, including whether the model is one that is commercially available for use in a particular sector or industry, or a proprietary model. In some cases, an entity may use a management specialist [fn 19] to develop and test a model.	
Complex modelling (Ref: Para. 23(d))		
A98. A model, and the related method, is more likely to be complex when:		
• Understanding and applying the method, including designing the model and selecting and using appropriate data and assumptions, requires specialized skills or knowledge;		
• It is difficult to obtain data needed for use in the model because there are restrictions on the availability or observability of, or access to, data; or		

fn 19 Paragraph .08 of section 500.

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• It is difficult to maintain the integrity (e.g., accuracy, consistency, or completeness) of the data and assumptions in using the model due to multiple valuation attributes, multiple relationships between them, or multiple iterations of the calculation.		
A99. Matters that the auditor may consider when management uses a complex model include, for example, whether:	**.A77** Depending on the circumstances, matters that the auditor may also consider in testing the model include, for example, whether	
• The model is validated prior to usage or when there has been a change to the model, with periodic reviews to ensure it is still suitable for its intended use. The entity's validation process may include evaluation of:	• the model is validated prior to usage, with periodic reviews to ensure it is still suitable for its intended use. The entity's validation process may include evaluation of	
○ The model's theoretical soundness;	— the model's theoretical soundness and mathematical integrity, including the appropriateness of model parameters.	
○ The model's mathematical integrity;		
○ The accuracy and completeness of the model's data and assumptions;	— the consistency and completeness of the model's inputs with market practices.	

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and		
○ The model's output as compared to actual transactions.	— the model's output compared with actual transactions.	
• Appropriate change control policies and procedures exist.	• appropriate change control policies and procedures exist.	
• Management uses appropriate skills and knowledge in using the model.		
	• the model is periodically calibrated and tested for validity, particularly when inputs are subjective.	
	• adjustments are made to the output of the model, including in the case of fair value accounting estimates whether such adjustments reflect the assumptions that market participants would use in similar circumstances.	
	• the model is adequately documented, including the model's intended applications and limitations and its key parameters, required inputs, and results of any validation analysis performed.	

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A100. Management may make adjustments to the output of the model to meet the requirements of the applicable financial reporting framework. In some industries these adjustments are referred to as overlays. In the case of fair value accounting estimates, it may be relevant to consider whether adjustments to the output of the model, if any, reflect the assumptions marketplace participants would use in similar circumstances.		
Maintenance of integrity of significant assumptions and the data used in applying the method (Ref: Para. 23(e))		
	.A78 *Assumptions used by management (Ref: par. .13b(ii))*. The auditor's evaluation of the assumptions used by management is based only on information available to the auditor at the time of the audit. Audit procedures dealing with management assumptions, including those used as inputs to valuation models, are performed in the context of the audit of the entity's financial statements and not for the purpose of providing an opinion on the assumptions themselves.	

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	.A79 Matters that the auditor may consider in evaluating the reasonableness of the assumptions used by management include, for example • whether individual assumptions appear reasonable. • whether the assumptions are interdependent and internally consistent. • whether the assumptions appear reasonable when considered collectively or in conjunction with other assumptions, either for that accounting estimate or for other accounting estimates. • in the case of fair value accounting estimates, whether the assumptions appropriately reflect observable market assumptions.	
A101. Maintaining the integrity of significant assumptions and the data in applying the method refers to the maintenance of the accuracy and completeness of the data and assumptions through all stages of information processing. A failure to maintain such integrity may result in corruption of the data and assumptions and may give rise to		

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misstatements. In this regard, relevant considerations for the auditor may include whether the data and assumptions are subject to all changes intended by management, and not subject to any unintended changes, during activities such as input, storage, retrieval, transmission or processing.		
Significant Assumptions (Ref: Para. 24)		
	.A80 In evaluating the reasonableness of the assumptions supporting an accounting estimate, the auditor may identify one or more significant assumptions. If so, the existence of one or more significant assumptions may be an indicator that the accounting estimate has high estimation uncertainty and may, therefore, give rise to a significant risk related to recognition, measurement, or disclosure. Additional responses to significant risks are described in paragraphs .A108–.A121.	
A102. Relevant considerations for the auditor regarding the appropriateness of the significant assumptions in the context of the applicable financial reporting framework, and, if applicable, the appropriateness of changes from the prior		

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period may include:		
• Management's rationale for the selection of the assumption;		
• Whether the assumption is appropriate in the circumstances given the nature of the accounting estimate, the requirements of the applicable financial reporting framework, and the business, industry and environment in which the entity operates; and		
• Whether a change from prior periods in selecting an assumption is based on new circumstances or new information. When it is not, the change may not be reasonable nor in compliance with the applicable financial reporting framework. Arbitrary changes in an accounting estimate may give rise to material misstatements of the financial statements or may be an indicator of possible management bias (see paragraphs A133–A136).		
A103. Management may evaluate alternative assumptions or outcomes of	.A109 Management may evaluate alternative assumptions or outcomes of the accounting	

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accounting estimates, which may be accomplished through a number of approaches depending on the circumstances. One possible approach is a sensitivity analysis. This might involve determining how the monetary amount of an accounting estimate varies with different assumptions. Even for accounting estimates measured at fair value, there may be variation because different market participants will use different assumptions. A sensitivity analysis may lead to the development of a number of outcome scenarios, sometimes characterized as a range of outcomes by management, and including 'pessimistic' and 'optimistic' scenarios.	estimates through a number of methods, depending on the circumstances. One possible method used by management is to undertake a sensitivity analysis. This might involve determining how the monetary amount of an accounting estimate varies with different assumptions. Even for accounting estimates measured at fair value, there can be variation because different market participants will use different assumptions. A sensitivity analysis could lead to the development of a number of outcome scenarios, sometimes characterized as a range of outcomes by management, such as "pessimistic" and "optimistic" scenarios.	
	.A111 This is not intended to suggest that one particular method of addressing estimation uncertainty (such as sensitivity analysis) is more suitable than another or that management's consideration of alternative assumptions or outcomes needs to be conducted through a detailed process supported by extensive documentation. Rather, it is whether management has assessed how estimation uncertainty may affect the accounting estimate that is important, not the specific manner in which it	

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	is done. Accordingly, when management has not considered alternative assumptions or outcomes, it may be necessary for the auditor to discuss with management, and request support for how it has addressed, the effects of estimation uncertainty on the accounting estimate.	
	.A112 *Considerations specific to smaller, less complex entities*. Smaller entities may use simple means to assess the estimation uncertainty. In addition to the auditor's review of available documentation, the auditor may obtain other audit evidence of management consideration of alternative assumptions or outcomes by inquiry of management. In addition, management may not have the expertise to consider alternative outcomes or otherwise address the estimation uncertainty of the accounting estimate. In such cases, the auditor may explain to management the process or the different methods available for doing so and the documentation thereof. This would not, however, change the responsibilities of management for the preparation and fair presentation of the financial statements.	
A104. Through the knowledge obtained in performing the audit, the auditor may		

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become aware of or may have obtained an understanding of assumptions used in other areas of the entity's business. Such matters may include, for example, business prospects, assumptions in strategy documents and future cash flows. Also, if the engagement partner has performed other engagements for the entity, ISA 315 (Revised)[70] requires the engagement partner to consider whether information obtained from those other engagements is relevant to identifying risks of material misstatement. This information may also be useful to consider in addressing whether significant assumptions are consistent with each other and with those used in other accounting estimates.		
	.A81 The assumptions on which accounting estimates are based may reflect what management expects will be the outcome of specific objectives and strategies. In such cases, the auditor may perform audit procedures to evaluate the reasonableness of such assumptions by considering, for example, whether the assumptions are consistent with • the general economic environment and	

