CAS 540, Auditing Accounting Estimates and Related Disclosures: Frequently Asked Questions (FAQs)

Canadian Auditing Standards (CAS)

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CAS 540, *Auditing Accounting Estimates and Related Disclosures* is effective for audits of financial statements for periods beginning on or after December 15, 2019. During exposure of proposed CAS 540, outreach activities identified potential implementation risks or areas that may need further clarification. The frequently asked questions (FAQs) below set out questions and answers related to these matters.

The material in these FAQs is not intended to be exhaustive. For example, more, or different, questions may arise, depending on the circumstances you encounter in your audits. The specific procedures you decide to perform to meet the requirements of CAS 540 and other relevant CASs are a matter for your professional judgment.

Revised CAS 540 contains no amendments to the ISA 540 (Revised) wording. The IAASB has also published some FAQs regarding ISA 540 and the impact of COVID-19.[1]

1. How do I distinguish between data and assumptions? Are there implications for my audit in making this distinction? (CAS 540.2, 540.13(h) and 540.22-.25)

In some cases, it may be difficult to distinguish between data and assumptions. This may be the case, for example, because assumptions are often expressed numerically (for example, as a factor in an equation to calculate an estimate).

1 The International Auditing and Assurance Standards Board (IAASB) is also currently developing FAQs about ISA 540 in general *(coming soon)*.

Data is factual information. Examples of data are prices agreed in market transactions, terms of contracts, or operating times and quantities of output in a manufacturing process. Assumptions are judgments. They are developed using available information (data) and may be selected based on a range of appropriate alternatives. Often, assumptions are judgments about the likelihood of future events.

The following example shows data and assumptions that may be considered in developing an estimate of product warranty obligation.

Data *(example sources in brackets)*

- product type, invoice numbers and dates of sale *(sales records)*
- number of product units sold in the period *(sales records)*
- cumulative number of product units still under warranty *(warranty records)*
- warranty period for the product and conditions under which warranty can be claimed *(warranty information on sales invoices, publications regarding warranty provisions including website information)*

Assumptions *(examples of possible underlying data and data sources in brackets)*

- likelihood of product defects and whether the defects will be minor or major *(data from prior periods, the current period and the subsequent events period for this product or like products from warranty repair records; data on product quality from relevant past and current production records)*
- likelihood that customers will make warranty claims *(data from prior periods, the current period and the subsequent events period regarding returns for this or like products obtained from warranty claim records; updated industry and other data on consumer trends regarding warranty claims)*
- likely cost of repairs for products under warranty *(data on repair costs from prior periods and the current period for this and like products from warranty repair costs records; data on likely changes to repair costs over the warranty period based on the company's financial or other forecasts)*
- discount rate to be used to calculate the present value of future warranty claims *(banking industry information on risk-free interest rates over the warranty period)*

The audit requirements regarding data apply to both data used directly in making an estimate and data underlying the assumptions used in making the estimate.

Audit requirements regarding data, assumptions and methods have many similarities. However, there are implications for your audit in distinguishing between data and assumptions. For example, you are required to identify which assumptions are significant. Also, although data and methods selected by management give rise to estimation uncertainty and may be subject to management bias, estimation uncertainty and management bias may be more strongly linked to management's assumptions. The reason is that management's selection of assumptions involves making judgments about the likelihood of future, and therefore uncertain, events and conditions.

2. What are the audit implications when management uses data from sources other than the entity's general ledger and subsidiary ledgers (i.e., the accounting system)? (CAS 540.13(h), .22-.25)

In some cases, management's use of information sources outside the entity's accounting system may result in an increased risk of material misstatement in accounting estimates or disclosures. For example:

- Management may not have implemented effective controls for its non-accounting systems from which data, assumptions and methods may have been obtained.
- For entities with only simple businesses, there may be an increased risk of bias by an owner-manager who has significant influence over an estimation developed using information from outside the entity's accounting system.
- In some cases, it may not be practicable to obtain appropriate information from an external source regarding how the data, assumptions and methods were developed. On the other hand, external sources independent of the entity are, for example, likely to be less subject to management bias.

