KAEG-I [INTL VERSION 2024]: ISA 500 Audit Evidence

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[ISA | KAEGISA500]

ISA 500 Audit Evidence

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ISA 500 *Audit Evidence*

(Effective for audits of financial statements for periods beginning on or after December 15, 2009)

International Standard on Auditing (ISA) 500, *Audit Evidence* , should be read in conjunction with ISA 200, *Overall Objectives of the Independent Auditor and the Conduct of an Audit in Accordance with International Standards on Auditing.*

Introduction, Objective, Definitions

International Standards on Auditing: ISA 500.01-05

Introduction

Scope of this ISA

1. This International Standard on Auditing (ISA) explains what constitutes audit evidence in an audit of financial statements, and deals with the auditor's responsibility to design and perform audit procedures to obtain sufficient appropriate audit evidence to be able to draw reasonable conclusions on which to base the auditor's opinion.

2. This ISA is applicable to all the audit evidence obtained during the course of the audit. Other ISAs deal with specific aspects of the audit (for example, ISA 315 (Revised)[1]), the audit evidence to be obtained in relation to a particular topic (for example, ISA 570 (Revised)[2]), specific procedures to obtain audit

evidence (for example, ISA 520[3]), and the evaluation of whether sufficient appropriate audit evidence has been obtained (ISA 200[4] and ISA 330[5]).

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1 ISA 315 (Revised), *Identifying and Assessing the Risks of Material Misstatement through Understanding the Entity and Its Environment*

2 ISA 570 (Revised), *Going Concern*

3 ISA 520, *Analytical Procedures*

4 ISA 200, *Overall Objectives of the Independent Auditor and the Conduct of an Audit in Accordance with International Standards on Auditing*

5 ISA 330, *The Auditor's Responses to Assessed Risks*

Effective Date

3. This ISA is effective for audits of financial statements for periods beginning on or after December 15, 2009.

Objective

4. The objective of the auditor is to design and perform audit procedures in such a way as to enable the auditor to obtain sufficient appropriate audit evidence to be able to draw reasonable conclusions on which to base the auditor's opinion.

Definitions

5. For purposes of this ISA, the following terms have the meanings attributed below:

(a) Accounting records - The records of initial accounting entries and supporting records, such as checks and records of electronic fund transfers; invoices; contracts; the general and subsidiary ledgers, journal entries and other adjustments to the financial statements that are not reflected in journal entries; and records such as work sheets and spreadsheets supporting cost allocations, computations, reconciliations and disclosures.

(b) Appropriateness (of audit evidence) - The measure of the quality of audit evidence; that is, its relevance and its reliability in providing support for the conclusions on which the auditor's opinion is based.

(c) Audit evidence - Information used by the auditor in arriving at the conclusions on which the auditor's opinion is based. Audit evidence includes both information contained in the accounting records underlying the financial statements and information obtained from other sources.

(cA) External information source - An external individual or organization that provides information that has been used by the entity in preparing the financial statements, or that has been obtained by the auditor as audit evidence, when such information is suitable for use by a broad range of users. When information has been provided by an individual or organization acting in the capacity of a management's expert, service organization[6] , or auditor's expert[7] the individual or organization is not considered an external information source with respect to that particular information. (Ref: Para. A1A-A1C)

(d) Management's expert - An 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.

(e) Sufficiency (of audit evidence) - The measure of the quantity of audit evidence. The quantity of the audit evidence needed is affected by the auditor's assessment of the risks of material misstatement and also by the quality of such audit evidence.

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6 ISA 402, *Audit Considerations Relating to an Entity Using a Service Organization* , paragraph 8.

7 ISA 620, *Using the Work of an Auditor's Expert* , paragraph 6

ISA Application and Other Explanatory Material: ISA 500.A1-A4

Application and Other Explanatory Material

External Information Source (Ref: Para 5(cA))

A1. External information sources may include pricing services, governmental organizations, central banks or recognized stock exchanges. Examples of information that may be obtained from external information sources include:

- Prices and pricing related data;
- Macro-economic data, such as historical and forecast unemployment rates and economic growth rates, or census data;
- Credit history data;
- Industry specific data, such as an index of reclamation costs for certain extractive industries, or viewership information or ratings used to determine advertising revenue in the entertainment industry; and
- Mortality tables used to determine liabilities in the life insurance and pension sectors.

A2. A particular set of information is more likely to be suitable for use by a broad range of users and less likely to be subject to influence by any particular user if the external individual or organization provides it to the public for free, or makes it available to a wide range of users in return for payment of a fee. Judgment may be required in determining whether the information is suitable for use by a broad range of users, taking into account the ability of the entity to influence the external information source.

A3. An external individual or organization cannot, in respect of any particular set of information, be both an external information source and a management's expert, or service organization or auditor's expert.

A4. However, an external individual or organization may, for example, be acting as a management's expert when providing a particular set of information, but may be acting as an external information source when providing a different set of information. In some circumstances, professional judgment may be needed to determine whether an external individual or organization is acting as an external information source or as a management's expert with respect to a particular set of information. In other circumstances, the distinction may be clear. For example:

- An external individual or organization may be providing information about real estate prices that is suitable for use by a broad range of users, for example, information made generally available

pertaining to a geographical region, and be determined to be an external information source with respect to that set of information. The same external organization may also be acting as a management's or auditor's expert in providing commissioned valuations, with respect to the entity's real estate portfolio specifically tailored for the entity's facts and circumstances.

- Some actuarial organizations publish mortality tables for general use which, when used by an entity, would generally be considered to be information from an external information source. The same actuarial organization may also be a management's expert with respect to different information tailored to the specific circumstances of the entity to help management determine the pension liability for several of the entity's pension plans.
- An external individual or organization may possess expertise in the application of models to estimate the fair value of securities for which there is no observable market. If the external individual or organization applies that expertise in making an estimate specifically for the entity and that work is used by management in preparing its financial statements, the external individual or organization is likely to be a management's expert with respect to that information. If, on the other hand, that external individual or organization merely provides, to the public, prices or pricing-related data regarding private transactions, and the entity uses that information in its own estimation methods, the external individual or organization is likely to be an external information source with respect to such information.
- An external individual or organization may publish information, suitable for a broad range of users, about risks or conditions in an industry. If used by an entity in preparing its risk disclosures (for example in compliance with IFRS 7[5a]), such information would ordinarily be considered to be information from an external information source. However, if the same type of information has been specifically commissioned by the entity to use its expertise to develop information about those risks, tailored to the entity's circumstances, the external individual or organization is likely to be acting as a management's expert.
- An external individual or organization may apply its expertise in providing information about current and future market trends, which it makes available to, and is suitable for use by, a broad range of users. If used by the entity to help make decisions about assumptions to be used in making accounting estimates, such information is likely to be considered to be information from an external information source. If the same type of information has been commissioned by the entity to address current and future trends relevant to the entity's specific facts and circumstances, the external individual or organization is likely to be acting as a management's expert.

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5a International Financial Reporting Standards 7 (IFRS), *Financial Instruments: Disclosures*

Sufficient appropriate audit evidence

International Standards on Auditing: ISA 500.06

Requirements

Sufficient Appropriate Audit Evidence

6. The auditor shall design and perform audit procedures that are appropriate in the circumstances for the purpose of obtaining sufficient appropriate audit evidence. (Ref: Para. A1 - A25)

ISA Application and Other Explanatory Material: ISA 500.A5-A29

Sufficient Appropriate Audit Evidence (Ref: Para. 6)

A5. Audit evidence is necessary to support the auditor's opinion and report. It is cumulative in nature and is primarily obtained from audit procedures performed during the course of the audit. It may, however, also include information obtained from other sources such as previous audits (provided the auditor has evaluated whether such information remains relevant and reliable as audit evidence for the current audit[6]) or through the information obtained by the firm in the acceptance or continuance of the client relationship or engagement.. In addition, the entity's accounting records and other sources internal to the entity are an important source of audit evidence. Information that may be used as audit evidence may have been prepared using the work of a management's expert or be obtained from an external information source. Audit evidence comprises both information that supports and corroborates management's assertions, and any information that contradicts such assertions. In addition, in some cases the absence of information (for example, management's refusal to provide a requested representation) is used by the auditor, and therefore, also constitutes audit evidence.

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6 ISA 315 (Revised), paragraph 9

A6. Most of the auditor's work in forming the auditor's opinion consists of obtaining and evaluating audit evidence. Audit procedures to obtain audit evidence can include inspection, observation, confirmation, recalculation, reperformance, and analytical procedures, often in some combination, in addition to inquiry. Although inquiry may provide important audit evidence, and may even produce evidence of a misstatement, inquiry alone ordinarily does not provide sufficient audit evidence of the absence of a material misstatement at the assertion level, nor of the operating effectiveness of controls.

A7. As explained in ISA 200,[7] reasonable assurance is obtained when the auditor has obtained sufficient appropriate audit evidence to reduce audit risk (that is, the risk that the auditor expresses an inappropriate opinion when the financial statements are materially misstated) to an acceptably low level.

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7 ISA 200, paragraph 5

A8. The sufficiency and appropriateness of audit evidence are interrelated. Sufficiency is the measure of the quantity of audit evidence. The quantity of audit evidence needed is affected by the auditor's assessment of the risks of misstatement (the higher the assessed risks, the more audit evidence is likely to be required) and also by the quality of such audit evidence (the higher the quality, the less may be required). Obtaining more audit evidence, however, may not compensate for its poor quality.

A9. Appropriateness is the measure of the quality of audit evidence; that is, its relevance and its reliability in providing support for the conclusions on which the auditor's opinion is based. The reliability of evidence is influenced by its source and by its nature, and is dependent on the individual circumstances under which it is obtained.

A10. ISA 330 requires the auditor to conclude whether sufficient appropriate audit evidence has been obtained.[8] Whether sufficient appropriate audit evidence has been obtained to reduce audit risk to an acceptably low level, and thereby enable the auditor to draw reasonable conclusions on which to base the auditor's opinion, is a matter of professional judgment. ISA 200 contains discussion of such matters as the nature of audit procedures, the timeliness of financial reporting, and the balance between benefit and cost, which are relevant factors when the auditor exercises professional judgment regarding whether sufficient appropriate audit evidence has been obtained.

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8 ISA 330, paragraph 26

Sources of Audit Evidence

A11. Some audit evidence is obtained by performing audit procedures to test the accounting records, for example, through analysis and review, reperforming procedures followed in the financial reporting process, and reconciling related types and applications of the same information. Through the performance of such audit procedures, the auditor may determine that the accounting records are internally consistent and agree to the financial statements.

A12. More assurance is ordinarily obtained from consistent audit evidence obtained from different sources or of a different nature than from items of audit evidence considered individually. For example, corroborating information obtained from a source independent of the entity may increase the assurance the auditor obtains from audit evidence that is generated internally, such as evidence existing within the accounting records, minutes of meetings, or a management representation.

A13 Information from sources independent of the entity that the auditor may use as audit evidence may include confirmations from third parties and information from an external information source, including analysts' reports, and comparable data about competitors (benchmarking data).

Audit Procedures for Obtaining Audit Evidence

A14. As required by, and explained further in, ISA 315 (Revised) and ISA 330, audit evidence to draw reasonable conclusions on which to base the auditor's opinion is obtained by performing:

(a) Risk assessment procedures; and

(b) Further audit procedures, which comprise:

(i) Tests of controls, when required by the ISA or when the auditor has chosen to do so; and

(ii) Substantive procedures, including tests of details and substantive analytical procedures.

A15. The audit procedures described in paragraphs A14 - A25 below may be used as risk assessment procedures, tests of controls or substantive procedures, depending on the context in which they are applied by the auditor. As explained in ISA 330, audit evidence obtained from previous audits may, in certain circumstances, provide appropriate audit evidence where the auditor performs audit procedures to establish its continuing relevance.[9]

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9 ISA 330, paragraph A35

A16. The nature and timing of the audit procedures to be used may be affected by the fact that some of the accounting data and other information may be available only in electronic form or only at certain

points or periods in time. For example, source documents, such as purchase orders and invoices, may exist only in electronic form when an entity uses electronic commerce, or may be discarded after scanning when an entity uses image processing systems to facilitate storage and reference.

A17. Certain electronic information may not be retrievable after a specified period of time, for example, if files are changed and if backup files do not exist. Accordingly, the auditor may find it necessary as a result of an entity's data retention policies to request retention of some information for the auditor's review or to perform audit procedures at a time when the information is available.

Inspection

A18. Inspection involves examining records or documents, whether internal or external, in paper form, electronic form, or other media, or a physical examination of an asset. Inspection of records and documents provides audit evidence of varying degrees of reliability, depending on their nature and source and, in the case of internal records and documents, on the effectiveness of the controls over their production. An example of inspection used as a test of controls is inspection of records for evidence of authorization.

A19. Some documents represent direct audit evidence of the existence of an asset, for example, a document constituting a financial instrument such as a stock or bond. Inspection of such documents may not necessarily provide audit evidence about ownership or value. In addition, inspecting an executed contract may provide audit evidence relevant to the entity's application of accounting policies, such as revenue recognition.

A20. Inspection of tangible assets may provide reliable audit evidence with respect to their existence, but not necessarily about the entity's rights and obligations or the valuation of the assets. Inspection of individual inventory items may accompany the observation of inventory counting.

Observation

A21. Observation consists of looking at a process or procedure being performed by others, for example, the auditor's observation of inventory counting by the entity's personnel, or of the performance of controls. Observation provides audit evidence about the performance of a process or procedure, but is limited to the point in time at which the observation takes place, and by the fact that the act of being observed may affect how the process or procedure is performed. See ISA 501 for further guidance on observation of the counting of inventory.[10]

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10 ISA 501, *Audit Evidence - Specific Considerations for Selected Items*

External Confirmation

A22. An external confirmation represents audit evidence obtained by the auditor as a direct written response to the auditor from a third party (the confirming party), in paper form, or by electronic or other medium. External confirmation procedures frequently are relevant when addressing assertions associated with certain account balances and their elements. However, external confirmations need not be restricted to account balances only. For example, the auditor may request confirmation of the terms of agreements or transactions an entity has with third parties; the confirmation request may be designed to ask if any modifications have been made to the agreement and, if so, what the relevant details are. External confirmation procedures also are used to obtain audit evidence about the absence of certain conditions,

for example, the absence of a "side agreement" that may influence revenue recognition. See ISA 505 for further guidance.[11]

11 ISA 505, *External Confirmations*

Recalculation

A23. Recalculation consists of checking the mathematical accuracy of documents or records. Recalculation may be performed manually or electronically.

Reperformance

A24. Reperformance involves the auditor's independent execution of procedures or controls that were originally performed as part of the entity's internal control.

Analytical Procedures

A25. Analytical procedures consist of evaluations of financial information through analysis of plausible relationships among both financial and non-financial data. Analytical procedures also encompass such investigation as is necessary of identified fluctuations or relationships that are inconsistent with other relevant information or that differ from expected values by a significant amount. See ISA 520 for further guidance.

Inquiry

A26. Inquiry consists of seeking information of knowledgeable persons, both financial and non-financial, within the entity or outside the entity. Inquiry is used extensively throughout the audit in addition to other audit procedures. Inquiries may range from formal written inquiries to informal oral inquiries. Evaluating responses to inquiries is an integral part of the inquiry process.

A27. Responses to inquiries may provide the auditor with information not previously possessed or with corroborative audit evidence. Alternatively, responses might provide information that differs significantly from other information that the auditor has obtained, for example, information regarding the possibility of management override of controls. In some cases, responses to inquiries provide a basis for the auditor to modify or perform additional audit procedures.

A28. Although corroboration of evidence obtained through inquiry is often of particular importance, in the case of inquiries about management intent, the information available to support management's intent may be limited. In these cases, understanding management's past history of carrying out its stated intentions, management's stated reasons for choosing a particular course of action, and management's ability to pursue a specific course of action may provide relevant information to corroborate the evidence obtained through inquiry.

A29. In respect of some matters, the auditor may consider it necessary to obtain written representations from management and, where appropriate, those charged with governance to confirm responses to oral inquiries. See ISA 580 for further guidance.[12]

12 ISA 580, *Written Representations*

How do we comply with the Standards?

[ISA | KAEGHDWC]

1 Obtain sufficient appropriate audit evidence [ISA | 502]

What do we do?

Plan and perform audit procedures to obtain sufficient appropriate audit evidence, considering risk

Why do we do this?

As the risk increases, our response changes and we seek more persuasive audit evidence. We think critically about the design and performance of audit procedures so as to enable us to obtain sufficient appropriate audit evidence. This is to be able to draw reasonable conclusions on which to base the auditors' opinion.

Execute the Audit

What is audit evidence? [ISA | 502.1302]

Audit evidence is the cumulative information that we obtain and use to draw reasonable conclusions on which to base the auditor's opinion. We obtain this information from the accounting records underlying the financial statements and our audit procedures, but it may also come from other sources (e.g. previous audits).

Audit evidence is information to which audit procedures have been applied and consists of information that supports or contradicts management's assertions regarding the financial statements (or internal control over financial reporting in an ICOFR audit). In certain instances, the absence of information is used by the auditor and therefore is also audit evidence. For example, when considering information related to the entity's recorded warranty provision, the absence of sales returns of the product in question may be audit evidence supporting management's assertion about the completeness of the warranty provision.

We apply audit procedures to evaluate the relevance and reliability of information used in the audit.

What information may be used as audit evidence? [ISA | 502.10552]

The following table describes examples of different sources of information, which may be used as audit evidence:

Source	Considerations	Examples
Internal - from within the entity (i.e. management)	Management may provide us with information obtained from the financial reporting process used to prepare the financial statements as well as information obtained from outside of the general and subsidiary ledgers. This information may be stored by	• Accounting records • Reports prepared by the entity, either manual or system generated • Information from the entity's risk management system or sales functions

	the entity within its IT systems or in a remote server. Management may also use specialists who could provide information to be used as audit evidence.	• Information prepared using the work of management's specialists • Board minutes • Internal audit reports • Projections • The results of inquiries with individuals
External - from outside the entity (i.e. external information sources and other external parties)	Management or we may use information obtained from external information sources and other external parties.	• Inquiries of external parties to corroborate management's assertions • Information used as inputs to forecasts or models used to prepare accounting estimates or accumulated by us to analyze industry trends, such as: - Information from service providers - Industry statistics - Industry articles - Analyst reports - Competitors' information
Auditor	We may develop information to be used as audit evidence (e.g. accumulate and analyze industry trends to be used in the audits of entities in that industry). We may also employ or engage a specialist to assist us in developing audit evidence. We may also use CAATs to analyze information provided by management or external parties, resulting in audit evidence.	• Previous audits • Findings from KPMG's quality control procedures for client acceptance and continuance • Other engagements performed for the entity • Information obtained from 'complying with certain additional responsibilities under laws and regulations (e.g. regarding an entity's non-compliance with laws and regulations, including illegal acts)

What does 'sufficient' mean? [ISA | 502.1600]

Sufficiency is the measure of the quantity of audit evidence.

The following table describes the two factors that affect the sufficiency of the audit evidence:

Factors	How the factors affect the sufficiency of audit evidence

CAR Risk associated with the control (RAWTC)	The higher the assessed risk, the amount of audit evidence we obtain also increases.
Quality of the audit evidence obtained (i.e. its appropriateness)	As the quality of the audit evidence increases, the less evidence (in quantity) we may obtain.

Obtaining more audit evidence, however, may not compensate for its poor quality.

What does 'appropriate' mean? [ISA | 502.1700]

Appropriateness is the measure of the quality of audit evidence; that is, its relevance and its reliability in providing support for the conclusions on which the auditor's opinion is based.

The reliability of evidence is influenced by its source and by its nature, and is dependent on the individual circumstances under which it is obtained.

How does obtaining sufficient appropriate audit evidence affect risk? [ISA | 502.1401]

Obtaining sufficient appropriate audit evidence reduces audit risk (see question 'What is audit risk?').

Audit risk consists of combined assessed risk (CAR) (see question 'What is combined assessed risk?'), the combination of inherent risk and control risk, and detection risk. We obtain more persuasive evidence as CAR increases.

What influences the persuasiveness of audit evidence? [ISA | 502.1500]

The following diagram illustrates the factors that influence the persuasiveness of audit evidence:

How do we plan and perform audit procedures to obtain sufficient appropriate audit evidence? [ISA | 502.1900]

As part of planning and performing audit procedures to obtain sufficient appropriate audit evidence we perform the following:

- Evaluate the relevance and reliability of information used in our audit
- Take into account corroborating and contradicting information when evaluating information
- Obtain sufficient appropriate audit evidence for accounting estimates.

Our evaluation of information to be used as audit evidence involves maintaining professional skepticism, including the consideration of whether unconscious or conscious biases may affect our professional judgments (see question 'What are some examples of biases that may impede our ability to apply professional skepticism?').

Examples

How do we think about sufficiency and appropriateness together? [ISA | 502.2000]

Fact pattern

An engagement team is auditing the financial statements of a product distribution entity and has identified an RMM over revenue: For performance obligations satisfied at a point in time, revenue is not recognized when control is transferred to the customer, resulting in revenue not being recognized in the correct accounting period.

To address the risk, they plan to perform the following procedures:

- Inspecting supporting documents for sales posted shortly before and after the period to determine if they were recognized in the appropriate period; and
- Requesting external confirmation of a sample of trade receivable balances as of period end, confirming sales terms and conditions for customers that made purchases recognized near the year end.

The entity informs the engagement manager that they prefer we do not send confirmations to their customers, which is a fraud risk factor.

Analysis

The engagement manager considers whether the quantity of audit evidence obtained without the confirmations is appropriate, considering that they selected the sample based on the highest level of CAR and have performed multiple audit procedures to address the risk, which increases the persuasiveness of audit evidence.

However, the engagement manager determines that the audit evidence is not of a high enough quality (insufficient). In order to respond to the level of risk associated with the RMM, we planned to obtain evidence from an external source. Accordingly, the engagement manager discusses with the entity the importance of sending the confirmations to have the right quality of evidence to address the RMM. The engagement team responds to the fraud risk factor in accordance with the activity 'Identify fraud risk factors'.

How do we plan our test of controls to obtain persuasive audit evidence considering the risk associated with the control (RAWTC)? [ISA | 502.2100]

Fact pattern

The engagement team is auditing a product distribution entity and testing the operating effectiveness of a revenue control where the control operator reviews invoices classified and recorded by his team near period end to determine that they are recorded in the proper period.

The engagement team is considering whether the RAWTC is elevated or significant and what procedures they will perform to test the control in both instances.

Analysis

The engagement team's audit procedures to obtain audit evidence over the operating effectiveness of the controls will vary depending on whether the RAWTC is elevated or significant:

Significant RAWTC:

The engagement team plans to:

- reperform the review performed by the control operator by inspecting source documentation (the internal shipping logs, supporting third party bill of ladings, purchase orders, and invoice) for a higher number of sample items (see question 'How do we determine the control sample size?' for the control sample size table); and
- during rollforward period, inquire and observe the control operator perform their review at or near period end.

Elevated RAWTC:

The engagement team plans to reperform the review performed by the control operator by inspecting source documentation (the internal shipping logs, supporting third party bill of ladings, purchase orders, and invoice) **for a lower number of sample items** (see question 'How do we determine the control sample size?' for the control sample size table).

2 Perform audit procedures to obtain audit evidence [ISA | 512]

What do we do?

Perform audit procedures to obtain audit evidence AND evaluate whether the results of audit procedures provide a basis for concluding on the sufficiency and appropriateness of audit evidence

Why do we do this?

We think critically about the design and performance of audit procedures and the results of these audit procedures to enable us to obtain sufficient appropriate audit evidence. This is to be able to draw reasonable conclusions on which to base the auditors' opinion.

Although inquiry may provide important audit evidence, and may even produce evidence of a misstatement, inquiry alone ordinarily does not provide sufficient audit evidence of the absence of a material misstatement at the assertion level, nor of the operating effectiveness of controls. We combine our inquiries with other procedures and tailor the design of those procedures to respond to CAR of the RMMs.

Execute the Audit

What audit procedures may we perform to obtain sufficient appropriate audit evidence? [ISA | 512.1300]

The table below describes the audit procedures that we may perform and the factors we think about when obtaining sufficient appropriate audit evidence:

Audit procedure	What is it?	Example
Inspection	Involves an examination (being physically present or using remote observation tools) of an asset or an	Inspection of records, using manual or automated techniques,

	examination of records or documents (internal and external) on paper, in electronic or other media. Inspection of records and documents provides audit evidence of varying degrees of reliability, depending on their nature and source and, in the case of internal records and documents, on the effectiveness of the controls over their production.	for evidence of authorization. For example, the use of text-recognition programs to examine large populations of documents, such as contracts, to identify items for further audit consideration.
Observation	Observation consists of looking at a process or procedure being performed by others. Observation provides audit evidence about the performance of a process or procedure but is limited to the point in time at which the observation takes place and by the fact that the act of being observed may affect how the process or procedure is performed.	Observation of an entity's physical inventory count. Remote observation tools (e.g. a camera mounted on a drone or a video transmission) may aid in performing an inspection or an observation procedure, such as management's physical inventory count.
Inquiry	Inquiry consists of seeking information from knowledgeable persons in financial or nonfinancial roles within or outside the entity. Inquiries may range from formal written inquiries to informal oral inquiries.	Inquiries with management regarding related party relationships and transactions
External confirmation	An external confirmation represents audit evidence obtained as a direct written response to us from a third party (the confirming party) on paper or by electronic or other medium - e.g. through our direct access to information held by a third party.	Confirmation of accounts receivable balances with customers.
Recalculation	Recalculation consists of checking the mathematical accuracy of documents or records. Recalculation may be performed manually or electronically. By using automated tools and techniques, we may be able to perform	Recalculating fees in accordance with contractual terms. Recalculating the gross margin for each product

	recalculation procedures on 100% of a population.	sold for an entity's product line.
Reperformance	Reperformance involves our independent execution of procedures or controls that were originally performed as part of the entity's internal control and entails using the same information as the control operator/IT system and seeing if we came to the same result. We separately consider the reliability of the information used in the control and cannot infer the performance of the control by comparison to independent information.	Reperformance of a bank reconciliation.
Analytical procedures	Analytical procedures consist of evaluations of financial information through analysis of plausible relationships among both financial and non-financial data. Analytical procedures also encompass the investigation of identified fluctuations or relationships that are inconsistent with other relevant information or deviate significantly from predicted amounts.	Substantive analytical procedures over interest expense based on expected relationships with debt terms.

Why do we perform inquiries? [ISA | 512.1400]

Responses to inquiries may provide us with:

- information not previously possessed
- corroborative audit evidence, or
- a basis for us to modify or perform additional procedures.

Examples of detailed inquiries include:

- an interview to update our understanding about a process,
- to obtain detailed explanations about our analytical procedures, or
- to understand sensitive matters about strategies performed by the entity.

Alternatively, responses might provide information that differs significantly from other information that we have obtained.

For example, a senior associate on the engagement team is assigned to obtain an understanding of the payroll process and sets up a meeting with the entity's Payroll Manager.

During the meeting the senior associate performs inquiries to understand and update our audit documentation regarding the process documented in the previous audit. Management responds to our initial inquiries that the process for paying subcontractors has changed as it is now outsourced to a service provider.

This initial inquiry provides the senior associate with information they were not previously aware of and allows them to alter the planned procedures and conduct two walkthroughs - one for the normal payroll process and another for the subcontractor process.

Can we make inquiries of persons outside the entity? [ISA | 512.8641]

Yes. Inquiries of knowledgeable persons outside the entity do not meet the definition of external confirmations in accordance with the chapter on external confirmations (AS 2310, ISA 505, AU-C 505). However, the responses to inquiries of persons outside of the entity may constitute reliable information to be used as audit evidence.

Can we make inquiries of more than one individual for the same reason? [ISA | 512.1500]

Yes, we may inquire of more than one individual to evaluate the validity and consistency of the responses obtained. However, an inquiry corroborated through inquiry of another person does not provide sufficient audit evidence on its own.

Can we use inquiries to support management's intent? [ISA | 512.10464]

Yes, we can use inquiries to support management's intent, however, the audit evidence might be limited. In these cases, we may also corroborate our inquiries through:

- Understanding management's past history about carrying out stated intentions
- Understanding stated reasons for choosing a particular action
- Understanding management's ability to pursue that action.

Maintaining professional skepticism is particularly important when corroborative audit evidence is limited to inquiry. In this case, it may be helpful to consider the consistency, or lack thereof, between the information obtained through inquiry and our corroborating procedures.

Can we request more formal audit evidence in respect to inquiries? [ISA | 512.10465]

Yes, we can request more formal audit evidence in respect to inquiries such as management's written representations and, where appropriate, representations from those charged with governance to confirm responses to oral inquiries.

Although written representations provide audit evidence, they complement other auditing procedures and do not provide sufficient appropriate audit evidence on their own about any of the matters with which they deal.

How do we document information obtained from inquiries? [ISA | 512.10466]

When documenting our inquiries, we document all the relevant information gathered (i.e. dates, participants - name and job designation, responses etc.) in accordance with the chapter on audit documentation *(* AS 1215 *,* ISA 230 *,* AU-C 230 *).*

We may also find it helpful to summarize the key points discussed and actions agreed during the meeting, so that there is agreement and confirmation that we understood the information communicated to us and have a common understanding and accountability of actions agreed.

Regardless of whether we will summarize key points for management, we document the results of our inquiries to form part of our audit evidence.

How do we perform inquiries? [ISA | 512.10467]

The following table contains recommendations we think about when preparing for and performing inquiries:

Recommendation	Relevant points to consider
Gather knowledge	Being knowledgeable improves the efficiency and effectiveness of meetings and inquires. We think about what we know about the specific matter we intend to inquire about and whether there are ways to enhance our knowledge prior to the meeting (for example, through review of technical accounting literature, prior year workpapers, analyze relevant client information or other publicly available information).
Know our audience	Knowing our audience means we think about the knowledge, objectivity, experience, role, and qualifications of the subject of our inquiries. Knowing our audience helps us to determine: • Whether we are inquiring with appropriate personnel who can provide the right information; • The level of detailed inquiries the individual may be able to answer; • Whether to involve more experienced engagement team members, including specific team members and employed KPMG specialists, in the inquiry; • Whether a pre-meeting with certain individuals may improve the efficiency and effectiveness of the meeting; • Whether meeting materials may be helpful.
Determine an appropriate meeting format	We think about what may be an appropriate way to conduct a meeting (e.g. face to face meeting, or a call) based on the matter to be discussed, the audience, and the urgency of the inquiry.
Prepare an agenda or other supporting materials	We may prepare materials to: • lead the meeting (i.e. a slide deck or an agenda or a questionnaire with the specific questions); • summarize key points or actions resulting from the meeting. We also think about whether a whiteboard, flipchart or projector may help to facilitate the discussion.

Schedule appropriate time	Meetings and inquiries are more effective when there is appropriate time. Appropriate time includes scheduling a date, time and appropriate length for the meeting. Meetings that are too short for the subject matter may be ineffective in obtaining the right level of information.
Make appropriate inquiries	Inquiries are more effective when we: • ask clear, concise, and relevant questions; • use open and closed questions appropriately and do not ask leading questions; • listen actively and effectively; • consider reactions and responses and ask follow-up questions; and • evaluate whether the response answers our question and provides us with sufficient information. (This is an integral part of the inquiry process)

How do we perform other audit procedures in combination with inquiry? [ISA | 512.1600]

We perform other audit procedures in combination with inquiry by thinking about the persuasiveness of the evidence we wish to obtain based on the RMM (see activity 'Design and perform procedures to address each RMM'). A combination of audit procedures may result in more or less persuasive audit evidence.

For example, some audit procedures provide more persuasive evidence than others when combined with inquiry:

	+ Inspection and Recalculation	+ Observation
Inquiry	May provide more persuasive audit evidence	May provide less persuasive audit evidence

Inquiry combined with observation may provide less persuasive audit evidence since the evidence obtained is pertinent only at the point in time at which we perform the procedures.

How may the information in electronic form impact our audit procedures? [ISA | 512.8642]

When the information is in electronic form, we think about the following when planning our audit procedures to obtain sufficient appropriate audit evidence:

Circumstance	**Impact on our audit**
Some information may be available only in electronic form or only at certain points or periods in time	This may affect the nature and timing of our audit procedures (e.g. we may perform audit procedures at different times during the year).

	The sufficiency and appropriateness of the audit evidence only available in electronic form usually depends on the effectiveness of controls over their accuracy and completeness.
Certain electronic information may be destroyed or deleted after a specified period of time (e.g. if files are changed and back-up files do not exist)	We may find it necessary to: • request retention of some information for the performance of our audit procedures at a later point in time, or • to perform audit procedures at a time when the information is available.
Some electronic information (e.g. records maintained on a distributed ledger, such as a blockchain) is available on a continuous basis during the audit	We may develop audit procedures using CAATs to obtain information about transactions on a real-time basis.

Does it matter whether our audit evidence is obtained from performing risk assessment procedures or further audit procedures (i.e. tests of controls and substantive procedures)? [ISA | 512.8643]

It depends. An audit procedure may have characteristics of either and can be designed to achieve more than one objective. When we evaluate the information to be used as audit evidence, we focus on whether the results of audit procedures performed provide a basis for concluding on the sufficiency and appropriateness of audit evidence obtained. Our evaluation of information to be used as audit evidence is not a formulaic exercise and is a matter of professional judgment.

In accordance with the chapter on responding to risks of material misstatement (see activity 'Evaluate the sufficiency and appropriateness of audit evidence'), we evaluate whether sufficient appropriate audit evidence has been obtained. Evaluating information to be used as audit evidence in accordance with this chapter assists us in making that conclusion.

3 Use only transaction scoring approved by the KPMG member firm [ISA | 7906]

What do we do?

IF we are using transaction scoring in our audit THEN determine that the tool is included on the KPMG member firm SAT list AND follow the application guidance provided for that specific tool.

Why do we do this?

We may use automated tools and techniques that include transaction scoring to help us obtain audit evidence. This can improve the effectiveness and efficiency of our audits and may enhance audit quality.

Properly designed tools that are used for transaction scoring may perform a single procedure that concurrently supports our risk assessment and substantive procedures.

Execute the audit

What is transaction scoring? [ISA | 7906.9200]

Transaction scoring refers to an analysis that applies machine learning, statistical, rule-based and/or other forms of data analytic techniques to score a population of transactional data.

Properly designed transaction scoring may be used to achieve multiple audit objectives concurrently for the identified RMMs:

- to provide data-driven audit evidence to support the engagement team when assessing the likelihood and magnitude of potential misstatements, and the determination of Combined Assessed Risk (CAR);
- to provide substantive audit evidence in response to the CAR; and
- to determine where additional audit evidence is necessary to respond to the CAR.

An example of transaction scoring is included in AU-C 500 Exhibit A.

What transaction scoring tools can we use? [ISA | 7906.9201]

We can only use transaction scoring tools that are included on the KPMG member firm SAT list. When using transaction scoring tools to provide audit evidence, we follow the application guidance that has been provided by the member firm for each of these tools.