[70] ISA 330, paragraph 7(b), A19

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	the entity's economic circumstances. • the plans of the entity. • assumptions made in prior periods, if relevant. • the experience of, or previous conditions experienced by, the entity to the extent this historical information may be considered representative of future conditions or events. • other assumptions used by management relating to the financial statements.	
	.A116 The auditor's considerations regarding assumptions made by management and management's intent and ability are described in paragraphs .A12 and .A82.	
A105. The appropriateness of the significant assumptions in the context of the requirements of the applicable financial reporting framework may depend on management's intent and ability to carry out certain courses of action. Management often documents plans and intentions relevant to specific assets or liabilities and the applicable financial reporting framework may require management to do so. The nature and extent of audit evidence	.A82 The reasonableness of the assumptions used may depend on management's intent and ability to carry out certain courses of action. Management often documents plans and intentions relevant to specific assets or liabilities, and the financial reporting framework may require it to do so. Although the extent of audit evidence to be obtained about management's intent and ability is a matter of professional judgment, the auditor's procedures may include the	

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to be obtained about management's intent and ability is a matter of professional judgment. When applicable, the auditor's procedures may include the following:	following:	
• Review of management's history of carrying out its stated intentions.	• Review of management's history of carrying out its stated intentions	
• Inspection of written plans and other documentation, including, when applicable, formally approved budgets, authorizations or minutes.	• Review of written plans and other documentation, including, when applicable, formally approved budgets, authorizations, or minutes	
• Inquiry of management about its reasons for a particular course of action.	• Inquiry of management about its reasons for a particular course of action	
• Review of events occurring subsequent to the date of the financial statements and up to the date of the auditor's report.	• Review of events occurring subsequent to the date of the financial statements and up to the date of the auditor's report	
• Evaluation of the entity's ability to carry out a particular course of action given the entity's economic circumstances, including the implications of its existing commitments and legal, regulatory, or contractual restrictions that could affect the feasibility of management's	• Evaluation of the entity's ability to carry out a particular course of action given the entity's economic circumstances, including the implications of its existing commitments	

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actions.		
• Consideration of whether management has met the applicable documentation requirements, if any, of the applicable financial reporting framework.		
Certain financial reporting frameworks, however, may not permit management's intentions or plans to be taken into account when making an accounting estimate. This is often the case for fair value accounting estimates because their measurement objective requires that significant assumptions reflect those used by marketplace participants.	Certain financial reporting frameworks, however, may not permit management's intentions or plans to be taken into account when making an accounting estimate. This is often the case for fair value accounting estimates because their measurement objective requires that assumptions reflect those used by market participants. .A83 Matters that the auditor may consider in evaluating the reasonableness of assumptions used by management underlying fair value accounting estimates, in addition to those discussed previously, when applicable, may include, for example • when relevant, whether and, if so, how management has incorporated market-specific inputs into the development of assumptions. • whether the assumptions are consistent	

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	with observable market conditions and the characteristics of the asset or liability being measured at fair value. • whether the sources of market-participant assumptions are relevant and reliable and how management has selected the assumptions to use when a number of different market participant assumptions exist. • when appropriate, whether and, if so, how management considered assumptions used in, or information about, comparable transactions, assets, or liabilities.	
	.A84 Further, fair value accounting estimates may comprise observable inputs, as well as unobservable inputs. When fair value accounting estimates are based on unobservable inputs, matters that the auditor may consider include, for example, how management supports • the identification of the characteristics of market participants relevant to the accounting estimate. • modifications it has made to its own assumptions to reflect its view of	

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	assumptions market participants would use. • whether it has incorporated appropriate information. • when applicable, how its assumptions take account of comparable transactions, assets, or liabilities. If there are unobservable inputs, it is more likely that the auditor's evaluation of the assumptions will need to be combined with other responses to assessed risks in paragraph .13 in order to obtain sufficient appropriate audit evidence. In such cases, it may be necessary for the auditor to perform other audit procedures (for example, examining documentation supporting the review and approval of the accounting estimate by appropriate levels of management and, when appropriate, those charged with governance).	
	.A85 Challenges may exist for management when fair value accounting estimates have unobservable inputs, in particular, as a result of illiquid markets. Management may not have the expertise internally to value illiquid or complex financial instruments, and there may be limited sources of information available to establish their values. It may be necessary for management to make	

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	assumptions, including assumptions utilized by management based upon the work of a specialist, to develop fair value measurements for illiquid assets.	
	.A86 The reliability of audit evidence is influenced by its source and nature. For example, management may use a broker quote to support a fair value measurement; however, when the quote is obtained from the institution that initially sold the instrument, this evidence may be less objective and may need to be supplemented with evidence from one or more other brokers or information from a pricing service. Pricing services and brokers may use methods of valuation that are not known to management or the auditor. In accordance with paragraph .08*c*(i), the auditor is required to obtain an understanding of how such information was developed. For example, the auditor might inquire whether the value is based on private trades, trades of similar instruments, a cash flow model, or some combination of inputs. Inquiry into the nature of a broker quote is directed at its reliability and consistency with the objective of fair value measurement.	
	.A87 Changes in market conditions may require changes in valuation techniques.	

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	Consistency is generally a desirable quality in financial information but may be inappropriate if circumstances change. Paragraph .A57 gives the example of the introduction of an active market as an illustration of changed circumstances leading to a move from valuation by model to valuation by market price. In a period of market instability, the changes could be in the opposite direction because markets could become inactive. Even when models have been consistently used, a need for management to examine the continuing appropriateness of the assumptions exists. Further, models may have been calibrated in times when reasonable market information was available but may not provide reasonable valuations in times of unanticipated stress. Consequently, the degree of consistency of valuation techniques and the appropriateness of changes in technique or assumptions require the auditor's attention.	
	.A88 A change in valuation technique does not, however, justify a change in the underlying measurement objective (that is, fair value as defined in the financial reporting framework) to a different standard of value, such as an individual opinion of value. Section 500 addresses what constitutes audit evidence,	

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	the quantity and quality of audit evidence to be obtained, and the audit procedures that the auditor uses for obtaining that audit evidence. Unless management is able to support its valuations, it will be difficult for the auditor to obtain sufficient appropriate audit evidence. However, as evidence about assumptions and the validity of models is necessarily less reliable than evidence of a market price taken from an active market, it may be necessary to look at more sources of evidence to accumulate sufficient appropriate evidence because the audit evidence needed is affected by the risk of misstatement (the greater the risk, the more audit evidence is likely to be required). For example, an auditor or auditor's specialist may use an independent model to compare its results with those of the model used by management in order to evaluate whether the values determined by management's model are reasonable.	
Data (Ref: Para. 25(a))		
A106. Relevant considerations for the auditor regarding the appropriateness of the data selected for use in the context of the applicable financial reporting framework, and, if applicable, the appropriateness of the changes from the		

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prior period may include:		
• Management's rationale for the selection of the data;		
• Whether the data is appropriate in the circumstances given the nature of the accounting estimate, the requirements of the applicable financial reporting framework, and the business, industry and environment in which the entity operates; and		
• Whether the change from prior periods in the sources or items of data selected or data selected, is based on new circumstances or new information. When it is not, it is unlikely to be reasonable nor in compliance with the applicable financial reporting framework. Arbitrary changes in an accounting estimate result in inconsistent financial statements over time and may give rise to financial statement misstatements or may be an indicator of possible management bias (see paragraphs A133–A136).	**.A58** The auditor's consideration of a change in an accounting estimate or in the method for making it from the prior period is important because a change that is not based on a change in circumstances or new information is considered arbitrary. Arbitrary changes in an accounting estimate result in inconsistent financial statements over time and may give rise to a financial statement misstatement or be an indicator of possible management bias.	