The nature, timing and extent of your risk assessment procedures, and further audit procedures in response to assessed risks, may be affected when management uses sources outside the entity's accounting system. Examples of matters to note include the following:

- The level of understanding of the entity's information system that you need to obtain is a matter for your professional judgment. For example, you may need to obtain an understanding of the aspects of the entity's risk management system for significant classes of transactions, account balances and disclosures, but not need to understand all aspects of that system.
- Effectively operating controls over a system other than the accounting system may be necessary to mitigate risks relating to the initiation, recording, processing, or reporting of information obtained from that system. This may lead to circumstances when substantive procedures alone cannot provide sufficient appropriate audit evidence to support one or more accounting estimates.
- External sources may include management's experts. This may indicate a need for you to use the work of that expert as audit evidence. Also, this may indicate a need for the engagement team to obtain specialized skills or knowledge or to use the work of an auditor's expert (see question 3).

Relevant requirements and examples that support this answer:

Accounting estimates and related disclosures may be based on information produced by the entity, information from external sources or a combination of the two. Such information includes data as well as information on the assumptions and methods used.

You are required to obtain an understanding of the information system, including how information relating to accounting estimates and related disclosures for significant classes of transactions, account balances or disclosures flows through the entity's information system. The understanding you are to obtain includes, for example, how management identifies, selects and uses relevant methods, assumptions and sources of data, and how management understands estimation uncertainty.[2]

The entity's information system encompasses all relevant sources. These include the entity's accounting system, other systems within the entity (for example, the entity's risk management system) or external sources (including management's experts). The following are examples of accounting estimates for which data, assumptions or methods may be obtained from sources other than the entity's accounting system:

- depreciation and amortization (e.g., data and assumptions related to the expected useful lives of assets, including data on equipment maintenance)
- valuation of financial instruments (e.g., market price data; assumptions about interest rates)
- post-employment liabilities (e.g., actuarial data, assumptions and methods)
- product or service warranty claims (e.g., claims experience for similar products in previous years)
- complex contractual items (e.g., those affecting revenue recognition for long-term contracts, or disclosures of renewal options for leases and future lease payments)
- mineral or hydrocarbon reserves in extractive industries (e.g., engineering and geological data, assumptions and methods)
- expected credit losses (e.g., historical default rates on loans, changes in economic factors affecting ability to repay)

You are also required to consider the relevance and reliability of the information to be used as audit evidence, including information that you or management have obtained from an external information source.[3]

2 CAS 540.13(h) and CAS 315, *Identifying and Assessing the Risks of Material Misstatement*, para. 25.

3 CAS 500, *Audit Evidence*, para. 7.

3. When do I need to obtain specialized skills or knowledge, including possibly using the work of an auditor's expert? (CAS 540.15)

You are required to determine whether the engagement team requires specialized skills or knowledge in auditing one or more of an entity's accounting estimates. Such skills or knowledge might be required to perform 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.

Examples of accounting estimates that may require some engagement team members to have specialized skills in accounting or auditing include:

- estimates for which the requirements in the applicable financial reporting framework require the application of complex models, such as Level 3 fair values
- expected credit losses of a financial institution
- insurance contract liabilities for an insurance entity

However, many accounting estimates, such as a simple inventory obsolescence calculation, do not require the application of specialized skills or knowledge as the engagement team has the requisite knowledge to perform appropriate risk assessment procedures, identify and assess risks of material misstatement, respond to the risk and evaluate audit evidence obtained.

When the audit of an accounting estimate involves a field other than accounting or auditing, you need to determine whether to use the work of an auditor's expert.[4] Such estimates may relate, for example, to:

- valuations of complex financial instruments, intangible assets and other assets and liabilities
- post-retirement benefit asset or liability
- the estimation of oil and gas reserves
- environmental liabilities and site clean-up costs
- interpretation of contracts, laws and regulations
- analysis of complex or unusual tax compliance issues

In some cases, management may have engaged an expert to assist in an accounting estimate. You may decide to use the work of management's expert in accordance with applicable requirements in auditing standards. Management's use of an expert would be a factor for you to consider when determining whether to engage and use the work of an auditor's expert.