See activity 'Plan and perform CAATs' for further information on using computer assisted automated techniques.

4 Plan and perform CAATs [ISA | 524]

What do we do?

Plan and perform Computer Assisted Audit Techniques

Why do we do this?

Use of technology in the performance of audit procedures continues to play a key role in the efficiency and effectiveness of our audits and may enhance audit quality. We may use computer assisted audit techniques (CAATs) to automate procedures on large volumes of data that may be inefficient or impractical to perform manually.

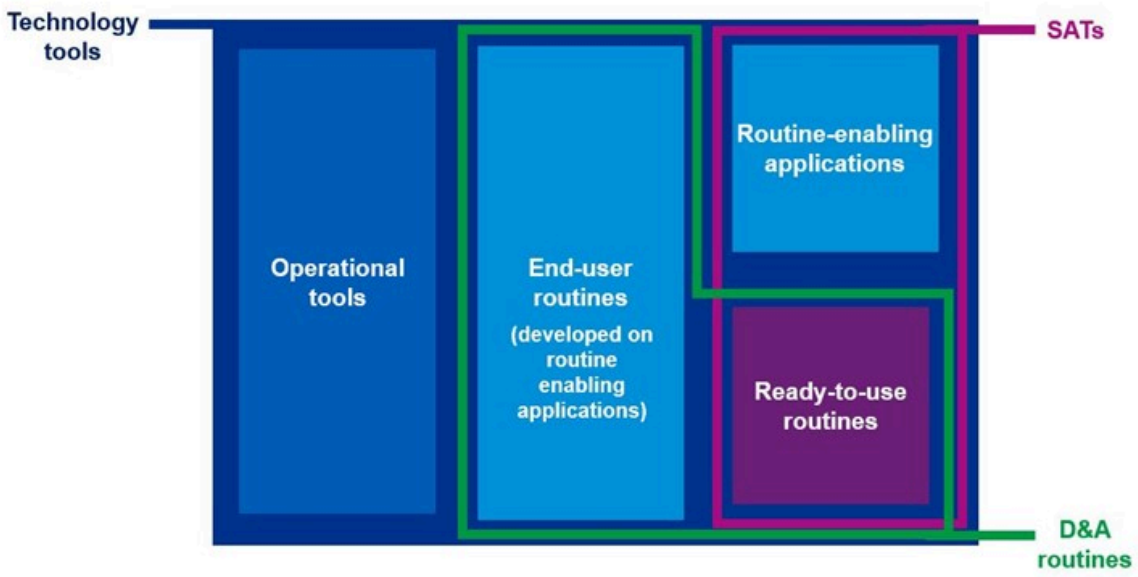
Execute the Audit

What are CAATs? [ISA | 524.1300]

Computer assisted audit techniques are auditing procedures performed using computer technology as an audit tool. D&A routines are a form of CAATs.

What technology tools do we use to perform CAATs? [ISA | 524.1500]

CAATs are performed using end-user routines (EURs) and/or Software Audit Tools (SATs). We sometimes refer to end-user routines and ready-to-use routines as data & analytics routines (D&A routines).



What are SATs? [ISA | 524.12626]

SATs are programs, applications and ready-to-use routines that we use to examine, sort, filter or analyze transactions or other data used as audit evidence or which generate results that supplement our judgment.

SATs also include tools developed and/or used by specific team members, employed KPMG specialists and others at the direction of the engagement team in relation to their involvement in obtaining audit evidence or supplementing our judgment for our audit.

The following table illustrates examples of different SATs we may use:

Type of SATs	Examples
Routine-enabling applications Routine-enabling applications represent applications that contain end-user computing functionality that enables end-user routines to be developed.	• IDEA® • Microsoft Excel® • Microsoft Power BI® • Alteryx®
Ready-to-use routines Ready-to-use routines represent individual software audit tools, separate from the routine-enabling applications on which they run (if any), that typically use a series of formulas, functions, or instructions that are not visible to the end-	• IDEA® SmartAnalyzer • KPMG Clara workflow KCw - Advanced Capabilities • Confirmation® • DataSnipper Excel Add-in®

user and are typically locked to prohibit end-users from accessing the program code.	

What is end-user computing functionality? [ISA | 524.12627]

End-user computing functionality enables engagement teams to develop spreadsheets, databases, or automated techniques without the involvement of computer programmers outside of the engagement team.

What are end-user routines? [ISA | 524.12628]

End-user routines are spreadsheets, databases, or automated techniques that we use in our audit to examine, sort, filter or analyze transactions or other data used as audit evidence or which generate results that supplement our judgment, which are either:

- developed by the engagement team (including specific team members and employed KPMG specialists) or by others at the direction of the engagement team using routine-enabling applications; or
- ready-to-use routines that have been customized by the engagement team to meet the specific circumstances of an audit engagement.

Examples of end-user routines include engagement specific Excel® macros or IDEA® or Alteryx® scripts. In applying this definition, automated techniques refers to the automation of all or a portion of an audit technique or procedure. For example, automating the match of subsequent cash receipts on an entity's bank statement to accounts receivable open at year-end using the remittance form and a relevant data element like invoice number.

What are the differences in responsibilities of evaluating the SATs and end-user routines? [ISA | 524.9236]

Understanding the responsibility of establishing the reliability of our technology tools is important to understanding the testing and documentation considerations when using them in our audits. When we use SATs and end-user routines, we are responsible for assessing the reliability of the output by evaluating the design and testing the consistent operation of the routine. SATs on the member firm SAT list, on the other hand, have been subjected to a centralized assessment and additional assessment of the reliability of the SAT by the engagement team is not necessary.

Are all technology tools that we use in our audit process considered either SATs or end-user routines? [ISA | 524.12629]

No, not all technology tools used by an engagement team meet the definition of a SAT or an end-user routine. Technology tools are considered a SAT or an end-user routine when they are used to facilitate obtaining audit evidence or supplement our judgment through examining, sorting, filtering or analyzing data. Software applications and routines that we may use for other purposes, even within the context of an audit, such as for client acceptance and continuance or for project management (e.g. NGGC, Sentinel) are not considered SATs or end-user routines. These tools are referred to as operational tools. The output of operational tools is not considered audit evidence and does not supplement our judgment.

In certain circumstances, the output of operational tools may be used as audit evidence or to supplement our judgment, but only after applying additional audit procedures to it.

For example, the project management tools produce information not considered audit evidence, while the tools that extracts data from the entity's system produces information that requires additional audit procedures or analysis before it is considered audit evidence.

When a technology tool generates results that supplement our judgment, it is designated as a SAT regardless of how this technology tool is used in the engagement.

For example, an automated disclosure checklist may be used to filter disclosures based on scaling questions. An engagement team may choose not to use the filtering functionality. Whether or not the engagement team chose to use the filtering functionality, it would meet the definition of a SAT.

When may we use CAATs? [ISA | 524.1400]

We may use CAATs when performance of an audit procedure using manual methods is determined to be inefficient or impracticable because of, for example, a large volume of transactions and/or the complexity of a calculation.

The following are some examples of when we may use CAATs:

- performance of risk assessment procedures
- performance of analytical procedures, including substantive analytical procedures
- testing of the entire population of data, including re-performance of the entity's calculations, and checking for the consistency of data with other sources
- identification of unusual items in a population that meet pre-set criteria
- assessing the reliability of information used in the audit (e.g. mathematical accuracy of system generated reports)
- assisting with the evaluation of controls.

Can we use D&A routines in an interim review? [ISA | 524.159370]

Yes, we may use D&A routines to facilitate obtaining evidence or supplement our judgment in an interim review. See activity 'Perform certain procedures when using SATs and/or EURs in an interim review' for further information.

How can the use of CAATs enhance audit quality? [ISA | 524.1410]

The use of CAATs can enhance audit quality by:

- assisting in processing data to transform it into structured audit-relevant information;
- providing us with more robust process level insight and business understanding and enhanced ability to assess risk(s);
- increasing the level of detail and extent of audit procedures;
- allowing us to identify and better focus our audit efforts on items that do not meet our expectations, or are potential outliers, deviations, or misstatements;
- enabling us to better focus our professional judgment on higher risk areas; and
- improving our ability to exercise professional judgment and skepticism when outputs produce relevant and detailed information.

What do we think about when selecting an appropriate D&A routine? [ISA | 524.1420]

We obtain a sufficient understanding of how a D&A routine works before selecting an appropriate routine for the intended purpose. Without doing this, we risk misinterpreting its results or failing to adequately tailor it to meet the engagement's circumstances.

When determining the appropriate D&A routine(s) to use, there are several questions that we think about, such as:

- How will the routine impact audit quality? Does the routine alter the nature, timing, or extent of audit procedures in a way that provides a more thorough understanding of the entity and processes, or does the routine increase the persuasiveness of evidence obtained for a particular RMM?
- Is the routine enabling application used to develop the D&A routine included on the member firm SAT list?
- If it is a ready-to-use routine, is it included on the member firm SAT List?
- What is the objective of the D&A routine and how are we using the resulting output?
- Is the necessary data, including all relevant data elements, available? Do we expect to be able to gain sufficient appropriate evidence over the reliability of the data?
- Are other D&A routines planned and do those leverage the same relevant data elements?
- What audit procedure(s) does the D&A routine supplement or replace?
- Will we customize the D&A routine (e.g. parameters used) for the specific circumstances of the engagement?
- What is the timing of the use of the routine (e.g. planning, interim or year-end)?
- Do we expect it to be appropriate to involve employed KPMG specialists or other specific team members with technical expertise, skills, or knowledge to support us in using the D&A routine? If we expect to involve them, have we identified resources that have the appropriate competence and capabilities?
- What was the result of our risk assessment activities and how do they impact the planned routine usage (e.g. process risk points, evaluation of the design and implementation of controls, CAR)?
- For D&A routines used as or part of a substantive procedure:
    - What RMMs are being addressed by the routine and what additional procedures, if any, are we planning to fully address those RMMs?
    - What portion of the account is the routine testing?
    - Is the routine used as part of a substantive procedure or to provide direct substantive evidence?
    - If used to provide direct substantive evidence:
        - Have we determined what constitutes a deviation or misstatement?
        - Does the routine provide audit evidence that meets the objective of the procedure?

Are there additional considerations when planning a D&A item matching procedure? [ISA | 524.9238]

Yes, if we are using a D&A routine that matches items, we consider whether we are expecting all items to match. See question 'How do we determine if an unmatched item is an untested item or an outlier?'.

There are specific considerations when testing the reliability of information used in a D&A item matching procedure. See questions 'Do we assess RAWTC differently when testing the operating effectiveness of a control activity that addresses the reliability of internal information that is used in a D&A item matching procedure?' and 'Do we assess relevant risk differently when direct testing

information relied on in a D&A item matching procedure?' for further information on specific considerations.

How may we use D&A routines to obtain audit evidence or supplement our judgment? [ISA | 524.1430]

In our audit, we may use D&A routines to facilitate obtaining audit evidence or supplement our judgment in:

- risk assessment;
- evaluating controls; and
- substantive testing.

Sometimes, we may use certain D&A routines for more than one purpose. Determining the objective of using the routine will drive our considerations around how we evaluate the reliability of the data and how we use the results.

> For example, we may initially use a routine to assist with identifying and assessing risks of material misstatement related to revenue - i.e. for risk assessment purposes. When the same routine provides drill-down functionality into revenue at the transactional level, we may also use the routine to identify items with specific characteristics for further testing - i.e. for substantive testing purposes.

How may we use D&A routines in risk assessment? [ISA | 524.12621]

The following table illustrates how D&A routines may be used in risk assessment:

Example	Audit evidence provided
D&A routines may be used to obtain an understanding and help identify and assess the risks of material misstatement. For example: (a) To disaggregate current period revenue by geographical location based on the country, product type or other unique identifier. (b) To stratify inventory by relevant attributes (e.g. warehouse, type, supplier, etc.) and compare prior to current period data to identify significant or unusual changes. (c) To recalculate gross profit by month and/or product for the prior and current period, compare with available monthly industry indices and visualize the results to identify unusual fluctuations using charts or graphs.	• The purpose of these routines is to provide evidence that supports our understanding of the entity and our identification and assessment of risks of material misstatement through the identification of patterns, changes or other trends in the account balances that lead to further investigation. • Remember that risk assessment procedures by themselves do not provide sufficient appropriate audit evidence.

How may we use D&A routines to assist us in the evaluation of control activities? [ISA | 524.12622]

The following table illustrates how D&A routines may be used in evaluation of control activities:

Example	Audit evidence provided
(a) As part of our evaluation of the entity's control activities over segregation of duties in the revenue process, we set our expectations for how sales processing permissions are assigned to each user in the entity's system (e.g. the same individual does not process sales orders, create invoices and record cash collections) and we use a D&A routine to identify instances where, based on system records, users have processed sales transactions and created documents in the system using what appears to be incompatible processing permissions. (b) As part of our evaluation of the entity's control activities designed to prevent activity with customers in excess of approved credit limits, we use a D&A routine to identify instances where customer balances exceed credit limits.	• The purpose of these routines is to provide supplemental (or disconfirming) evidence to assist us with our evaluation of the entity's control activities, but do not provide direct audit evidence that control activities are operating effectively: - in examples (a) and (b), the routines analyze populations supposedly subjected to certain control activities, in order to identify evidence of potential failures in those controls. - the routines, though, do not directly test the performance of the control activity. For example: • in example (a), if a segregation of duties control activity relies on an automated configurable control, the routine provides evidence that no transactions were processed using incompatible permissions but does not provide evidence that the control activity prevents all possible transaction from being processed with incompatible permissions; • in example (b), if a credit limit control activity exists, the routine provides evidence that no customer balances exceeded their credit limit at the time the routine was executed but it does not provide evidence that the control activity prevents all activity from being processed if the credit limits were exceeded. Obtaining audit evidence about the operating effectiveness of control activities involves the combined performance of different techniques such as inquiry, observation, inspection, and reperformance. It may be possible to develop D&A routines that can assist engagement teams

	with reperformance activities for certain types of control activities.

How may we use D&A routines in substantive testing? [ISA | 524.12623]

The following table illustrates how D&A routines may be used in substantive testing:

Example	Audit evidence provided
...to identify items for further testing	
(a) In order to identify high-risk journal entries for substantive testing, we determine relevant criteria (e.g. user ID, date, location, entry description, rounded endings, etc.) and use a D&A routine to analyze the complete population of journal entries and identify those journal entries whose characteristics meet such criteria. (b) As part of our audit of Property, Plant and Equipment we use a D&A routine to identify items in the PPE sub-ledger with certain characteristics (e.g. unusually large amounts, zero or negative values) for further testing.	• The purpose of these routines is to assist us in identifying sub-populations of items with different characteristics that may indicate they are more susceptible to misstatement. • These routines do not by themselves provide substantive audit evidence over the items identified. Rather, audit evidence is obtained by performing substantive procedures over such items. • In addition, these routines do not provide any evidence over the remainder of the population.
... to calculate or process data to assist us in developing expectations or our own estimate or range	
(c) As part of our audit of Payroll Expenses, we use a D&A routine to	• The purpose of these routines is to generate relevant data that we use in developing our own expectations/estimates.

calculate average head count information (e.g. by department, location, or business unit) that we then use in developing our own expectation for a substantive analytical procedure. (d) As part of our audit of the Warranty Provision, we use a D&A routine to stratify revenue and warranty expenses by product by month and we use this information in developing our own estimate of the period end provision.	• While these routines are not a substantive test in themselves (i.e. calculating an average head count [example (c)] or stratifying revenue and warranty expenses [example (d)] does not in itself provide substantive audit evidence over payroll expenses or warranty provision), their output is used in the primary substantive procedure that may provide us with such substantive audit evidence (our substantive analytical procedure over Payroll Expenses and the development of our own estimate of the Warranty Provision, respectively).
... to perform recalculations using the entity's data	
(e) As part of our audit of the Allowance for Doubtful Accounts, we use a D&A routine to recalculate the accounting estimate made by management based on the same method and information used by them (e.g. based on the entity's A/R aging and pre-determined % allowances applied by management to each aging bucket). (f) As part of our audit of Inventory, we use a D&A routine to recalculate the inventory balance on an item-by-item basis by multiplying the "unit cost" and "quantity"	• The purpose of these routines is to check the mathematical accuracy of the calculations performed by the entity's system. • When recalculating the mathematical accuracy of management's report by using a D&A routine, we also evaluate the relevance and reliability of the underlying information used in management's report: - in example (e), we are auditing how management made an accounting estimate and follow the guidance in the chapter on auditing accounting estimates (ISA 540, AU-C 540 or AS 2501) - in example (f), we perform procedures to audit unit costs (e.g. FIFO testing) and quantities (e.g. physical observations).

information available in the entity's system.	
... to perform a test of details by matching recorded amounts to internal or external records ("D&A item matching procedure")	
When auditing Revenue, we may use a D&A routine to: (g) match price and quantities in sales invoices recorded in the revenue sub-ledger to sales orders and shipping notes captured in the entity's system (i.e. a "3-Way Match"), to obtain substantive audit evidence over specific RMMs related to Revenue. (h) identify and match cash collections of revenue transactions in the accounts receivable sub-ledger to cash receipts recorded in the entity's system that were generated by electronic bank feeds from a financial institution, in order to obtain substantive audit evidence over specific RMMs related to Revenue. The characteristics of these types of routines may imply a higher level of programming complexity, and therefore we may involve employed	• The purpose of these routines is to provide substantive audit evidence over the items that are successfully matched, subject to appropriate evaluation of the reliability of the data used as audit evidence (e.g. sales orders and shipping notes [example (g)]; electronic bank feeds [example (g)]). There are specific considerations when testing the reliability of information used in a D&A item matching procedure. See questions 'Do we assess RAWTC differently when testing the operating effectiveness of a control activity that addresses the reliability of internal information that is used in a D&A item matching procedure?' and 'Do we assess relevant risk differently when direct testing information relied on in a D&A item matching procedure?' for further information on specific considerations. • These routines may identify "outliers": - in example (g), it is expected that price and quantity information in sales invoices successfully matches with that in the related sales orders and shipping notes; instances where that information does not match are considered outliers and subject to further testing. - in example (h), the routine may not rely on any pre-determined assumptions about how transactions are processed in the system and therefore may not be able to be performed over every transaction or item in the population. For example, if no customer payment was remitted, the routine does not show a receivable matched to a cash receipt. In this case, uncollected/unmatched items are not considered outliers but as items "untested" by the routine. These "untested" items are evaluated to determine whether separate substantive procedures are necessary.

KPMG specialists or other specific team members with specialized experience, skills or knowledge to assist in designing the routine functionality and evaluating the source of the information used in the routine, including underlying databases and tables from the entity's ERP environment.	
We may also use a D&A routine to direct-test the reliability (accuracy and completeness) of information	
(i) compare census data used in an entity's pension estimation process to prior period audited information using a matching routine. (j) compare the current period fixed asset register used to recalculate depreciation expense to the audited prior period register.	• The purpose of these routines is to provide audit evidence over the reliability of the internal information used in substantive procedures. • These routines may identify untested items and/or outliers: - in example (i), it is not expected that eligible compensation for each individual will match from period to period. These items are not expected to match and represent items untested by the routine. These untested items are evaluated to determine whether separate substantive procedures are necessary. - in example (i), it is expected that date of birth for each individual will not change from period to period. Instances where that data element does not match are considered outliers items and subject to further evaluation. - in example (j), fixed assets that were added or removed during the current period will not match between the current and prior period reports. These items are not expected to match and represent items untested by the routine. These untested items are evaluated to determine whether separate substantive procedures are necessary. - in example (j), it is expected that the useful life of an asset that existed in prior year will not change from period to period. Instances where that data element does not match are considered outliers items and subject to further evaluation.

We may also use technology tools for the specific purpose of pre-processing (i.e. preparing and/or reconciling) data that we plan to use in our audit.

Examples of pre-processing data to use in our audit include:

- extracting and transforming data in order to be used by a D&A routine,
- reconciling sub-ledger information to the general ledger, or
- creating lead sheets.

While not providing audit evidence over the underlying data being processed, these routines are key preliminary steps that allow us to effectively use that data or identify and investigate inconsistencies (e.g. differences between sub-ledger and general ledger) before performing our audit procedures and executing other D&A routines.

Whether the output from these tools is used as audit evidence or to supplement our judgment will determine the tools status as SATs or end-user routines. (see question 'Are all technology tools that we use in our audit process considered either SATs or end-user routines?').

What procedures do we perform when using D&A routines? [ISA | 524.12633]

We:

- Consider whether each SAT is reliable
- Create a list of SATs to be used on the engagement
- Consider whether each end-user routine is reliable
- Evaluate the complete and accurate extract and import of data used in each SAT and EUR
- Consider untested items
- Evaluate outliers when using a matching procedure.

Component auditors perform additional steps when performing work for a U.S. KPMG group auditor, including using SATs on the US SAT List and completing a Non-US SAT Memo when performing work on certain components.

How is information used in a D&A routine? [ISA | 524.1440]

The following table illustrates how information is used in a D&A routine:

Information being analyzed/ tested by the routine	We obtain evidence over this information by executing the routine. Because we obtain evidence over this information, while we determine that the information is complete and has been accurately input into the routine, we do not evaluate its reliability before using it in the routine.
Information subject to further audit procedures	We obtain evidence over this information by executing the routine and performing further audit procedures over output from the routine, as necessary. Because we obtain evidence over this information, while we determine that the information is complete and has been accurately input into the routine, we do not evaluate its reliability before using it in the routine.

Relevant data elements (RDEs) included in the information to perform the routine	The routine uses this data as the source of evidence for the purpose of the analysis performed. This includes data that is used to sort or analyze data subject to further testing (e.g. attributes used to select specific items for testing). We evaluate the relevance and reliability of the information used in the routine (see activity 'Evaluate the relevance and reliability of information used as audit evidence').

The following table illustrates examples of different types of D&A routines we may perform and the information used:

We use a D&A routine to...	Information being analyzed/tested by the routine	Information subject to further audit procedures	Relevant data elements (RDEs) included in the information to perform the routine
...help identify risks of material misstatements over Inventory by stratifying it by relevant attributes (warehouse, supplier, etc.) and compare to prior period	• Inventory balance	• None	• Warehouse • Supplier • Prior period information • Other relevant data elements
... identify instances where customer balances exceed credit limits to assist in the evaluation of customer	• None (The routine only processes data that we then use to obtain evidence over potential failures in customer credit controls.)	• None	• Customer balances • Credit limits

credit controls			
...identify high-risk journal entries that meet certain criteria (user ID, date, location, amount, etc.) for further testing	• None (The routine only processes and filters the data that we then use to obtain evidence over the appropriateness of the journal entries.)	• None	• User ID • Date • Location • Amount • Other relevant data elements
...identify items in the PPE sub-ledger with special characteristics (large amounts, zero or negative values) for further testing	• None	• PPE sub-ledger information - value of individual items	• None (The routine only uses the recorded values of the "information subject to further audit procedures" to identify items for further testing and therefore subject to separate substantive procedures, so in this case there is no separate information relied on.)
...calculate average head count information to use in a SAP over Payroll Expense	• None (The routine only compiles and processes data to obtain information that we then use in a SAP.)	• None	• Head count information (by department, location, or business unit, etc.)
... recalculate the inventory balance by multiplying	• None	• Inventory: - Value of individual items - Quantities	• None (The routine only uses "information subject to further audit procedures"

"unit costs" and "quantities"			to recalculate the inventory value; this information is subject to separate substantive procedures.)
...match collections of revenue transactions to cash receipts included in electronic bank feeds	• Revenue amounts	• None	• Relevant data elements in the cash revenue sub ledger. For example: - Invoice number or other document ID included on the customer remittance • Relevant data elements in electronic bank feeds. For example: - Invoice number or other document ID included on the customer remittance - Amount of cash receipt

What is our responsibility over the relevance and reliability of RDEs included in the information to perform a D&A routine? [ISA | 524.1450]

Our responsibility over the relevance and reliability of RDEs included in the information to perform a D&A routine is no different than when RDEs are used in other audit procedures. We determine the nature and extent of effort necessary to evaluate the relevance and reliability of the RDEs used by thinking about how we intend to use the D&A routine in our audit (see activity 'Evaluate the relevance and reliability of information used as audit evidence').

There are specific considerations when testing reliability of information relied on in a D&A item matching procedure. See question 'Do we assess relevant risk differently when direct testing information relied on in a D&A item matching procedure?' for further information on specific considerations.

When might we involve specific team members, employed KPMG specialists and others at the direction of the engagement team when using SATs or end-user routines? [ISA | 524.9253]

We might involve specific team members, employed KPMG specialists and others at the direction of the engagement team when specialized skills, knowledge or experience are necessary to use the SAT or end-user routine. Certain specific team members, employed KPMG specialists and others at the direction of the engagement team may have relevant knowledge and training to use certain SATs or end-user routines.

> For example, we may consider the involvement of employed KPMG specialists with expertise in valuation services if we are using D&A routines to value financial instruments or forensics employed KPMG specialists to test journal entries.

Are there differences in considerations and definitions of technology tools used by specific team members, employed KPMG specialists and others at the direction of the engagement team? [ISA | 524.12630]

No. Technology tools developed and/or used by specific team members, employed KPMG specialists (e.g. individuals with specialized skills in Actuarial, Forensics or Valuation) and others at the direction of the engagement team are considered SATs or end-user routines when they are used to facilitate obtaining audit evidence or supplement our judgment. Similarly, when the technology tools are not used to facilitate obtaining audit evidence or supplement our judgment, they are considered operational tools.

> For example, a technology tool used by a specific team member with expertise in IT on the engagement to test the segregation of duties configuration of an entity's ERP system is a SAT. The specific team member with expertise in IT determines whether such an application is included on the member firm's SAT list.

Are technology tools used by entity personnel considered SATs or end-user routines? [ISA | 524.9254]

No. When an entity's accounting and financial reporting processes include the use of a technology tool, we are not relying on the output of the tool as if it was work performed by or on behalf of us, rather we are evaluating the entity's processes and controls. In these circumstances, we may evaluate the design and consistent operation of the tool in order to conclude that specific process risk points are effectively mitigated and may involve IT Audit specific team members. However, these tools are not considered SATs or end-user routines.

Are technology tools used by internal auditors considered SATs or end-user routines? [ISA | 524.12636]

No. When we rely on the work of internal auditors, we do not consider the tools used by the internal audit function as SATs or end-user routines.

We perform audit procedures on the body of work of the internal audit function as a whole that we plan to use to determine its adequacy for purposes of our audit.

What procedures may we perform when internal audit uses technology tools in the performance of its testwork and we plan to use that work? [ISA | 524.9255]

When internal audit uses technology tools in the performance of its own testwork and we plan to use that work, we consider the reliability of the internal audit technology tool. To do this, we may perform one or more of the following:

- Determine how internal audit satisfies itself that the tool's configuration and related output is reliable. This can be accomplished by obtaining an understanding of internal audit's tools policies and implementation protocols, including how internal audit satisfies itself that its tools are operating as intended, and determining if the tool was subject to such procedures.
- Understand how the tool is designed and whether there are appropriate validation procedures to confirm the data used by the tool and the related output is complete and accurate. Understanding of how the tool impacts internal audit's procedures helps us evaluating the effect of internal audit's use of tools on our audit strategy.
- Validate the conclusions reached by internal audit (e.g. reperform), including examining original source documentation, regardless of whether the source documentation was obtained by a human or a technology tool, and consider the nature and extent of procedures necessary to validate the tool is configured appropriately to perform its intended function.
- Reperformance is a matter of professional judgment. When determining the nature and extent of our audit procedures, think about the impact of tools on the amount of judgment involved, risk associated with the control (RAWTC), the assessed combined audit risk (CAR) and the level of competence of the internal audit function. See question 'What 'relevant factors' do we consider when designing procedures to evaluate the IA function's work?'.
- If a tool was recently implemented, think about the increased risks that accompany new IT applications, and the impact to the nature and extent of our audit procedures, which may include increasing the level of reperformance.

What procedures do we perform when we plan to use internal audit to provide direct assistance and they use technology tools in providing direct assistance? [ISA | 524.9256]

When we determine we are able to use internal audit to provide direct assistance, and they use technology tools when operating in a direct assist capacity, we may work collaboratively with them to identify testing areas where the internal audit technology tools may be used to support our direct assist request. If we determine the internal audit technology tool will meet the intended audit objective and we plan to use the output as audit evidence, we gain an understanding of how the tool is governed and used and perform procedures to test the design and consistent operation of the tool; however, these tools do not meet the definition of SATs or end-user routines. The procedures to test the design and consistent operation of the tool may be similar to those performed when evaluating the reliability of an end-user routine.

Are internet sites considered SATs? [ISA | 524.12631]

An internet site may be considered a SAT, depending on how we use it in our procedures.

The following table illustrates examples of internet sites we may use in audit procedures and whether they are considered a SAT:

Use it as	Example	Is it a SAT?
External sources of information	An engagement team may access data on the Department of Labor website in order to	No, the source website itself is not a SAT,

	gather inputs related to salary increases when performing a substantive analytical procedure. Similarly, an engagement team may access data on the Federal Reserve website when performing a test of details to assess the accuracy of a risk-free interest rate used by management in a calculation.	but we consider the relevance of the information to the audit objective and evaluate the reliability of the source (refer to activity 'Determine the approach to evaluate the reliability of external information').
Application tool that uses data or other inputs provided by the auditor to generate results that supplement our judgment	An engagement team may locate a website (a web application) that serves as a "Black-Scholes Online Calculator", which intakes certain inputs from a user to calculate the fair value of a stock option and then automatically reports back a result to the user.	Yes, the website is a SAT, and subject to the SATs policies.

Are Microsoft Excel® Add-Ins considered a SAT? [ISA | 524.9258]

Yes. An add-in is software that adds new functions and features into Microsoft Excel® and therefore meets the definition of a ready-to-use routine. Add-ins that are prepopulated on a KPMG laptop (i.e. delivered with Microsoft Excel®) have been considered in the centralized assessment of the Microsoft Excel®. Add-ins separately downloaded and installed by an engagement team, including those obtained from the Microsoft website, are subject to the requirements of ready-to-use routines. Certain add-ins may be included on the member firm SAT list (e.g. DataSnipper Excel Add-In®).

Is a database considered a SAT? [ISA | 524.9259]

No, a database is an organized collection of structured information, or data, typically stored electronically in a computer system. A database would not meet the definition of a SAT as it does not examine, sort, filter, or analyze transactions or other data used as audit evidence or generate results that supplement our judgment. Circumstances do arise however where we use an interface to the database to access the underlying information. Depending on the nature of the interface and the type of information it produces from the database, it could be considered a SAT and subject to considerations of a SAT.

> For example, a tool used by employed KPMG valuation specialists is a database of entities' metrics (i.e. procured data) coupled with a user interface that allows for certain calculations to be applied to the underlying information within the database that is not visible to the end-user of the tool. While the underlying database is not considered a SAT, the additional analysis performed through the user interface, which are not visible to the end-user, causes this tool to be considered a SAT.

Conversely, a database of consumer prices published by a government agency would not be considered a SAT as we have direct access to the raw data as published.

In some instances, there may be some functionality associated with database interfaces that meets the definition of a SAT, while other functionality does not. For example, if an equity price were obtained through a Bloomberg terminal, the terminal and underlying database are not considered SATs, however certain pricing models accessed through the terminal that examine, sort, filter or analyze transactions are considered SATs.

Are scripts or query logic used to extract information from an entity's system considered SATs or end-user routines? [ISA | 524.9260]

No. We, or the personnel of the entity we audit, may develop a script or query logic written in a programming language such as Structured Query Language (SQL), Advanced Business Application Programming (ABAP), or other program that is designed to enable the entity's personnel to extract relevant data, typically stored data (e.g. records, tables or journal entries) from its IT system or database. These scripts or query logic are designed to extract data from an entity's IT system or database and do not meet the definition of SAT or end-user routine as they do not examine, sort, filter, or analyze transactions or other data used as audit evidence or generate results that supplement our judgment.

However, there are data extraction risks (related to whether data is completely and accurately extracted from an entity's information system) present when such scripts or queries are used to obtain data. Refer to activity 'Evaluate the complete and accurate extract and import of data used in each SAT and EUR'.

Are there specific independence considerations for engagement teams (including employed KPMG specialists, specific team members and others at the direction of the engagement team) when using SATs or end-user routines to support the audit? [ISA | 524.9261]

Yes. SATs and end-user routines are used to support the audit and are intended for internal use. Unless expressly permitted in training and other materials, they are not intended to be licensed to, accessible by, or their outputs shared with audit clients, except in cases where an output is being shared to communicate audit misstatements or exceptions identified as part of the audit or otherwise required to be provided to the audit client. Using SATs or end-user routines for other purposes with audit clients may impair our independence, such as performing an impermissible non-audit service.

For example, using SATs or end-user routines at the request of management may result in the provision of a non-audit service requiring compliance with firm policies and procedures (e.g. Sentinel approval, audit committee pre-approval, etc.).

Engagement teams, including employed KPMG specialists, specific team members and others at the direction of the engagement team, use SATs and end-user routines in a manner consistent with any independence disclaimers included in guidance associated with the tool.

Refer to Software Audit Tools - Independence Considerations https://spo-global.kpmg.com/sites/go-oi-bus-GQRM/IP/Software%20Audit%20Tools%20%E2%80%93%20Independence%20Considerations%20for%20Member%20Firm%20SAT%20Development%20and%20Review%20Groups.pdf

for further guidance and specific criteria used when evaluating whether providing outputs to audit clients may go beyond the scope of an audit.

4.1 Consider whether each SAT is reliable [ISA | 525]

What do we do?

IF we intend to use a software audit tool on our engagement AND it is not included on the KPMG member firm SAT list THEN consider the reliability of the tool's output by evaluating its design and testing its consistent operation to the extent necessary before using the tool.

Why do we do this?

If a software audit tool (SAT) isn't on the KPMG member firm SAT List, then we assess the tool's reliability - i.e. the design and consistent operation - so that we can rely on its output.

Execute the Audit

What is a KPMG member firm SAT List? [ISA | 525.1300]

A "KPMG member firm SAT List" is a list of SATs that have been subjected to a centralized quality control assessment and approved by a KPMG member firm for use by engagement teams in that member firm, subject to appropriate consideration of users' competence and capabilities.

Can member firms restrict the use of SATs that are not on their member firm SAT List? [ISA | 525.12514]

Yes, member firms may restrict the use of SATs that are not on their member firm SAT List in order to regulate, limit or preclude engagement teams' use of those SATs.

How do we determine the nature and extent of testing and related documentation over SATs that are not included in the KPMG member firm SAT list? [ISA | 525.12515]

The nature and extent of testing of SATs that are not included in our KPMG member firm SAT List and the related documentation can vary depending on the SAT's complexity and how we use the SAT in the audit. When determining the extent of testing of such tools, we may refer to the Global SAT Evaluation and Testing Guide https://spo-global.kpmg.com/:b:/r/sites/GO-GlobalSAT/Shared%20Documents/Global%20SAT%20Evaluation%20and%20Testing%20Guide.pdf?csf=1&web=1&e=xsMAvg.