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	.A59 Management often is able to demonstrate good reason for a change in an accounting estimate or the method for making an accounting estimate from one period to another based on a change in circumstances. What constitutes a good reason and the adequacy of support for management's contention that there has been a change in circumstances that warrants a change in an accounting estimate or the method for making an accounting estimate are matters of judgment.	
Relevance and reliability of the data (Ref: Para. 25(c))		
A107. When using information produced by the entity, ISA 500 requires the auditor to evaluate whether the information is sufficiently reliable for the auditor's purposes, including as necessary in the circumstances, to obtain audit evidence about the accuracy and completeness of the information and evaluating whether the information is sufficiently precise and detailed for the auditor's purposes.[71]		

[71] ISA 500, paragraph 9

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Complex legal or contractual terms (Ref: Para. 25(d))		
A108. Procedures that the auditor may consider when the accounting estimate is based on complex legal or contractual terms include:		
• Considering whether specialized skills or knowledge are needed to understand or interpret the contract;		
• Inquiring of the entity's legal counsel regarding the legal or contractual terms; and		
• Inspecting the underlying contracts to:		
○ Evaluate, the underlying business purpose for the transaction or agreement; and		
○ Consider whether the terms of the contracts are consistent with management's explanations.		
Management's Selection of a Point Estimate and Related Disclosures about Estimation Uncertainty Management's		

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steps to understand and address estimation uncertainty (Ref: Para. 26(a))		
	Estimation Uncertainty (Ref: par. .08c(vi))	
	.A37 Matters that the auditor may consider in obtaining an understanding of whether and, if so, how management has assessed the effect of estimation uncertainty include, for example, • whether and, if so, how management has considered alternative assumptions or outcomes by, for example, performing a sensitivity analysis to determine the effect of changes in the assumptions on an accounting estimate. • how management determines the accounting estimate when analysis indicates a number of outcome scenarios. • whether management monitors the outcome of accounting estimates made in the prior period and whether management has appropriately responded to the outcome of that monitoring procedure.	

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A109. Relevant considerations regarding whether management has taken appropriate steps to understand and address estimation uncertainty may include whether management has:		
a. Understood the estimation uncertainty, through identifying the sources, and assessing the degree of inherent variability in the measurement outcomes and the resulting range of reasonably possible measurement outcomes;		
b. Identified the degree to which, in the measurement process, complexity or subjectivity affect the risk of material misstatement, and addressed the resulting potential for misstatement through applying:		
(i) Appropriate skills and knowledge in making accounting estimates; and		
(ii) Professional judgment, including by identifying and addressing		

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susceptibility to management bias; and		
c. Addressed estimation uncertainty through appropriately selecting management's point estimate and related disclosures that describe the estimation uncertainty.		
The selection of management's point estimate and related disclosures of estimation uncertainty (Ref: Para. 26(b))		
A110. Matters that may be relevant regarding the selection of management's point estimate and the development of related disclosures about estimation uncertainty include whether:		
• The methods and data used were selected appropriately, including when alternative methods for making the accounting estimate and alternative sources of data were available.		
• Valuation attributes used were appropriate and complete.		

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• The assumptions used were selected from a range of reasonably possible amounts and were supported by appropriate data that is relevant and reliable.		
• The data used was appropriate, relevant and reliable, and the integrity of that data was maintained.		
• The calculations were applied in accordance with the method and were mathematically accurate.		
• Management's point estimate is appropriately chosen from the reasonably possible measurement outcomes.		
• The related disclosures appropriately describe the amount as an estimate and explain the nature and limitations of the estimation process, including the variability of the reasonably possible measurement outcomes.		
A111. Relevant considerations for the auditor regarding the appropriateness of management's point estimate, may		

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include:		
• When the requirements of the applicable financial reporting framework prescribe the point estimate that is to be used after consideration of the alternative outcomes and assumptions, or prescribes a specific measurement method, whether management has followed the requirements of the applicable financial reporting framework.		
• When the applicable financial reporting framework has not specified how to select an amount from reasonably possible measurement outcomes, whether management has exercised judgment, taking into account the requirements of the applicable financial reporting framework.		
A112. Relevant considerations for the auditor regarding management's disclosures about estimation uncertainty include the requirements of the applicable financial reporting framework, which may		

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require disclosures:		
• That describe the amount as an estimate and explain the nature and limitations of the process for making it, including the variability in reasonably possible measurement outcomes. The framework also may require additional disclosures to meet a disclosure objective.72		
• About significant accounting policies related to accounting estimates. Depending on the circumstances, relevant accounting policies may include matters such as the specific principles, bases, conventions, rules and practices applied in preparing and presenting accounting estimates in the financial statements.		
• About significant or critical judgments (for example, those that had the most significant effect on the amounts recognized in the financial statements) as well as significant forward- looking		

72 [51] IFRS 13, *Fair Value Measurement*, paragraph 92

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assumptions or other sources of estimation uncertainty.		
In certain circumstances, additional disclosures beyond those explicitly required by the financial reporting framework may be needed in order to achieve fair presentation, or in the case of a compliance framework, for the financial statements not to be misleading.		
A113. The greater the degree to which an accounting estimate is subject to estimation uncertainty, the more likely the risks of material misstatement will be assessed as higher and therefore the more persuasive the audit evidence needs to be to determine, in accordance with paragraph 35, whether management's point estimate and related disclosures about estimation uncertainty are reasonable in the context of the applicable financial reporting framework, or are misstated.		
A114. If the auditor's consideration of estimation uncertainty associated with an accounting estimate, and its related disclosure, is a matter that required significant auditor attention, then this may		

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constitute a key audit matter.[73]		
When Management Has Not Taken Appropriate Steps to Understand and Address Estimation Uncertainty (Ref: Para. 27)		
A115. When the auditor determines that management has not taken appropriate steps to understand and address estimation uncertainty, additional procedures that the auditor may request management to perform to understand estimation uncertainty may include, for example, consideration of alternative assumptions or the performance of a sensitivity analysis.		
A116. In considering whether it is practicable to develop a point estimate or range, matters the auditor may need to take into account include whether the auditor could do so without compromising independence requirements. This may include relevant ethical requirements that address prohibitions on assuming		

[73] ISA 701, *Communicating Key Audit Matters in the Independent Auditor's Report*

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management responsibilities.		
A117. If, after considering management's response, the auditor determines that it is not practicable to develop an auditor's point estimate or range, the auditor is required to evaluate the implications for the audit or the auditor's opinion on the financial statements in accordance with paragraph 34.		
Developing an Auditor's Point Estimate or Using an Auditor's Range (Ref: Para. 28–29)		
	.A93 Developing a point estimate or range to evaluate management's point estimate may 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 similar accounting estimates made in the prior period financial statements suggests	

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	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 management's point estimate. • there are alternative sources of relevant data available to the auditor that can be used in developing a point estimate or range.	
	.A94 Even when the entity's controls are well-designed and properly implemented, developing a point estimate or range may be an effective and efficient response to the assessed risks. In other situations, the auditor may consider this approach as part of determining whether further procedures are necessary and, if so, their nature and extent.	
	.A95 The approach taken by the auditor in developing either a point estimate or range	