4 CAS 620, *Use of the Work of an Auditor's Expert*, para. 7 and CAS 540.A62.

4. How do I take into account the degree to which an estimate is affected by inherent risk factors? (CAS 540.16 and paragraphs A76-A79)

In identifying and assessing risks of material misstatement relating to an accounting estimate and related disclosures at the assertion level, you are now required to separately assess inherent risk and control risk at the assertion level as required by CAS 315. This entails taking into account the degree to which complexity, subjectivity and other inherent risk factors affect management's:

- selection and application of the method, assumptions and data used in making the accounting estimate; or
- selection of a point estimate and related disclosures for inclusion in the financial statements[5]

Your assessment of inherent risk for an accounting estimate or related disclosures, at the assertion level, varies on a scale that is referred to as the "spectrum of inherent risk." This spectrum ranges from very low to very high inherent risk, which may include significant risk. Therefore, there is always some degree of one of the inherent risk factors (e.g., estimation uncertainty); that is, the level of inherent risk will not ever be zero.

The following are examples of matters to consider in assessing the degree to which inherent risk factors affect the likelihood or magnitude of misstatement of an accounting estimate, and therefore where inherent risk falls on the spectrum:

- Complexity may be at a higher level when the estimate relates to subject matter that cannot be directly observed (for example, expected future warranty claims). The model used may also include a complex combination of historical data and assumptions about future developments.
- Subjectivity may be at a lower level when the estimate relates to inventory obsolescence when there are only a few clearly defined inventory types.
- Estimation uncertainty may be at a higher level when the estimate of a liability relates to the outcome of litigation that depends on a single critical judgment.

5. What does the term "further audit procedures" mean in the context of auditing accounting estimates? (CAS 540.18 and paragraphs A81-A84)

You are required to perform "further audit procedures" that are responsive to your assessed risks of material misstatement for an accounting estimate, at the assertion level. In deciding how these further audit procedures respond to assessed risks, you need to consider the reasons for your assessed levels of risk.[6]

5 CAS 540.16(b).

6 CAS 540.18.

As stated in CAS 315, risk assessment procedures are audit procedures.[7] CAS 330 requires that you perform "further audit procedures" in response to assessed risks of material misstatement at the assertion level.[8] Requirements in CAS 315 and CAS 330 apply throughout the audit. A CAS, such as CAS 540 that deals with specific aspects of the audit, may expand on, but normally does not repeat, how the objectives and requirements of CAS 315 and CAS 330 are to be applied.[9] For example, CAS 540 expands on the requirements in CAS 330 by specifying that the auditor's further audit procedures shall include one or more of the following approaches:

(a) obtaining audit evidence from events occurring up to the date of the auditor's report

(b) testing how management made the accounting estimate

(c) developing an auditor's point estimate or range

In other words, "further audit procedures" is using one or more of the testing approaches above.

Your further audit procedures need to take into account that the higher your assessed risk of material misstatement, the more persuasive your audit evidence needs to be. You also need to design and perform your further audit procedures in a manner that is not biased towards obtaining audit evidence that may be corroborative or towards excluding audit evidence that may be contradictory.[10]

6. When do I need to test the operating effectiveness of relevant controls over accounting estimates? (CAS 540.19 and paragraphs A85-A89)

You are required to design and perform tests to obtain sufficient appropriate audit evidence as to the operating effectiveness of controls, if:

(a) Your assessment of risks of material misstatement at the assertion level (taking into account the effect of one or more inherent risk factors and your assessment of control risk) includes an expectation that the controls are operating effectively; or

(b) Substantive procedures alone cannot provide sufficient appropriate audit evidence at the assertion level.[11]

These circumstances are the same as those set out in CAS 330, paragraph 8.

Regarding (a) above, you may decide, for example, to not test the operating effectiveness of controls when there are likely to be inherent limitations in the design of controls.