Who can help us evaluate and test SATs that are not included in the KPMG member firm SAT list? [ISA | 525.12516]

Depending on the complexity, we may consider the involvement of specific team members and employed KPMG specialists - for example, IT specific team members - to assist us in the evaluation and testing of a SAT that is not included in our KPMG member firm SAT List.

Are there differences in considerations and definitions of technology tools used by specific team members, employed KPMG specialists and others at the direction of the engagement team? [ISA | 525.12630]

No. Technology tools developed and/or used by specific team members, employed KPMG specialists (e.g. individuals with specialized skills in Actuarial, Forensics or Valuation) and others at the direction of the engagement team are considered SATs or end-user routines when they are used to facilitate

obtaining audit evidence or supplement our judgment. Similarly, when the technology tools are not used to facilitate obtaining audit evidence or supplement our judgment, they are considered operational tools.

> For example, a technology tool used by a specific team member with expertise in IT on the engagement to test the segregation of duties configuration of an entity's ERP system is a SAT. The specific team member with expertise in IT determines whether such an application is included on the member firm's SAT list.

Group Audit | What do we think about in relation to the reliability of technology tools used by a non-KPMG component auditor? [ISA | 525.9349]

While technology tools used by non-KPMG component auditors are not considered KPMG SATs, we think about inquiring of the non-KPMG component auditor related to the use of software audit tools in the performance of the component auditor's testwork. While the non-KPMG component auditor is not expected to provide proprietary information relative to its own software audit tools, the group auditor may still think about the following inquiries to assist in evaluating how software audit tools are used by the non-KPMG component auditor and the system of quality management that govern the use of those tools at the non-KPMG firm:

- Where and how does the component auditor intend to use the software audit tool (e.g. risk assessment, control testing and/or substantive procedures)?
- Does the system of quality management address considerations around:
  - the design and consistent operation of the software audit tools used by the component auditor in the performance of its testwork, and
  - the competence of the component auditor to operate the technology tool

and is that process followed by the non-KPMG component auditor?

> For example, as part of our evaluation of the component auditor's further audit procedures to respond to a significant risk of the group financial statements, we determined that they are using an internally developed technology tool. Given that the technology tool is being used to address a significant risk to the group financial statements, as part of our supervision of the non-KPMG component auditor, we make inquiries about how they will use the technology tool, the quality controls in place in relation to the design and consistent operation of the technology tool and the competence and capabilities of the component auditor to operate the technology tool. Based on the responses to the inquiries, we think about whether to perform any further procedures.

What do we think about when considering the reliability of SATs in work performed over a component? [ISA | 525.1700]

The activities related to SATs used and/or relied upon in a stand-alone audit also apply to SATs used and/or relied upon when performing work on component financial information. These activities apply regardless of the type of work performed by KPMG component auditors.

Group Audit or Component Audit | What do we do differently for SATs used by KPMG component auditors? [ISA | 525.12518]

In relation to SATs used by KPMG component auditors, where special audit consideration is necessary to respond to a significant risk of the group financial statements, we, as the group auditor:

- request KPMG component auditors to communicate:
  - the SATs and end-user routines (including those developed using common routine-enabling applications such as Excel® and IDEA®) that they plan to use in auditing the significant risk(s) of the group financial statements
  - whether they are on the member firm SAT list, and
  - whether they are being used in accordance with the member firm SAT policies
- consider this information in connection with our evaluation of the appropriateness of the further audit procedures to be performed by the component auditors related to the significant risks of the group financial statements, and our determination of whether it is necessary to be involved in those further audit procedures.

What SAT policies and KPMG member firm SAT List apply to the work the component auditor performs? [ISA | 525.12519]

SAT policies and SAT Lists in the component auditor's KPMG member firm are applicable for the work the component auditor performs. This may regulate, limit, or preclude component auditors from using or relying on SATs that are not on the component auditor's KPMG member firm SAT List (e.g. the component auditor is not able to use SATs provided by the group auditor).

In addition, the KPMG member firm of the group auditor may establish more restrictive policies that apply to component auditors that limit the component auditor's ability to use and/or rely on SATs that are not on the group auditor's member firm SAT List (e.g. a component auditor is not able to use a SAT on the component auditor's KPMG member firm SAT List).

> For example, the group auditor's KPMG member firm determines that component auditors from other KPMG member firms can only use and/or rely on SATs on the group auditor member firm's SAT List.

When this is the case, the group auditor uses the group audit instructions to communicate restrictions or a communication/approval process for the use of or reliance on SATs by component auditors.

In a group audit, can we rely on the output of a SAT that has been used by another auditor in a different KPMG member firm? [ISA | 525.12520]

Yes. However, the auditor relying on the output of that SAT determines whether additional information is necessary to support reliance on that tool.

> For example, the group auditor in country A uses a SAT to perform central testing over revenue and shares the results with a component auditor in country B. The component auditor also plans to use that output for the purpose of its local statutory audit.
>
> The component auditor may request the group auditor to confirm that the SAT used is listed on the group auditor KPMG member firm's SAT list (or that it has been evaluated in accordance with the chapter on Audit Evidence). This may be sufficient for them to rely on the output of the SAT, or they may decide to enquire further.

In a group audit, what do we think about when relying on the output of a SAT or end-user routine that has been used by another auditor in a different KPMG member firm? [ISA | 525.12521]

We may think about matters such as:

- the complexity and nature of the SAT/end-user routine;
- the purpose for which the SAT/end-user routine is used
- the reliability and/or appropriateness of the SAT/end-user routine;
- the competence and capability of the KPMG component auditor to use the SAT/end-user routine.

Group Audit or Component Audit | When the group auditor requests a KPMG component auditor to use a SAT and/or to use its output, what are the responsibilities of the KPMG component auditor regarding the reliability of that SAT for the purpose of the group audit? [ISA | 525.12522]

There may be instances where a group auditor may either:

- execute a SAT centrally and request KPMG component auditors to use the output of that SAT for the purpose of their work on the components, or
- provide a SAT to KPMG component auditors and request them to use it for the purpose of their work on the components.

In those instances, the component auditor does not have to consider the reliability of that SAT and/or its output. It is the group auditor's responsibility to appropriately evaluate those matters.

When the group auditor requests a KPMG component auditor to use a SAT and/or to use its output, what are the responsibilities of the KPMG component auditor regarding the reliability of that SAT when the component auditors uses that work to support their statutory audit? [ISA | 525.160195]

There may be instances where a group auditor may either:

- execute a SAT centrally and request KPMG component auditors to use the output of that SAT for the purpose of their work on the components, or
- provide a SAT to KPMG component auditors and request them to use it for the purpose of their work on the components.

When the component auditor is also performing a statutory audit on the component's financial information and plans to use that SAT and/or its output to support its statutory audit opinion, the component auditor obtains a sufficient understanding of the procedures performed and conclusions reached by the group auditor to assess the reliability of that SAT and/or its output and documents this in its statutory audit file.

What are the considerations related to SATs and end-user routines when we are a participating auditor? [ISA | 525.9262]

The considerations related to SATs and end-user routines for a participating auditor are the same as that for a component auditor.

4.2 Create a list of SATs to be used on the engagement [ISA | 527]

What do we do?

Create a list of SATs to be used on the engagement (engagement SAT list).

Why do we do this?

The engagement SAT list allows us to document the SATs that we are using in the audit and also assists us in identifying if we are using SATs that are not on the KPMG member firm SAT list.

When we use a SAT in an audit, the engagement team is relying on the output provided by the SAT; for this reason, we determine whether the SAT's output is reliable by performing procedures to evaluate its design and, to the extent necessary, test that it operates consistently.

Execute the Audit

Do we list all SATs that we plan to use on the engagement? [ISA | 527.8853]

For engagements performed using the KPMG Clara workflow - Enhanced, we create a complete and accurate engagement SAT list after we determine which SATs will be used in the engagement. As part of our list, we identify whether or not a SAT included on the engagement SAT list is included on the KPMG member firm SAT list.

For engagements performed using the KPMG Clara workflow - Standard or the KPMG Clara workflow - Small Entity, the engagement SAT list only includes those that are not on the KPMG member firm SAT list.

In all engagements, the engagement SAT list is created during audit planning before we use the tools and includes those SATs used by specific team members, employed KPMG specialists and others at the direction of the engagement team.

While KPMG Clara workflows are considered SATs, their use is implicit, and we don't include these in the engagement SAT list.

What if the list of SATs we plan to use on the engagement changes in response to a new circumstance? [ISA | 527.1500]

If the actual or planned use of SATs on the engagement have or are expected to change, we modify the engagement SAT list accordingly.

How do engagement team members obtain the relevant competence and capabilities to use a SAT? [ISA | 527.1600]

The engagement partner is responsible for determining the engagement team, including specific team members and employed KPMG specialists, have relevant competence and capabilities to use SATs in the audit.

> Examples of how engagement team members may obtain competence and capabilities to use SATs include:
>
> - Completing relevant training for the SAT
> - Using available instructions for the SAT; or
> - On the job training by others experienced in using the tool.

What is the engagement partner responsible for? [ISA | 527.1700]

The engagement partner is responsible for making sure the engagement team, including specific team members, employed KPMG specialists and others at the direction of the engagement team, have relevant competence and capabilities to use SATs in the audit and that the use of those SATs complies with any member firm policies, for example necessary trainings or restrictions to use.

Group Audit | What SATs do we list on our engagement SAT list in a group audit? [ISA | 527.1800]

When creating our engagement SAT list for a group audit we, as the group auditor, include the software audit tools directly used by us.

The SATs used by the KPMG component auditors may not be included on the group auditor KPMG member firm's SAT list, unless the group auditor KPMG member firm's policies require that all SATs used by the KPMG component auditors are on the group auditor KPMG member firm's SAT list.

4.3 Consider whether each end-user routine is reliable [ISA | 529]

What do we do?

Consider the reliability of the output provided by end-user routines by evaluating the design and testing the consistent operation of end-user routines that the engagement team develops and uses to facilitate obtaining audit evidence or supplementing our judgment.

Why do we do this?

When we develop end-user routines, we are responsible for considering the reliability of the output by evaluating their design and testing their consistent operation to the extent necessary. Otherwise, we risk drawing conclusions that are inaccurate or not properly supported.

Execute the Audit

What are end-user routines? [ISA | 529.12628]

End-user routines are spreadsheets, databases, or automated techniques that we use in our audit to examine, sort, filter or analyze transactions or other data used as audit evidence or which generate results that supplement our judgment, which are either:

- developed by the engagement team (including specific team members and employed KPMG specialists) or by others at the direction of the engagement team using routine-enabling applications; or
- ready-to-use routines that have been customized by the engagement team to meet the specific circumstances of an audit engagement.

Examples of end-user routines include engagement specific Excel® macros or IDEA® or Alteryx® scripts. In applying this definition, automated techniques refers to the automation of all or a portion of an audit technique or procedure. For example, automating the match of subsequent cash receipts on an entity's bank statement to accounts receivable open at year-end using the remittance form and a relevant data element like invoice number.

How do we evaluate whether each end-user routine is reliable? [ISA | 529.9403]

We evaluate the reliability of an end-user routine by assessing its design and whether it operates consistently.

As the complexity of the end-user routine increases and the extent of planned audit evidence obtained from the routine increases, the more extensive the evaluation of the reliability of the end-user routine may become.

Our responsibility over the relevance and reliability of RDEs included in the information to perform an end-user routine is no different than when RDEs are used in other audit procedures (see activity 'Evaluate the relevance and reliability of information used as audit evidence').

When an end-user routine imports data extracted from the entity's system, we evaluate the completeness and accuracy of the extract and import (see activity 'Evaluate the complete and accurate extract and import of data used in each SAT and EUR').

Do we evaluate and test the design and consistent operation of end-user routines if we develop them by using routine-enabling SATs that are on the SAT List? [ISA | 529.12624]

Yes. Although we do not test the consistent operation of those routine-enabling applications that are on our member firm's SAT List, we are still responsible for evaluating the design and testing the consistent operation of the individual routines we develop.

For example, when using Excel® (a routine-enabling application) to develop a spreadsheet (an end-user routine) that sorts and filters data via a pivot table, we do not test the pivot feature of Excel®. We are, however, responsible for evaluating the design of the pivot table (i.e. that the appropriate filters and formulas have been applied to meet the intended purpose), and evaluating that the pivot table is completely and accurately capturing/including the underlying data. We may evidence this by a note or tickmark added to the Excel® file.

How do we evaluate the design of the end-user routine? [ISA | 529.1600]

When we evaluate the design of the end-user routine, we consider whether it is capable of effectively achieving its purpose. Evaluating the design of an end-user routine includes having sufficient understanding of, or access to, the formulas and functions used in the routine.

Excel® files obtained by the engagement team from various sources may include customized proprietary macros and programming code without sufficient documentation to understand the logic.

For example, a complex Excel® file used to calculate the historical volatility of a stock may require input of certain variables, connect to an external data source to download stock price information, execute a complex macro that is locked and then report a calculated historical volatility amount.

In such a case, the engagement team would be unable to understand the appropriateness of the formulas and functions used in the Excel® spreadsheet when it is used by the engagement team to obtain audit evidence in order to establish the appropriateness of the audit evidence provided by the spreadsheet. Thus the engagement team would not have a basis for relying on the output of this complex Excel® file as audit evidence. In particular, the engagement team would not be

able to assess whether the macro is appropriately querying the external data source or whether the historical volatility calculation embedded in the macro is appropriate for the purpose of the procedure.

Evaluating the design of the end-user routine entails:

- considering the end-user routine's purpose (e.g. the type of evidence to be obtained from it and the significant accounts and relevant assertions or risks of material misstatement that it claims to address and the timing of the use of the routine)
- assessing the appropriateness of its design (i.e. the algorithms, parameters and functionality of the end-user routine and the relevance of the data used) in achieving such purpose
- assessing whether its design enables compliance with KPMG Audit Execution Guide. For example, if we are using the end-user routine to assist us in the performance of substantive analytical procedures (SAPs), we assess whether the routine facilitates compliance with KPMG Audit Execution Guide in relation to the performance of SAPs (e.g. considers the appropriate level of precision and resulting acceptable difference).

When evaluating the design of the end-user routine, we may think about the competence and capabilities of the team member(s) who developed and executed the end-user routine, including the involvement of any employed KPMG specialists, specific team members or by others at the direction of the engagement team. This understanding may come from a variety of sources, including professional experience, and the relevance of the individual's competence and capabilities to the role (including, if applicable, trainings that have been completed).

How do we consider whether the end-user routine operates consistently? [ISA | 529.1700]

When we consider whether the end-user routine operates consistently, we are considering whether it is functioning as designed. When we evaluate whether the end-user routine functions as designed, we perform procedures to evaluate and test the results of the end-user routine output to demonstrate the output is consistent with the design of the routine. This may involve testing the end-user routine on multiple sets of data to test different conditions or variables to determine that the end-user routine operates consistently.

For example, an end-user routine uses logic such that when one condition is met, a certain calculation is performed and when another condition is met, a different calculation is performed. If we execute the routine on a set of data that only meets the first condition, we only have evidence that the first condition and calculation function as designed. Accordingly, we use another data set that meets the second condition in order to obtain evidence that the second condition and calculation function as designed.

When do we evaluate the design and consistent operation of an end-user routine? [ISA | 529.9404]

By nature, end-user routines are able to be modified by the end-user. For this reason, we evaluate the design and consistent operation of the routine each time the routine is used to obtain audit evidence or supplement our judgment. In order to evaluate the design of the routine and that the routine operates consistently, we either evaluate the design each time it is used or evaluate that the design remains appropriate and implement appropriate procedures to evidence the design has not been altered since the prior evaluation.

For example, if the routine itself does not require changes between periods, once we demonstrate the routine is functioning as designed we may benefit from such procedures as storing the routine in a secured location, securing the routine with a password, or identifying a last modified date to demonstrate that no changes have occurred. In this case, the combination of the original evaluation and evidence that the logic did not change after that evaluation may provide sufficient evidence that the routine operated consistently.

Alternatively, if we identify a change required in the design of the routine (e.g. a change in the format of the data provided by the entity), we make changes to the design of the routine. We then evaluate whether the routine operates consistently by testing that it functions as designed. This may be accomplished by executing the routine on a data set for each condition and comparing the output to our expectation based on the design of the routine.

How do we determine the extent of procedures necessary to test the reliability of the end-user routine?

[ISA | 529.9406]

Regardless of the complexity of the end-user routine, when we use an end-user routine to facilitate obtaining audit evidence or supplement our judgment, we evaluate its design and whether it operates consistently. The extent of this testing will depend on the complexity of the design of the end-user routine and the extent of planned audit evidence obtained from the end-user routine. In many cases, especially those that involve simple formulas and functionality, these considerations may be documented through the audit procedures applied to the output of the end-user routine and evidenced by the annotations and tickmarks added by the reviewer. In other cases, incremental documentation is added to evidence how the evaluation was performed.

When determining the extent of procedures necessary to test the reliability of the end-user routine, consider the following examples which increase in complexity from Routine A to Routine C.

End-user routine considerations	**Routine A - a combination of sorting, filtering and vlookup functionality applied to data in Excel ®, designed to summarize and compare to the entity's disclosure**	**Routine B - routine built in an Excel ® workbook that includes multiple linked worksheets, manual inputs, and calculations (developed by an employed KPMG specialist)**	**Routine C - Alteryx workflow designed to join multiple source data files, transform data to create unique identifiers and match items recorded to revenue to internal settlement information, outputting items into various categories based on their attributes**
Evaluation of the design of the end-user routine including: (i) its	The purpose of the end-user routine is documented sufficiently in the	The purpose of the routine is documented in the employed	The purpose of the routine is documented in the audit file.

purpose, (ii) the appropriateness of the design in achieving the purpose, and (iii) whether the design enables compliance with KPMG Audit Execution Guide.	work paper that summarizes the use of the end-user routine. Given the simplicity of the end-user routine, our evaluation of the design is documented through the review of the output and evidenced by the procedures applied to the output (e.g. tickmark(s) or other documentation indicating review of the formular(s) used and the relevant reconciliation procedures performed over the data used). It may also be supplemented with annotations added to the Excel® workbook.	KPMG specialist deliverable. Example documentation: The routine is designed to provide audit evidence over the reasonableness of the capitalization rate used in the entity's valuation which in turn is used in its impairment analysis. The employed KPMG specialist deliverable documents the design of the end-user routine. Example documentation: The routine uses a combination of "vlookup", "min", and "max" functions in Excel® to identify the largest and smallest capitalization rates for the corresponding market from an external report (separately assessed for relevance and reliability). The routine then performs present value	Example documentation: The routine is designed to match revenue entries to external information to provide substantive evidence over the existence and accuracy of the recorded entries. We document the design of the end-user routine. Due to the complexity of the end-user routine and that the underlying logic of the routine is not visible in the output, we may document the evaluation of the design in a separate work paper and we may include screenshots from the Alteryx workflow with accompanying annotations describing the steps and evaluating how they are appropriately sequenced to achieve the objective of the end-user routine. When considering compliance with KPMG Audit Execution Guide, we identify that the D&A routine is an item matching routine for substantive test of details and perform the appropriate procedures to test the reliability of the internal information (see question 'What is a D&A item matching procedure?').

		calculations using the capitalization rates and other entity-specific inputs subject to other procedures to calculate a minimum and maximum range of values. The routine then compares the calculated values to the entity's recorded value, using "if", "less than", and "greater than" functions to the range determined and outputs a "pass" or "fail" result. We compared each formula and function used in the routine to the intended design of the routine and determined the formulas were appropriate and the data being captured in the formulas was appropriate. We reviewed the formulas to determine the correct data was being completely and accurately captured from the various tabs within the Excel® workbook.	

Competence and capabilities	The end-user functionality does not require specific competence or capabilities in excess of the core learning requirements of all KPMG professionals so we do not document any consideration of competence and capability.	We may think about the competence and capabilities of the employed KPMG specialist as contained in the Knowledge, Skill, and Ability (KSA) Work Paper.	We inspect the member firm SAT list and related policies and document how any indicated accreditation or required competencies for users and reviewers has been met.
Evaluation of whether the end-user routine operates consistently by determining it functions as designed	Since we do not test the consistent operation of the functionality of routine-enabling application, the procedures performed to assess the design of the end-user routine are sufficient to demonstrate that it functions as designed.	While we do not test the consistent operation of the individual formulas and functions used in the routine, due to the complexity of the design of the routine including the volume of functions, formulas, and dependencies, incremental procedures may be considered necessary to evaluate that the combination of all of the formulas and functions produce the expected results. The employed KPMG specialist provides documentation of the evaluation that the routine	To evaluate that the Alteryx workflow functions as designed, we may determine it appropriate to execute the end-user routine over test data and compare the output of the end-user routine to a manually prepared analysis without the use of the workflow. To do this, we may manually perform the analysis, without the use of the Alteryx workflow, using the test data set and compare the results of the analysis to the output from the workflow to determine the results are consistent. We may document this in the same work paper where we documented the design of the end-user routine.

		functions as designed. Example documentation: to evaluate that the routine functions as designed, we adjusted the capitalization rates to test all the conditions we would expect the routine to produce, including a "pass" or "fail" result and determined the results were consistent with our expectations.	
Subsequent use considerations	If the same workbook is being used to test a subsequent disclosure, we consider whether any changes need to be made to the design (e.g. to accommodate changes to the data being used, or to the output). If no changes are necessary, we would perform the same procedures as when the routine was used previously (refer above).	If the employed KPMG specialist uses a routine previously evaluated, they consider whether any changes need to be made to the routine (e.g. changes to the data used in the routine, changes to the design of the linked worksheets). If no changes are necessary, they may document that the routine has not changed since the prior evaluation. This may be accomplished by inspecting the last modified date	If we evaluate the Alteryx workflow when we execute it during interim and use the same workflow during year-end, we consider whether any changes need to be made to the end-user routine (e.g. changes to the data used in the end-user routine, changes to the sequencing of functions). If no changes are necessary, we may document that the workflow has not been changed since the prior evaluation. This may be accomplished by inspecting the last modified date on the workflow, or by comparing the workflow

		on the Excel® file. Alternatively, they may perform a comparison of the routines using Excel® Spreadsheet Compare functionality. This evaluation is documented in the employed KPMG specialist deliverable. If changes are made, we evaluate whether the design of the modified routine is appropriate to achieve its purpose and evaluate whether it functions as designed. This evaluation is documented in the employed KPMG specialist deliverable.	to the documentation of the workflow at the last evaluation. This evaluation is documented in the audit file. If changes are made, we evaluate whether the design of the modified routine is appropriate to achieve its purpose and evaluate whether it functions as designed. This documentation may be similar to that of our initial evaluation.

We may also refer to the Global SAT Evaluation and Testing Guide https://spo-global.kpmg.com/sites/GO-GlobalSAT/Shared%20Documents/Forms/AllItems.aspx?id=%2Fsites%2FGO%2DGlobalSAT%2FShared%20Documents%2FGlobal%20SAT%20Evaluation%20and%20Testing%20Guide%2Epdf&parent=%2Fsites%2FGO%2DGlobalSAT%2FShared%20Documents for additional guidance on how to determine the extent of testing and facilitate the documentation of our evaluation and testing of an end-user routine.

What do we consider when an end-user routine is developed or used by a specific team member, an employed KPMG specialist, or others at the direction of the engagement team? [ISA | 529.9407]

When an end-user routine is used or developed by a specific team member, an employed KPMG specialist (e.g. an Excel® based valuation model used by an employed KPMG valuation specialist), or others at the direction of the engagement team, we agree the nature of the use of the routine and the roles and responsibilities for evaluating the reliability of the routine in planning, prior to its use.

If the specific team member, employed KPMG specialist, or others at the direction of the engagement team have the role of evaluating the reliability of the end-user routine, we review the documentation

provided by the specific team member, employed KPMG specialist, or others at the direction of the engagement team to determine if their procedures were sufficient.

Group Audit or Component Audit | In a group audit, when the group auditor develops an end-user routine and requests a KPMG component auditor to use that routine and/or to use its output, what are the responsibilities of the KPMG component auditor regarding the reliability of that routine for the purpose of the group audit? [ISA | 529.160197]

There may be instances where a group auditor may develop an end-user routine and either:

- execute it centrally and request KPMG component auditors to rely on the output of that routine for the purpose of their work on the components, or
- provide it to KPMG component auditors and request them to use it for the purpose of their work on the components.

In those instances, we consider who is responsible for evaluating:

- the design and consistent operation of the end-user routine
- the relevance and reliability of the information used by the end-user routine.

The responsibility of the KPMG component auditor with respect to the reliability of that end-user routine and/or its output is dependent on the agreement between the group auditor and the component auditor as to who assesses the reliability of that end-user routine and/or its output.

When the assessment of the routine is performed by the group auditor, the component auditor does not have to consider the reliability of the routine and/or its output (unless necessary under their member firm's policies or procedures) since the group auditor is assuming responsibility to appropriately evaluate those matters.

In a group audit, when the group auditor develops an end-user routine and requests a KPMG component auditor to use that routine and/or to use its output, what are the responsibilities of the KPMG component auditor regarding the reliability of that routine when the component auditors uses that work to support their statutory audit? [ISA | 529.160198]

There may be instances where a group auditor develops an end-user routine and either:

- executes it centrally and requests KPMG component auditors to use the output of that routine for the purpose of their work on the components, or
- provides it to KPMG component auditors and requests them to use it for the purpose of their work on the components.

When the component auditor is also performing a statutory audit of the component's financial information and plans to use that end-user routine and/or its output to support its statutory audit opinion, the component auditor obtains a sufficient understanding of the procedures performed and conclusions reached by the group auditor to assess the reliability of that end-user routine and/or its output and documents this in its statutory audit file. The component auditor also considers whether additional procedures are necessary to be performed to assess the reliability of that end-user routine and/or its output for their statutory audit.

4.4 Evaluate the complete and accurate extract and import of data used in each SAT and EUR [ISA | 530]

What do we do?

Evaluate the complete and accurate extract and import of data used in each SAT and/or end-user routine.

Why do we do this?

When we plan to use SATs and/or end-user routines, we may be working with large amounts of data in an electronic format. We take steps to preserve the integrity of the data from the entity's systems into the SAT and/or end-user routine so that the audit evidence and conclusions we draw from those tools are reliable.

Execute the audit

What considerations do we document regarding extracting data from the entity's system and importing it in a SAT or end-user routine? [ISA | 530.157008]

We document:

- Any pre-processing of data performed, by whom, and when
- The source and type of data used in the SAT or end-user routine
- For each data file extracted from the entity's system:
  - the procedures performed to evaluate whether the data has been completely and accurately extracted from the entity's system, and
  - the procedures performed to evaluate whether the data has been completely and accurately imported into the SAT or end-user routine.

The following table includes examples of what we document when using SATs or end-user routines:

Documentation	Description
Any pre-processing of data performed, by whom and when	Consideration of the entity's and the engagement team's pre-processing steps (e.g. combine multiple sub-accounts into one account number for analysis, eliminate sub-total and total rows, eliminate stacked heading rows, check for missing and blank fields for numeric data fields, offsetting positive and negative items, etc.) and indicate who performed each action.
The source and type of data used in the SAT or end-user routine	Consideration of information regarding how the data was obtained and imported into the SAT or end-user routine. This may include: • data source and system

	• relevant contact at the entity and media used to transfer the data from the entity's information system • name and description of the data used (e.g. open invoices amounts as of year-end) • field specification (e.g. entity name, entity number, credit limit, amount, invoice date, due date, etc.) and field format (e.g. character, numeric, date, etc.) • date the data was extracted.
For each data file used, the procedures performed to evaluate whether the data has been completely and accurately extracted from the entity's system	This may include: • reconciling the extracted data file to the entity's source data • checking the appropriateness of the extraction parameters used to extract the data • checking the logic of the equation and/or programming of the extraction routine for consistency with our audit procedures.
For each data file used, the procedures performed to evaluate whether the data has been completely and accurately imported into the SAT or end-user routine	This may include: • comparing number of records imported and other control totals with source documentation • reconciling the data file imported to an extract from the SAT or end-user routine. Alternatively, procedures may be designed to simultaneously evaluate whether the data was completely and accurately extracted from the entity's system and imported into the SAT or end-user routine. This may include reconciling data in the SAT or end-user routine to data stored in the entity's system.

4.5 Consider untested items [ISA | 7639]

What do we do?

Consider any untested items resulting from a D&A routine

Why do we do this?

If there are untested items in the population resulting from a D&A routine, this may have implications for our risk assessment and further audit procedures.

Execute the audit

When may we have unmatched items when using a D&A routine to match items? [ISA | 7639.9239]

When we use a D&A routine to match items from one population to another, we may have items that did not match. We refer to these items as unmatched items. Each unmatched item is either

an untested item or is an outlier (see question 'What are outliers when performing a matching procedure?').

What are untested items resulting from a D&A routine? [ISA | 7639.12540]

When planning to use a D&A item matching routine, we consider whether we are expecting all items to match (refer to question 'Are there additional considerations when planning a D&A item matching procedure?'). When we execute a D&A item matching routine over an entire population, we may have items in that population subject to analysis that could not be processed or tested by the routine. We refer to those as untested items.

How do we determine if an unmatched item is an untested item or an outlier? [ISA | 7639.9240]

We consider whether we expected all items to match. Examples where we may not have expected items to match include:

- when comparing from period to period, we do not expect new additions to the population or items removed from the population during the period to match
- when there are differences in timing of the data in the sources (e.g. differences in cut-off of transactions at beginning and ending of periods between two sources)
- items that are recorded by one source but not another (e.g. corporate actions in mutual funds)
- due to data disparities between sources, certain data elements required for matching are missing from one of the data sets for certain transactions.

If we expected items to match and they do not, we then consider whether there are issues with the data quality of the unmatched items. For instance:

- are there any data fields missing from the population being matched?
- are the data at the same level of aggregation between the two populations?
- are there any issues with the data format that are causing data to not be analyzed by the routine (such as scanned or otherwise converted data)?

When data quality issues are identified, we may think about whether the issue can be remedied, such as with pre-processing or adjusting the logic of the routine. In this case, we may make the necessary adjustments and execute the D&A routine again. If we are not able to remedy the data quality issues identified and we intend to use the results of the D&A procedure and/or there are expected unmatched items, we assess the untested population(s). See question 'What do we consider about the untested items resulting from a D&A routine?' for further information on specific considerations.

When unmatched items were not expected to match, those unmatched items are untested items.

If we expected items to match and did not identify issues with data quality the unmatched items are outliers. We assess outliers in accordance with the activity 'Evaluate outliers when using a matching procedure'.

What do we consider about the untested items resulting from a D&A routine? [ISA | 7639.12541]

We consider the characteristics of these untested items resulting from a D&A routine (both from a quantitative and a qualitative perspective) and determine whether any specific analysis may be relevant for the purpose of informing our risk assessment considerations and determining any planned response that is necessary.

The table below contains examples of common scenarios that may result in untested items and related relevant considerations we may have when assessing them:

Why the item was untested	Example	Relevant considerations
The item has data quality issues	Items with missing data, such as, when we are performing a Revenue Three-Way Match test, a sales order with no "quantity" information or a revenue transaction with no "shipping document" where there should be one (i.e. a revenue transaction corresponding to the sale of goods)	Consider whether the data quality issues are indicative of: • potential issues during data extraction and input into the D&A routine, or issues with the functionality of our routine, in which case we revise the extraction process and/or the routine accordingly; • potential failures in the entity's controls over capturing and maintenance of information within the system, in which case we discuss with management the control deficiency and how they plan to address that and consider alternative data sources. Note that, when a missing document in the entity's system is due to the original document (e.g. the external sales order or shipping document) not being available, this item is treated as a misstatement unless other evidence is gathered to support the validity of the item.
The nature of the item is not suitable for the purpose of the D&A routine	A service revenue invoice (i.e. with no "shipping" involved) when we are performing a Revenue Three-Way Match test A sales invoice not yet collected when we are performing a cash collection test over Accounts Receivable	Consider whether, based on our understanding of the entity, we expect items of that nature in our population and react accordingly: • if we expected such items, we may have considered excluding them from the population before using the routine; • if we did not expect such items, we consider the reasons for this previously unknown information and the implications on our risk assessment procedures and revise our understanding of the entity.

The routine logic is unable to process the item	A routine that cannot read certain data formats A journal entry that cannot be bifurcated when executing Account Analysis	Reconsider the design of the routine and revise it accordingly or assess whether the routine is appropriate for our purposes.

Based on the results of our considerations, we assess the qualitative and quantitative factors in the untested population, considering that we have not obtained evidence about the untested items from the procedure, and we determine if the population contains a risk of material misstatement. We design appropriate substantive audit procedures to respond to such risks identified. This may include sampling or specific item testing. In certain circumstances we may determine that the untested population does not pose a risk of material misstatement.

If we perform specific procedures over the untested sub-population, do we set sub-population performance materiality (SPM)? [ISA | 7639.12542]

It depends. Untested items represent in themselves a specific sub-population resulting from applying a D&A routine to an entire population. Setting sub-population performance materiality (SPM) will depend on the nature of the items and how we plan to analyze the resulting different sub-populations.

For example, we may have performed a Three-Way Match test over the original population and obtained two sub-populations:

- the 'tested' one, which has been subject to 100% testing where all items have been successfully matched;
- the 'untested' one, composed of items with similar characteristics (e.g. service revenue invoices with no "shipping" involved).

In these circumstances, when we decide to perform specific procedures over the 'untested' sub-population, there is no aggregation risk when determining how to address the untested items and, if we decide to sample them, we do not set sub-population performance materiality.

However, in other scenarios we may need to consider the existence of aggregation risk. For example, we may have performed a Three-Way Match test over the original population and obtained two sub-populations:

- the 'tested' one, which has been subject to 100% testing, where certain outliers (i.e. items with differences in price and/or quantity) have been identified; we have used the guidance in the Outliers Flowchart (see question 'What is the 'outliers flowchart'?') and plan to sample those outliers;
- the 'untested' one, where we have identified items with different characteristics (e.g. service revenue invoices with no "shipping" involved, as well as items with missing information); we further group these items into separate sub-populations and plan to test those separately.

In these circumstances, when we decide to perform specific procedures over the 'untested' sub-populations, there is aggregation risk when determining how to address the untested items and, if we decide to sample them, we set sub-population performance materiality.

4.6 Evaluate outliers when using a matching procedure [ISA | 7640]

What do we do?

IF we perform a matching procedure and have unmatched items that are determined to be outliers THEN evaluate the outliers that are identified.

Why do we do this?

When we perform a matching procedure over the population, we identify outliers as unmatched items that were expected to match. We evaluate those outliers to determine whether outliers represent misstatements and/or control deficiencies.