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	may vary based on what is considered most effective in the circumstances. For example, the auditor may initially develop a preliminary point estimate and then assess its sensitivity to changes in assumptions to ascertain a range with which to evaluate management's point estimate. Alternatively, the auditor may begin by developing a range for purposes of determining, when possible, a point estimate.	
	.A96 The ability of the auditor to develop a point estimate, as opposed to a range, depends on several factors, including the model used, the nature and extent of data available, and the estimation uncertainty involved with the accounting estimate. Further, the decision to develop a point estimate or range may be influenced by the applicable financial reporting framework, which may prescribe the point estimate that is to be used after consideration of the alternative outcomes and assumptions or prescribe a specific measurement method (for example, the use of a discounted probability-weighted expected value).	
	Development of a Range (Ref: par. .16)	

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	.A117 In preparing the financial statements, management may be satisfied that it has adequately addressed the effects of estimation uncertainty on the accounting estimates that give rise to significant risks. In some circumstances, however, the auditor may view the efforts of management as inadequate. This may be the case, for example, when, in the auditor's professional judgment • sufficient appropriate audit evidence could not be obtained through the auditor's evaluation of how management has addressed the effects of estimation uncertainty. • it is necessary to explore further the degree of estimation uncertainty associated with an accounting estimate (for example, when the auditor is aware of wide variation in outcomes for similar accounting estimates in similar circumstances). • it is unlikely that other audit evidence can be obtained (for example, through the review of events occurring up to the date of the auditor's report).	

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	indicators of management bias in the making of accounting estimates may exist.	
	.A118 The auditor's considerations in determining a range for this purpose are described in paragraphs .A93–.A101.	
	Recognition and Measurement Criteria	
	Recognition of the Accounting Estimates in the Financial Statements (Ref: par. .17a)	
	.A119 When management has recognized an accounting estimate in the financial statements, the focus of the auditor's evaluation is on whether the measurement of the accounting estimate is sufficiently reliable to meet the recognition criteria of the applicable financial reporting framework.	
	.A120 With respect to accounting estimates that have not been recognized, the focus of the auditor's evaluation is on whether the recognition criteria of the applicable financial reporting framework have, in fact, been met. Even when an accounting estimate has not been recognized and the auditor concludes that this treatment is appropriate, there may be a need for disclosure of the circumstances in the notes to the financial statements. The	

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	auditor may also determine that there is a need to draw the reader's attention to a significant uncertainty by adding an emphasis-of-matter paragraph to the auditor's report. Section 706, *Emphasis-of-Matter Paragraphs and Other-Matter Paragraphs in the Independent Auditor's Report*, addresses the use of such paragraphs.	
	Measurement Basis for the Accounting Estimates (Ref: par. .17b)	
	.A121 With respect to fair value accounting estimates, some financial reporting frameworks presume that fair value can be measured reliably as a prerequisite to either requiring or permitting fair value measurements and disclosures. In some cases, this presumption may be overcome when, for example, no appropriate method or basis for measurement exists. In such cases, the focus of the auditor's evaluation is on whether management's basis for overcoming the presumption relating to the use of fair value set forth under the applicable financial reporting framework is appropriate.	
A118. Developing an auditor's point estimate or range to evaluate management's point estimate and related		

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disclosures about estimation uncertainty may be an appropriate approach when, for example:		
• The auditor's review of similar accounting estimates made in the prior period financial statements suggests that management's current period process is not expected to be effective.		
• The entity's controls within and over management's process for making accounting estimates are not well designed or properly implemented.		
• Events or transactions between the period end and the date of the auditor's report have not been properly taken into account, when it is appropriate for management to do so, and such events or transactions appear to contradict management's point estimate.		
• There are appropriate alternative assumptions or sources of relevant data that can be used in developing an auditor's point estimate or a range.		
• Management has not taken appropriate steps to understand or		

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address the estimation uncertainty (see paragraph 27).		
A119. The decision to develop a point estimate or range also may be influenced by the applicable financial reporting framework, which may prescribe the point estimate that is to be used after consideration of the alternative outcomes and assumptions, or prescribe a specific measurement method (for example, the use of a discounted probability-weighted expected value, or the most likely outcome).		
A120. The auditor's decision as to whether to develop a point estimate rather than a range may depend on the nature of the estimate and the auditor's judgment in the circumstances. For example, the nature of the estimate may be such that there is expected to be less variability in the reasonably possible outcomes. In these circumstances, developing a point estimate may be an effective approach, particularly when it can be developed with a higher degree of precision.		
A121. The auditor may develop a point estimate or a range in a number of ways,	**.A97** The auditor may develop a point estimate or range in a number of ways. For	

ISA 540 (Revised)[36]	Extant AU-C 540	PCAOB AS 2501
for example, by:	example, by	
• Using a different model than the one used by management, for example, one that is commercially available for use in a particular sector or industry, or a proprietary or auditor- developed model.	• using a model (for example, one that is commercially available for use in a particular sector or industry or a proprietary or an auditor-developed model).	
• Using management's model but developing alternative assumptions or data sources to those used by management.	• further developing management's consideration of alternative assumptions or outcomes (for example, by introducing a different set of assumptions).	
• Using the auditor's own method but developing alternative assumptions to those used by management.		
• Employing or engaging a person with specialized expertise to develop or execute a model, or to provide relevant assumptions.	• employing or engaging a person with specialized expertise to develop or execute the model or provide relevant assumptions.	
• Consideration of other comparable conditions, transactions or events, or, where relevant, markets for comparable assets or liabilities.	• making reference to other comparable conditions, transactions, or events or, when relevant, markets for comparable assets or liabilities.	

ISA 540 (Revised)[36]	Extant AU-C 540	PCAOB AS 2501
	Understanding Management's Assumptions or Method (Ref: par. .13d(i))	
	.A98 When the auditor develops a point estimate or range and uses assumptions or a method different from those used by management, paragraph .13*d*(i) requires the auditor to obtain a sufficient understanding of the assumptions or method used by management in making the accounting estimate. This understanding provides the auditor with information that may be relevant to the auditor's development of an appropriate point estimate or range. Further, it assists the auditor to understand and evaluate any significant differences from management's point estimate. For example, a difference may arise because the auditor used different, but equally valid, assumptions, compared with those used by management. This may reveal that the accounting estimate is highly sensitive to certain assumptions and, therefore, subject to high estimation uncertainty, indicating that the accounting estimate may be a significant risk. Alternatively, a difference may arise as a result of a factual error made by management. Depending on the circumstances, the auditor may find it helpful in drawing conclusions to discuss with management the basis for the assumptions used and their validity and the	

ISA 540 (Revised)[36]	Extant AU-C 540	PCAOB AS 2501
	difference, if any, in the approach taken to making the accounting estimate.	
	Narrowing a Range (Ref: par. .13d(ii))	
	.A99 When the auditor concludes that it is appropriate to use a range to evaluate the reasonableness of management's point estimate (the auditor's range), paragraph .13d(ii) requires that range to encompass all reasonable outcomes, rather than all possible outcomes. The range cannot be one that comprises all possible outcomes if it is to be useful because such a range would be too wide to be effective for purposes of the audit. The auditor's range is useful and effective when it is sufficiently narrow to enable the auditor to conclude whether the accounting estimate is materially misstated.	
A122. The auditor also may develop a point estimate or range for only part of the accounting estimate (for example, for a particular assumption, or when only a certain part of the accounting estimate is giving rise to the risk of material misstatement).		