7 CAS 315.13(j).

8 CAS 330, *The Auditor's Responses to Assessed Risks*, para. 6.

9 CAS 200, *Overall Objectives of the Independent Auditor and the Conduct of an Audit in Accordance with Canadian Auditing Standards*, para. A76.

10 CAS 540.18.

11 CAS 540.19.

Regarding (b) above, the nature of an estimate and the systems and procedures used in its determination may be highly complex and involve very large amounts of data. One example may be an entity that does not generate physical evidence for its transactions and instead has its system record when and what services are provided to each customer. In such a case, it is likely not practicable for you to obtain sufficient appropriate audit evidence at the assertion level by performing only substantive procedures.

7. What are key matters to consider when my audit approach is to obtain audit evidence from events occurring up to the date of the auditor's report? (CAS 540.21)

You may decide that your further audit procedures regarding an accounting estimate will be to obtain evidence from events occurring up to the date of your auditor's report. Examples of matters to consider with this approach include the following:

- Risks of material misstatement may have changed since the time at which management developed its estimate. For example, an allowance for doubtful accounts would have been based on assumptions about the timing and amounts of payments from various customers. Subsequent events may indicate that those assumptions were not correct. This may indicate that the allowance should have been significantly greater, or perhaps significantly smaller, depending on amounts that have been collected in the subsequent period before the auditor's report.
- Obtaining evidence from subsequent events is not likely to be sufficient for estimates where relevant events or conditions will develop over a period that extends beyond the subsequent events period. For example, the entity's warranty period for its products may extend over a longer period.
- Auditing standards require you to perform subsequent event procedures.[12] Subsequent event procedures can be integrated with the procedures you perform regarding one or more accounting estimates. Further, your audit work on subsequent events may provide evidence that is relevant when you use one or more of the other approaches to performing further audit procedures regarding an accounting estimate (i.e., testing how management made the accounting estimate or developing your own point estimate or range).

12 CAS 560, *Subsequent Events.*

8. What are key matters to consider when my audit approach is to develop my own estimate or range? In particular, am I required to consider all the matters set out in paragraphs CAS 540.23-.25 that address testing the approach taken by management in developing accounting estimates? (CAS 540.28-.29)

You may decide that your further audit procedures regarding an accounting estimate will focus on developing your own point estimate or range. Also, you may encounter circumstances when, if practicable, you will need to take that approach. This will be the case when:

- based on evidence you have obtained, you conclude that management has not taken appropriate steps to understand or address estimation uncertainty
- you have requested that they take additional procedures to do so
- and, their response to your request does not sufficiently address estimation uncertainty

Your own point estimate or range may relate to an entire accounting estimate or only to part of that estimate (for example, a particular assumption or only a certain part of the estimate that is giving rise to a risk of material misstatement).

A difference between your point estimate and management's point estimate is a misstatement. If you develop a range, you may find that your range does not include management's point estimate. In that case, the misstatement is the difference between management's point estimate and the nearest point of your range.

When you develop your own point estimate or range, you may decide to use your own methods, assumptions and data or those of management. Regardless of which approach you take, you are required to evaluate whether the methods, assumptions and data you use are appropriate in the context of the applicable financial reporting framework. In doing so, your procedures have to address the matters listed in testing how management made its point estimate (i.e., the requirements in CAS 540.23-.25). Examples of matters to note include the following:

- In paragraphs 23(b), 24(b) and 25(b), you are required to address whether the selection of the method, assumptions and data give rise to indicators of possible management bias. Since you will be selecting the methods, assumptions and data in developing your own point estimate or range, you might consider this requirement to not be applicable.
- For significant assumptions, paragraph 24 requires you to address, when applicable, whether management has the intent and ability to carry out specific courses of action. This concept may apply to a significant assumption you use in developing your own point estimate or range. If so, you will need to obtain evidence regarding management's intent and ability.
- Paragraph 25 requires you to address whether management has appropriately understood or interpreted the data, including with respect to contractual terms. In developing your own point estimate or range, you will need to obtain an appropriate understanding and make appropriate interpretations of contractual terms where such terms exist.