Execute the audit

What are outliers when performing a matching procedure? [ISA | 7640.12551]

Outliers from a matching procedure are individual items/transactions resulting from the analysis of a population that, based on the characteristics of that population and the design of the procedure performed, were not expected to occur. When there are unmatched items from a matching procedure, we consider the nature of the populations of data and whether the items are untested or outliers in accordance with the question 'How do we determine if an unmatched item is an untested item or an outlier?'.

Outliers may result from the performance of audit procedures using D&A matching routines as well as from 'manual' matching audit procedures. However, the use of D&A routines may result in a higher number of outliers being identified.

The performance of 'item matching' D&A routines may result in the identification of outliers. In this case, having performed a test of details matching 100% of a population, those outliers represent items that were expected to match but did not match.

> For example, a '3-Way Match' D&A routine analyzes 100% of the sales activity included in the entity's revenue sub-ledger. Quantity and price data associated with customers' sales order, shipping note and sales invoice are compared to identify unexpected differences. The differences identified are considered 'outliers'.

How do we evaluate outliers when performing a matching procedure? [ISA | 7640.12552]

The 'outliers flowchart' assists us in evaluating outliers, as appropriate in the engagement specific circumstances, when performing a matching procedure.

When evaluating outliers, we think about the process and transaction flow and related process control activities to determine whether the outliers are within the design parameters of the process control activities or whether a control breakdown or process gap gave rise to the outlier.

What is the 'outliers flowchart'? [ISA | 7640.12553]

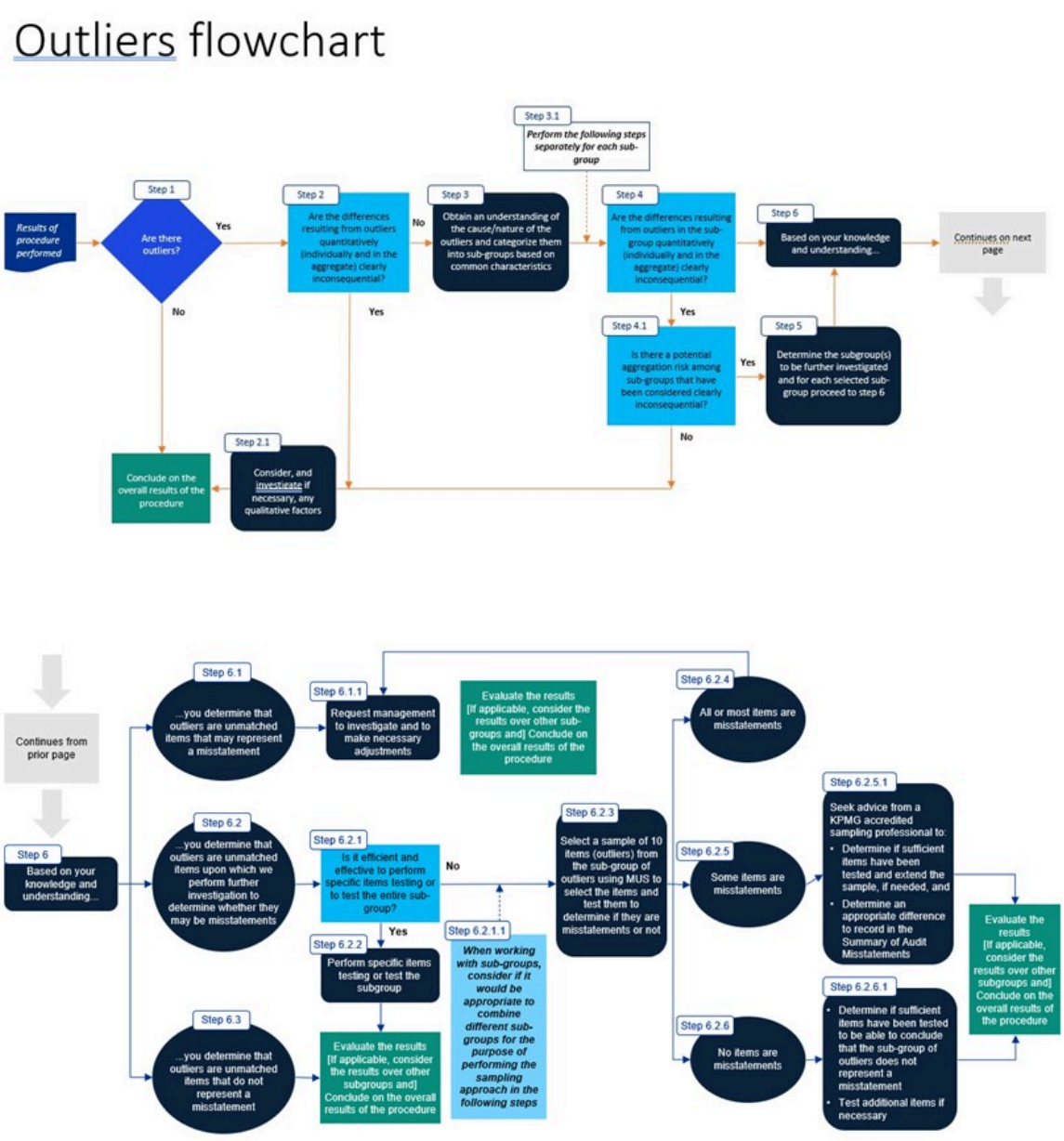
The outliers flowchart includes explanatory notes and provides a sequence of steps relevant to evaluating outliers. The basic steps within the outlier flowchart include:

- determining whether outliers are clearly inconsequential;
- when the outliers are more than clearly inconsequential, obtaining an understanding of their cause/nature and thinking about the existence of identifiable sub-groups;
- based on the understanding obtained, determining:

What outliers represent...	...and how to respond
• unmatched items that do not represent a misstatement	• no further action
• unmatched items that may represent misstatements	• request management to investigate and adjust, if appropriate
• unmatched items upon which we perform further investigation to determine whether they may be misstatements	• perform substantive testing. If sampling, follow the recommended sampling approach and if we identify misstatements through this approach, then involve a KPMG Accredited Sampling Professional as appropriate

When we use a D&A routine to identify sub-populations of items for further testing, those items identified are not considered 'outliers' but rather items to which we apply further audit procedures. In this case, we do not apply the Outliers flowchart to determine the testing approach over those specific items.

The following graphics provide an illustration of the Outliers flowchart (): download as PDF https://alex.kpmg.com/AROWeb/document/lfc/ALL_7639_2020_001_PDF/toc/ALL_7639_2020_001_PDF?tocref= **):**



The following tables include guidance for specific steps in the flowchart:

Step 1	For the purpose of this flowchart, "outliers" are individual items / transactions resulting from a Test of Details matching 100% of a population (an 'item matching' routine), which were expected to match but did not match. For example, in a Revenue '3-Way Match' procedure, 'outliers' includes transactions where quantities in invoice and in related shipping documentation do not match.

Step 2 / Step 4 / Step 4.1

AMPT may be used as a reference in order to determine whether a difference resulting from an outlier - e.g. in the Revenue '3-Way Match' procedure, the difference in quantity between an invoice and the related shipping document, is quantitatively inconsequential or clearly trivial. This assessment is made considering differences individually and in the aggregate, without offsetting their effect unless it is appropriate to do so.

When performing a matching procedure on non-financial RDEs used in an estimate, such as date of birth, we assess whether the impact on the estimate would be quantitatively inconsequential or clearly trivial. Depending on the complexity of the estimate, we may involve a specific team member or an employed KPMG specialist in this assessment.

Step 2.1

Qualitative considerations in this step may be based on an understanding of the population of items being tested, the procedure being performed and the entity's specific circumstances. Qualitative factors relate to the nature of the outliers and include indicators of fraud, bias and/or ineffective controls.

> For example, in a Revenue '3-Way Match' procedure, where the entity's policies do not contemplate any tolerance for differences between invoices and shipping documentation, the identification of outliers, may be indicative of potential control failures.

Step 3

In obtaining an understanding of the cause/nature of the outliers, we may use techniques such as inquiry, observation and inspection, as appropriate. This understanding is the basis for our decisions in Steps 4 to 6.

If we perform further investigation of outliers, these outliers may be grouped according to common characteristics and recognizable patterns.

> For example, it may be possible to identify sub-groups within the population of outliers with similar characteristics, such as outliers resulting from related-party transactions, outliers resulting from transactions occurring close to year-end or on specific dates, outliers resulting from transactions that occurred in specific geographical locations, or outliers indicating potential overstatement or understatement.

Step 3.1

Where we cannot identify sub-groups within the population of outliers, we perform step 6 (steps 4, 4.1 and 5 are no longer applicable) on the full population of outliers.

Step 5

We respond to aggregation risk by selecting individually inconsequential sub-groups for further investigation. Our selection may be driven by qualitative considerations

based on the nature of the procedure performed, the characteristics of the outliers in the sub-groups and the related RMMs.

> For example, when the procedure giving rise to outliers is intended to address RMMs related to Existence of Revenue, it may be more appropriate to select sub-groups of outliers that may be indicative of a potential overstatement of revenue.

Steps 6.1, 6.2 and 6.3

Based on the understanding obtained about the nature of the outliers (refer to step 3), our understanding of the population of items being tested and the procedure being performed and our knowledge of the entity, we determine that the outliers:

- are unmatched items that may represent misstatements
- are unmatched items upon which we perform further investigation to determine whether they may be misstatements
- are unmatched items that do not represent a misstatement.

> For example in a Revenue '3-Way Match' procedure, differences resulting from tolerance levels that are appropriate. We conclude that outliers do not represent misstatements and do not perform further testing.

Step 6.1.1

In certain situations, we may consider it appropriate to obtain a more precise estimate of the total misstatement in the population (sub-group) for discussion with management. In these circumstances, we think about involving a KPMG accredited sampling professional for assistance in the use of appropriate sampling techniques.

Step 6.2.1

We determine which type of test of details is appropriate in the circumstances in order to obtain sufficient appropriate audit evidence over the outliers. We determine whether it is efficient and effective to test the outliers through specific items testing or by testing the entire sub-group.

When selecting 'specific items', we perform the activity 'Perform relevant procedures when we use specific items testing'. When audit evidence gathered from specific items does not provide sufficient appropriate audit evidence to conclude on the entire sub-group, we think about testing the entire sub-group of outliers or applying a sampling approach.

When performing a matching procedure on non-financial RDEs used in an estimate, such as date of birth, and we have determined that outliers are unmatched items that need further testing to determine if they are likely to be misstatements, we may perform specific item testing or attribute sampling over such items and evaluate the results.

Step 6.2.1.1	When individual sub-groups are small in value - e.g. outliers represent differences that are in aggregate between AMPT and PM, it may be appropriate to combine sub-groups when we have determined to sample those sub-groups. It is not appropriate to combine sub-groups when the expected misstatement rate varies significantly among those sub-groups or when the potential misstatements in the sub-groups offset each other - i.e. we do not combine sub-groups of outliers indicative of potential overstatement with those indicative of potential understatement.
Step 6.2.3	In order to select a sample of 10 items using KPMG MUS, we may involve a KPMG accredited sampling professional.
Step 6.2.6.1	In order to determine whether sufficient items have been tested to be able to conclude that the population/sub-group of outliers does not represent a misstatement, we may involve a KPMG accredited sampling professional. Note that it may be appropriate to set a sub-population performance materiality (SPM) when the population to be tested is a portion of an account or transaction class (see activity 'Determine the tolerable misstatement when using MUS or KSP' for further information).
Evaluate the results	The evaluation of misstatements includes both quantitative and qualitative assessments of the misstatements, including whether we modify the nature, timing, extent of audit procedures performed, and whether they are indicative of deficiencies in internal control (see activity 'Evaluate the nature, circumstances, effects and implications of misstatements' for further information).

5 Perform specific procedures in certain circumstances [ISA | 7840]

What do we do?

Perform specific audit procedures in certain circumstances depending of the facts and circumstances of the entity

Why do we do this?

We perform specific audit procedures to obtain sufficient appropriate audit evidence in response to the specific facts and circumstances of the entity.

Execute the audit

In what circumstances do we perform specific procedures? [ISA | 7840.7952]

We perform specific procedures in the following circumstances:

- Consider performing specific procedures related to the completeness of derivatives; and
- Assess whether to perform confirmations in conjunction with other procedures https://alex.kpmg.com/AROWeb/document/manuals/toc?tocref=go_en-go_1000_achd_stnd_kaegas2310_pc_2020&cntry=united%20states&newactivityid=3888&qid=.

5.1 Derivatives | Consider performing specific procedures related to the completeness of derivatives [ISA | 7743]

What do we do?

IF we have determined there is an RMM related to the completeness of derivatives, THEN consider performing specific procedures.

Why do we do this?

Derivatives may not involve an initial exchange of cash or other tangible consideration. In addition, derivatives may be non-routine transactions and/or embedded in other financial instruments and thus may present increased risks. This may create challenges related to the completeness of an entity's derivatives.

Execute the audit

What does the completeness assertion address related to derivatives? [ISA | 7743.6598]

The completeness assertion addresses whether all of the entity's derivatives and hedging activities that should have been recorded have been recorded in the financial statements

How can the nature of derivatives influence our procedures over completeness? [ISA | 7743.6599]

One of the characteristics of derivatives is that they may involve only a commitment to perform under a contract and not an initial exchange of cash or other tangible consideration. Therefore, procedures to address the completeness of derivatives that focus exclusively on obtaining evidence relating to cash receipts and disbursements may not be sufficient.

Further, different types of derivative contracts have terms and features that can impact the level of inherent risk for the RMM related to the completeness of derivatives.

> For example, derivative contracts requiring frequent cash settlements or the periodic funding of collateral may have less risk regarding the completeness assertion since the entity might become aware of unrecorded positions more timely - e.g., if they receive settlement instructions or a collateral call from a counterparty regarding a previously unrecorded derivative contract. Conversely, the risk of unrecorded positions increases when tangible consideration is exchanged less frequently.

What specific procedures do we consider performing related to the completeness of derivatives? [ISA | 7743.6600]

We consider performing the following procedures as part of our audit response for an RMM related to the completeness of derivatives:

- making inquiries, including about aspects of the entity's operating activities that might present risks that are often hedged using derivatives,

> Some examples include:
>
> - If the entity conducts business with foreign entities, we may inquire about any arrangements the entity has made for purchasing foreign currency.
> - If the entity is in an industry in which commodity contracts are common, we may inquire about any commodity contracts with fixed prices that run for unusual durations or involve unusually large quantities.
> - We may inquire about whether the entity has converted interest-bearing debt from fixed to variable, or vice versa, using derivatives.

- inspecting agreements, and
- reading other information, such as minutes of meetings of those charged with governance and its committees (e.g., finance, asset/liability, investment, or other committees).

The procedures above may have been performed in conjunction with risk assessment.

What are examples of other procedures related to the completeness of derivatives? [ISA | 7743.6601]

Examples of other procedures related to the completeness of derivatives include:

- sending confirmations to counterparties;
- examining brokers' statements;
- inspecting unresolved reconciliation items;
- inspecting executed agreements, such as loan or equity agreements or sales contracts, for embedded derivatives;
- inspecting documentation for activity subsequent to the end of the reporting period (e.g., cash receipts or disbursements at or around year-end) that may result in the identification of derivatives that were not appropriately recorded at period-end;
- performing substantive analytical procedures; or
- comparing previous and current account detail to identify assets that have been removed from the accounts and testing those items further to determine that the criteria for sales treatment have been met.

What are examples of dual-purpose procedures related to the completeness of derivatives? [ISA | 7743.6602]

When we take a controls reliance approach and the entity has well-designed and effectively operating controls that address the PRP(s) identified for an RMM related to the completeness of derivatives, we may consider performing dual-purpose procedures such as the following:

Example	Guidance

Counterparty confirmation process	An entity may have controls to confirm derivative transactions with counterparties, which may include verifying the completeness of the derivatives entered into by the entity. For example, an entity may maintain an unmatched counterparty confirmation log at period-end that identifies any confirmations received from a counterparty that do not match any derivative positions within the entity's accounting records and have a process in place to resolve these unmatched trades.
Cash account reconciliation	If properly designed, an entity's periodic cash reconciliations control may also address the completeness of an entity's derivatives population. For example, cash reconciliations may identify significant discrepancies between the actual cash transactions (e.g. cash outflows associated with a counterparty's collateral call or other settlement instructions) and expected cash transactions. In order to operate at an appropriate level of precision for purposes of addressing a PRP for an RMM related to the completeness of derivatives, the cash reconciliation is designed in sufficient detail to allow the identification of discrepancies or errors at the transaction (i.e. individual derivative) level.
Suspense / transit account analysis or reconciliation	If properly designed, an entity's suspense / transit account analysis or reconciliation control may also address the completeness of an entity's derivatives population. For example, unmatched debits or credits related to derivatives activity residing in a suspense account may be the result of a previously unrecorded position. Similar to the cash reconciliation control, we evaluate whether the suspense / transit account analysis or reconciliation control is designed in sufficient detail to identify discrepancies or errors at the transaction (i.e. individual derivative) level
Collateral monitoring reconciliation	An entity may have a control to reconcile its estimate of the derivative position's fair value to the counterparty's fair value estimate when it receives a collateral call from a counterparty (i.e. a request for cash collateral due to the change in the value of an outstanding derivative). This reconciliation control may identify unrecorded positions if a collateral call was made on a previously unrecorded derivatives contract.

In the situations above, we may determine that it is efficient and effective to perform a dual purpose test to obtain (i) audit evidence over the design, implementation, and operating effectiveness of the entity's control and (ii) substantive audit evidence over the RMM related to the completeness of derivatives.

What do we think about when sending confirmations to counterparties? [ISA | 7743.6603]

When performing the activity "Design the confirmation request" in the KAEG chapter on confirmations (AS 2310 https://alex.kpmg.com/AROWeb/document/manuals/toc?tocref=GO_en-GO_1000_ACHD_STND_KAEGAS2310_PC_2020&cntry=united%20states&newactivityid=3894&qid=&chunkid=GO_en-GO_1000_ACHD_STND_3893_AI_IS_PC_2020&displayorder=878&x=1 | AU-C 505 https://alex.kpmg.com/AROWeb/document/manuals/toc?tocref=GO_en-GO_1000_ACHD_STND_KAEGAUC505_AI_2020&cntry=united%20states&newactivityid=3893&qid=&chunkid=GO_en-GO_1000_ACHD_STND_3893_AI_IS_PC_2020&displayorder=2469&x=0 | ISA 505 https://alex.kpmg.com/AROWeb/document/manuals/toc?tocref=go_en-go_1000_achd_stnd_kaegisa505_is_2020&cntry=international&newactivityid=3893&qid=), we think about the following:

Activity in KAEG confirmation chapter	Guidance
Consider the nature and type of information the respondent will be able to confirm	The nature and type of the information on the confirmation request is determined by the RMMs we are addressing. Examples of confirmation requests that address an RMM related to the completeness of derivatives include: requesting a counterparty to provide an inventory of open derivative positions as of the confirmation date; requesting a counterparty to provide further information about outstanding derivative transaction(s) with the entity, such as whether there are any side agreements or agreements to repurchase securities sold; and/or requesting counterparties who were frequently used by the entity in the past, but with whom the accounting records indicate there are presently no derivatives outstanding, to state whether they are counterparties to any derivatives with the entity as of the confirmation date. Requesting a counterparty to confirm only specific information for individual derivatives (e.g., trade date, notional amount) provides audit evidence over RMMs related to the existence and accuracy of derivatives; however, may not provide evidence related to the completeness of derivatives.
Determine the form, content, layout and presentation of the confirmation request	We may consider sending an open-ended positive confirmation as this form and layout of confirmation request is typically better suited to address an RMM related to the completeness of derivatives.

Information to Be Used as Audit Evidence

International Standards on Auditing: ISA 500.07-09

Information to Be Used as Audit Evidence

7. When designing and performing audit procedures, the auditor shall consider the relevance and reliability of the information to be used as audit evidence, including information obtained from an external information source. (Ref: Para. A26-A33g)

8. If information to be used as audit evidence has been prepared using the work of a management's expert, the auditor shall, to the extent necessary, having regard to the significance of that expert's work for the auditor's purposes: (Ref: Para. A35 - A37)

(a) Evaluate the competence, capabilities and objectivity of that expert; (Ref: Para. A38 - A44)

(b) Obtain an understanding of the work of that expert; and (Ref: Para. A45 - A48)

(c) Evaluate the appropriateness of that expert's work as audit evidence for the relevant assertion. (Ref: Para. A49)

9. When using information produced by the entity, the auditor shall evaluate whether the information is sufficiently reliable for the auditor's purposes, including, as necessary in the circumstances:

(a) Obtaining audit evidence about the accuracy and completeness of the information; and (Ref: Para. A50 - A51)

(b) Evaluating whether the information is sufficiently precise and detailed for the auditor's purposes. (Ref: Para. A52)

ISA Application and Other Explanatory Material: ISA 500.A30-A62

Information to Be Used as Audit Evidence

Relevance and Reliability (Ref: Para. 7)

A30. As noted in paragraph A1, while audit evidence is primarily obtained from audit procedures performed during the course of the audit, it may also include information obtained from other sources, for example, previous audits, through the information obtained by the firm in the acceptance or continuance of the client relationship or engagement and in and complying with certain additional responsibilities under law, regulation or relevant ethical requirements (e.g., regarding an entity's non-compliance with laws and regulations). The quality of all audit evidence is affected by the relevance and reliability of the information upon which it is based.

Relevance

A31. Relevance deals with the logical connection with, or bearing upon, the purpose of the audit procedure and, where appropriate, the assertion under consideration. The relevance of information to be used as audit evidence may be affected by the direction of testing. For example, if the purpose of an audit procedure is to test for overstatement in the existence or valuation of accounts payable, testing

the recorded accounts payable may be a relevant audit procedure. On the other hand, when testing for understatement in the existence or valuation of accounts payable, testing the recorded accounts payable would not be relevant, but testing such information as subsequent disbursements, unpaid invoices, suppliers' statements, and unmatched receiving reports may be relevant.

A32. A given set of audit procedures may provide audit evidence that is relevant to certain assertions, but not others. For example, inspection of documents related to the collection of receivables after the period end may provide audit evidence regarding existence and valuation, but not necessarily cutoff. Similarly, obtaining audit evidence regarding a particular assertion, for example, the existence of inventory, is not a substitute for obtaining audit evidence regarding another assertion, for example, the valuation of that inventory. On the other hand, audit evidence from different sources or of a different nature may often be relevant to the same assertion.

A33. Tests of controls are designed to evaluate the operating effectiveness of controls in preventing, or detecting and correcting, material misstatements at the assertion level. Designing tests of controls to obtain relevant audit evidence includes identifying conditions (characteristics or attributes) that indicate performance of a control, and deviation conditions which indicate departures from adequate performance. The presence or absence of those conditions can then be tested by the auditor.

A34. Substantive procedures are designed to detect material misstatements at the assertion level. They comprise tests of details and substantive analytical procedures. Designing substantive procedures includes identifying conditions relevant to the purpose of the test that constitute a misstatement in the relevant assertion.

Reliability

A35. The reliability of information to be used as audit evidence, and therefore of the audit evidence itself, is influenced by its source and its nature, and the circumstances under which it is obtained, including the controls over its preparation and maintenance where relevant. Therefore, generalizations about the reliability of various kinds of audit evidence are subject to important exceptions. Even when information to be used as audit evidence is obtained from sources external to the entity, circumstances may exist that could affect its reliability. For example, information obtained from a source independent of the entity may not be reliable if the source is not knowledgeable, or a management's expert may lack objectivity. While recognizing that exceptions may exist, the following generalizations about the reliability of audit evidence may be useful:

- The reliability of audit evidence is increased when it is obtained from independent sources outside the entity.
- The reliability of audit evidence that is generated internally is increased when the related controls, including those over its preparation and maintenance, imposed by the entity are effective.
- Audit evidence obtained directly by the auditor (for example, observation of the application of a control) is more reliable than audit evidence obtained indirectly or by inference (for example, inquiry about the application of a control).
- Audit evidence in documentary form, whether paper, electronic, or other medium, is more reliable than evidence obtained orally (for example, a contemporaneously written record of a meeting is more reliable than a subsequent oral representation of the matters discussed).
- Audit evidence provided by original documents is more reliable than audit evidence provided by photocopies or facsimiles, or documents that have been filmed, digitized or otherwise

transformed into electronic form, the reliability of which may depend on the controls over their preparation and maintenance.

A36. ISA 520 provides further guidance regarding the reliability of data used for purposes of designing analytical procedures as substantive procedures.[13]

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13 ISA 520, paragraph 5(a)

A37. ISA 240 deals with circumstances where the auditor has reason to believe that a document may not be authentic, or may have been modified without that modification having been disclosed to the auditor.[14]

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14 ISA 240, *The Auditor's Responsibilities Relating to Fraud in an Audit of Financial Statements,* paragraph 13

A38. ISA 250 (Revised)[15] provides further guidance with respect to the auditor complying with any additional responsibilities under law, regulation or relevant ethical requirements regarding an entity's identified or suspected non-compliance with laws and regulations that may provide further information that is relevant to the auditor's work in accordance with ISAs and evaluating the implications of such non-compliance in relation to other aspects of the audit.

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15 ISA 250 (Revised), Consideration of Laws and Regulations in an Audit of Financial Statements, paragraph 9

External Information Sources

A39. The auditor is required by paragraph 7 to consider the relevance and reliability of information obtained from an external information source that is to be used as audit evidence, regardless of whether that information has been used by the entity in preparing the financial statements or obtained by the auditor. For information obtained from an external information source, that consideration may, in certain cases, include audit evidence about the external information source or the preparation of the information by the external information source, obtained through designing and performing further audit procedures in accordance with ISA 330 or, where applicable, ISA 540 (Revised).[15a]

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15a ISA 540 (Revised), *Auditing Accounting Estimates and Disclosures*

A40. Obtaining an understanding of why management or, when applicable, a management's expert uses an external information source, and how the relevance and reliability of the information was considered (including its accuracy and completeness), may help to inform the auditor's consideration of the relevance and reliability of that information.

A41. The following factors may be important when considering the relevance and reliability of information obtained from an external information source, including its accuracy and completeness, taking into account that some of these factors may only be relevant when the information has been used by management in preparing the financial statements or has been obtained by the auditor:

- The nature and authority of the external information source. For example, a central bank or government statistics office with a legislative mandate to provide industry information to the public is likely to be an authority for certain types of information;
- The ability to influence the information obtained, through relationships between the entity and the information source;

- The competence and reputation of the external information source with respect to the information, including whether, in the auditor's professional judgment, the information is routinely provided by a source with a track record of providing reliable information;
- Past experience of the auditor with the reliability of the information provided by the external information source;
- Evidence of general market acceptance by users of the relevance and/or reliability of information from an external information source for a similar purpose to that for which the information has been used by management or the auditor;
- Whether the entity has in place controls to address the relevance and reliability of the information obtained and used;
- Whether the external information source accumulates overall market information or engages directly in "setting" market transactions;
- Whether the information is suitable for use in the manner in which it is being used and, if applicable, was developed taking into account the applicable financial reporting framework;
- Alternative information that may contradict the information used;
- The nature and extent of disclaimers or other restrictive language relating to the information obtained;
- Information about the methods used in preparing the information, how the methods are being applied including, where applicable, how models have been used in such application, and the controls over the methods; and
- When available, information relevant to considering the appropriateness of assumptions and other data applied by the external information sources in developing the information obtained.

A42. The nature and extent of the auditor's consideration takes into account the assessed risks of material misstatement at the assertion level to which the use of the external information is relevant, the degree to which the use of that information is relevant to the reasons for the assessed risks of material misstatement and the possibility that the information from the external information source may not be reliable (for example, whether it is from a credible source). Based on the auditor's consideration of the matters described in paragraph A33b, the auditor may determine that further understanding of the entity and its environment, including its internal control, is needed, in accordance with ISA 315, or that further audit procedures, in accordance with ISA 330[15b] , and ISA 540 (Revised)[15c] when applicable, are appropriate in the circumstances, to respond to the assessed risks of material misstatement related to the use of information from an external information source. Such procedures may include:

- Performing a comparison of information obtained from the external information source with information obtained from an alternative independent information source.
- When relevant to considering management's use of an external information source, obtaining an understanding of controls management has in place to consider the reliability of the information from external information sources, and potentially testing the operating effectiveness of such controls.
- Performing procedures to obtain information from the external information source to understand its processes, techniques, and assumptions, for the purposes of identifying, understanding and, when relevant, testing the operating effectiveness of its controls.

15b ISA 330, paragraph 6

15c ISA 540 (Revised), paragraph 30

A43. In some situations, there may be only one provider of certain information, for example, information from a central bank or government, such as an inflation rate, or a single recognized industry body. In such cases, the auditor's determination of the nature and extent of audit procedures that may be appropriate in the circumstances is influenced by the nature and credibility of the source of the information, the assessed risks of material misstatement to which that external information is relevant, and the degree to which the use of that information is relevant to the reasons for the assessed risk of material misstatement. For example, when the information is from a credible authoritative source, the extent of the auditor's further audit procedures may be less extensive, such as corroborating the information to the source's website or published information. In other cases, if a source is not assessed as credible, the auditor may determine that more extensive procedures are appropriate and, in the absence of any alternative independent information source against which to compare, may consider whether performing procedures to obtain information from the external information source, when practical, is appropriate in order to obtain sufficient appropriate audit evidence.

A44. When the auditor does not have a sufficient basis with which to consider the relevance and reliability of information from an external information source, the auditor may have a limitation on scope if sufficient appropriate audit evidence cannot be obtained through alternative procedures. Any imposed limitation on scope is evaluated in accordance with the requirements of ISA 705 (Revised).[15d]

15d ISA 705 (Revised), *Modifications to the Opinion in the Independent Auditor's Report* , paragraph 13

Reliability of Information Produced by a Management's Expert (Ref: Para. 8)

A45. The preparation of an entity's financial statements may require expertise in a field other than accounting or auditing, such as actuarial calculations, valuations, or engineering data. The entity may employ or engage experts in these fields to obtain the needed expertise to prepare the financial statements. Failure to do so when such expertise is necessary increases the risks of material misstatement.

A46. When information to be used as audit evidence has been prepared using the work of a management's expert, the requirement in paragraph 8 of this ISA applies. For example, an individual or organization may possess expertise in the application of models to estimate the fair value of securities for which there is no observable market. If the individual or organization applies that expertise in making an estimate which the entity uses in preparing its financial statements, the individual or organization is a management's expert and paragraph 8 applies. If, on the other hand, that individual or organization merely provides price data regarding private transactions not otherwise available to the entity which the entity uses in its own estimation methods, such information, if used as audit evidence, is subject to paragraph 7 of this ISA being information from an external information source and not the use of a management's expert by the entity.

A47. The nature, timing and extent of audit procedures in relation to the requirement in paragraph 8 of this ISA, may be affected by such matters as:

- The nature and complexity of the matter to which the management's expert relates.
- The risks of material misstatement in the matter.
- The availability of alternative sources of audit evidence.
- The nature, scope and objectives of the management's expert's work.

- Whether the management's expert is employed by the entity, or is a party engaged by it to provide relevant services.
- The extent to which management can exercise control or influence over the work of the management's expert.
- Whether the management's expert is subject to technical performance standards or other professional or industry requirements.
- The nature and extent of any controls within the entity over the management's expert's work.
- The auditor's knowledge and experience of the management's expert's field of expertise.
- The auditor's previous experience of the work of that expert.

The Competence, Capabilities, and Objectivity of a Management's Expert (Ref: Para. 8(a))

A48. Competence relates to the nature and level of expertise of the management's expert. Capability relates the ability of the management's expert to exercise that competence in the circumstances. Factors that influence capability may include, for example, geographic location, and the availability of time and resources. Objectivity relates to the possible effects that bias, conflict of interest or the influence of others may have on the professional or business judgment of the management's expert. The competence, capabilities and objectivity of a management's expert, and any controls within the entity over that expert's work, are important factors in relation to the reliability of any information produced by a management's expert.

A49. Information regarding the competence, capabilities and objectivity of a management's expert may come from a variety of sources, such as:

- Personal experience with previous work of that expert.
- Discussions with that expert.
- Discussions with others who are familiar with that expert's work.
- Knowledge of that expert's qualifications, membership of a professional body or industry association, license to practice, or other forms of external recognition.
- Published papers or books written by that expert.
- An auditor's expert, if any, who assists the auditor in obtaining sufficient appropriate audit evidence with respect to information produced by the management's expert.

A50. Matters relevant to evaluating the competence, capabilities and objectivity of a management's expert include whether that expert's work is subject to technical performance standards or other professional or industry requirements, for example, ethical standards and other membership requirements of a professional body or industry association, accreditation standards of a licensing body, or requirements imposed by law or regulation.

A51. Other matters that may be relevant include:

- The relevance of the management's expert's competence to the matter for which that expert's work will be used, including any areas of specialty within that expert's field. For example, a particular actuary may specialize in property and casualty insurance, but have limited expertise regarding pension calculations.
- The management's expert's competence with respect to relevant accounting requirements, for example, knowledge of assumptions and methods, including models where applicable, that are consistent with the applicable financial reporting framework.

- Whether unexpected events, changes in conditions, or the audit evidence obtained from the results of audit procedures indicate that it may be necessary to reconsider the initial evaluation of the competence, capabilities and objectivity of the management's expert as the audit progresses.

A52. A broad range of circumstances may threaten objectivity, for example, self-interest threats, advocacy threats, familiarity threats, self-review threats and intimidation threats. Safeguards may reduce such threats, and may be created either by external structures (for example, the management's expert's profession, legislation or regulation), or by the management's expert's work environment (for example, quality control policies and procedures).

A53. Although safeguards cannot eliminate all threats to a management's expert's objectivity, threats such as intimidation threats may be of less significance to an expert engaged by the entity than to an expert employed by the entity, and the effectiveness of safeguards such as quality control policies and procedures may be greater. Because the threat to objectivity created by being an employee of the entity will always be present, an expert employed by the entity cannot ordinarily be regarded as being more likely to be objective than other employees of the entity.

A54. When evaluating the objectivity of an expert engaged by the entity, it may be relevant to discuss with management and that expert any interests and relationships that may create threats to the expert's objectivity, and any applicable safeguards, including any professional requirements that apply to the expert; and to evaluate whether the safeguards are adequate. Interests and relationships creating threats may include:

- Financial interests.
- Business and personal relationships.
- Provision of other services.

Obtaining an Understanding of the Work of the Management's Expert (Ref: Para. 8(b))

A55. An understanding of the work of the management's expert includes an understanding of the relevant field of expertise. An understanding of the relevant field of expertise may be obtained in conjunction with the auditor's determination of whether the auditor has the expertise to evaluate the work of the management's expert, or whether the auditor needs an auditor's expert for this purpose.[15]

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15 ISA 620, paragraph 7

A56. Aspects of the management's expert's field relevant to the auditor's understanding may include:

- Whether that expert's field has areas of specialty within it that are relevant to the audit.
- Whether any professional or other standards, and regulatory or legal requirements apply.
- What assumptions and methods are used by the management's expert, and whether they are generally accepted within that expert's field and appropriate for financial reporting purposes.
- The nature of internal and external data or information the management's expert uses.