ISA 540 (Revised)[36]	Extant AU-C 540	PCAOB AS 2501
A123. When using the auditor's own methods, assumptions or data to develop a point estimate or range, the auditor may obtain evidence about the appropriateness of management's methods, assumptions or data. For example, if the auditor uses the auditor's own assumptions in developing a range to evaluate the reasonableness of management's point estimate, the auditor may also develop a view about whether management's judgments in selecting the significant assumptions used in making the accounting estimate give rise to indicators of possible management bias.		
A124. The requirement in paragraph 29(a) for the auditor to determine that the range includes only amounts that are supported by sufficient appropriate audit evidence does not mean that the auditor is expected to obtain audit evidence to support each possible outcome in the range individually. Rather, the auditor is likely to obtain evidence to determine that the points at both ends of the range are reasonable in the circumstances, thereby supporting that amounts falling between those two points also are reasonable.		

ISA 540 (Revised)[36]	Extant AU-C 540	PCAOB AS 2501
	.A100 Ordinarily, a range that has been narrowed to be equal to or less than performance materiality (see section 320, *Materiality in Planning and Performing an Audit*) is adequate for the purposes of evaluating the reasonableness of management's point estimate. [fn 21] However, particularly in certain industries, it may not be possible to narrow the range to below such an amount. This does not necessarily preclude recognition of the accounting estimate. It may indicate, however, that the estimation uncertainty associated with the accounting estimate is such that it gives rise to a significant risk. Additional responses to significant risks are described in paragraphs .A108–.A121.	
	.A101 Narrowing the range to a position at which all outcomes within the range are considered reasonable may be achieved by *a.* eliminating from the range those outcomes at the extremities of the range judged by the auditor to be	

fn 21 Paragraph .11 of section 320, *Materiality in Planning and Performing an Audit*.

ISA 540 (Revised)[36]	Extant AU-C 540	PCAOB AS 2501
	unlikely to occur and *b.* continuing to narrow the range, based on audit evidence available, until the auditor concludes that all outcomes within the range are considered reasonable. In some rare cases, the auditor may be able to narrow the range until the audit evidence indicates a point estimate.	
A125.The size of the auditor's range may be multiples of materiality for the financial statements as a whole, particularly when materiality is based on operating results (for example, pre-tax income) and this measure is relatively small in relation to assets or other balance sheet measures. This situation is more likely to arise in circumstances when the estimation uncertainty associated with the accounting estimate is itself multiples of materiality, which is more common for certain types of accounting estimates or in certain industries, such as insurance or banking, where a high degree of estimation uncertainty is more typical and there may be specific requirements in the applicable financial reporting framework in that regard. Based on the procedures performed		

ISA 540 (Revised)[36]	Extant AU-C 540	PCAOB AS 2501
and audit evidence obtained in accordance with the requirements of this ISA, the auditor may conclude that a range that is multiples of materiality is, in the auditor's judgment, appropriate in the circumstances. When this is the case, the auditor's evaluation of the reasonableness of the disclosures about estimation uncertainty becomes increasingly important, particularly whether such disclosures appropriately convey the high degree of estimation uncertainty and the range of possible outcomes. Paragraphs A139–A144 include additional considerations that may be relevant in these circumstances.		
Other Considerations Relating to Audit Evidence (Ref: Para. 30)		
A126. Information to be used as audit evidence, regarding risks of material misstatement relating to accounting estimates, may have been produced by the entity, prepared using the work of a management's expert, or provided by an external information source.		
External Information Sources		

ISA 540 (Revised)[36]	Extant AU-C 540	PCAOB AS 2501
A127. As explained in ISA 500,[74] the reliability of information from an external information source is influenced by its source, its nature, and the circumstances under which it is obtained. Consequently, the nature and extent of the auditor's further audit procedures to consider the reliability of the information used in making an accounting estimate may vary depending on the nature of these factors. For example:		
• When market or industry data, prices, or pricing related data, are obtained from a single external information source, specializing in such information, the auditor may seek a price from an alternative independent source with which to compare.		
• When market or industry data, prices, or pricing related data, are obtained from multiple independent external information sources and points to consensus across those sources, the auditor may need to obtain less evidence about the reliability of the data from an individual source.		

[74] ISA 500, Paragraph A31

ISA 540 (Revised)[36]	Extant AU-C 540	PCAOB AS 2501
• When information obtained from multiple information sources points to divergent market views the auditor may seek to understand the reasons for the diversity in views. The diversity may result from the use of different methods, assumptions, or data. For example, one source may be using current prices and another source using future prices. When the diversity relates to estimation uncertainty, the auditor is required by paragraph 26(b) to obtain sufficient appropriate audit evidence about whether, in the context of the applicable financial reporting framework, the disclosures in the financial statements that describe the estimation uncertainty are reasonable. In such cases professional judgment is also important in considering information about the methods, assumptions or data applied.		
• When information obtained from an external information source has been developed by that source using its own model(s). Paragraph A33F of ISA 500 provides relevant guidance.		

ISA 540 (Revised)[36]	Extant AU-C 540	PCAOB AS 2501
A128. For fair value accounting estimates, additional considerations of the relevance and reliability of information obtained from external information sources may include:		
a. Whether fair values are based on trades of the same instrument or active market quotations;		
b. When the fair values are based on transactions of comparable assets or liabilities, how those transactions are identified and considered comparable;		
c. When there are no transactions either for the asset or liability or comparable assets or liabilities, how the information was developed including whether the inputs developed and used represent the assumptions that market participants would use when pricing the asset or liability, if applicable; and		
d. When the fair value measurement is based on a broker quote, whether the broker quote:		
(i) Is from a market maker who transacts in the same type of		

ISA 540 (Revised)[36]	Extant AU-C 540	PCAOB AS 2501
financial instrument;		
(ii) Is binding or nonbinding, with more weight placed on quotes based on binding offers; and		
(iii) Reflects market conditions as of the date of the financial statements, when required by the applicable financial reporting framework.		
A129. When information from an external information source is used as audit evidence, a relevant consideration for the auditor may be whether information can be obtained, or whether the information is sufficiently detailed, to understand the methods, assumptions and other data used by the external information source. This may be limited in some respects and consequently influence the auditor's consideration of the nature, timing and extent of procedures to perform. For example, pricing services often provide information about their methods and assumptions by asset class rather than individual securities. Brokers often provide only limited information about		

ISA 540 (Revised)[36]	Extant AU-C 540	PCAOB AS 2501
their inputs and assumptions when providing broker indicative quotes for individual securities. Paragraph A33Ga of ISA 500 provides guidance with respect to restrictions placed by the external information source on the provision of supporting information.		
Management's Expert		
A130. Assumptions relating to accounting estimates that are made or identified by a management's expert become management's assumptions when used by management in making an accounting estimate. Accordingly, the auditor applies the relevant requirements in this ISA to those assumptions.		
A131. If the work of a management's expert involves the use of methods or sources of data relating to accounting estimates, or developing or providing findings or conclusions relating to a point estimate or related disclosures for inclusion in the financial statements, the requirements in paragraphs 21–29 of this ISA may assist the auditor in applying paragraph 8(c) of ISA 500.		

ISA 540 (Revised)[36]	Extant AU-C 540	PCAOB AS 2501
Service Organizations		
A132. ISA 402[75] deals with the auditor's understanding of the services provided by a service organization, including internal control, as well as the auditor's responses to assessed risks of material misstatement. When the entity uses the services of a service organization in making accounting estimates, the requirements and guidance in ISA 402 may therefore assist the auditor is applying the requirements of this ISA.		