9. How do I evaluate whether management bias has materially affected the development of accounting estimates? (CAS 540.32)

You are required to evaluate whether judgments and decisions made by management in making the accounting estimates, even if they are individually reasonable, are indicators of possible management bias. Further, when you identify indicators of management bias, you need to evaluate the implications for your audit, including when the bias represents an intention to mislead (i.e., fraud).

The following are matters to consider in making this evaluation:

- Possible indicators of management bias should be addressed when you audit individual estimates. Examples of such indicators include when management has:
  - made a change in an accounting estimate or the method for making it on the basis of a subjective assessment that there has been a change in circumstances
  - selected or developed significant assumptions or data that yield a point estimate favorable to management's objectives
  - selected a point estimate that may indicate a pattern of optimism or pessimism
- Management bias may be difficult to detect when auditing each individual estimate. You may only be able to identify such bias when considering groups of accounting estimates or all accounting estimates in aggregate, or by observing changes in accounting estimates over a number of accounting periods. For example, management bias may be indicated when management's point estimates consistently trend toward one end of your range of reasonable outcomes that provide a more favourable financial reporting outcome for management.
- Indicators of possible management bias themselves do not constitute misstatements. However, in some cases the audit evidence may point to a misstatement rather than simply being an indicator of management bias.
- Fraudulent financial reporting is often accomplished through intentionally understating or overstating accounting estimates. Therefore, of possible management bias that you identify may present a fraud risk factor. This may cause you to reassess whether your risk assessments and related responses remain appropriate, in particular when you are assessing fraud risks.

10. What are key matters to include in the request for written representations from management or those charged with governance? (CAS 540.37)

You are required to request written representations from management. This request would ask management to assert whether the methods, significant assumptions and data they used in making the accounting estimates and related disclosures are appropriate to achieve recognition, measurement or disclosure that is in accordance with the applicable financial reporting framework.

Such representations might include, for example, that:

- management's selection or application of the methods, assumptions and data they used in making the accounting estimates are consistent and appropriate
- management has taken into account all relevant information of which they are aware in making significant judgments relating to the methods, significant assumptions and data they used
- management has taken appropriate steps to understand and address estimation uncertainty, including appropriately selecting point estimates from the reasonably possible measurement outcomes
- disclosures related to accounting estimates, including disclosures describing estimation uncertainty, are complete and are reasonable in the context of the applicable financial reporting framework
- no subsequent event requires adjustment to the accounting estimates and related disclosures

You are also required to consider the need to request representations about specific accounting estimates, including those made in relation to the methods, assumptions, or data used. These specific accounting estimates may be those that are, for example, more complex or more subject to estimation uncertainty. The representations regarding specific accounting estimates might include matters set out in the above bullet list. In addition, written representations requested might cover matters such as the following:

- Appropriate specialized skills or expertise have been applied in making the accounting estimates. For example, estimates regarding employee future benefits often would require you to use the work of an actuary.
- The assumptions appropriately reflect management's intent and ability to carry out specific courses of action on behalf of the entity. For example, management's estimated carrying value of an intangible asset such as a trademark may be affected by their intention and ability to renew the entity's trademark.
- The recognition or disclosure criteria of the applicable financial reporting framework have not been met when accounting estimates are not recognized or disclosed in the financial statements.

In some cases, it may be appropriate for you to also request written representations from those charged with governance. For example, in the particular circumstances of your engagement, you may consider it appropriate to request written representations from those charged with governance that they have exercised appropriate oversight of management for estimates involving significant judgments, high estimation uncertainty or complexity.

Consultation and Feedback

In the interest of continuous improvement and our commitment to developing quality non-authoritative guidance, we would welcome any comments or questions. Comments on this FAQ or suggestions for future publications should be sent to:

Yasmine Hakimpour, CPA, CA
Principal, Audit & Assurance
Research, Guidance and Support
Chartered Professional Accountants of Canada
277 Wellington Street West
Toronto ON M5V 3H2
Email: yhakimpour@cpacanada.ca

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