A57. In the case of a management's expert engaged by the entity, there will ordinarily be an engagement letter or other written form of agreement between the entity and that expert. Evaluating that agreement when obtaining an understanding of the work of the management's expert may assist the auditor in determining the appropriateness of the following for the auditor's purposes:

- The nature, scope and objectives of that expert's work;
- The respective roles and responsibilities of management and that expert; and

- The nature, timing and extent of communication between management and that expert, including the form of any report to be provided by that expert.

A58. In the case of a management's expert employed by the entity, it is less likely there will be a written agreement of this kind. Inquiry of the expert and other members of management may be the most appropriate way for the auditor to obtain the necessary understanding.

Evaluating the Appropriateness of the Management's Expert's Work (Ref: Para. 8(c))

A59. Considerations when evaluating the appropriateness of the management's expert's work as audit evidence for the relevant assertion may include:

- The relevance and reasonableness of that expert's findings or conclusions, their consistency with other audit evidence, and whether they have been appropriately reflected in the financial statements;
- If that expert's work involves use of significant assumptions and methods, the relevance and reasonableness of those assumptions and methods;
- If that expert's work involves significant use of source data, the relevance, completeness, and accuracy of that source data; and
- If that expert's work involves the use of information from an external information source, the relevance and reliability of that information.

Information Produced by the Entity and Used for the Auditor's Purposes (Ref: Para. 9(a)-(b))

A60. In order for the auditor to obtain reliable audit evidence, information produced by the entity that is used for performing audit procedures needs to be sufficiently complete and accurate. For example, the effectiveness of auditing revenue by applying standard prices to records of sales volume is affected by the accuracy of the price information and the completeness and accuracy of the sales volume data. Similarly, if the auditor intends to test a population (for example, payments) for a certain characteristic (for example, authorization), the results of the test will be less reliable if the population from which items are selected for testing is not complete.

A61. Obtaining audit evidence about the accuracy and completeness of such information may be performed concurrently with the actual audit procedure applied to the information when obtaining such audit evidence is an integral part of the audit procedure itself. In other situations, the auditor may have obtained audit evidence of the accuracy and completeness of such information by testing controls over the preparation and maintenance of the information. In some situations, however, the auditor may determine that additional audit procedures are needed.

A62. In some cases, the auditor may intend to use information produced by the entity for other audit purposes. For example, the auditor may intend to make use of the entity's performance measures for the purpose of analytical procedures, or to make use of the entity's information produced for monitoring activities, such as reports of the internal audit function. In such cases, the appropriateness of the audit evidence obtained is affected by whether the information is sufficiently precise or detailed for the auditor's purposes. For example, performance measures used by management may not be precise enough to detect material misstatements.

How do we comply with the Standards? [ISA | KAEGHDWC]

1 Evaluate the relevance and reliability of information used as audit evidence [ISA | 2689]

What do we do?

Evaluate the relevance and reliability ('appropriateness') of the information used as audit evidence.

Why do we do this?

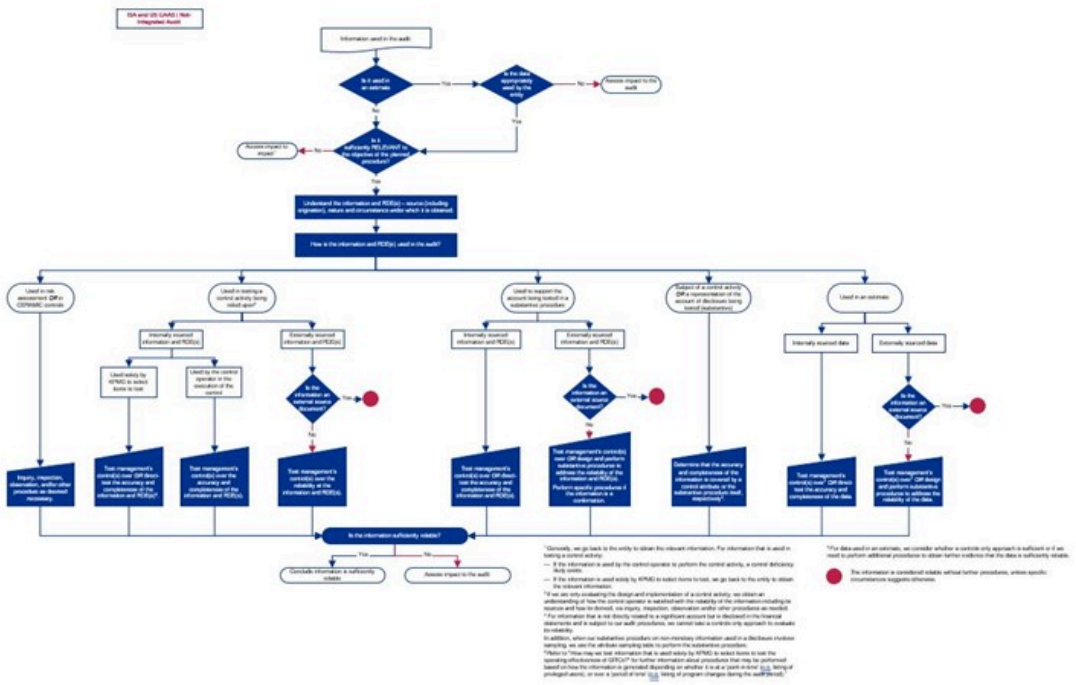
Information is used as audit evidence when it is sufficiently relevant and reliable. Otherwise, it may not support the conclusions upon which our auditor's opinion is based.

Execute the Audit

How do we evaluate the relevance and reliability of the information used in our audit? [ISA | 2689.1500]

Once we identify information that we expect to obtain and use in our audit, we evaluate the relevance and reliability of that information by performing the following:

- Evaluate whether the information is sufficiently relevant, including the identification of relevant data element(s) (RDE); then
- Evaluate whether the information (and RDEs) is sufficiently reliable by performing the following steps:
  - Understand the source and nature of the information and the circumstances under which it is obtained;
  - Consider how the information is being used in our audit;
  - Determine the appropriate audit procedures to evaluate the reliability of the information based on the previous steps; and
  - If inconsistencies or doubts over the reliability of the information are identified, modify or perform additional audit procedures and evaluate the effect on our audit.



Download Flowchart https://alex.kpmg.com/AROWeb/document/lfc/ALL_2689_003_2024_V1

When do we evaluate the relevance and reliability of information? [ISA | 2689.1600]

We evaluate the relevance and reliability of information when we use that information as audit evidence. This evaluation can occur throughout the different phases of our audit.

1.1 Evaluate the relevance of information [ISA | 2690]

What do we do?

Evaluate whether the information used in our audit is sufficiently relevant.

Why do we do this?

For information used in our audit, we evaluate whether the information is sufficiently relevant to the purpose of the procedure. If the information is not sufficiently relevant to the purpose for which it is used, it will not provide the quality of evidence we are trying to obtain.

Execute the Audit

What do we mean by 'relevance'? [ISA | 2690.1300]

Relevance deals with the logical connection, or relationship, between the information and the objective of the procedure being performed. We think about how the information relates to our risk assessment procedure, RMM addressed by our substantive procedure, or to the objective of the control we are testing.

Information from one source may be relevant when performing one or more audit procedures.

For example, sales information provided by management may be used for procedures over both the entity's warranty provision and evaluation of management's cash flows forecast related to the entity's warranty provision.

Relevance is often very simple to assess because it is obvious. For example, relevance is often simple to assess because management is providing us with information that we have requested for our audit procedure (e.g. listing of related party transactions) and/or the information is otherwise very common audit evidence that is obtained when performing our audit procedures (e.g. invoices, bank statements).

However, assessing the relevance of information is not always easy or obvious (as the example below illustrates).

For example, the engagement team is evaluating whether the entity's discount rate is reasonable. The engagement team obtains the discount rate from 10 publicly traded companies and assesses which of the 10 are relevant to the objective of their procedure. When evaluating the relevance of the discount rates, the engagement team might consider the size, capital structure, industry etc. of each of the companies compared to the entity being audited.

What do we mean by 'sufficiently relevant'? [ISA | 2690.1400]

Information is sufficiently relevant when it has a logical connection, or relationship, with the objective of the planned procedure and is precise and detailed enough to meet the objective of the planned procedure.

For example, the engagement team decides to perform a predictive substantive analytical procedure (SAP) to test the existence and accuracy of the entity's payroll expense. When designing the SAP, the engagement team disaggregates the entity's payroll by country and plans to use the 'average wage growth for the entity' to develop an expectation.

When evaluating whether the 'average wage growth for the entity' is sufficiently relevant to the substantive analytical procedure, the engagement team considers that the information:

- has a logical connection, or relationship, with the objective of the procedure - i.e. average wage growth is an appropriate factor to consider when developing an expectation for payroll expense; but
- is not sufficiently precise and detailed to meet the objective of the substantive analytical procedure due to the potential variability of the entity's wage growth on a geographical basis.

The engagement team concludes that the 'average wage growth for the entity' is not sufficiently relevant and instead, uses an average wage growth for each country to develop the expectations for the SAP.

For another example, information about entity sales received via an electronic data interface file from an external source (e.g. orders of pharmaceuticals from wholesalers) might not be relevant for testing the existence or accuracy of revenue if the information lacks specific transaction data

- without which it would not be possible to determine that performance obligations have been satisfied (e.g. contract terms, product codes, location data).

What if the information used in controls is not sufficiently relevant? [ISA | 2690.11522]

If we are testing controls and determine that the information that is the subject of the control or used by the control operator to perform the control is not sufficiently relevant, this means that the control is not effectively designed to achieve its objective (i.e. there is a control deficiency).

What factors affect the relevance of information used in our audit? [ISA | 2690.1500]

Specific to our control and substantive audit procedures, the relevance of the information used in these audit procedures depends on:

- the account balances or disclosures or assertions to which the information relates and the design of the audit procedure used to test the assertion or control linked to the related RMM;
- the aggregation of the information;
- the period of time to which the information relates, and age; and
- the timing of the audit procedure used to test the assertion or control linked to the related RMM.

How can the account balances or disclosures or assertions and the design of the audit procedures affect the relevance of the information? [ISA | 2690.11523]

The information to be used as audit evidence may be relevant to multiple account balances or disclosures or assertions. In addition, design of our audit procedures may have direct relevance to one relevant assertion but may not be relevant to all assertions.

The relevance of information is affected by whether the test of control or substantive audit procedure is designed to:

- test the assertion or control directly; or
- test for understatement or overstatement (i.e. direction of testing).

Example of testing the assertion or control directly

The inspection of documents related to the collection of receivables after the period end may provide indirect audit evidence regarding the existence of accounts receivable, but does not by itself address existence specifically at year-end (i.e. cut-off). For that, we may confirm accounts receivable with the customer or obtain the sales agreement and shipping documents to provide direct audit evidence that the balance was outstanding at year-end.

Examples of testing for understatement or overstatement

If the purpose of an audit procedure is to test for overstatement in the accounts payable account, inspecting documents related to items recorded in accounts payable may be a relevant audit procedure. On the other hand, when testing for understatement (i.e. unrecorded transactions), focusing on those transactions recorded in accounts payable would not be relevant. For that test, inspecting documents related to subsequent disbursements, unpaid invoices, suppliers' statements, and unmatched receiving reports may be relevant.

How can the aggregation of the information affect the relevance of the information? [ISA | 2690.8636]

In some cases, the relevance of information may increase if the information is disaggregated (i.e. more precise).

For example, when testing the valuation assertion of residential loans that are measured based on the fair value of the collateral, disaggregated sales data for residential properties by geographic location would likely provide more relevant audit evidence than combined sales data for both commercial and residential properties by geographic location. The sales data could be even more relevant if further disaggregated by residential property type.

Further, a certain type of information used as audit evidence in a prior audit may become less relevant in subsequent audits due to changes in the information or the account to which the evidence relates (e.g. the composition of data or the account).

How can the period of time to which the information relates, and age affect the relevance of the information? [ISA | 2690.8619]

Information to be used as audit evidence may relate to different periods of time (e.g. when evaluating the historical accuracy of estimates). Also, information related to one period may not be relevant as audit evidence for transactions recorded in a different period (e.g. interest rates table for 20x0 is not relevant when calculating the interest expense in 20x1).

For example, the entity provides a full refund for products returned within 6 months of purchase. We may use product returns over the past 6 months and sales for the past 6 months to evaluate the reasonableness of the accrual for sales returns.

Alternatively, this entity may also use a different period of time to estimate the accrual for sales returns (e.g. the average of sales returns for the last 3 years), however, this time period may not be relevant when considering recent circumstances, conditions, or events.

The age of the information is also important in considering the information's relevance.

For example, in performing substantive analytical procedures over a utility company's revenue, the relevance of census data to our expectations of revenue and to achieving the desired objective of the procedure could vary depending on whether there have been significant expansions or contractions in the related population since the data was collected.

How can the timing of the audit procedure affect the relevance of the information? [ISA | 2690.11524]

Engagement teams may perform audit procedures in multiple periods during the audit (e.g., interim and year-end). Information obtained in one period may not be relevant for similar audit procedures performed in a different period.

For example, inquiries of legal counsel and inspection of documents related to an outstanding legal matter in an interim period may provide audit evidence regarding the accuracy of the accrual and/or presentation of the matter at that time; however, that information may not be relevant at year-end as the status of the legal matter may have changed between the two periods.

In addition, the timing of the audit procedure itself (e.g., search for unrecorded liability at year-end) may impact the relevance of information.

For example, a listing of subsequent disbursements obtained 30 days after year-end is relevant to performing a search for unrecorded liabilities. However, if the entity's typical payment terms with its vendors is 60 - 90 days, the information may not be sufficiently relevant because liabilities which should have been recognized at year-end will likely be paid beyond 30 days after year-end (i.e., will not be included on the listing of subsequent disbursements).

What factors may affect the relevance and reliability of information obtained from an external information source? [ISA | 2690.8620]

We may think about the factors below when evaluating the relevance and reliability of information obtained from an external information source, taking into account that some of these factors may only be relevant when the information has been used by management in preparing the financial statements or has been obtained by us:

- The nature and authority of the external information source

  For example, a central bank or government statistics office with a legislative mandate to provide industry information to the public may be considered a reliable external information source for certain types of information.

- The ability of management to influence the information obtained, through relationships between the entity and the external information source
- The competence and reputation of the external information source with respect to the information, including whether, in our professional judgment, the information is routinely provided by an external information source with a track record of providing reliable information
- Our past experience with the reliability of the information provided by the external information source
- Evidence of general market acceptance by users of the relevance or reliability of information from an external information source for a similar purpose to that for which the information has been used by management or us
- Whether the entity has in place controls to address the relevance and reliability of the information obtained and used
- Whether the external information source accumulates overall market information or engages directly in 'setting' market transactions
- Whether the information is suitable for use in the manner in which it is being used and, if applicable, was developed taking into account the applicable financial reporting framework
- Alternative information that may contradict the information used
- The nature and extent of disclaimers or other restrictive language relating to the information obtained
- Information about the methods used in preparing the information; how the methods are being applied including, where applicable, how models have been used in such application; and the controls over the methods
- When available, information relevant to considering the appropriateness of assumptions and other data applied by the external information sources in developing the information obtained.

What is an external information source? [ISA | 2690.8562]

An external information source is an external individual or organization that provides information that is used by the entity in preparing the financial statements or that has been obtained by us as audit evidence, when such information is suitable for use by a broad range of users.

When information has been provided by an individual or organization acting in the capacity of management's specialist, service organization, or KPMG specialist, the individual or organization is not considered an external information source with respect to that particular information.

How do we evaluate the relevance of information used in our audit? [ISA | 2690.1600]

We evaluate whether the information, including each 'relevant data element' (RDE), is sufficiently relevant for the objective of the procedure.

As part of this evaluation, we consider the relationship of the information and RDEs to the objective of the procedure, the design and timing of the procedure and, where applicable, each RMM and significant account / relevant assertion that is being addressed.

For information obtained from the external information source, obtaining an understanding of why management or, when applicable, a management's specialist uses an external information source, may help our consideration of relevance of that information.

Sometimes, the relevance of the information used in our audit is clear from the description of the procedure and the RMM(s) and significant account(s) / relevant assertion(s) that are being addressed.

> For example, a year-end price of an actively traded equity security obtained from a stock exchange and used to compare to the entity's recorded price would ordinarily provide relevant audit evidence for testing the valuation assertion of financial asset holdings because the exchange price would represent the fair value of the instrument.

In other situations, however, the relevance of external information may be less apparent. If the relevance of the information would not be clear to an experienced auditor, we specifically document the relevance of the information in these circumstances.

> For example, if it is not clear from the description of the procedure, an engagement team documents why information on the disposal of a Level 3 investment on 28-Feb (subsequent to year-end) is used as audit evidence over the fair value of that investment recorded in the financial statements as of 31-Dec.

Also, the audit effort needed to evaluate the relevance of external information will vary.

> For example, when estimating current expected credit losses, some banks may use historical loss information from other financial institutions (e.g. when the bank does not have a long history with a lending product). Our evaluation of the relevance of the external information could be informed by, for example, whether the loan products of the bank and other financial institutions are similar, the bank's loans and the other institutions' loans were originated with similar underwriting standards, the other financial institutions are similar to the bank in customer base, the borrowers have a similar geographic location, and the economic conditions impacting such historical loss

information are similar to the bank's assumptions regarding current and forecasted economic conditions.

May we use information from external sources that have become available because of advances in information technology as audit evidence? [ISA | 2690.8637]

It depends. We may need to perform additional procedures (e.g. correlation or regression analyses) to determine the nature and strength of any relationship between this information and the entity's transactions, and to substantiate our conclusions.

For example, an entity could use customer reviews of its products from a social media website to monitor customer satisfaction and identify any emerging quality issues. This information may be relevant to our risk assessment procedures. For example, it could inform our understanding of how the entity collects information about potential quality problems and identifies a need for changes to warranty reserves. However, to determine whether social media reviews provide relevant evidence to support, for example, conclusions from substantive analytical procedures performed for a warranty reserve, we further understand how closely the negative customer reviews are correlated with product returns or warranty claims, taking into consideration the entity's business, the industry, and the nature of the entity's products.

For another example, some research suggests that weather data may be used to predict retail customer behavior and sales trends. However, before using the weather data in developing certain expectations - e.g. for substantive analytical procedures related to product revenue - we understand the relationship between weather data and entity activities to determine the relevance of the data to the audit objective. This may involve, among other things, comparing historical weather trends and historical trends in the entity's revenue.

What if the information obtained from management is used for different purposes? [ISA | 2690.8621]

In some cases, we may use information obtained from management for other audit purposes. For example, we may use the performance measures included in the entity's internal audit function reports, initially obtained for the purpose of evaluating monitoring activities, in a substantive analytical procedure.

In such cases, we evaluate whether the information is sufficiently precise or detailed for our purposes for each procedure where we intend to use it as audit evidence.

What if the information is used in management's estimate? [ISA | 2690.11525]

We perform the activity 'Evaluate the data used in the entity's estimation process.'

What are 'relevant data elements' (RDEs)'? [ISA | 2690.1700]

A data element is a unit or type of data included within a piece of information. Data elements include both financial and non-financial data used in a calculation, selection or other manipulation of the information (e.g. to sort, filter or group data).

Data elements become relevant data elements when they are used in our procedures.

If the information used in our audit has more than one data element, we identify the data element(s) that are relevant to our procedures and evaluate whether those RDEs are sufficiently relevant.

For example, the engagement team obtains the accounts receivable aging report as part of their audit procedures to test the RMMs related to valuation of the accounts receivable reserve at year-end. The aging report has multiple data elements for each outstanding invoice, including: i) customer name and account number, ii) invoice number, iii) invoice date, iv) invoice value, v) payment terms, and vi) the aging category it falls in (e.g. 30-60 days). The engagement team determined that the data elements that are relevant to their audit procedures were: iii) invoice date, iv) invoice value, v) payment terms, and vi) aging buckets.

What if we determine that the information we plan to use as audit evidence will not be sufficiently relevant? [ISA | 2690.8638]

We may conclude that the information we plan to use as audit evidence will not be sufficiently relevant by itself to achieve the objective of the procedure and/or sufficiently address the identified RMM, where applicable.

In these circumstances, we obtain more persuasive audit evidence by either obtaining information that is more relevant and reliable (e.g. obtain external vs. internal information) or obtaining additional evidence (i.e. corroborating information).

1.2 Evaluate the reliability of information [ISA | 2691]

What do we do?

IF the information is determined to be sufficiently relevant, THEN evaluate whether the information used in our audit is sufficiently reliable.

Why do we do this?

For information used in our audit, we evaluate whether the information is sufficiently reliable as this information supports the conclusions upon which our auditor's opinion is based. If the information is not sufficiently reliable, it will not provide the quality of evidence we are trying to obtain.

Execute the Audit

What do we mean by 'reliable'? [ISA | 2691.14355]

Reliable means that the information used in our audit is trustworthy - i.e., the information is authentic, comes from a reputable / knowledgeable source or is accurate and complete for purposes of our procedures.

What do we mean by 'sufficiently reliable'? [ISA | 2691.1400]

There are different degrees of reliability that are influenced by the source and nature of the information and the circumstances under which it was obtained.

For example, information is generally less reliable when it:

- is generated by the entity (internal) vs. by an external information source (source); or

- is electronic data vs. hard-copy documents (nature).

Further, the degree of reliability of the information necessary in our audit varies based on the type of procedure being performed and the level of risk that is being addressed.

For example, we may obtain more reliable information when that information:

- is being utilized in a substantive audit procedure vs. a risk assessment procedure (type of procedure); or
- is relied on by a control with a RAWTC of elevated vs. base (level of risk).

What attributes affect the reliability of information to be used as audit evidence? [ISA | 2691.8622]

The following attributes (individually or in combination) affect the reliability of information to be used as audit evidence:

- Accuracy and completeness (see activity 'Determine the appropriate audit procedures to evaluate the reliability of the information' for further information)
- Authenticity (see activity 'If there are inconsistencies or doubts, modify or perform additional audit procedures and evaluate the effect on our audit' for more information)
- Susceptibility to management bias.

These attributes are also relevant when CAATs are used to obtain audit evidence.

What does 'validity' mean in the context of information and how does it relate to our risk assessment and our evaluation of the accuracy and completeness of information? [ISA | 2691.8517]

Validity means that recorded transactions represent economic events that actually occurred or were executed according to prescribed procedures. Validity is generally achieved through process control activities that include the authorization of transactions as specified by an entity's established policies and procedures (that is, approval by a person having the authority to do so.)

We obtain an understanding of how transactions are authorized when we obtain our understanding of the flow of transactions within a business process, including the flow of information. This includes understanding how transactions are initiated, authorized, processed, and recorded in systems, until reflected in the entity's financial records. Our understanding provides a basis for us to identify and assess RMMs.

Accuracy, completeness, and validity represent risks that exist within an entity's information system that we take into consideration when identifying process risk points (PRPs) and/or risks arising from IT (RAFITs) and the control activities which address the PRPs/RAFITs (see question 'Which control activities do we understand and are relevant to the audit?' for further information).

How does susceptibility to management bias affect the reliability of information to be used as audit evidence? [ISA | 2691.8623]

A susceptibility to management bias may exist in the development of information itself or may exist due to interpretation of the information by the entity.

Information with a higher susceptibility to management bias is considered less reliable than information for which the susceptibility to management bias is lower unless we have performed audit procedures to address the higher susceptibility to management bias.

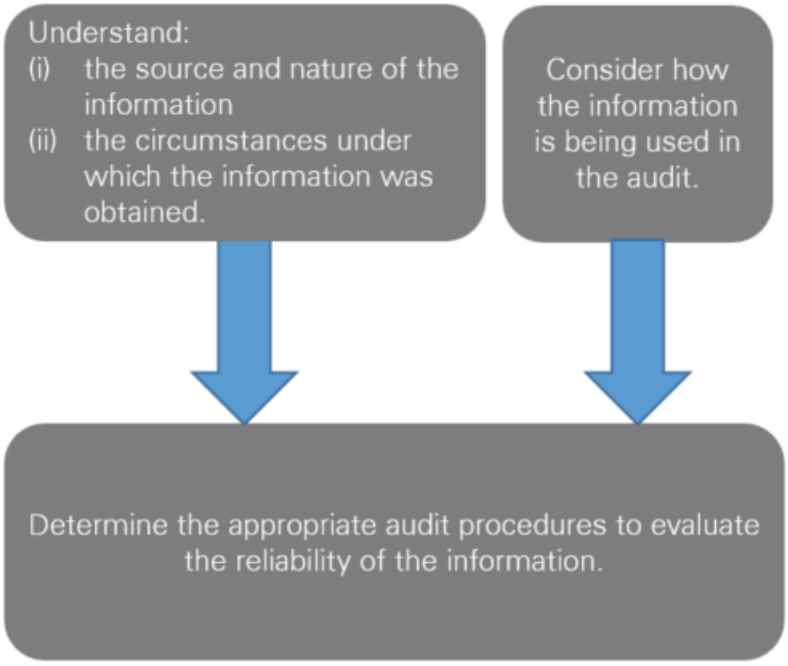
Do we consider the impact of management bias in evaluating the reliability of information from external information sources to be used as audit evidence? [ISA | 2691.8624]

Yes. Although a greater susceptibility to management bias may exist when information is generated from internal sources, we also determine the impact of management bias in evaluating the reliability of information from external information sources to be used as audit evidence. See question 'What do we consider when determining the impact of management bias on the reliability of external information?' for further information.

How do we evaluate the reliability of the information used in our audit? [ISA | 2691.1600]

If the information is sufficiently relevant, then we evaluate whether the information is sufficiently reliable by performing the following steps:

- understand the source and nature of the information and the circumstances under which it is obtained;
- consider how the information is being used in our audit;
- determine the appropriate audit procedures to evaluate the reliability of the information based on the previous steps; and
- if inconsistencies or doubts over the reliability of the information are identified, then consider the effect on the audit.



What if the information used in our audit has more than one relevant data element? [ISA | 2691.11535]

We separately evaluate the reliability of each data element that is relevant (RDE) to our procedure following the steps outlined above. However, we can design one audit procedure (or set of audit procedures) to evaluate the reliability of multiple RDEs.

1.2.1 Understand the source and nature of the information and the circumstances under which it is obtained [ISA | 2692]

What do we do?

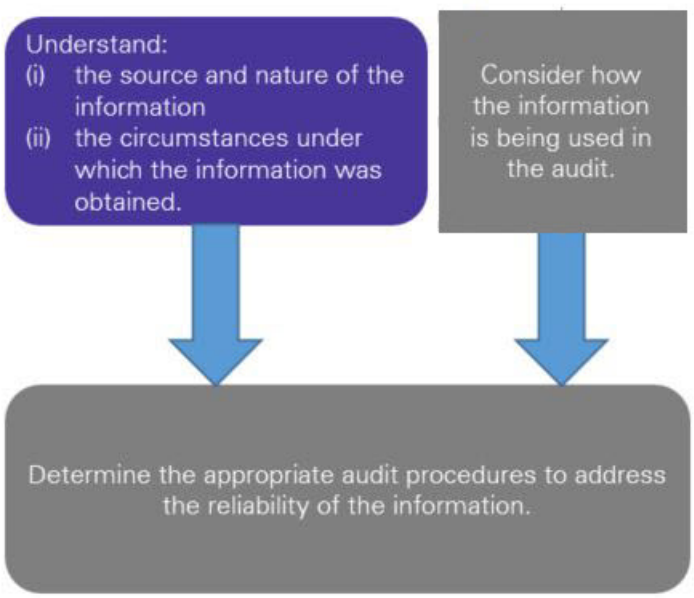
Understand the source and nature of the information to be used as audit evidence and the circumstances under which it is obtained.

Why do we do this?

The reliability of information used in our audit depends on the nature and source of the information and the circumstances under which it is obtained. We understand these factors so that we can determine the appropriate audit procedures to evaluate whether the information is sufficiently reliable for our purposes.

Execute the Audit

Where are we in our evaluation of the reliability of the information used in our audit? [ISA | 2692.1300]



What are the different 'sources' of information? [ISA | 2692.1400]

The source of information can be either 'internal' or 'external'. Generally, internal information originates from the entity; whereas external information originates from a source outside of the entity - (i.e. an external information source). The standards refer to internal sources of information as 'information produced by the entity.'

Examples of types of internal and external information are included in the table below:

Internal	External

Trial balance/subledger Listing of transactions Analysis of sub-ledgers or balances (e.g. spreadsheets, cost allocations, computations, reconciliations) Roll forward schedules Budgets/forecasts Minutes of meetings Internal audit reports Internal marketing information (e.g. information developed by the entity's sales function as an assumption in making an accounting estimate for a warranty provision) Reports from management's specialists (e.g. actuarial report on pension liability), including the information provided by the entity and used by management's specialists, where applicable (e.g. pension census data) Information provided by a service organization	Confirmations from third parties (see activity '[Consider the nature and type of information the respondent will be able to confirm]' for further information) Purchase orders from customers Invoices from vendors Statements of transaction history (e.g. bank statement) Executed agreements with third parties - e.g. sales contracts, lease agreements Information from external information sources, for example: • analyst reports • FX rates • prices and pricing related data • macro-economic data such as historical and forecasted unemployment rates or economic growth rates, or census data • credit history data • industry-specific data, such as an index of reclamation costs for certain extractive industries or viewership information or ratings used to determine advertising revenue in the entertainment industry • mortality tables used to determine liabilities in the life insurance and pension sectors • documents or records on websites or in databases or distributed ledgers (e.g. a blockchain).

What is an external information source? [ISA | 2692.8562]

An external information source is an external individual or organization that provides information that is used by the entity in preparing the financial statements or that has been obtained by us as audit evidence, when such information is suitable for use by a broad range of users.

When information has been provided by an individual or organization acting in the capacity of management's specialist, service organization, or KPMG specialist, the individual or organization is not considered an external information source with respect to that particular information.

Is information from external information sources always considered external information? [ISA | 2692.11536]

No. Information from external information sources is generally an external source when it is (i) suitable for a broad range of users and (ii) made available to the public for free or for a fee (e.g. subscription).

When the information has been specifically tailored for the entity, the external individual or organization is acting as a management's specialist (or service organization or KPMG specialist) and the information is not considered an external information source. Professional judgment may be needed to determine whether an external individual or organization is acting as an external information source or as a management's specialist (or service organization or KPMG specialist) with respect to a particular set of information.

For example, if an actuarial organization publishes mortality tables to the public for general use and this information is used by the entity, the published mortality table is considered to be 'information from an external information source' (external). If the same actuarial organization is engaged by management to develop mortality tables that are tailored to the specific circumstances of the entity to help management determine the pension liability for the entity's pension plans, the actuarial organization is acting as a management's specialist and the information is considered an internal source.

What do we do over the source data used by management's specialist when evaluating their work?

[ISA | 2692.11537]

The work performed by management's specialist may involve the use of source data. This source data can be internal (e.g. originates from the entity) or external (e.g. originates from a source outside of the entity - i.e. external information source).

When the information provided by management's specialist relates to an RMM for an estimate, we perform the activity 'Assess CAR for the selection of individual methods, assumptions, and data'.

How we evaluate the reliability of the source data used by the management's specialist may vary.

Circumstance	Approach	Example
The source data was produced by the entity and provided to the management's specialist.	In this circumstance, the source data is considered internal information and we evaluate its reliability by testing the accuracy and completeness of the internal source data.	Pension census data provided by the entity and used by management's specialist in their actuarial report on pension liability.
The source data was obtained by the management's specialist from an external information source that is generally (i) suitable for a broad range of users and (ii) made available to the	In this circumstance, the source data is considered external information and we perform procedures to evaluate the reliability of the external source data.	Mortality table that is not tailored for the entity that is used by management's specialist in their actuarial report on pension liability.

public for free or for a fee (e.g. subscription).		
The source data was generated by the management's specialist specifically for the entity's purposes.	As this information was prepared by the management's specialist specifically for the entity's purposes, we perform procedures to evaluate the reliability of the data, which may be similar to what is done for internal information (i.e. test the accuracy and completeness of the source data).	Mortality table that is specifically tailored for the entity by the management's specialist in their actuarial report on pension liability.

When the information provided by management's specialist relates to an RMM that is not related to an estimate, then each piece of source data is a relevant data element and we evaluate the relevance and reliability of each RDE. The same considerations noted in the table above also apply when determining the approach to evaluate the reliability of the source data.

What do we do over the information used by KPMG specialist when evaluating their work? [ISA | 2692.8629]

When information has been provided by a KPMG specialist, the KPMG specialist is not considered an external information source with respect to that particular information. As a result, we evaluate the relevance and reliability of that information in accordance with activity 'Evaluate the relevance and reliability of information used as audit evidence' based on the source of the underlying information used and provide by the KPMG specialist. We also perform activity 'Evaluate the work of the employed KPMG specialist' or 'Evaluate the work of the engaged KPMG specialist', as applicable.

What do we think about when the source of information is a combination of management and external parties? [ISA | 2692.8630]

In certain circumstances, the information may be a combination of management and external parties.

> For example, if an entity develops a distributed ledger to capture its transactions, there may be few or many other external parties participating in the transactions and contributing to the information included in the distributed ledger (e.g. a blockchain). Therefore, the source of the information included in the distributed ledger is not solely management, but also external parties.

We use our professional judgment to evaluate the relevance and reliability of the information obtained from the distributed ledger to be used as audit evidence.

What is the 'nature' of information? [ISA | 2692.1500]

The nature of information refers to its form.

Examples include:

Nature of information	Example
Oral information	Information obtained through a verbal response to an inquiry of management or external information sources - e.g. oral inquiries made during the course of the audit. However, inquiry alone does not provide sufficient evidence (see activity 'Perform audit procedures to obtain audit evidence' for further information.
Visual information	Information obtained through observation - e.g. a message that appears on-screen for a control restricting access to an IT system or observed by us using remote observation tools.
Hard-copy documents	Information obtained in documentary form - e.g. original executed sales contract or a written confirmation.
Electronic documents	Information that has been filmed, digitized or otherwise transformed into an electronic documentary form - e.g. a scanned PDF of an executed sales contract or an electronic confirmation.
Electronic data	Data held in the entity's IT systems or obtained electronically from an external information source. Electronic data may originate from a hard copy source (e.g. data manually input into the system) or may be electronically generated (e.g. electronic data interface (EDI) between the entity and a service organization).

What do we mean by the 'circumstances under which information is obtained'? [ISA | 2692.1600]

The circumstances under which information is obtained means how the information has been obtained. The information used in our audit is either (i) provided by the entity / management, or (ii) obtained by us directly from a source other than the entity / management.