[75] ISA 402, *Audit Considerations Relating to an Entity Using a Service Organization*

Exhibit 8 — Professional Skepticism (issue 11 from agenda item 4)
(ISA 540 (Revised) paragraph 32 and A133-A136; extant AU-C 540 paragraphs .21 and .A133-.A134; PCAOB AS 2501 paragraph .31)

ISA 540 (Revised)[76]	**Extant AU-C 540**	**PCAOB AS 2501**
Indicators of Possible Management Bias	Indicators of Possible Management Bias	
32. The auditor shall evaluate whether judgments and decisions made by management in making the accounting estimates included in the financial statements, even if they are individually reasonable, are indicators of possible management bias. When indicators of possible management bias are identified, the auditor shall evaluate the implications for the audit. Where there is intention to mislead, management bias is fraudulent in nature. (Ref: Para. A133–A136)	**.21** The auditor should review the judgments and decisions made by management in the making of accounting estimates to identify whether indicators of possible management bias exist. Indicators of possible management bias do not, themselves, constitute misstatements for the purposes of drawing conclusions on the reasonableness of individual accounting estimates. (Ref: par. .A133-.A134)	.31 Evaluating potential bias in accounting estimates includes evaluating bias in estimates individually and in aggregate. It also includes evaluating whether bias results from the cumulative effect of changes in estimates.[77]
Application Material		
Indicators of Possible Management Bias (Ref: Para. 32)	**Indicators of Possible Management Bias (Ref: par. .21)**	

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[77] See AS 2810.27.

ISA 540 (Revised)[76]	Extant AU-C 540	PCAOB AS 2501
	.A133 During the audit, the auditor may become aware of judgments and decisions made by management that give rise to indicators of possible management bias (see paragraph .A9). Such indicators may affect the auditor's conclusion about whether the auditor's risk assessment and related responses remain appropriate, and the auditor may need to consider the implications for the rest of the audit. Further, they may affect the auditor's evaluation of whether the financial statements as a whole are free from material misstatement, as discussed in section 700, *Forming an Opinion and Reporting on Financial Statements*.	
A133. Management bias may be difficult to detect at an account level and may only be identified by the auditor when considering groups of accounting estimates, all accounting estimates in aggregate, or when observed over a number of accounting periods. For example, if accounting estimates included in the financial statements are considered to be individually reasonable but management's point estimates consistently trend toward one end of the auditor's range of reasonable outcomes that provide a more favorable financial reporting outcome for		

ISA 540 (Revised)[76]	Extant AU-C 540	PCAOB AS 2501
management, such circumstances may indicate possible bias by management.		
A134. Examples of indicators of possible management bias with respect to accounting estimates include:	A134. Examples of indicators of possible management bias with respect to accounting estimates include the following:	
• Changes in an accounting estimate, or the method for making it, when management has made a subjective assessment that there has been a change in circumstances.	• Changes in an accounting estimate, or the method for making it, when management has made a subjective assessment that there has been a change in circumstances	
	• The use of an entity's own assumptions for fair value accounting estimates when they are inconsistent with observable market assumptions	
• Selection or development of significant assumptions or the data that yield a point estimate favorable for management objectives.	• The selection or construction of significant assumptions that yield a point estimate favorable for management objectives	
• Selection of a point estimate that may indicate a pattern of optimism or pessimism.	• The selection of a point estimate that may indicate a pattern of optimism or pessimism	

ISA 540 (Revised)[76]	Extant AU-C 540	PCAOB AS 2501
When such indicators are identified, there may be a risk of material misstatement either at the assertion or financial statement level. Indicators of possible management bias themselves do not constitute misstatements for purposes of drawing conclusions on the reasonableness of individual accounting estimates. However, in some cases the audit evidence may point to a misstatement rather than simply an indicator of management bias.		
A135. Indicators of possible management bias may affect the auditor's conclusion as to whether the auditor's risk assessment and related responses remain appropriate. The auditor may also need to consider the implications for other aspects of the audit, including the need to further question the appropriateness of management's judgments in making accounting estimates. Further, indicators of possible management bias may affect the auditor's conclusion as to whether the financial statements as a whole are free from material misstatement, as discussed in ISA 700 (Revised).[78]		

[78] ISA 700 (Revised), paragraph 11

ISA 540 (Revised)[76]	Extant AU-C 540	PCAOB AS 2501
A136. In addition, in applying ISA 240, the auditor is required to evaluate whether management's judgments and decisions in making the accounting estimates included in the financial statements indicate a possible bias that may represent a material misstatement due to fraud.[79] Fraudulent financial reporting is often accomplished through intentional misstatement of accounting estimates, which may include intentionally understating or overstating accounting estimates. Indicators of possible management bias that may also be a fraud risk factor, may cause the auditor to reassess whether the auditor's risk assessments, in particular the assessment of fraud risks, and related responses remain appropriate.		

[79] ISA 240, paragraph 32(b)

Exhibit 9 — Overall Evaluation (issue 12 from agenda item 4)
(ISA 540 (Revised) paragraph 33-34 and A137-A138)

ISA 540 (Revised)[80]	Extant AU-C 540	PCAOB AS 2501
Overall Evaluation Based on Audit Procedures Performed		
33. In applying ISA 330 to accounting estimates,[81] the auditor shall evaluate, based on the audit procedures performed and audit evidence obtained, whether: (Ref: Para A137–A138)		
The assessments of the risks of material misstatement at the assertion level remain appropriate, including when indicators of possible management bias have been identified;		
Management's decisions relating to the recognition, measurement, presentation and disclosure of these accounting estimates in the financial statements are in accordance with the applicable financial reporting framework; and		

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[81] ISA 330, paragraphs 25–26

Sufficient appropriate audit evidence has been obtained.		
34. In making the evaluation required by paragraph 33©, the auditor shall take into account all relevant audit evidence obtained, whether corroborative or contradictory.[82] If the auditor is unable to obtain sufficient appropriate audit evidence, the auditor shall evaluate the implications for the audit or the auditor's opinion on the financial statements in accordance with ISA 705 (Revised).[83]		
Application Material		
Overall Evaluation Based on Audit Procedures Performed (Ref: Para. 33)		
A137. As the auditor performs planned audit procedures, the audit evidence obtained may cause the auditor to modify the nature, timing or extent of other planned audit procedures.[84] In relation to accounting estimates, information may come to the auditor's attention through performing procedures to obtain audit evidence that differs significantly from the information on which the risk assessment		

[82] ISA 500, paragraph 11
[83] ISA 705 (Revised), *Modifications to the Opinion in the Independent Auditor's Report*
[84] ISA 330, paragraph A60

was based. For example, the auditor may have identified that the only reason for an assessed risk of material misstatement is the subjectivity involved in making the accounting estimate. However, while performing procedures to respond to the assessed risks of material misstatement, the auditor may discover that the accounting estimate is more complex than originally contemplated, which may call into question the assessment of the risk of material misstatement (for example, the inherent risk may need to be re-assessed on the higher end of the spectrum of inherent risk due to the effect of complexity) and therefore the auditor may need to perform additional further audit procedures to obtain sufficient appropriate audit evidence.[85]		
A138. With respect to accounting estimates that have not been recognized, a particular focus of the auditor's evaluation may be on whether the recognition criteria of the applicable financial reporting framework have in fact been met. When an accounting estimate has not been recognized, and the auditor concludes that this treatment is appropriate, some financial reporting frameworks may require disclosure of the circumstances in the notes		

[85] See also ISA 315 (Revised), paragraph 31

to the financial statements.		