Examples of similar information that is obtained under different circumstances are included in the table below:

Provided by Entity / Management	Obtained Directly from Source

Bank statement provided by the treasury department that provides evidence on the cash balance as at period-end.	Confirmation returned by the financial institution that provides evidence on the cash balance as at period-end.
Executed sales contract provided by the sales department that provides evidence on the revenue transaction recognized in the financial statements.	Confirmation received directly from the customer on the key terms and provisions of the sales contract that provides evidence on the revenue transaction recognized in the financial statements.
Screen-shots of investment quotes / prices from a subscription to an information provider (e.g. Bloomberg) provided by the pension department that provides evidence of the fair-value of pension assets at period-end.	Directly downloading or directly observing management download and provide the investment quotes / prices from their subscription to an information provider that provides evidence of the fair-value of pension assets at period-end.

How do these factors influence the reliability of the information used in our audit? [ISA | 2692.1700]

There are different degrees of reliability, which are influenced by the source and nature of the information and the circumstances under which it was obtained. Relevant information obtained from a less reliable source may need to be supplemented by additional other information to provide support for our conclusions.

The table below includes generalizations regarding the degree of reliability attributed to these factors:

Factor	More Reliable	Less Reliable
Source	Internal information where the entity's controls over the information are effective.	Internal information where the entity's controls over the information are ineffective or non-existent.
Source	Information that originates from an external information source because it is less susceptible to management bias.	Information that originates from the entity/management (internal).
Source	Information obtained from a reputable external information source with	Information obtained from a less known external information source or a

	proven expertise in the subject matter.	source with little or no relevant expertise.
Source	Information obtained from an external source that is subject to regulatory oversight (e.g. stock exchanges) or a statutory mandate (e.g. governmental organizations that routinely provide industry statistics, census data, and interest rates) which typically undergoes rigorous verification processes.	Information obtained from an external source with little or no oversight or statutory authority (e.g. aggregator of social media data).
Nature	Information in documentary form, whether paper, electronic, or other medium.	Information obtained orally. For example, a written record of a meeting may be more reliable than a subsequent oral representation of the matters discussed.
Nature	Information provided by the entity in original documentary form.	Information provided by the entity via photocopy or in electronic form.
Nature	Information originated and provided by an external information source in original documentary form (e.g. property sales, trade data for a financial instrument).	Information provided by an external information source that has been aggregated or adjusted by the external source. For example, some external sources aggregate data originated by other parties. Processing errors during the aggregation may reduce the reliability of the output. Further, other external sources may adjust original data using complex methods with multiple assumptions.

		Adjusted information may be more susceptible to processing error and bias than the original data, which may reduce its reliability - especially if the nature of the adjustment or the methods used is unclear.
Nature	Information provided by an external information source subject to review or verification by the external information source or another external party. For example, some information may be subject to review or verification by the external information source or another external party, demonstrated by a description of the verification process or an external assurance over the process.	Information provided by an external information source that has not been reviewed or verified.
Circumstances under which it is obtained	Information obtained directly by us from an independent source outside the entity. For example, certain external information that is widely available (e.g. the risk-free rate).	Information provided by the entity/management. For example, external information whose distribution is more limited may need to be obtained indirectly, for example, by extracting it from the information system of the entity being audited (e.g. insurance claims data submitted to an insurer by a third-party healthcare provider). In this scenario, the effectiveness of the entity's controls over the external information may

		also affect the reliability of the information.
Circumstances under which it is obtained	Information is obtained by us or the entity but does not require a complex process.	We or the entity may need to perform a number of steps to extract and use data from an external source. The more complex the process, the greater the likelihood that a processing error may occur, reducing the reliability of the information.

The examples in the table above are generalizations as other factors may impact the reliability of the information. When considering the sources of information, we also think about the possibility that the information source may not be reliable (even if an external source). For example, even though information from an external source is generally more reliable, the reliability of the external information is affected if the external source is not knowledgeable or lacks objectivity directly or indirectly.

We think about the factors affecting reliability in combination. Thinking about the applicable factors in combination more fully informs our evaluation of reliability of a particular type of information or information obtained from a particular source.

> For example, information obtained directly by us from a more reputable source generally would be more reliable than information obtained directly by us from a less reputable source. Information, both oral and written (on paper or electronically), that was corroborated by us through one or more other sources may be more reliable than information obtained from a single source.

Examples

How does the source and nature of the information and the circumstances under which it was obtained influence the reliability of the information used in our audit? [ISA | 2692.1800]

Fact pattern

The engagement team is performing audit procedures to address an RMM related to the existence and accuracy of a prepaid asset that was recognized during the current fiscal year. The amount of the prepaid asset at year-end was greater than the materiality for the financial statements as a whole and the CAR for the RMM was assessed as EN.

The engagement team requests management to provide information supporting the prepaid asset amount recorded at period-end. Management provides the following information:

- an electronic copy of the cleared check and the related bank statement.
- an e-mail from the procurement department that includes the details of the purchase, the amount paid, and a schedule of deliveries to be made by the third-party.

- a client prepared schedule that reconciles the initial amount of the prepaid asset to the amount recorded at year-end.

Analysis

The engagement team considers the source and nature of each piece of information and the circumstances under which it was obtained as part of evaluating whether the information is sufficiently reliable. Specifically, they consider:

- The electronic copy of the cleared check is an internal source of information that provides evidence about the initial amount of the prepaid asset. The bank statement is an external source of information obtained from the entity that corroborates the initial amount of the prepaid asset.
- The email from the procurement department and the client prepared schedule are both internal sources of information.
- The engagement team determines that the information obtained does not provide sufficient appropriate audit evidence, considering the CAR for the related RMM was assessed as EN, and decides to perform further procedures to obtain more reliable information.

The engagement team sends a confirmation to the vendor to confirm the terms of the prepayment and the remaining amount at fiscal year-end. A response is provided directly from the vendor to the engagement team. This confirmation is an external source of information that was obtained from an independent source outside of the entity that corroborates the other information received from the entity.

1.2.2 Consider how information is being used in our audit [ISA | 2693]

What do we do?

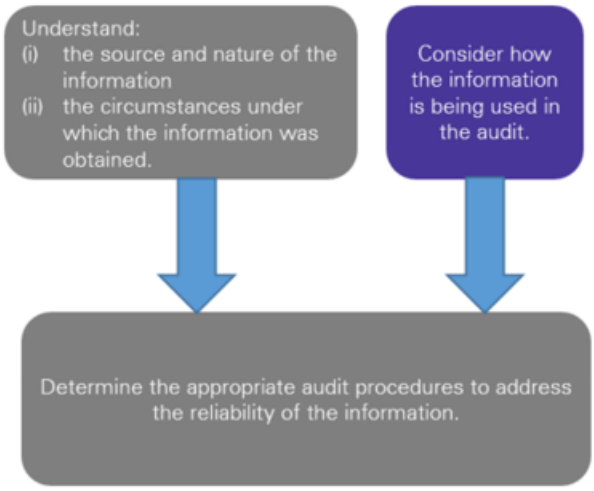
Consider how the information is being used in our audit.

Why do we do this?

For information used in our audit, we evaluate whether the information is sufficiently reliable as this information supports the conclusions upon which our auditor's opinion is based. We consider how the information is being used in our audit so that we can determine the appropriate audit procedures to evaluate whether the information is sufficiently reliable for our purposes.

Execute the Audit

Where are we in our evaluation of the reliability of the information used in our audit? [ISA | 2693.1300]



Not Integrated Audit | How is information used in our audit? [ISA | 2693.8563]

Information is used throughout our audit in different types of procedures and in different ways. For example, information is used in:

Types of procedure	Ways information can be used
Risk assessment, including obtaining an understanding of CERAMIC	Information used to inform our risk assessment, such as a planning analytical procedure - e.g. the trial balance and/ or account details (revenue disaggregated by product line, composition of other current assets).
Testing control activities (includes automated process control activities and GITCs)	Information used to test control activities can be: - the subject of the control activity - information used by the control operator to perform the control activity - information used solely by KPMG to select items to test
Substantive audit procedures	Information used in our substantive audit procedures can be: - a representation of the account being tested - information used to support the account being tested
Management's estimates	Information used in the entity's estimation process that is subject to our audit procedures. This information has a direct relationship with the amount recorded in the financial statements.

Disclosure in the financial statements	Information not directly related to a significant account but is disclosed in the financial statements and is subject to our audit procedures. This information has a direct relationship with the amount disclosed in the financial statements.

How do we identify if the information is the subject of the control or used by the control operator to perform the control? [ISA | 2693.11544]

Information is the subject of the control when the reliability of the information itself is directly addressed by the control objective.

Information used to perform the control is relied upon by the control operator to effectively execute the control.

We first identify all the information that is used in the control and the objective of the control. If the objective of the control is to ensure the information is correct, that information is the subject of the control. If the control operator uses the information as a basis for making a judgement, that information is relied on by the control operator in performing the control.

For example, in a process control activity where management reviews the bank reconciliation to determine if the reconciliation has been properly performed, the bank reconciliation directly addresses the accuracy of the cash recorded in the financial statements; as such, the bank reconciliation is the subject of the control activity.

Conversely, a credit limit exception report is used by the control operator to evaluate customers with specific provisions. The control will only be effective at identifying and following up on specific outliers if the credit limit exception report is complete. As such, the credit limit exception report is relied on by the control operator in performing the control.

What if the information used by the control operator to perform the control is not reliable? [ISA | 2693.11546]

If information used by the control operator to perform the control is not reliable (i.e. accurate and complete), there is a deficiency in the design of the control that uses that information because the objective of the control will not be achieved.

When is information that is used in our substantive audit procedures a representation of the account being tested? [ISA | 2693.11545]

Information used in our substantive audit procedures is a representation of the account being tested when it links directly to the account balance that is subject of our substantive audit procedure - e.g. a listing of transactions or subledger analysis that we then use to test the details of the account balance. This information is typically the direct subject of our substantive audit procedure and the reliability of the information is addressed by the procedure itself.

Examples of information that is a representation of the account being tested include: trial balance, sub-ledgers, bank reconciliations, revenue detail, and list of fixed asset additions. The reliability of the information above is typically the direct subject of our substantive audit procedures.

Why do we consider how the information is being used in our audit? [ISA | 2693.1500]

We consider how the information is being used in our audit because (i) the degree of reliability needed to achieve the objective of different types of procedure varies, and (ii) it impacts our determination of the appropriate audit procedures to evaluate the reliability of the information.

When we think about how the information is being used in our audit, we consider the assessed risk of the procedure(s) in which the information is used (where applicable). Generally, the higher the risk, the greater the demand for more reliable information to support our conclusion. Consequently, this may impact our determination of the appropriate audit procedures to evaluate the reliability of the information and/or the sample size when we are testing management's controls -or- direct-testing the information.

> For example, an engagement team that uses an analyst report in a risk assessment procedure may obtain less evidence over the reliability of the information compared to when the same analyst report is used to develop an expectation for a SAP. The engagement team assesses that the analyst report is sufficiently reliable for the purpose of risk assessment; however, performs additional procedures to evaluate whether the information is sufficiently reliable to meet the objective of its SAP.

What happens when information is used in more than one procedure? [ISA | 2693.1600]

We determine the appropriate audit procedures to evaluate whether the information is sufficiently reliable for all procedures in which it is used (see activity 'Determine the appropriate audit procedures to evaluate the reliability of the information' for further discussion).

1.2.3 Determine the appropriate audit procedures to evaluate the reliability of the information [ISA | 2694]

What do we do?

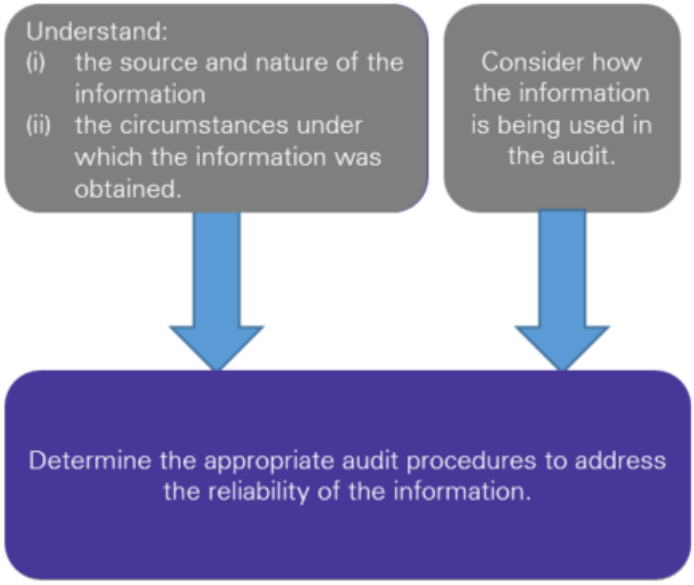
Determine the appropriate audit procedures to evaluate the reliability of the information and RDEs based on our understanding of the source and nature of the information and the circumstances under which it is obtained and how the information is being used in the audit.

Why do we do this?

For information used in our audit, we evaluate whether the information is sufficiently reliable as this information supports the conclusions upon which our auditor's opinion is based. We determine the appropriate audit procedures to evaluate the reliability of the information based on our understanding of the source and nature of the information and the circumstances under which it is obtained and how the information is being used in the audit. These factors affect the nature and timing of our procedures and extent of evidence we obtain to evaluate whether the information is sufficiently reliable for our purposes.

Execute the Audit

Where are we in our evaluation of the reliability of the information used in our audit? [ISA | 2694.1300]



How do we evaluate the reliability of information used in our risk assessment procedures? [ISA | 2694.1700]

We evaluate the reliability of the information used in our risk assessment procedures by obtaining an understanding of the source and nature of the information and the circumstances under which it is obtained via inquiry, inspection and/or observation.

As we perform our risk assessment procedures, we use internal and external information that helps inform our risk assessment decisions.

The purpose of risk assessment procedures is not to provide direct evidence over RMMs or the relevant assertions for the related significant accounts and disclosures. As such, we may obtain less evidence over the reliability of information used in our risk assessment procedures than if that same information was used in our testing of control activities or substantive audit procedures.

> For example, the engagement team uses information to perform their planning analytical procedures - e.g., the trial balance and/or account details (revenue disaggregated by product line, composition of other current assets).
>
> The engagement team obtains an understanding how the information used in their risk assessment procedure was prepared by inquiring of management as to whether the information comes from the same financial reporting system and whether it has been prepared in a consistent manner as the interim / year-end financial information. The engagement team may also consider agreeing the information back to the financial reporting system or period-end financial statements.

In addition, we think about whether other procedures are necessary in order to conclude that the information is sufficiently reliable for the purpose of our risk assessment procedure. This may occur when information is used in a risk assessment procedure that has a direct impact on key planning decision (e.g., information obtained to directly support why a RM is not an RMM).

For example, the engagement team did not identify the RM related to stock option grants as an RMM based on management's representation that there were no stock option grants in the current fiscal year.

The engagement team obtains an understanding that all stock option grants require approval by the entity' board and inspects the board minutes to corroborate management's representation.

Can we select items to evaluate the reliability of information used in our risk assessment procedures? [ISA | 2694.160351]

The nature and extent of procedures we perform to evaluate the reliability of information used in our risk assessment procedures requires judgment. We may determine to select a small number of items to confirm what we understand about a population from our other procedures (e.g. inquiries, historical experience on the engagement). We do not use MUS, KSP, or substantive attribute sampling to generate a sample when performing risk assessment procedures, in part because this requires an assessment of inherent risk that is other than remote.

How do we evaluate the reliability of information used in control activities? [ISA | 2694.2100]

The table below indicates how we may evaluate the reliability of information used in control activities (including automated process control activities and GITCs) when we are relying on and testing controls as part of our response to an RMM:

If the information is used:	Internal Information	External Information
As the subject of the control activity	Reliability of the information is addressed by testing the control (one or more of the control attributes) itself.	Reliability of the information is addressed by testing the control (one or more of the control attributes) itself.
By the control operator to perform the control activity	Test management's controls over the accuracy and completeness of the information, direct-test the accuracy and completeness of the information or use a mixed approach instead.	We obtain an understanding of how the control operator is satisfied with the reliability of the information and determine the appropriate audit procedures to evaluate the reliability of the information.
Solely by KPMG to select items to test the control activity	Test management's controls over the accuracy and completeness of the information, direct-test the accuracy and completeness	N/A - scenario is not expected to arise.

	of the information or use a mixed approach instead.	

What is a control operator? [ISA | 2694.8445]

The control operator is a term used to describe who or what performs the control. In a manual control, the control operator is the individual who performs the control. In an automated control, the control operator is the IT system.

How do we evaluate the reliability of information used in control activities when we are not relying on or testing the control? [ISA | 2694.159416]

In certain circumstances, we may evaluate the design and implementation of a relevant control activity but do not plan to rely on or test the operating effectiveness of the control activity as part of our response to an RMM - e.g. relevant control activities that address a RMM with a significant inherent risk or controls over journal entries. When we are not relying on or testing the control activity as part of our response to an RMM, we may obtain less evidence over the reliability of information used in the control activity.

We obtain an understanding of how the control operator is satisfied with the reliability of the information, including its sources and how it is derived, via inquiry, inspection and/or observation. If this understanding is sufficient for us to achieve our risk assessment objectives, then we do not need to perform further procedures to evaluate the reliability of the information.

Why do we test information that is used solely by KPMG to select items to test the control activity? [ISA | 2694.11554]

We can only gain reliable evidence that a control activity operated effectively throughout the period if we select our sample from a complete population that includes all instances the control operated in the period. Therefore, we obtain evidence that the internal information we use to select items to test is complete, including the accuracy of any RDEs that we use to group, filter, or sort the information to arrive at the population to be tested.

> For example, if a control is designed to operate over each individual sale, we obtain a complete listing of all the sales made during the year to select our sample from in order to test that the control operated over each sale that occurred in the year.

When we use information to assist us in determining which items to test for a control activity, we evaluate the reliability of that information (and the RDEs relied upon, where applicable) to determine whether the population we select our sample from is accurate and complete.

If we do not determine whether the information that provides the basis for our sample selection is sufficiently reliable, it may result in us not being able to effectively test the control activity.

How may we test information that is used solely by KPMG to select items to test the operating effectiveness of GITCs? [ISA | 2694.8566]

When we use information solely for the purpose of selecting items to test the operating effectiveness of a GITC, that information may not be used by management and therefore management may not have controls over that information. Internal information obtained to test a GITC may include

information at a 'point-in-time' (e.g. listing of privileged users), or over a 'period of time' (e.g. listing of program changes during the audit period).

We consider data input, data integrity, and data extraction and manipulation risks when assessing the accuracy and completeness of information used by KPMG to select items to test a GITC. See question 'Are there specific risks that we consider when testing management's controls over internal information?' for further information on these risks.

Information risk addressed	**Procedures that may be performed based on how the information is generated**		
	Point-in-Time	**Period-of-Time (Controls or Mixed approach)**	**Period-of-Time (Direct testing)**
Data input	Accuracy of point-in-time information is addressed as part of testing the control activity, no additional procedures performed as the data input risk is addressed by testing the control activity.	Test other control activities over data input to the extent not addressed by an attribute of the control activity being tested.	Design procedures to directly test the information (see activity 'Directly test the accuracy and completeness of internal information' for further information).
Data integrity	Accuracy of point-in-time information is addressed as part of testing the control activity, no additional procedures performed as the data integrity risk is addressed by testing the control activity.	Test other control activities over data integrity to the extent not addressed by an attribute of the control activity being tested.	
Data extraction (Completeness only)	Perform combination of the following procedures to address data extraction risk:	Test other control activities over data extraction to the extent not addressed by an attribute of the control activity being tested.	

	• Observing report generation • Collecting and inspecting system screenshots that cannot be modified • Inspecting and documenting parameters used to create reports. OR Comparing system information (e.g. record count) with the output generated by management.	OR Perform combination of the following procedures to address data extraction risk: • Observing report generation • Collecting and inspecting system screenshots that cannot be modified • Inspecting and documenting parameters used to create reports. OR Comparing system information (e.g. record count) with the output generated by management.	
Data manipulation	If the information could be manipulated after extraction, design procedures to address manipulation risk.	If the information could be manipulated after extraction, design procedures to address manipulation risk.	

What incremental procedures may be performed when the period-of-time information used to select a sample to test a change management GITC is a listing from a ticketing system? [ISA | 2694.159417]

In addition to the procedures in the table above, we may assess the completeness of the information (i.e. listing from a ticketing system) by using IT system information (e.g. last change date) of known changes made to the IT systems, automated control activities and/or system generated reports and trace to changes listed on the ticketing system to determine whether the listing from the ticketing system reflects what is in production (i.e. IT system information).

What are some examples of how we evaluate the reliability of point-in-time vs. period-of-time information? [ISA | 2694.159418]

The table below provides examples of how we evaluate reliability of point-in-time vs. period-of-time information.

Type of internal information	Examples
Point-in-time	*General IT control:* Configuration, data and security administrators for IT system A are authorized and appropriately restricted for use by the entity's IT technology support group. *Internal information used to test the GITC:* List of users with privileged/ administrative roles from IT system. Data input and integrity risks are addressed by testing the GITC, Configuration, data and security administrators for IT system A are authorized and appropriately restricted for use by the entity's IT technology support group. *Procedures to address data extraction and manipulation:* • Inspect the query parameters used to extract the list of privileged/ administrative users and document evidence of system query; and • Observe entity management run the query to extract the data.
Period-of-time	*General IT control:* Management approves the nature and extent of user access privileges for new user access, including standard application profiles/roles, and critical financial reporting transactions, in IT system B. *Internal information used to test the GITC:* List of users from IT system B created in the period. Data input risk is addressed by an attribute of the GITC, Management approves the nature and extent of user access privileges for new user access, including standard application profiles/roles, and critical financial reporting transactions, in IT system B. Data integrity risk is addressed by IT system B database access GITC. *Procedures to address data extraction and manipulation:* • Inspect the query parameters used to extract a list of new users with a creation date that falls within the specified period of time and obtain system evidence of the query; and • Observe entity management run the query to extract the data OR Instead of using the above approach, direct-test the accuracy and completeness of the relevant data elements by attribute sampling.

Period-of-time	*General IT control:* Changes to IT system programs are approved by the business/IT prior to implementation into the production environment. *Internal information used to test the GITC:* List of IT system program changes implemented into the production environment in the period, from a change management ticketing system. Data input risk is addressed by a combination of testing an attribute of the GITC "changes to IT system programs are approved by the business/IT prior to implementation into the production environment" and tracing IT system information (e.g. last change date) to the ticketing system listing for known changes to automated control activities or system generated reports to determine whether the ticketing system listing reflects what is in production (i.e. IT system information). Data integrity risk addressed by ticketing system database access GITC. *Procedures to address data extraction and manipulation risk:* • Inspect the query parameters used to extract a list of changes from the change management ticketing system, within a period of time where the status of the change ticket is 'complete' and obtain system evidence of the query; and • Observe entity management run the query to extract the data;

How may we test information that is used solely by KPMG to select items to test the operating effectiveness of process control activities? [ISA | 2694.9410]

We may follow the same approach as in question 'How may we test information that is used solely by KPMG to select items to test the operating effectiveness of GITCs?'

What do we do if management uses system generated reports in its controls but does not rely on automated control activities and GITCs to produce complete and accurate reports ? [ISA | 2694.159419]

In some circumstances, when the volume and complexity of transactions are lower, management may not rely on the automated control activities and GITCs to produce complete and accurate reports. Instead, it may have a manual control activity(ies) that is(are) sufficient to evaluate the accuracy and completeness of the data. For example, the control operator reconciles the reports back to the hard copy documentation and recalculates the mathematical accuracy of the calculations in the reports.

If we have not identified any automated process control activities (or any that depend on GITCs), we may plan to test the manual process control activity(ies).

How do we evaluate the reliability of information used in our substantive audit procedures? [ISA | 2694.2200]

The table below indicates how we may evaluate the reliability of information used in our substantive audit procedures:

If the information is:	Internal Information	External Information
A representation of the account being tested	We determine that the information is a complete and accurate representation	N/A - scenario is not expected to occur.

	of the balance being tested as part of our substantive procedure.	
Used to support the account being tested	Test management's controls over -OR- direct-test the accuracy and completeness of the information. Because this information is indirectly related to the information in the financial statements, if we have already obtained evidence that the controls over the information are effective, then it is not necessary to direct test the information.	Design and perform appropriate audit procedures to evaluate the reliability of the information.

Information is a representation of the account being tested

In order to know that our substantive audit procedure provides reliable evidence over the account balance we are testing, we evaluate whether the information (e.g. listing of transactions) we are using as a 'proxy' for the account balance is a true representation of that account. Where possible, we check that the information we are using is complete by agreeing it or reconciling back to the account balance in the financial statements as part of our substantive procedure.

In these circumstances, we do not need to perform additional procedures to obtain evidence that the information is accurate and complete (in relation to the financial information being tested). Specifically, we do not need further evidence that the information contains all the items it should, contains only the items it should, or is an accurate representation of the items making up the account balance, as all of those objectives (to the extent we have identified an RMM related to them) are tested by the substantive procedure or procedures using the information.

Information is used to support the account being tested

We perform appropriate audit procedures to evaluate the reliability of the information. For internal information, this includes testing management's controls over -or- direct testing the accuracy and completeness of the information.

What if our substantive audit procedure uses information from the post year-end period? [ISA | 2694.8564]

When our substantive procedures use information related to periods after the period-end, our testing of the information covers that post period-end information.

For example, when auditing completeness of revenue for fiscal year ending in December, we may obtain information on revenue recorded in January of the following year. In this case, the engagement team uses the listing of post year-end revenue to select items for testing and it's

considered a representation of the population being tested. The engagement team focuses on testing the completeness of the listing (i.e. contains all the items that could be pre year-end revenue items). The accuracy of the listing is tested by the substantive procedure(s) using the information.

What if our audit procedure relies on non-financial data elements in the information? [ISA | 2694.11557]

When we use a non-financial data element(s) to select items for testing, the non-financial data element is a RDE and we still evaluate the reliability of the RDE (i.e., the 'non-financial RDE'). This is because the design of our audit procedure is dependent on the data element.

If the non-financial RDE is related to one or more financial RDE(s) that are already tested as part of the same substantive audit procedure, this may provide sufficient evidence over the reliability of the non-financial RDE.

What if the information represents only a portion of the account being tested? [ISA | 2694.11558]

While this information may include financial data that is directly a part of the financial statements, we may use only a subset of that information or otherwise group, filter or sort it using related data elements. In this instance, we are relying on something other than the 'grand total'.

Further evidence may be necessary to determine whether the information contains all the items it should, contains only the items it should, or is an accurate representation of the items making up the portion of the account balance being tested by the substantive procedure or procedures using the information. Our procedures include either testing management's controls over -OR- direct-testing the accuracy and completeness of the information. There may be additional RDEs (i.e. those used to otherwise group, filter or sort the complete population of items in the account balance) we take into account when performing our procedures.

How do we evaluate the reliability of information used in the entity's estimates? [ISA | 2694.2300]

We perform the activity 'Evaluate the data used in the entity's estimation process'.

How do we evaluate the reliability of information that is not directly related to a significant account but used in the entity's disclosures? [ISA | 2694.11559]

When information that is not directly related to a significant account is used in the entity's disclosures, we do not take a controls only approach to evaluate the reliability of that information / RDE(s). That information is a representation of a disclosure that is subject to our audit procedures in response to an RMM (e.g., disclosure requirements regarding forward exchange currency contracts), so our response to that RMM includes substantive audit procedures.

Further, if the information / RDE(s) is non-monetary and our substantive audit procedure involves selecting a sample for testwork, we use the attribute sample size table to determine the appropriate sample size to select from the non-monetary information / RDEs.

How do we evaluate the reliability of the population of journal entries and other adjustments? [ISA | 2694.8712]

We perform the activity 'Evaluate the reliability of the population of journal entries and other adjustments'.

What happens when information is used in more than one procedure? [ISA | 2694.2400]

If the same information is used in multiple procedures, we do not perform separate audit procedures to evaluate the reliability of that information each time it is used. Rather, we can design one audit procedure (or set of audit procedures) to evaluate whether the information is sufficiently reliable for all procedures in which it is used. When doing so, we think about the following.

Relevant data elements (RDEs)

If the information has multiple data elements, the procedures using the information may rely on different RDEs. Therefore, we plan one audit procedure (or set of audit procedures) to include all RDEs for all the procedures using that information.

> For example, the engagement team obtains the accounts receivable aging report, which is used in multiple audit procedures, including: (i) inspecting supporting documents for unpaid customer invoices at year-end, and (ii) performing tests of details over the adequacy of the accounts receivable reserve at year-end. Although the same report is used in both procedures, the data elements that are relevant to each procedure may differ.
>
> In the first substantive audit procedure, we utilize MUS to select a sample from the accounts receivable aging report and inspect supporting documents for each sample. For this procedure, the aging report is a representation of the account being tested and the reliability of the data elements relevant to the procedure (i.e., customer name, invoice date, invoice value) are directly tested as part of the substantive procedure.
>
> In the second substantive audit procedure, we use the same aging report to assess the valuation of the accounts receivable reserve at year-end. For this procedure, the aging report is used to support the account being tested and the data elements relevant to the procedure differ. In addition to the data elements tested above, the payment terms and the aging buckets on the report are also relevant data elements we evaluate.

Objective of procedure

The procedures using the information may address different RMMs with different inherent risk levels.

> Continuing with the accounts receivable aging report example from above, the RMMs addressed by each of the substantive procedures may have different inherent risk levels - the first with an inherent risk assessed as base and the second as elevated. This impacts the extent of our testwork over the reliability of the RDEs over the payment terms and aging bucket RDEs. If we decide to direct-test the accuracy and completeness of those RDEs, the inherent risk for that RMM (i.e., elevated) is used when determining the appropriate sample size.

What if the information that is used in more than one procedure is subject to substantive audit procedures? [ISA | 2694.11560]

When information is used in more than one procedure, we consider whether any of our audit procedures provides sufficient evidence over the reliability of the information (and RDEs, where applicable) such that additional testing is not necessary.

Continuing with the accounts receivable aging report example from above, when evaluating the reliability of all the RDEs in the aging report used in our substantive procedure over the adequacy of the accounts receivable reserve at year-end, we:

- determine that we have already obtained sufficient evidence over the reliability of the customer name, invoice date and invoice value RDEs through the substantive audit procedure (e.g., MUS) over the unpaid customer invoices at year-end. As such, no further procedures were considered necessary.
- evaluate the reliability of the remaining data elements that are relevant (i.e., payment terms and aging bucket). In this circumstance, we test management's controls over or direct-test the accuracy and completeness of the RDEs.

What if the information has been transformed from its original medium? [ISA | 2694.8631]

When information has been transformed from its original medium (e.g. documents that have been filmed, digitized, or otherwise transformed to electronic form), the reliability of that information may depend on the controls over the information's transformation and maintenance. In these situations, we may determine that:

- additional audit procedures are necessary to address reliability (e.g. we may inspect underlying original documents to validate the authenticity of information in electronic form), or
- it is necessary to test controls over the transformation and maintenance of the information.

What if information obtained from external information sources or other external parties is subject to restrictions, limitations, or disclaimers? [ISA | 2694.11561]

If we obtain information from an external information source or other external parties that is subject to restrictions, limitations, or disclaimers, we consider their effect on the reliability of the information as part of our evaluation. For example, this may occur when we receive responses to requests for third-party confirmations.

In these circumstances, we may conclude that the information provided by the external information source or other external party is not sufficiently reliable and perform additional procedures in response to the restriction, limitation or disclaimer.

Refer to the relevant activity in the confirmation chapter regarding when a confirmation response contains a restriction, limitation, or disclaimer.

What if we determine that the information we plan to obtain will not be sufficiently reliable? [ISA | 2694.11562]

After we have considered:

- how the information is being used in our audit
- our understanding of the source and nature of the information and the circumstances under which it is obtained, and
- the assessed risk of the procedure(s) in which the information is used,

we may conclude that the information we planned to obtain will not be sufficiently reliable by itself to achieve the objective of the procedure and/or sufficiently address the identified RMM, where applicable.

In these circumstances, we obtain more persuasive audit evidence by either obtaining information that is more reliable (e.g. obtain external vs. internal information) or obtaining additional evidence (i.e. corroborating information).

For example, the majority of an entity's revenue is build-and-ship with no customization and standard sales and delivery terms (i.e. non-complex / inherent risk of the RMMs related to revenue recorded during the period is base). The engagement team uses MUS to select a sample of transactions and performs procedures that include inspecting the executed sales contract obtained from management and verifying that the terms are consistent with the standard sales and delivery terms. In this scenario, the engagement team may determine that the executed sales contract obtained from management is sufficiently reliable for purposes of the audit procedures and given the assessed risk for the RMMs being addressed.

The same entity has entered into a significant contract with a new customer for a product that is customized to the customers' specifications and includes multiple deliverables such as installation and service/maintenance (i.e. complex / inherent risk of the RMMs related to revenue recorded during the period is significant). In this scenario, the engagement team may determine that the executed sales contract obtained from management is not sufficiently reliable by itself considering the significant risk associated with this revenue stream. The engagement team decides to obtain additional evidence by confirming the key terms of the sales contract directly with the customer.

Examples

How may we identify information relied on in an automated process control activity? [ISA | 2694.8510]

Scenario 1

Fact pattern

The engagement team has identified the following process risk point (PRP) and the automated process control activity that addresses this PRP:

- PRP: Purchase invoices are not all entered accurately into the system
- Automated process control activity description: The system automatically approves purchase invoices information for posting to the general ledger and payment when the purchase invoice information matches to the purchase order and goods receipt information in the system. Exceptions are flagged as unmatched and are not processed without manual intervention.

We determine whether we have evaluated whether the information used in the control is sufficiently reliable.

Analysis

The purchase invoice information is the subject of the automated process control activity as the control is testing that the entered information for the purchase invoice is correct. The reliability of the purchase invoices is addressed by testing the control itself.

The purchase order information and the goods receipts information are not subject to one or more of the control's attributes and is information relied on by the control. The purchase order and goods receipt are information and we evaluate the relevance and reliability of that information, because it is

relied on by the three-way-match, by testing control activities over the accuracy and completeness of that information or by direct-testing the accuracy and completeness of that information.

Scenario 2

Fact pattern

The engagement team has identified the following process risk point (PRP) and the automated process control activity that addresses this PRP:

- PRP: Incomplete or inaccurate recognition of interest expense
- Automated process control activity description: Oracle Financials automatically calculates the monthly interest expense and records the expense in the general ledger based on the interest rates in the interest rate table and the long term debt balance at month end for each loan included in the loan balance.

We determine whether we have evaluated whether the information used in the control is sufficiently reliable.

Analysis

Both the interest rates and the loan balances are information used in the automated process control activity. When taking a controls approach to evaluating information, we identify the PRPs and/or RAFITs and control activities related to data input, integrity and extraction and manipulation risks of the information in the interest rate table and loan balances, which may include identifying GITCs over the database.