Exhibit 10 — Determining Whether Accounting Estimates are Reasonable (issue 13 from agenda item 4)
(ISA 540 (Revised) paragraph 35-36 and A139-A144; extant AU-C 540 paragraphs .18-.20 and .A122-.A125; PCAOB AS 2501 paragraph .30)

ISA 540 (Revised)[86]	**Extant AU-C 540**	**PCAOB AS 2501**
Determining Whether the Accounting Estimates are Reasonable or Misstated		
35. The auditor shall determine whether the accounting estimates and related disclosures are reasonable in the context of the applicable financial reporting framework, or are misstated. ISA 450[87] provides guidance on how the auditor may distinguish misstatements (whether factual, judgmental, or projected) for the auditor's evaluation of the effect of uncorrected misstatements on the financial statements. (Ref: Para. A12–A13, A139–A144)	.18 The auditor should evaluate, based on the audit evidence, whether the accounting estimates in the financial statements are either reasonable in the context of the applicable financial reporting framework or are misstated. (Ref: par. .A122–.A127) .19 The auditor should obtain sufficient appropriate audit evidence about whether the disclosures in the financial statements related to accounting estimates are in accordance with the requirements of the applicable financial reporting framework. (Ref: par. .A128–.A129)	.30 AS 2810 requires the auditor to evaluate the results of audit procedures performed on accounting estimates. This includes: a. Evaluating identified misstatements;[88] b. Evaluating the qualitative aspects of the company's accounting practices, including potential bias in management's judgments about the amounts and disclosures in the financial statements;[89] c. Evaluating potential bias in accounting estimates;[90] and d. Evaluating the presentation of the

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[87] ISA 450, paragraph A6
[88] See AS 2810.10–.23, which discuss accumulating and evaluating identified misstatements.
[89] See AS 2810.24–.26.
[90] See AS 2810.27.

ISA 540 (Revised)[86]	Extant AU-C 540	PCAOB AS 2501
		financial statements, including the disclosures and whether the financial statements contain the information essential for a fair presentation of the financial statements in conformity with the applicable financial reporting framework.[91]
	.20 For accounting estimates that give rise to significant risks, the auditor also should evaluate the adequacy of the disclosure of estimation uncertainty in the financial statements in the context of the applicable financial reporting framework. (Ref: par. .A108 and .A130-.A132)	
36. In relation to accounting estimates, the auditor shall evaluate:		
a. In the case of a fair presentation framework, whether management has included disclosures, beyond those specifically required by the framework, that are necessary to achieve the fair presentation of the financial statements as a whole;[92] or		

[91] See AS 2810.31.
[92] See also ISA 700 (Revised), *Forming an Opinion and Reporting on Financial Statements*, paragraph 14

ISA 540 (Revised)[86]	**Extant AU-C 540**	**PCAOB AS 2501**
b. In the case of a compliance framework, whether the disclosures are those that are necessary for the financial statements not to be misleading.[93]		
Application Material		
Determining Whether the Accounting Estimates are Reasonable or Misstated (Ref: Para. 9, 35)	***Evaluating the Reasonableness of the Accounting Estimates and Determining Misstatements (Ref: par. .18)***	
	.A122 Based on the audit evidence obtained, the auditor may conclude that the evidence points to an accounting estimate that differs from management's point estimate. When the audit evidence supports a point estimate, the difference between the auditor's point estimate and management's point estimate constitutes a misstatement. When the auditor has concluded that using the auditor's range provides sufficient appropriate audit evidence, a management point estimate that lies outside the auditor's range would not be supported by audit evidence. In such cases, the misstatement is no less than the difference between management's point estimate and the nearest point of the auditor's range.	

[93] See also ISA 700 (Revised), *Forming an Opinion and Reporting on Financial Statements*, paragraph 19

ISA 540 (Revised)[86]	Extant AU-C 540	PCAOB AS 2501
	.A123 When management has changed an accounting estimate, or the method in making it, from the prior period based on a subjective assessment that there has been a change in circumstances, the auditor may conclude, based on the audit evidence, that the accounting estimate is misstated as a result of an arbitrary change by management or may regard it as an indicator of possible management bias (see paragraphs .A133–.A134).	
	.A124 Section 450, *Evaluation of Misstatements Identified During the Audit*, provides guidance on distinguishing misstatements for purposes of the auditor's evaluation of the effect of uncorrected misstatements on the financial statements. [fn 24] With regard to accounting estimates, a misstatement, whether caused by fraud or error, may arise as a result of • misstatements about which no doubt exists (factual misstatements). • differences arising from management's judgments concerning accounting	

fn 24 Paragraph .A3 of section 450, *Evaluation of Misstatements Identified During the Audit*.

ISA 540 (Revised)[86]	Extant AU-C 540	PCAOB AS 2501
	estimates that the auditor considers unreasonable or the selection or application of accounting policies that the auditor considers inappropriate (judgmental misstatements). • the auditor's best estimate of misstatements in populations involving the projection of misstatements identified in audit samples to the entire population from which the samples were drawn (projected misstatements). In some cases involving accounting estimates, a misstatement could arise as a result of a combination of these circumstances, making separate identification difficult or impossible.	
	.A125 Evaluating the reasonableness of accounting estimates and related disclosures included in the notes to the financial statements, whether required by the applicable financial reporting framework or disclosed voluntarily, involves essentially the same types of considerations applied when auditing an accounting estimate recognized in the financial statements.	
A139. In determining whether, based on the audit procedures performed and evidence obtained, management's point		

ISA 540 (Revised)[86]	Extant AU-C 540	PCAOB AS 2501
estimate and related disclosures are reasonable, or are misstated:		
• When the audit evidence supports a range, the size of the range may be wide and, in some circumstances, may be multiples of materiality for the financial statements as a whole (see also paragraph A125). Although a wide range may be appropriate in the circumstances, it may indicate that it is important for the auditor to reconsider whether sufficient appropriate audit evidence has been obtained regarding the reasonableness of the amounts within the range.		
• The audit evidence may support a point estimate that differs from management's point estimate. In such circumstances, the difference between the auditor's point estimate and management's point estimate constitutes a misstatement.		
• The audit evidence may support a range that does not include management's point estimate. In such circumstances, the misstatement is the difference between management's		

ISA 540 (Revised)[86]	Extant AU-C 540	PCAOB AS 2501
point estimate and the nearest point of the auditor's range.		
A140. Paragraphs A110–A114 provide guidance to assist the auditor in evaluating management's selection of a point estimate and related disclosures to be included in the financial statements.		
A141. When the auditor's further audit procedures include testing how management made the accounting estimate or developing an auditor's point estimate or range, the auditor is required to obtain sufficient appropriate audit evidence about disclosures that describe estimation uncertainty in accordance with paragraphs 26(b) and 29(b) and other disclosures in accordance with paragraph 31. The auditor then considers the audit evidence obtained about disclosures as part of the overall evaluation, in accordance with paragraph 35, of whether the accounting estimates and related disclosures are reasonable in the context of the applicable financial reporting framework, or are misstated.		
A142. ISA 450 also provides guidance		

ISA 540 (Revised)[86]	Extant AU-C 540	PCAOB AS 2501
regarding qualitative disclosures[94] and when misstatements in disclosures could be indicative of fraud.[95]		
A143. When the financial statements are prepared in accordance with a fair presentation framework, the auditor's evaluation as to whether the financial statements achieve fair presentation[96] includes the consideration of the overall presentation, structure and content of the financial statements, and whether the financial statements, including the related notes, represent the transactions and events in a manner that achieves fair presentation. For example, when an accounting estimate is subject to a higher degree of estimation uncertainty, the auditor may determine that additional disclosures are necessary to achieve fair presentation. If management does not include such additional disclosures, the auditor may conclude that the financial statements are materially misstated.		

[94] ISA 450, paragraph A17
[95] ISA 450, paragraph A22
[96] ISA 700 (Revised), paragraph 14

ISA 540 (Revised)[86]	Extant AU-C 540	PCAOB AS 2501
A144. ISA 705 (Revised)[97] provides guidance on the implications for the auditor's opinion when the auditor believes that management's disclosures in the financial statements are inadequate or misleading, including, for example, with respect to estimation uncertainty.		

[97] ISA 705 (Revised), paragraphs 22–23

Exhibit 11 — Communication with Those Charged With Governance (issue 14 from agenda item 4)
(ISA 540 (Revised) paragraph 38 and A146-A148; extant AU-C 540 paragraphs .A127-.A132)

ISA 540 (Revised)[98]	**Extant AU-C 540**	**PCAOB AS 2501**
Communication with Those Charged With Governance, Management, or Other Relevant Parties		
38. In applying ISA 260 (Revised)[99] and ISA 265,[100] the auditor is required to communicate with those charged with governance or management about certain matters, including significant qualitative aspects of the entity's accounting practices and significant deficiencies in internal control, respectively. In doing so, the auditor shall consider the matters, if any, to communicate regarding accounting estimates and take into account whether the reasons given to the risks of material misstatement relate to estimation uncertainty, or the effects of complexity, subjectivity or other inherent risk factors in making accounting estimates and related disclosures. In addition, in certain		

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[99] ISA 260 (Revised), *Communication with Those Charged with Governance*, paragraph 16(a)
[100] ISA 265, paragraph 9

ISA 540 (Revised)[98]	**Extant AU-C 540**	**PCAOB AS 2501**
circumstances, the auditor is required by law or regulation to communicate about certain matters with other relevant parties, such as regulators or prudential supervisors. (Ref: Para. A146–A148)		
Application Material		
Communication with Those Charged With Governance, Management or Other Relevant Parties (Ref: Para. 38)	*Communication With Those Charged With Governance*	
A146. In applying ISA 260 (Revised), the auditor communicates with those charged with governance the auditor's views about significant qualitative aspects of the entity's accounting practices relating to accounting estimates and related disclosures.[101] Appendix 2 includes matters specific to accounting estimates that the auditor may consider communicating to those charged with governance.	.A127 Section 260, *The Auditor's Communication With Those Charged With Governance*, addresses the auditor's communications of certain matters related to the conduct of an audit to those charged with governance. The auditor is required by section 260 to communicate the auditor's views about the qualitative aspects of the entity's significant accounting practices, including accounting estimates, and, when applicable, is required to determine that those charged with governance are informed about the process used by management in formulating particularly sensitive accounting estimates and about the basis for the auditor's conclusions regarding the reasonableness of	

[101] ISA 260 (Revised), paragraph 16(a)

ISA 540 (Revised)[98]	Extant AU-C 540	PCAOB AS 2501
	those estimates. [fn 26]	
A147. ISA 265 requires the auditor to communicate in writing to those charged with governance significant deficiencies in internal control identified during the audit.[102] Such significant deficiencies may include those related to controls over:		
a. The selection and application of significant accounting policies, and the selection and application of methods, assumptions and data;		
b. Risk management and related systems;		
c. Data integrity, including when data is obtained from an external information source; and		
d. The use, development and validation of models, including models obtained from an external provider, and		

fn 26 Paragraph .12 of section 260, *The Auditor's Communication With Those Charged With Governance*.

[102] ISA 265, paragraph 9

ISA 540 (Revised)[98]	Extant AU-C 540	PCAOB AS 2501
any adjustments that may be required.		
A148. In addition to communicating with those charged with governance, the auditor may be permitted or required to communicate directly with regulators or prudential supervisors. Such communication may be useful throughout the audit or at particular stages, such as when planning the audit or when finalizing the auditor's report. For example, in some jurisdictions, financial institution regulators seek to cooperate with auditors to share information about the operation and application of controls over financial instrument activities, challenges in valuing financial instruments in inactive markets, expected credit losses, and insurance reserves while other regulators may seek to understand the auditor's views on significant aspects of the entity's operations including the entity's costs estimates. This communication may be helpful to the auditor in identifying, assessing and responding to risks of material misstatement.		
	Disclosures Related to Accounting Estimates	

ISA 540 (Revised)[98]	Extant AU-C 540	PCAOB AS 2501
	Disclosures in Accordance With the Applicable Financial Reporting Framework (Ref: par. .19)	
	.A128 The presentation of financial statements in accordance with the applicable financial reporting framework includes adequate disclosure of material matters. The applicable financial reporting framework may permit or prescribe disclosures related to accounting estimates, and some entities may disclose voluntarily additional information in the notes to the financial statements. These disclosures may include, for example • the assumptions used. • the method of estimation used, including any applicable model(s). • the basis for the selection of the method of estimation. • the effect of any changes to the method of estimation from the prior period. • the sources and implications of estimation uncertainty. Such disclosures are relevant to users in understanding the accounting estimates recognized or disclosed in the financial	

ISA 540 (Revised)[98]	Extant AU-C 540	PCAOB AS 2501
	statements, and sufficient appropriate audit evidence needs to be obtained about whether the disclosures are in accordance with the requirements of the applicable financial reporting framework.	
	.A129 In some cases, the applicable financial reporting framework may require specific disclosures regarding uncertainties. For example, some financial reporting frameworks prescribe the following: • The disclosure of key assumptions 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 may be described using terms such as *key sources of estimation uncertainty* or *critical accounting estimates*. • The disclosure of the range of possible outcomes and the assumptions used in determining the range. • The disclosure of information regarding the significance of fair value accounting estimates to the entity's financial position and performance. • Qualitative disclosures, such as the	

ISA 540 (Revised)[98]	Extant AU-C 540	PCAOB AS 2501
	exposures to risk and how they arise; the entity's objectives, policies, and procedures for managing the risk; and the methods used to measure the risk, and any changes from the previous period of these qualitative concepts. • Quantitative disclosures, such as the extent to which the entity is exposed to risk, based on information provided internally to the entity's key management personnel, including credit risk, liquidity risk, and market risk.	
	Disclosures of Estimation Uncertainty for Accounting Estimates That Give Rise to Significant Risks (Ref: par. .20)	
	.A130 Regarding accounting estimates having significant risk, even when the disclosures are in accordance with the applicable financial reporting framework, the auditor may conclude that the disclosure of estimation uncertainty is inadequate in light of the circumstances and facts involved. The auditor's evaluation of the adequacy of disclosure of estimation uncertainty increases in importance the greater the range of possible outcomes of the accounting estimate in relation to materiality (see the related	

ISA 540 (Revised)[98]	Extant AU-C 540	PCAOB AS 2501
	discussion in paragraphs .A98–.A101).	
	.A131 In some cases, the auditor may consider it appropriate to encourage management to describe the circumstances relating to the estimation uncertainty in the notes to the financial statements.	
	.A132 Section 705, *Modifications to the Opinion in the Independent Auditor's Report*, addresses the implications for the auditor's opinion when the auditor believes that management's disclosure of estimation uncertainty in the financial statements is inadequate or misleading.	