Alternatively, we may direct-test that the information used in the interest expense calculation is consistent with the bank's daily interest rate and loan balance at the period end; however, to the extent that the loan balance has been substantively tested separately, we may not perform additional procedures in relation to the reliability of the loan balance.

The interest rate is not part of the flow of information into the financial statements and we are only testing the control activities over the interest rate or direct-testing the interest rate because it is information used in the interest rate calculation automated process control activity.

1.2.3.1 Determine the approach to evaluate the reliability of internal information [ISA | 2695]

What do we do?

Determine the approach to evaluate the reliability of internal information and RDEs

Why do we do this?

Internal information is generally less reliable than external information obtained from knowledgeable independent third parties because it is sourced from the same systems and controls as the financial information we audit and may be subject to management bias. If this information is not sufficient or appropriate, it could affect the conclusions we draw when designing and performing audit procedures.

Execute the Audit

When do we test internal information for control activities? [ISA | 2695.1300]

We test internal information and RDE(s) when the information is sufficiently relevant, and at a minimum, when it is being used to test a control activity (including automated process control activities and GITCs) or used to support the account being tested in a substantive procedure.

How do we test the reliability of internal information? [ISA | 2695.1400]

We test the reliability of internal information by testing the accuracy and completeness of the information.

What does 'accurate and complete' mean in the context of internal information? [ISA | 2695.11581]

When internal information is referred to as being 'accurate and complete' in the context of reliability of information, we are not referring to the accuracy and completeness assertions in the CEAVOP model, but rather this means that such information:

- contains *all* the data that is necessary
- contains *only* the data that is necessary
- contains data that is correct.

'Accuracy' in this context also relates to the way the data is manipulated and presented in a report - e.g. groupings, calculations based on the data, and totals in the report.

What does 'validity' mean in the context of information and how does it relate to our risk assessment and our evaluation of the accuracy and completeness of information? [ISA | 2695.8517]

Validity means that recorded transactions represent economic events that actually occurred or were executed according to prescribed procedures. Validity is generally achieved through process control activities that include the authorization of transactions as specified by an entity's established policies and procedures (that is, approval by a person having the authority to do so.)

We obtain an understanding of how transactions are authorized when we obtain our understanding of the flow of transactions within a business process, including the flow of information. This includes understanding how transactions are initiated, authorized, processed, and recorded in systems, until reflected in the entity's financial records. Our understanding provides a basis for us to identify and assess RMMs.

Accuracy, completeness, and validity represent risks that exist within an entity's information system that we take into consideration when identifying process risk points (PRPs) and/or risks arising from IT (RAFITs) and the control activities which address the PRPs/RAFITs (see question 'Which control activities do we understand and are relevant to the audit?' for further information).

Do we always test the 'authorization' of transactions and other information? [ISA | 2695.8518]

No. Validity is generally achieved through control activities; therefore, we only test for authorization when we decide to evaluate the design and implementation or test the operating effectiveness of control activities.

What are the approaches to testing the accuracy and completeness of the internal information? [ISA | 2695.1500]

We test the accuracy and completeness of internal information by using the following approaches:

- *Controls approach:* we test management's controls over the accuracy and completeness of the internal information;
- *Direct-testing approach*: we directly test the accuracy and completeness of the internal information; or
- *Mixed approach*: we may use both a controls approach and a direct-testing approach to obtain evidence over the accuracy and completeness of the internal information.

  In understanding the flow of the data into the information, which we always do as a first step, we may determine that we can test control activities over part of the flow and directly test the data in the rest of the flow. For example, we may either:

  - test the control activities over data input and data integrity and then directly test that the data we use agrees to the data in the system (i.e. data extraction and manipulation); or
  - directly test that the data in the system agrees to source documents (i.e. data input) and then test the control activities over data integrity and the extraction and presentation of the data in the report (i.e. data extraction and manipulation).

What do we think about when determining the testing approach for data sourced from Electronic Data Interchange (EDI)? [ISA | 2695.8521]

Electronic feeds of data (also referred to as EDI) are generally information obtained from external sources which:

- may be used by the entity to initiate the recording of transactions (e.g. a sales order or a cash collection may be electronically sent by the customer or a bank and electronically interfaced into the entity's systems), and
- may provide audit evidence of transactions occurring.

Although electronic feeds are from an external source, once they are processed through an electronic interface and are automatically input into and maintained in the entity's system, they are considered internal information and may be the only information available to support an underlying transaction. In these circumstances, when we plan to evaluate the reliability of data sourced from EDI, it may not be possible to directly test them to external source documents (i.e. we cannot gain sufficient evidence over the reliability of the data through direct testing alone) and we evaluate that information by testing controls over the EDI data input and data integrity (e.g. automated process control activities over the EDI and related supporting GITCs).

How do we determine which approach to take to test the accuracy and completeness of the internal information? [ISA | 2695.11582]

The table below lists circumstances when a specific approach is taken:

Circumstances where a specific approach is applied	Specific approach to test the accuracy and completeness of the information
When we have determined that we cannot gain sufficient evidence over the reliability of the data through direct testing.	Controls approach or mixed approach

When data is directly disclosed in the financial statements, irrespective of whether we test control activities or not.	Direct testing approach - even when we test control activities in these circumstances, we also direct-test the data.

In all other situations, we have optionality in the approach depending on the determined audit strategy. To decide, we weigh the benefit and cost of testing controls. To help with this determination, we may analogize to the guidance on determining whether to take a controls based approach or a substantive based approach in our audit of the financial statements.

1.2.3.1.1 Test management's controls over the accuracy and completeness of internal information

[ISA | 2697]

What do we do?

IF we determine to test management's controls, THEN test management's controls over the accuracy and completeness of the internal information and the RDE(s).

Why do we do this?

We evaluate the reliability of internal information being used in our audit, as this information supports the conclusions upon which our auditor's opinion is based. Testing management's controls over the accuracy and completeness of the internal information is one of the available approaches to evaluate the reliability of the information.

Execute the Audit

How do we test management's controls over the accuracy and completeness of the internal information?

[ISA | 2697.1300]

We test management's controls over the accuracy and completeness of internal information and the RDE(s) similarly to how we test any control activity that we rely upon for purpose of the audit, as follows:

(1) Understand the flow of information, including the RDE(s) (see activity 'Perform a walkthrough to understand the business processes' for further information).
(2) Understand and evaluate the design and implementation of control activities that address the risks over the accuracy and completeness of the internal information and the RDE(s).
(3) Test the operating effectiveness of relevant control activities (refer to the activity in the auditor's response to risks of material misstatements chapter over testing the operating effectiveness of relevant controls).

When testing the operating effectiveness of a control activity that solely addresses the reliability of information, we assess RAWTC by considering the RAWTC factors; however, starting with a preliminary RAWTC equal to the inherent risk of the RMM(s) where the information is used is not necessary.

Can reliability of the internal information be addressed by one or more of the attributes of the control in which it is being used? [ISA | 2697.159389]

Yes. The reliability of the information being used by a control operator in the performance of a control may be addressed by one or more of the control attributes. The control operator may perform procedures to address the information risks of input, integrity, and/or data extraction/manipulation as part of the control rather than rely on other controls to address those information risks. When information is addressed by a control attribute, the description of the relevant control attribute(s) clearly describes how they address the reliability of the information.

Do we assess RAWTC differently when testing the operating effectiveness of a control activity that addresses the reliability of internal information that is used in a D&A item matching procedure? [ISA | 2697.6222]

Yes. When testing the operating effectiveness of a control activity that addresses the reliability of internal information that is used in a D&A item matching procedure, we assess RAWTC equal to or higher than the inherent risk level of the RMM(s) where the information is used, but at a minimum we assess RAWTC as Elevated.

The nature of a D&A routine and its audit objective dictate the audit evidence it produces and the related procedures for evaluating reliability.

The control activity or activities that addresses the reliability of internal information used in a D&A item matching procedure are those that address the conversion and maintenance of original source documents to internal information. These controls may be manual (e.g. input of shipping data into the system) or automated (e.g. a feed of cash transactions from a bank to the cash subledger).

When selecting these controls for testing, we evaluate whether the control activities address each of the RDEs relied upon in our D&A item matching procedure.

For example, if we are using cash transactional data received through a feed from a third-party bank retained in the entity's system to match to recorded revenue and are using remittance numbers included in the data retained from the bank feed to match the items, testing a control over the monthly reconciliation of the cash balance to the bank statement will not provide adequate evidence over the reliability of the remittance numbers. Instead, we identify a control addressing the remittance number RDE. For example, an automated control over the conversion of the bank feed to the cash subledger or a manual control comparing all the RDEs from a third-party bank statement to the bank feed.

We set a RAWTC for GITC that support these controls in the same way as for other GITC. See activity 'Assess RAWTC for general IT controls' for further information.

What is a D&A item matching procedure? [ISA | 2697.9212]

D&A item matching procedure is a test of details in which information is matched with other information using a D&A routine in order to produce substantive audit evidence.

There are specific considerations when evaluating the reliability of the information when the other information in the D&A item matching procedure is internal information. See questions 'Do we assess RAWTC differently when testing the operating effectiveness of a control activity that addresses the reliability of internal information that is used in a D&A item matching procedure?' and 'Do we assess

relevant risk differently when direct testing information relied on in a D&A item matching procedure?' for further information.

We may think about the following examples and whether they are substantive test of details and whether they match recorded amounts to internal information such that there are specific considerations when evaluating the reliability of the information:

D&A Routine	Is the routine a substantive test of details?	If so, are recorded amounts being matched to internal information?
KPMG Clara analytics Cash Receipts Detailed Testing, which matches price and quantities in sales invoices recorded in the revenue subledger to sales orders and shipping notes captured in the entity's system to obtain substantive audit evidence over specific RMMs related to Revenue.	Yes	Yes
Routine comparing the quantity of securities reported in a fund's period-end holdings to the quantity of securities reported in a third-party broker or custodian statement.	Yes	No. This routine matches internal information to external information to produce substantive audit evidence (see question 'How do we determine whether the external information is sufficiently reliable?').
An Alteryx routine is used to compare employee pension census attributes (e.g. date of birth, employment date) from the current period to the audited prior period (in which we have determined that prior year audit procedures were performed to establish reliability over each of the RDEs) in order to establish	This routine is used to establish reliability of information used in an estimate (see question 'How do we evaluate the reliability of information used in the entity's estimates?').	N/A - although the routine compares the current year census attributes to the relevant prior year internal information, the reliability of the prior year data was established in the prior year audit. Accordingly, the purpose of the routine is to establish the reliability of the current year's census data

reliability of RDEs used in an estimate.		and no separate tests of that data is necessary.
Alteryx is used in pre-processing to join two populations together by matching a unique identifier in each population.	No. This routine is used as a pre-processing procedure. Further, the routine does not rely on the reliability of internal information.	N/A

What if a process control activity addresses a PRP over the reliability of information and a PRP in a business process? [ISA | 2697.15643]

When a process control activity addresses a PRP in a business process and a PRP over the reliability of information, we apply the current RAWTC guidance, including starting with a preliminary RAWTC equal to the inherent risk of the RMM(s) the process control activity addresses in the business process.

However, when the PRP is over the reliability of internal information that is used in a D&A item matching procedure, we start with a preliminary RAWTC equal to the higher of (1) the inherent risk level of the RMM the process control activity addresses in the business process and (2) the inherent risk level of the RMM where the information is used in the D&A item matching procedure, but at a minimum we assess RAWTC as Elevated.

Do we still consider inherent risk in assessing RAWTC? [ISA | 2697.15644]

Yes. Although starting with a preliminary RAWTC equal to the inherent risk of the RMM(s) is not necessary when a control activity solely addresses the reliability of information and that information is not used in a D&A item matching procedure (see question 'Do we assess RAWTC differently when testing control activities that address the reliability of internal information that is used in a D&A item matching procedure?'), we still consider the inherent risk level of the RMM(s) those controls are 'indirectly' linked to. In making this consideration, we may think about the importance of the control activity over the reliability of information to our procedures. We may consider things like the relative importance of a particular data element to the manual control activity relying on that information, or the relative risk of error or risk of failure of a control activity over data extraction (e.g. accuracy and completeness of a system generated report) compared with controls over data input. The more important the control activity is to the reliability of information used in a manual control or substantive procedure, the more likely it is to have a RAWTC equal to or higher than the inherent risk level of the RMM(s) those controls are 'indirectly' linked to.

Are there specific risks that we consider when testing management's controls over internal information? [ISA | 2697.1400]

Yes, we consider the following types of risks over the accuracy, completeness and validity (see question 'What does 'validity' mean in the context of information and how does it relate to our risk assessment and our evaluation of the accuracy and completeness of information?' for further information) of the internal information and RDE(s) when identifying relevant PRPs and RAFITs:

Type of risk	Example risks	Audit consideration
Data input	• Data is incompletely or inaccurately entered into the IT system or not properly converted from its original source to electronic form. • Data arising from hard-copy source documents or electronic data interface (EDI) may be compromised before input.	Data is subject to input risks. The specific risk differs depending on the source of the data and how it gets into the IT system - e.g. EDI versus manual documents.
Data integrity	• Data is inappropriately altered during processing • Data is inappropriately altered while in storage. • Data does not accurately transfer from one system to another. • Data is not valid (see question 'What does 'validity' mean in the context of information and how does it relate to our risk assessment and our evaluation of the accuracy and completeness of information?').	If data is changed / processed by an IT system(s) or is transferred electronically from one system to another, then we evaluate and test automated control activities related to: • The processing and/or transfer of the data; and • The general IT control(s) that address risks arising from IT (RAFITs) that could affect the control's consistent operation. When data is stored in an IT system, evaluating and testing general IT controls that address the applicable RAFIT(s) for the applicable IT system layer (e.g. database) may be sufficient to address the data integrity risk. In more complex scenarios, we may also identify PRPs and evaluate and test automated process control activities to address the data integrity risk.
Data extraction and manipulation	• The information does not contain all data when extracted. • The information contains additional data when extracted. • The manipulation of data used to produce the information is incorrect or inaccurate.	Data extraction and manipulation risks are present for all types of information obtained from IT systems - including system-generated reports, custom reports and end-user computing-schedules.

		An entity's use of custom reports and end-user computing schedules increases data extraction and manipulation risks.

When management's control involves direct testing the information to source, that control will address data input, data integrity and data extraction and manipulation risk.

For more information, refer to the activity in the risk assessment chapter over understanding information relied on in the performance of the control activity.

What are EUC applications? [ISA | 2697.1700]

EUC (End-user computing) applications are IT systems in which end users, rather than computer programmers, can create working applications. Entities often use end-user computing applications as part of its financial reporting and business processes. Hence, audit evidence may come in the form of an end-user computing schedule (e.g. spreadsheet software or simple databases). Such schedules are not typically identified as a layer of technology.

What are EUC schedules? [ISA | 2697.12104]

EUC schedules are schedules created using an EUC application. Examples include:

- spreadsheets (e.g. Microsoft Excel files);
- custom databases (e.g. Microsoft Access files);
- ad hoc queries; and
- stand-alone desktop applications.

What controls may we consider testing over end-user computing schedules to evaluate the reliability of the information used as audit evidence? [ISA | 2697.8567]

It may be challenging for an entity to design and implement controls around access and changes to end-user computing schedules, and such controls are rarely equivalent to, or as effective as, GITCs related to accounting software and related layers of technology. Therefore, when determining what controls to test over end-user computing schedules, we may consider a combination of control activities, taking into account the purpose and complexity of the end-user computing involved, such as:

- Process control activities over the initiation and processing of the source data, including relevant automated or interface controls to the point from which the data is extracted (i.e. a data warehouse or an IT application);
- Process control activities to check that the logic is functioning as intended, for example, controls that check the extraction and manipulation of data, such as reconciling the report to the data from which it was derived, comparing the individual data from the report to the source and vice versa, and controls which check the formulas or macros;
- Use of validation software tools, which systematically check formulas or macros, such as spreadsheet integrity tools;
- Password protected server locations with restricted access and version controls.

Will there always be data input, data integrity, and data extraction and manipulation risks for information used in our audit? [ISA | 2697.11662]

We expect that all three risks will exist for internal information used in our audit.

If the internal information has more than one RDE, we also consider whether these risks are applicable for each RDE. Although one or more of these risks may not be applicable to an individual RDE; we expect all three risks will exist for the internal information.

For example, we obtain a sales report (internal information) that contains the price, quantity and total amount for each sales transaction and determine that each of these data elements are relevant. Data input risk exists for the price and quantity RDEs; however, is not applicable for the total amount as this RDE is calculated by multiplying the price and quantity (i.e. it is not input). Although the data input risk is not applicable for every RDE, it is still applicable for the sales report (i.e. the internal information).

1.2.3.1.2 Directly test the accuracy and completeness of internal information [ISA | 2699]

What do we do?

IF we determine that direct testing is appropriate, THEN direct -test the accuracy and completeness of the internal information and the RDE(s).

Why do we do this?

We directly test the internal information to evaluate the reliability of information being used in our audit, as this information supports the conclusions upon which our auditor's opinion is based.

Execute the Audit

How do we directly test the accuracy and completeness of internal information? [ISA | 2699.1300]

We direct-test the accuracy and completeness of internal information through the following steps:

- Understand the origination of the internal information, including the RDE(s);
- Determine the risk related to the internal information / RDE(s)
- Design and perform procedures to directly test the accuracy and completeness of the internal information.

1.2.3.1.2.1 Understand the origination of the internal information [ISA | 7623]

What do we do?

IF we determine to directly test the accuracy and completeness of the internal information, THEN understand the origination of the internal information and RDEs.

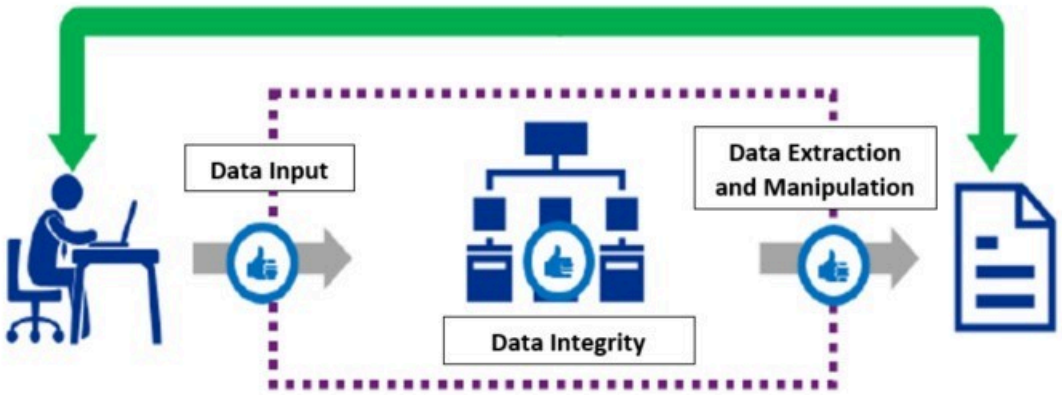
Why do we do this?

When we are direct testing the accuracy and completeness of the internal information, we understand the origination of the internal information and RDEs to appropriately design our procedures.

Execute the audit

How do we understand the origination of the internal information and RDEs subject to direct testing? [ISA | 7623.12638]

We understand the origination of the internal information and RDEs by obtaining an understanding of the flow of information / RDEs through the information system back to the point of origin / data input. (Note that we may have obtained an understanding of the flow of information / RDEs as part of obtaining an understanding of the entity's business processes.) This enables us to determine what source information to agree to when designing and performing procedures to directly test the accuracy and completeness of the internal information and RDEs.



Understanding the origination of the internal information and RDEs in this way assists us in designing and performing procedures to obtain evidence that none of the risks related to the flow of information and RDE(s) through the entity's process and control activities have caused the data to not be reliable (i.e., data input, data integrity, and data extraction and manipulation risks are addressed by our direct testing). If we do not have an accurate understanding of the originating source of the information and RDE(s), our direct testing may not cover all of the potential risks related to the flow of the information and RDE(s).

If the originating source of the information is also internal, what do we do? [ISA | 7623.12639]

If the originating source of the information / RDE(s) subject to our direct-testing procedures is also internal, we evaluate the reliability of the originating source and determine what procedure(s) to perform over the accuracy and completeness of the originating source (e.g. test management's

controls -or- other procedures) as part of designing and performing our overall direct-testing

procedures.

When evaluating the reliability of the originating source in these circumstances, we think about the following factors:

Factors	Our consideration
The inherent risk of the RMM associated with the audit procedure including the internal information	The higher the assessed risk, the higher the reliability of the information needs to be.
Frequency of change in the data	The more frequent the data changes, the less reliable the information without proper controls.
The susceptibility of data manipulation of the originating internal source	An originating internal source that is stored physically in a locked draw is less susceptible to data manipulation compared to an originating internal source that is stored on an open intranet site without any security features.
Nature of the originating internal source information	Physical original paper documents are more reliable than electronic data.
Whether there are deficiencies in the entity's CERAMIC	Internal information is more reliable when an entity has appropriate CERAMIC.

A single factor is not determinative but rather we weigh the factors to determine whether we test management's controls or perform other procedures over the reliability of the originating source.

In certain circumstances, we may determine that testing management's controls over the accuracy and completeness of the originating source is the most appropriate approach -e.g. customer sales orders submitted to the entity through electronic data interchange.

For example, as part of our audit procedures over the RMM related to the accuracy of the revenue for a private software entity, we obtain an analysis from the entity of their SSP (standalone selling price) of the performance obligations included in their revenue contracts. The inherent risk for the RMM related to the accuracy of the revenue for the entity was assessed as elevated.

The SSP analysis from the entity (i.e. internal information) shows that the performance obligations in their contracts are always priced at a certain percentage of the entity's price list of the products or services when sold standalone. The relevant data elements used in the SSP analysis include the standalone sales amount and the price from the master price list.

Standalone Sale Amount:

We design and perform direct-testing procedures to (i) agree the total standalone sales amount for the period to the trial balance (completeness) and (ii) select a sample of the standalone sales using the attribute sample size table and agree the amount to the originating external source (accuracy) - i.e. the executed sales contracts with third party customers.

Price from Master Price List:

The price originates from the master price list which is an internal source of information that is maintained and updated by the entity. Based on our understanding of the frequency in which the entity introduces new products and services, we know that the master price list is subject to frequent updates in addition to the annual update at the beginning of the fiscal year.

We design and perform direct-testing procedures to (i) determine whether a price from the master price list is included for each related standalone sale (completeness) and (ii) select a sample of the prices using the attribute sample size table and agree the amount to the originating internal source (accuracy) - i.e. the master price list. In this circumstance, in order to evaluate the reliability of the originating internal source (and ultimately the price RDE in internal information), we test management's controls over the accuracy and completeness of the master price list.

In other circumstances, we may decide to perform limited procedures to determine the reliability of the originating internal source information.

For example, when performing a SAP to test payroll expenses, our expectation may include RDE(s) that we agree back to HR records, such as an executed offer letter or resignation letter. Based on our understanding of the HR process, we understand that the HR records are maintained in a locked drawer in the HR Director's office. The assessed RMM over payroll is Base.

In this case, we may determine that the HR records are originating internal source information that is sufficiently reliable.

1.2.3.1.2.2 Determine the risk associated with the accuracy and completeness of the internal information to be directly tested [ISA | 2700]

What do we do?

IF we determine to directly test the accuracy and completeness of the internal information, THEN determine the risk associated with the accuracy and completeness of the information and RDEs.

Why do we do this?

When we are direct testing the accuracy and completeness of the internal information, we determine the risk associated with the accuracy and completeness of the information to appropriately design our procedures.

Execute the Audit

How do we determine the risk when directly testing the accuracy and completeness of internal information? [ISA | 2700.1400]

We determine the risk of the internal information depending on what the information is used for as follows:

- for information used in the performance of a control activity, we use the RAWTC of the control that relies on the information.
- for information used solely by KPMG to select items to test a control activity, we use the RAWTC assessed for the control being tested.
- for information used to support the account tested in a substantive procedure, we use the inherent risk of the related RMM being tested.
- for data used in an estimate, we use the CAR specific to the data.
- for information included in a disclosure, we use the inherent risk of the RMM specific to the disclosure, regardless if we have tested management's controls over the accuracy and completeness of that information.

1.2.3.1.2.3 Design and perform procedures to directly test the accuracy and completeness of the internal information based on the determined risk

[ISA | 2701]

What do we do?

IF we determine to directly test the accuracy and completeness of the internal information and RDEs, THEN design and perform procedures based on the determined risk.

Why do we do this?

We design and perform procedures to directly test the accuracy and completeness of the internal information to evaluate the reliability of information being used in our audit, as this information supports the conclusions upon which our auditor's opinion is based.

Execute the Audit

How do we design the procedures to directly test the accuracy and completeness of the internal information? [ISA | 2701.1300]

We design separate procedures that specifically addresses:

(i) the accuracy of the internal information, and
(ii) the completeness of the internal information.

Do we always design specific procedures to directly test the accuracy and completeness of the internal information? [ISA | 2701.11552]

Not always. We may have tested the accuracy or completeness of the internal information through other audit procedures. Other audit procedures may include testing the operating effectiveness of a control attribute that addresses the reliability of the information or substantive procedures.

How do we directly test the completeness of the internal information? [ISA | 2701.1400]

How we directly test the completeness of internal information will differ based on the specific facts of the information being tested. However, we may think about the following steps in our approach.

Step 1

Understand the origination of the internal information and RDE(s) (refer to how we understand the origination of internal information in the activity covering our understanding of the source and nature of information), for example:

- does any of the information or RDE(s) originate from financial statement data (e.g. general ledger, sub-ledger); or

> For example, when the information includes all items within a particular significant account or disclosure, we may test completeness by agreeing the total of the information to the account balance in the general ledger.

- does all the information or RDE(s) originate from sources other than financial statement data (e.g. HR system, CRM system, a list created manually)?

Step 2

Determine whether we have tested the completeness of the internal information and RDE(s) through other audit procedures.

> For example, when performing a substantive analytical procedure over the year-end payroll balance, we set an expectation using last year's average payroll per employee and the current year's average headcount using the beginning and ending headcount of the entity. We obtain this information from the entity. We identify three RDEs in this substantive procedure: 1) last year's average payroll per employee, and 2) current year's average headcount, which is split into: a) the current year's beginning headcount, and b) current year's ending headcount.
>
> For last year's average payroll per employee and the current year's beginning headcount (which agrees to last year's ending headcount), as we audited the payroll balance last year through the same method, we already have evidence that the information and RDE is accurate and complete.

The only RDE we design and perform specific procedures over is the completeness (and accuracy) of the current year's ending headcount.

Our procedure to directly test the completeness of the internal information may be to agree the total from the originating source(s) to the total in the internal information.

Step 3

If the completeness of the information and RDE(s) has not been tested through another audit procedure, we design and perform specific procedures to test the completeness of the internal information. These procedures will vary depending upon the nature of the internal information and the originating sources, however, one testing method may be to utilize a reciprocal population of the internal information and determine whether all or a subset of the reciprocal population is included in the internal information (therefore being able to conclude that the internal information is complete). When sampling, we use the attribute sample size table (refer to activity in our sampling chapter over using the attribute sample size tables for attribute sampling). Refer to guidance on reciprocal population in our sampling chapter.

Since we select the sample from different populations, we use separate samples to test the accuracy and completeness of the information (i.e. we do not use the same sample from the completeness testing, but rather use a new sample specific to the accuracy testing).

For example, in continuation of the above example, to directly test the completeness of the current year's ending headcount, we first understand the origination of the information. We understand from walking through the payroll process that the ending headcount is generated from the then current listing of employees in the entity's HR system, which is updated based on approved changes in employee status during the year (i.e. increase due to new hire, decrease due to voluntary or involuntary resignation). All approved changes are maintained by the HR department in a secured physical drawer.

Based on the understanding obtained, we design and perform the following procedures to test the completeness of the current year's ending headcount:

- Obtain the year-end listing of employees from the HR system and agree the total count to the headcount information obtained from the entity.
- Count the number of changes approved in the current year. Based on that count and the assessed IR for the RMM, we utilize the attribute sample size table to determine the sample size to select from the reciprocal population (i.e. the approved employee changes) and determine whether the changes are appropriately reflected in the year-end employee listing.

If the changes are properly reflected in the list (i.e. new hires are included, resignations are excluded), we may determine that the current year's ending headcount is complete.

Note, when directly testing the accuracy of the current year's ending headcount, we determine a separate sample size utilizing the attribute sample size table, based on the number of employees in the ending headcount. We also do not use the same samples from our completeness testing but rather use new samples specific to our accuracy testing.

What do we consider when a subset of the reciprocal population is included in the internal information? [ISA | 2701.8568]

When the reciprocal population contains more items than should be in the internal information, we may obtain an electronic data file of the reciprocal population and evaluate whether the reciprocal population is accurate (e.g. use the attribute sample size table in activity 'Use attribute sample size tables for attribute sampling, seeking assistance if relevant') and complete (see question 'How do we determine that the population to be tested for a test of details is complete?'). Once we are satisfied that the reciprocal population is accurate and complete, we may use the electronic data file to recreate the report for the procedure. In this circumstance, we do not test the accuracy of the information in the original internal information separately.

However, when an electronic data file of the reciprocal population is not available, but a population of source documents is, we may test a sample of items selected from the source documents, determine whether the items selected meet the criteria for inclusion, and determine whether they have been properly included in/excluded from the internal information (e.g. by using the attribute sample size table).

When we have only selected items that are correctly excluded from the internal information (i.e. no items that should be included in the report were selected), we may think about whether it is appropriate to conclude that the internal information is complete or whether we judgmentally increase the sample size accordingly.

How do we directly test the accuracy of the internal information? [ISA | 2701.1500]

How we directly test the accuracy of internal information will differ based on the specific facts of the information being tested. However, we may think about the following steps in our approach:

(1) Understand the origination of the internal information and RDE(s). Similar to testing for completeness, by understanding the origination of the internal information, we may identify other audit procedures we may have performed over the originating source that we may be able to leverage.

(2) Determine whether we have performed other substantive audit procedures over the internal information and RDE(s) or tested the operating effectiveness of a control activity where the attributes of the control activity directly address accuracy. If we have, we may be able to utilize the procedures to conclude on the accuracy of the internal information without performing additional direct testing.

In circumstances where the accuracy of the internal information and RDE(s) (e.g. the invoice dates, amounts and payment terms on an A/R Aging report) has been tested and concluded on through another substantive audit procedure using a sample size based on a different sampling methodology (e.g. MUS or KSP), it is considered to be a sufficient test to conclude on the accuracy of the information or RDE(s). This is the case even if we add on related RDE(s) to test along with each sample (e.g. the allocation of the outstanding invoice amount to the aging buckets).

(3) If we have not performed other substantive audit procedures or tested the operating effectiveness of control activities as determined in 2) above over the originating source(s), we:

- Determine the sample size to directly test the accuracy of the internal information and RDE(s) using the attribute sample size table (refer to activity in our sampling chapter over using the attribute sample size tables for attribute sampling).
- Test the accuracy of internal information and RDEs by agreeing back to the originating source(s) using the sample size determined above.

What are the sample sizes to directly test the accuracy and completeness of internal information? [ISA | 2701.1600]

Refer to the table for attribute sampling in our sampling chapter.

Can we select the same sample items that we tested as part of our test of the control activity, when attribute sampling? [ISA | 2701.10876]

Yes, if our test of operating effectiveness of control activities involves us testing the same sample items as our attribute sampling (direct testing the non-monetary information used in a disclosure or data used in an estimate where controls are operating effectively) test we may perform this procedure as a dual-purpose test.

How do we directly test the accuracy and completeness of information used by the control operator in the operation of a control? [ISA | 2701.8569]

When the information is used by the control operator in the execution of a control and we directly test the accuracy and completeness of that information, we test a sample of items in the information each time we test the control that uses it.

> For example, we are testing a monthly control with a Base RAWTC that uses information and we directly test this information. The information has more than 250 lines of data each month. We test the operation of the monthly control in July and November. We test the accuracy and completeness of the July and November reports by agreeing each report total to the general ledger and testing 15 items per report (based on the attribute sample size tables for attribute sampling) in each report to source documents.

Can we treat information related to different components as a single population when direct testing the reliability of that information? [ISA | 2701.159406]

It depends. If the information is being sourced from a centralized IT system of the entity, where the IT system is the same instance, there are the same layers of technology, and a single report is configured to include all components, or separate reports are configured to include the data of only one component but all have the same risk profile, then the information can be treated as one population for direct testing the reliability of that information.

> For example, we are testing a single report containing claims paid information that is configured to include the data of ten subsidiaries (components) of the entity from the entity's IT system. For all ten components, we determine that the IT system is the same instance and there are the same layers of technology. Accordingly, we treat this information as one population for purposes of direct testing the reliability of the one report.
>
> For example, we are testing ten separate reports containing claims paid information that are each configured to include the data of one component of the entity from the entity's IT system. For all ten components, we determine that the IT system is the same instance and there are the same layers of technology; We also determine that each report is configured the same and has the same risk profile across all ten components.

Accordingly, we treat this information as one population for purposes of direct testing the reliability of the separate reports.

What sample size do we use when direct testing the reliability information that is a single population which includes multiple components? [ISA | 2701.159407]

We use the attribute sample size tables in KAEG to determine the sample size when direct testing information that is a single population which includes multiple components.

How do we select sample items for direct testing the reliability information which includes multiple components as a single population? [ISA | 2701.159408]

We select sample items haphazardly or randomly when selecting items for direct testing information which includes multiple components that is determined to be a single population. This allows all items to have a chance of selection.

When testing information which includes multiple components as a single population, do we need to select an item from each of the components within the population when direct testing the information? [ISA | 2701.159409]

No. When we determine the information is a single population, it is not necessary to include items for each component in the sample when direct testing the information.

If we determine the information which contains multiple components is a single population to be used in direct testing, how often do we test the reliability of the RDE(s) for the population? [ISA | 2701.159410]

We obtain audit evidence about the reliability of the information each time it is generated (see activity 'How often do we test the information used in the execution of a substantive procedures or when selecting items to test in a controls test?').

When testing information which includes multiple components as a single population, do we need to test the reliability of the RDE(s) used to identify and/or allocate the information to components? [ISA | 2701.159411]

Yes. We test the reliability of the RDE(s) used to identify and/or allocate the information to components.

Where do we include the direct testing of the reliability information which includes multiple components as a single population in the audit files? [ISA | 2701.159412]

We include the direct testing of the information that is a single population which includes multiple components in each of the relevant audit files where the information is used as audit evidence.

How often do we test the information used in the execution of a substantive procedure or when selecting items to test in a controls test? [ISA | 2701.8570]

We obtain audit evidence about the accuracy and completeness of the information each time it is generated and is used to select items to test in a controls test or in the performance of our substantive audit procedures. We think about whether we use more than one instance of the information. When we are testing one population at multiple times during the period, we may evaluate the accuracy and completeness of the information for the full period.

For example, if we perform a substantive analytical procedure over revenue at 9 months during interim using a report generated by management from January to September and then perform the same SAP for the 3 months from October to December, we directly test the information used in interim and separately direct test the information used at year-end.

As another example, when testing journal entries at interim and at year end, we can combine the two populations and evaluate the combined population for accuracy and completeness at year end. Alternatively, we may evaluate the interim population and conclude on the accuracy and completeness of the interim population and then roll forward that conclusion to the year-end population by judgmentally selecting additional items to test at year-end.

When the population is non-cumulative, such as accounts receivable sub-ledger, such that evidence about the accuracy and completeness of information at interim is not relevant at year-end, we evaluate each separately.

1.2.3.1.3 Evaluate the reliability of the population of journal entries and other adjustments [ISA | 7887]

What do we do?

Evaluate whether the population of journal entries and other adjustments is sufficiently reliable.

Why do we do this?

We evaluate the reliability of the population of journal entries and other adjustments. This helps us to evidence that the relevant population is accurate, if relevant, and complete when selecting journal entries and other adjustments that meet the high-risk criteria.

Execute the audit

How do we evaluate whether the population of journal entries and other adjustments is sufficiently reliable? [ISA | 7887.8864]

We evaluate whether the population of journal entries and other adjustments is sufficiently reliable by evaluating the accuracy and completeness of the information by using the following approaches (see activity 'Determine the approach to evaluate the reliability of internal information'):

- Controls approach: we test management's controls over the accuracy and completeness of the internal information; or
- Direct testing approach: we directly test the accuracy and completeness of the internal information.

How do we test the completeness of the population of journal entries and other adjustments? [ISA | 7887.8865]

One direct testing approach is performing the activity 'Test the completeness of the population of journal entries and other adjustments'.

Do we consider relevant data elements (RDE(s)) when we evaluate the reliability of information that is used to identify high-risk journal entries? [ISA | 7887.8866]

Yes, RDE(s) used to identify high-risk journal entries represent information we evaluate for reliability.

> For example, if management is eligible for incentive compensation tied to revenue results, we may determine that non-routine revenue journal entries represent high-risk criteria. Based on our understanding of the entity's financial reporting process and revenue process, a non-routine revenue journal entry would include entries that credit revenue and debit an account other than those that are normally associated with a revenue entry, such as an accounts receivable account, deferred revenue account, or cash. Based on these criteria, the relevant RDEs would be the account number and the amount.
>
> Another example for high-risk criteria may be 'entries created by CFO on weekends', the RDE(s) include username and document entry date.

Common RDE(s) when identifying high-risk journal entries include:

- Username
- Document entry date
- Posting date
- Description field
- Account number
- Debit/credit
- Amount
- Accounting period
- Manual or automated indicator.

We evaluate the reliability of RDE(s) used to identify high-risk journal entries to the extent possible; however, there may be situations when it is not be possible to directly test certain RDE(s), such as the time a journal entry was posted.

Do we always identify manual or automated indicator as an RDE? [ISA | 7887.8867]

No, we may not limit the high-risk criteria to manual journal entries. We use professional judgment to determine whether manual or automated indicator is an RDE for our journal entry testing.

We often determine that our high-risk criteria are limited to manual journal entries, which makes the manual or automated indicator an RDE. However, if we believe the high-risk characteristics would not be present in the population of automated entries, then if we apply the criteria to the entire population, inclusive of automated entries, we would not expect any automated entries to be meet the criteria. In this case, this approach is expected to identify the same number of journal entries that meet the high-risk criteria that would be identified if we only applied the criteria to the population of manual journal entries, but also results in the ability to remove the manual or automated indicator as an RDE upon which the high-risk criteria are dependent.

Are there specific risks that we consider when evaluating whether the population of journal entries and other adjustments is sufficiently reliable? [ISA | 7887.8870]

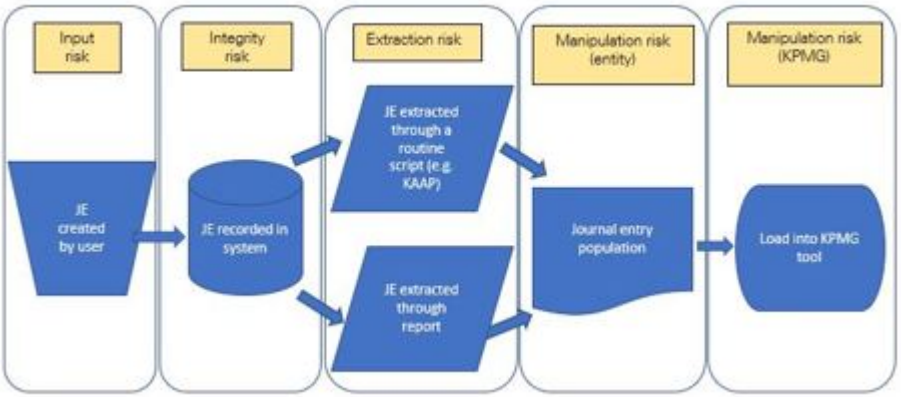
Regardless of the approach selected, we consider the following types of risks over the accuracy and completeness of relevant data elements (RDEs):

- Data input risk,
- Data integrity risk, and
- Data extraction and manipulation risk.

For more information related to these risks, see question 'Are there specific risks that we consider when testing management's controls over internal information?'.

How do these risks over the accuracy and completeness of relevant data elements (RDEs) relate to journal entries and other adjustments? [ISA | 7887.8871]

The graphic below illustrates how the data input, integrity, and extraction and manipulation risks relate to journal entries and other adjustments. When we obtain journal entry populations from management, we think about additional aspects of the extraction and manipulation risks.



How do we address data input and data integrity risks when we evaluate the reliability of information that is used to identify high-risk journal entries? [ISA | 7887.8872]

Data input and integrity risks for journal entries relate to whether the RDE(s) used in our selection of high-risk journal entries are accurately and completely recorded in the entity's system at initiation and whether the accuracy and completeness of those RDE(s) are maintained while in the entity's system (i.e. from the time the RDE(s) are entered until they are extracted).

Data input and integrity risks relevant to the accuracy of financial RDE(s) may be addressed through procedures performed to address the completeness of the journal entry population.

> For example, when we receive an extraction of journal entries from management, procedures performed to rollforward all accounts from the audited prior period end trial balance to the audited current period end trial balance using the population of entries within the extraction demonstrates that the relevant population of journal entries is complete. These procedures may also support the accuracy of RDE(s) in the relevant population of journal entries, such as account numbers and the amounts of the entries.

The rollforward procedures would likely be insufficient to address the data input and integrity risks as it pertains to the reliability of non-financial RDE(s). Accordingly, we perform procedures to evaluate the reliability of these RDE(s) (i.e. tests of controls or direct testing of these RDE(s)).

The originating source for some RDE(s), such as username, may also be internal and only reside in the entity's IT systems. In these situations, refer to question 'If the originating source of the information

is also internal, what do we do?'. When the only evidence available to support the reliability of a RDE resides in an entity's IT system and we do not test automated process control activities and related GITCs pertaining to that information, we think about how we are able to test the reliability of that information.

When taking a controls approach, input risks over journal entries are typically addressed by process control activities in the business process and financial reporting process, and integrity risks are typically addressed by GITCs.

How do we address data extraction risk when we evaluate the reliability of information that is used to identify high-risk journal entries? [ISA | 7887.8873]

Data extraction risk for journal entries relates to the risk that the RDE(s) are not accurately and completely extracted from the entity's system.

When we provide extraction scripts to management to extract the journal entry population, management typically follows their IT change management process to migrate those scripts into their production environment in order to execute the extraction routine. Certain of our extraction scripts (e.g. those for the SAP application) are highly complicated and likely cannot be altered in the entity's production environment without going through the entity's change management process, which may help reduce extraction risk. Others (e.g. those for the generic processor that are applicable to any application) are less sophisticated and may be more easily modified by management.

When evaluating extraction risk, risk assessment procedures we may perform include:

- Inquire of management who performed the extraction and provided the population of journal entries about whether any changes were made to the extraction script we provided to management and whether any changes were made to the output of the extraction.
- Understand the degree of segregation of duties between those who have the incentive and ability to create, review, or post journal entries and those who extract the data from the system.

Management is not expected to have controls to specifically address extraction risk associated with downloading the complete listing of journal entries and other adjustments for us, and therefore management may not implement controls to address extraction risk. In those situations, a controls approach may not be possible to address data extraction risk.

When STMs, central teams, or others with appropriate skills and knowledge perform the data extraction, it addresses the extraction risk. However, if management indicates they made changes to the extraction script we provide to management, we understand the nature of the changes and evaluate the impact on our approach to addressing extraction risk. The person performing the data extraction may assist us in understanding the impact of such changes.

How may we address the risk that journal entries are not completely extracted from the entity's system? [ISA | 7887.8874]

In activity 'Test the completeness of the population of journal entries and other adjustments', we perform procedures to test the completeness of the population of journal entries and other adjustments obtained from the entity's information systems using an appropriate method:

- roll-forward of account balances; or
- system query.

We may obtain the full population of journal entries and rollforward all accounts from the prior year. By rolling forward the complete population we avoid the introduction of RDEs that are created whenever we narrow the population subject to our completeness testing. For example, if we determine to only roll forward entries within certain accounts, the account number becomes a relevant RDE that we evaluate for reliability.

Some applications have standard delivered functionality for generating various information, such as listings, that cannot be modified. In relation to data extraction and manipulation, we may be able to obtain evidence regarding completeness by using knowledge of how to generate the listing and, when management extract the listing, perform a combination of the following procedures to determine completeness:

- observing report generation
- collecting and inspecting system screenshots that cannot be modified
- inspecting and documenting parameters used to create reports.

How may we address the risk that journal entries are not accurately extracted from the entity's system? [ISA | 7887.8875]

In addition to testing the completeness of the journal entry population, we also address the accuracy of the RDE(s) contained in the extraction file to address the risk that data was extracted in an inaccurate manner.

The accuracy of certain financial RDE(s) may be addressed through the procedures to test completeness of the population while tests of controls or direct testing procedures may be necessary to test the accuracy of other RDE(s).

When applying a direct testing approach, selecting the RDE(s) from the extracted file and agreeing them to the originating source documentation addresses risks associated with data input, integrity, and extraction. Alternatively, if process control activities (and related GITCs) have been tested to address the data input and integrity risks, direct test procedures that agree the RDE back to the system may be sufficient to address the extraction risk because the process control activities tests establish the reliability of the RDE(s) within the system.

Can we treat populations extracted at multiple dates throughout the reporting period as a single population when evaluating the reliability of the population? [ISA | 7887.8876]

It depends. When we plan to test journal entries and other adjustments at multiple dates throughout the reporting period (e.g. at an interim testing date and then again through the date on which the last journal entry or other adjustment is recorded), we obtain the relevant population of journal entries and other adjustments at each testing date. We think about whether we treat the populations as a single population in order to test the accuracy and completeness of the relevant population and RDE(s) using an appropriate method. When determining the sample size for each reporting period, we may treat the full year as a single population when each reporting period is sharing the same risk profile. If there is a change in how the information is input or extracted or there is reason to question the integrity risk of certain period(s), the populations have different risk profile and each reporting date population is treated as a separate population.

How do we address data manipulation risk when we evaluate the reliability of information that is used to identify high-risk journal entries? [ISA | 7887.8877]

When obtaining an extract of the journal entry population, data manipulation risk relates to the risk that the data is altered by management from the time it was extracted from the system until it was provided to us.

We may be able to eliminate the manipulation risk. For example, when we (e.g. STMs, central teams, or others with appropriate skills and knowledge) perform the data extraction and get the download directly to our hard drive so that management does not have the opportunity to manipulate the data.

Our approach to evaluating manipulation risk begins with performing risk assessment procedures, which may include:

- Inquire of management who performed the extraction whether any changes were made to the output of the extraction and to understand the process used to transfer the extracted data to us.
- Understand the degree of segregation of duties between those who have the incentive and ability to create, review, or post journal entries and those who extract the data from the system.

Management is not expected to have controls to specifically address manipulation risk associated with preparing information for us, and therefore management may not implement controls to address manipulation risk. In those situations, a controls approach may not be possible to address data manipulation risk.

The data manipulation risk associated with the accuracy and completeness of the financial RDE(s) may be addressed through the procedures to test the completeness of the population of journal entries.

For non-financial RDE(s), the way we address manipulation risk depends on our assessed level of risk and our approach to addressing the data input, integrity, and extraction risks.

If a direct testing approach is used to address the extraction and manipulation risks, we may only agree the sample to the information in the system to verify no alterations were made to the data prior to us receiving it. The direct testing procedures may be performed by utilizing samples selected for other procedures such as tests of operating effectiveness of controls over journal entry approvals.

If we perform direct testing of non-financial RDE(s) by selecting items from the extracted file we received and agreeing the information to originating source documentation (see also question 'If the originating source of the information is also internal, what do we do?') then all of the data risks, including management manipulation risk, may be addressed. However, if tests of controls were only performed to address the data input and integrity risks, then we may also perform separate procedures to respond to the assessed level of extraction and manipulation risks.

If tests of controls were performed to address data input, integrity, and extraction risk, we may perform one or more of the following procedures to respond to manipulation risk related to RDE(s) used in applying the high-risk criteria:

- Observation - observe management extract the data from the system, including checking the appropriateness of parameters used, and observe the file being sent directly to us. Also, we may consider observing and assessing the file creation and modification dates and times associated with the data file to verify they are the same.
- Incorporate elements of unpredictability - do not provide management with information about our high-risk criteria and consider changing certain criteria each year.

We consider and address data manipulation risk each time the information is provided to us (e.g. if information is obtained and journal entry procedures are performed quarterly).

STMs, central teams, or others with appropriate skills and knowledge who perform the data extraction may be able to assist us in performing certain procedures during the extraction process to help address these data manipulation risks.

How do we address the data manipulation risk when we import the information into our SATs or end-user routines? [ISA | 7887.8878]

Data manipulation risk also exists once we receive the data extraction from management in circumstances where we perform pre-processing procedures over the information and/or if we import the information into our software audit tool (SAT) or end-user routine.

If we perform manual or automated pre-processing procedures (such as removing headers, concatenating data fields, etc.), we verify that the data remained complete and accurate after any transformations. This may be accomplished by reconciling the post-processed data to the original file provided.

If we import the data into a SAT or end-user routine, we check that the information has accurately and completely been imported into our software audit tool or end-user routine by reconciling the file imported to the information provided by management (i.e. reconciling hash and control totals back to the information provided by management) each time the information is imported.

We (or STMs, central teams, or others with appropriate skills and knowledge who perform the data extraction) document procedures performed (e.g. as record count and/or hash totals) in the CAATs document or the Journal entry testwork screen in the KPMG Clara workflow.

See activity 'Plan and perform CAATs' for further information.

1.2.3.2 Determine the approach to evaluate the reliability of external information [ISA | 2702]

What do we do?

Determine the approach to evaluate the reliability of external information obtained in the audit.

Why do we do this?

When using external information as audit evidence, we evaluate the reliability. Unlike internal information, it is not always necessary or possible to direct test, or test controls over the accuracy and completeness of the information. This is because external information is inherently more reliable than internal information.

However, we still apply appropriate professional skepticism when considering whether external information is reliable because circumstances may exist that could affect its reliability. Depending upon how the information is used and the type of information, there are different approaches to evaluate the reliability of the information.

If external information is not reliable, it could affect the conclusions we draw when designing and performing audit procedures.

Execute the Audit

When do we consider our approach to evaluate the reliability of external information? [ISA | 2702.1300]

We consider our approach to evaluate the reliability of external information when the information is:

- used by the control operator in the performance of a control activity;
- used by us to support the account being tested in a substantive procedure; or
- used in an entity's estimation process.

How do we determine whether the external information is sufficiently reliable? [ISA | 2702.1400]

We determine whether the external information is sufficiently reliable by performing the following:

- Understand the originating source of the external information - i.e. the external information source from which the external information originated from;
- Consider whether the external information is a 'source document'; and
- Based on the previous steps, determine whether further procedures to evaluate the reliability of the external information are necessary.

External information that is considered....	Approach
a source document	We conclude that this external information is sufficiently reliable and further procedures are not required unless specific circumstances suggest otherwise.
not a source document	We perform further procedures to evaluate the reliability of this external information.

If the external information is a source document, we can conclude that the external information is sufficiently reliable (unless we have doubts) because there is a remote risk the information is inaccurate outside of intentional changes to that information. In contrast, external information that is not a source document (e.g. information from a third-party service provider) is typically processed and manipulated by the third-party service provider which often introduces the risk that the information may be inaccurate and/or incomplete and therefore not sufficiently reliable for our purposes.

What is an external information source? [ISA | 2702.8562]

An external information source is an external individual or organization that provides information that is used by the entity in preparing the financial statements or that has been obtained by us as audit evidence, when such information is suitable for use by a broad range of users.

When information has been provided by an individual or organization acting in the capacity of management's specialist, service organization, or KPMG specialist, the individual or organization is not considered an external information source with respect to that particular information.

What are some examples of an external information source? [ISA | 2702.8625]

External information sources may include:

- pricing services
- governmental organizations
- central banks
- recognized stock exchanges
- media
- academic journals.

What is an external source document? [ISA | 2702.11568]

An external source document is an original document that shows evidence of a financial transaction with a third party and is retained by an entity either physically or electronically as support of the entity's accounting records. This document includes the date the transaction took place, the amount of the transaction, and any other terms or conditions that pertain to the financial transaction.

What are some examples of an external source document? [ISA | 2702.11569]

The below table shows examples of information that is and is not considered an external source document (this does not include information from service organizations or management's specialists, as these are considered to be internal information):

External information that is considered...	Example external information
a source document	• Purchase order / Contracts • Shipping documents • Royalty or usage reports • Vendor invoices • Periodic statements, such as bank statements • Insurance policies • Loan agreements • Mortgages • Rental agreements for both operating and capital leases
not a source document (these are generally from external information sources that are solely information providers)	• Foreign exchange rates • Interest rates • Company share prices • Market, industry or competitor information, including forecasts

Are external confirmations considered to be external source documents? [ISA | 2702.8571]

No. External confirmation is external information, but it is not an external source document and the provider of the external confirmation is not considered an external information source. We follow the chapter on external confirmations (ISA 505, AU-C 505, AS 2310) for specific procedures to be performed over external confirmations.

How do we determine the reliability of the external confirmation? [ISA | 2702.8572]

When determining whether external confirmations are sufficiently reliable, we perform activity 'Evaluate the reliability of responses'.

What are specific circumstances that may cause doubt or indicate that an external source document may not be reliable? [ISA | 2702.11570]

Even if an external information is a source document, we may become aware of circumstances / conditions that cause us to have doubts about the reliability of the information. Examples include:

- uncertainty regarding the reliability of the originating source of the external information;
- inconsistencies between the external information and audit evidence obtained from another source;
- susceptibility to management bias;
- indications that a document may not be authentic; or
- modifications made to a document that were not previously disclosed to us or that undisclosed side agreements may exist.

If circumstances / conditions exists that cause us to have doubts over the reliability of the external information, then we investigate further and evaluate the effect on the audit, as necessary.

When the external information is not a 'source document', how do we determine the approach to evaluate its reliability? [ISA | 2702.11571]

When the external information is not a 'source document', we consider how the information is used in our audit when determining what approach to take to evaluate its reliability.

Use	Approach
By the control operator to perform the control activity	Test management's controls over -OR- design specific procedures to evaluate the reliability of the external information.
Used to support the account being tested in a substantive procedure	Test management's controls over -OR- design specific procedures to evaluate the reliability of the external information.
Used in the entity's estimation process	Test management's controls over -OR- design specific procedures to evaluate the reliability of the external information.

Obtaining an understanding of why management or, when applicable, a management's specialist uses an external information source, may help our consideration of reliability of that information.

What factors may affect the relevance and reliability of information obtained from an external information source? [ISA | 2702.8620]

We may think about the factors below when evaluating the relevance and reliability of information obtained from an external information source, taking into account that some of these factors may only

be relevant when the information has been used by management in preparing the financial statements or has been obtained by us:

- The nature and authority of the external information source

  For example, a central bank or government statistics office with a legislative mandate to provide industry information to the public may be considered a reliable external information source for certain types of information.

- The ability of management to influence the information obtained, through relationships between the entity and the external information source
- The competence and reputation of the external information source with respect to the information, including whether, in our professional judgment, the information is routinely provided by an external information source with a track record of providing reliable information
- Our past experience with the reliability of the information provided by the external information source
- Evidence of general market acceptance by users of the relevance or reliability of information from an external information source for a similar purpose to that for which the information has been used by management or us
- Whether the entity has in place controls to address the relevance and reliability of the information obtained and used
- Whether the external information source accumulates overall market information or engages directly in 'setting' market transactions
- Whether the information is suitable for use in the manner in which it is being used and, if applicable, was developed taking into account the applicable financial reporting framework
- Alternative information that may contradict the information used
- The nature and extent of disclaimers or other restrictive language relating to the information obtained
- Information about the methods used in preparing the information; how the methods are being applied including, where applicable, how models have been used in such application; and the controls over the methods
- When available, information relevant to considering the appropriateness of assumptions and other data applied by the external information sources in developing the information obtained.

What are examples of specific procedures that we can perform to evaluate the reliability of information from external information sources? [ISA | 2702.1700]

The following procedures may be performed to evaluate the reliability of information obtained from external information sources:

- Evaluating the objectivity and competence of the external information source
- Evaluating the nature and authority of the external information source (e.g. that the information was from a reputable source)
- Comparing the external information to information obtained from alternative independent external sources
- Confirming directly with the external information source regarding the information
- When relevant to considering management's use of an external information source, obtaining an understanding of controls management has in place to consider the reliability of the information

from external information sources and potentially testing the operating effectiveness of such controls
- Obtaining information from the external information source to understand their processes, techniques, and assumptions, for the purposes of identifying, understanding and when relevant, testing the operating effectiveness of its controls
- Using an employed KPMG specialist to assist in evaluating the reliability of the external information.

What do we consider when determining the impact of management bias on the reliability of external information? [ISA | 2702.8639]

When we determine the impact of management bias in evaluating the reliability of information from external information sources, we consider the following:

- The ability of the entity to directly or indirectly influence the external information source.

  External information is more likely to be suitable for use by a broad range of users and less likely to be influenced by the entity if the external individual or organization provides it to the public for free or makes it available to a wide range of users in return for payment of a fee.
- Management's selection of information from an external source known to be favorably biased toward corroborating management's assertions or information.

When designing specific procedures to evaluate the reliability of external information, how do we determine the extent of our procedures? [ISA | 2702.11572]

To determine the extent of our procedures over the reliability of the external information, we think about the assessed risk of the procedure(s) in which the information is used - e.g. inherent risk of the RMM addressed by the substantive procedure, RAWTC of the control activity being tested, our inherent risk for data used in estimates. As assessed risk increases, we obtain more persuasive evidence over the reliability of the information.

What if the external information is from a source not assessed as credible? [ISA | 2702.8627]

When the external information is from a source not assessed as credible, we may determine that more extensive audit procedures are appropriate (e.g. compare the external information against an alternative independent information source). If there is no alternative independent information source (e.g. information from a central bank or government, such as an inflation rate, or single recognized industry body), we may consider whether performing additional audit procedures to obtain information from the external information source is appropriate in order to obtain sufficient appropriate audit evidence.

When testing management's control(s) over the external information, how do we determine whether the extent of management's controls is appropriate? [ISA | 2702.11573]

To determine whether the extent of management's controls over the reliability of the external information is appropriate (e.g. whether there are process control activities that address all applicable PRPs and that the controls have been appropriately designed), we think about the following:

Factors	Our consideration

The assessed risk of the procedure(s) in which the information is used - e.g. inherent risk of the RMM addressed by the substantive procedure, RAWTC of the control activity being tested, our assessed inherent risk for data used in estimates	As assessed risk increases, we obtain more persuasive evidence over the reliability of the information. For example, we expect management to have more robust control activities to address the risk that the external information is not reliable when the RMM addressed by a substantive procedure has an inherent risk of significant. In addition, we consider the assessed risk of the procedures in which the information is used when assessing RAWTC for management's controls over the reliability of the external information.
The objectivity and reputation of the external information source generating the information	External information is more reliable when it originates from an external information source that is well known in the business community / industry and has a history of providing reliable information. We expect management to have more robust control activities to address the risk that the external information is not reliable when that information originates from a lesser known external information source with an unknown or limited history of providing reliable information.
Whether there are deficiencies in the entity's CERAMIC	External information is more reliable when an entity has appropriate CERAMIC.

A single factor is not determinative but rather we weigh the factors to determine what controls we expect management to have in place over the reliability of the external information. Depending upon the combination of factors, management may have controls in place to only evaluate the objectivity and competence of the external information source. In other situations, management may also have controls over the reliability of the information, for example by comparing to other independent external sources.

For example, management has a control to review the foreign exchange rate input into their consolidation system. The control operator utilizes a third party website to review the rate input into the system. The inherent risk of the RMM covered by the control is base and the entity is using a reputable third party information provider. When implementing this control, the entity assessed the competence and objectivity of the third party information provider and updates this assessment on an annual basis.

Based on the above facts, we conclude that management's control over the reliability of the external information is designed and implemented appropriately. We further proceed to test the operating effectiveness of their controls by inspecting their annual re-assessment of the competence and objectivity of the third party information provider.

What if we don't have a sufficient basis to consider the relevance and reliability of information from an external information source? [ISA | 2702.8628]

We may have a limitation on scope if sufficient appropriate audit evidence cannot be obtained through alternative procedures. Any imposed limitation on scope is evaluated in accordance with the chapter on modifications to the opinion (ISA 705, AU-C 705) or the chapter on departures from unqualified opinions and other reporting circumstances (AS 3105).

1.2.4 Take into account corroborating and contradicting information when evaluating information [ISA | 7886]

What do we do?

Evaluate information to be used as audit evidence by taking into account whether such information corroborates or contradicts assertions in the financial statements

Why do we do this?

We accumulate information to be used as audit evidence throughout the audit. This evidence can corroborate or contradict management's assertions in the financial statements. Appropriately considering all relevant audit evidence is the hallmark of exercising professional skepticism.

Execute the audit

What is contradictory evidence? [ISA | 7886.1300]

Contradictory evidence is information that contradicts management's assertions in the financial statements.

When do we consider contradictory evidence? [ISA | 7886.8612]

We consider contradictory evidence

- throughout the audit when we evaluate the information to be used as audit evidence; and
- towards the end of the audit when we are concluding whether we have obtained sufficient appropriate audit evidence to form an opinion (see activity 'Take into account all relevant audit evidence when forming an opinion' for further information).

How do we consider contradictory evidence? [ISA | 7886.1500]

Consideration of evidence that appears to contradict management's assertions may not always be easy. This can be more challenging on a larger audit that includes numerous team members or locations.

Contradictory information is not considered in isolation but, rather, as part of our consideration with respect to that management assertion taken as a whole. In such cases, professional skepticism and judgment is necessary to evaluate the persuasiveness of the audit evidence taken as a whole, rather than focusing on an individual piece of audit evidence.

In forming our opinion, we take into account all relevant information to be used as audit evidence, regardless of whether it:

- appears to corroborate or to contradict the assertions in the financial statements
- is consistent with other audit evidence obtained.

This includes sampling, where we relate the evaluation of a sample to other relevant audit evidence when forming a conclusion about the related account balance.

> For example, the engagement team may become aware of information on social media suggesting the entity's product has major quality issues and that all buyers would be returning the product. The engagement team has obtained external confirmations regarding product sales and outstanding accounts receivable that do not indicate quality or return issues and has scanned the sales returns subsidiary ledger, which contained only an immaterial amount of returns subsequent to year-end. In light of that, the engagement team concludes that the contradictory information does not suggest a reasonable possibility of a risk of material misstatement and that further audit procedures are not necessary.

What do we do when we identify contradictory evidence? [ISA | 7886.15819]

When we identify contradictory evidence, we consider the effect on our audit through determining:

- the necessary procedures to address the matter properly; and
- the effect, if any, on other aspects of the audit.

> For example, audit evidence we obtained through the inspection of an original document may corroborate a financial statement assertion, whereas audit evidence obtained from confirmation with an external party may contradict that financial statement assertion. In this case, additional audit evidence may be necessary for us to conclude on the relevant assertion.

Why do we include contradictory evidence in our audit documentation? [ISA | 7886.15820]

Including contradictory evidence and how we resolved the matter in our audit documentation:

- helps us demonstrate effectively how we addressed the matter during the audit; and
- provides an opportunity to demonstrate we have exercised professional skepticism.

1.2.5 If there are inconsistencies or doubts, modify or perform additional audit procedures and evaluate the effect on our audit [ISA | 2703]

What do we do?

IF conditions are identified that indicate there are inconsistencies or that cause doubts over the reliability of the information used in our audit, THEN modify or perform additional audit procedures AND evaluate the effect on the other aspects of our audit.

Why do we do this?

Whenever there are inconsistencies in information or in the results of our audit procedures, or doubts over the reliability of the information used in our audit, we modify or perform additional audit procedures to resolve the condition and evaluate the effect on the other aspects of our audit. If these conditions exist and are not addressed in our audit response, the information is not sufficiently reliable, and does not provide the evidence we are trying to obtain.

Execute the Audit

What are the conditions that affect the reliability of the information used in our audit? [ISA | 2703.1300]

When performing our audit procedures, we may come across conditions that affect the reliability of the information used in our audit. These conditions include:

(1) information obtained from one source that is inconsistent with information obtained from another.

For example, this can occur when we are performing a particular audit procedure and (i) we obtain information from another source that is inconsistent with or contradicts the information we obtained from management -or- (ii) we identify that the information used in our procedure is inconsistent with or contradicts the same information used in other parts of the audit.

(2) the results of an audit procedure are inconsistent with the results of another audit procedure.

For example, this can occur when we are performing a particular audit procedure and we identify that the results of that procedure contradict the results of our other procedure(s).

(3) circumstances that cause us to have doubt about the reliability of the information.

For example:

- indications that a document may not be authentic;

- indications that a document may have been modified and the modifications were not disclosed to us as the auditor or that undisclosed side agreements may exist; or

- findings identified from the audit procedures we perform to evaluate the reliability of the information / RDEs used in our audit.

What do we do when we identify conditions that affect the reliability of the information used in our audit? [ISA | 2703.1400]

We modify our planned audit procedures or perform additional procedures to resolve the matter and evaluate the effect, if any, on the other aspects of our audit by performing the activity 'Continue to assess RMMs, and revise audit approach as necessary'.

The effect on our audit varies depending on the condition that was identified and the specific facts and circumstances. We may determine that the information only impacts a particular RMM we are testing or we may identify that there is a more widespread or pervasive issue e.g., indication of fraud that may lead us to question the integrity of management.

What if we identify information that is inconsistent with or contradicts our final conclusions? [ISA | 2703.11649]

Whenever we identify information related to significant findings or issues that is inconsistent with or contradicts our final conclusions (e.g. disconfirming evidence), we retain documentation of the resolution (see activity 'Document how we addressed information that is inconsistent with conclusions on significant matters').

What if we doubt the authenticity of information or believe that it has been inappropriately modified? [ISA | 2703.11650]

Whenever we doubt the authenticity of information or believe that it has been inappropriately modified, we investigate further. We understand the specific facts and circumstances surrounding the information in question and, where applicable, obtain additional information that corroborates our understanding. For example, if we identify a document that may not be authentic, we may:

- obtain the same document from another source or directly from the original source, where applicable, and compare them
- use the work of a KPMG specialist to assess the document's authenticity.

What if the information has multiple RDEs and we conclude that one of the RDEs is not reliable? [ISA | 2703.11651]

Although we evaluate and conclude on the reliability of each data element that is relevant (RDE) to our audit procedure, we always 'step-back' and consider the information as a whole. Specifically, we consider whether the findings from our procedures (i.e. a deficient RDE) is indicative of issues with the other RDEs in the information. This is because data elements in the information are often inter-dependent.

If we conclude that one of the RDEs is not reliable and determine that there is an inter-dependency with other RDEs in the information, we conclude that the information as a whole is not reliable and evaluate the effect on our audit, including the impact on all the procedures in which that information is used in our audit.

Do we authenticate all information that we use in our audit? [ISA | 2703.1500]

No, we are not experts in document authentication. However, we maintain an awareness and apply professional skepticism when we inspect information obtained from the entity or third parties that is used in our audit. We perform appropriate audit procedures to determine whether the information used in our audit is sufficiently reliable.

2 Determine whether we have sufficient knowledge of the subject matter [ISA | 978]

What do we do?

Determine whether we have sufficient knowledge of the subject matter to be addressed by specific team members or specialists, to meet our responsibility in performing the audit

Why do we do this?

We involve specific team members and specialists in a number of circumstances. We also obtain sufficient knowledge of the subject matter these professionals will address so we can:

- properly communicate the objectives of their work;
- determine that their procedures meet our objectives; and
- evaluate the results of the procedures they perform.

In short, we cannot simply turn over part of the audit to these professionals without our obtaining sufficient knowledge regarding them.

Execute the Audit

Who is responsible for involving specific team members and specialists? [ISA | 978.1300]

The engagement partner is responsible for involving specific team members, employed KPMG specialists, and engaged KPMG specialists, and determining whether their procedures meet our objectives.

How does understanding the subject matter help us meet this responsibility? [ISA | 978.1400]

Understanding the subject matter being addressed helps us to:

- properly supervise the work of specific team members of the engagement team;
- communicate the objectives of specific team members, employed KPMG specialists and engaged KPMG specialists;
- determine whether the procedures performed meet these objectives; and
- evaluate the results of the procedures performed as they relate to:
  - the nature, timing and extent of the other planned audit procedures; and
  - the effects on our report.

How do we obtain an understanding of the subject matter? [ISA | 978.1500]

We may obtain an understanding of the subject matter in several ways.

First, we may directly discuss the subject matter with specific team members with specialized skills in accounting or auditing or specialists.

We may also attend internal training, read independent research, or rely on our experience in auditing entities that require such expertise.

Is a discussion to understand the subject matter with a specific team member or specialists the same as a consultation with that person? [ISA | 978.10888]

No. A discussion to understand the subject matter with a specific team members or specialists are not the same as a consultation. In a consultation, we generally:

- focus a specific set of circumstances encountered on the engagement; and
- give them all the relevant facts so they can provide informed advice about the particular matter.

What aspects of the subject matter may be relevant to our understanding? [ISA | 978.10889]

Aspects of the subject matter that may be relevant to our understanding include:

- whether the professional has areas of specialty in their field that are relevant to the audit;
- whether professional or other standards, and regulatory or legal requirements apply;
- what assumptions, methods, and/or models the individual uses, and whether they are:
  - generally accepted in the their field;
  - appropriate for financial reporting purposes; and
  - approved for use by the firm (where applicable); and
- the nature of internal and external data or information the professional uses.

How do we evaluate the results of the nature, timing, and extent of the audit procedures? [ISA | 978.10891]

In evaluating the nature, timing and extent of the planned audit procedures we consider:

- performing inquiries
- reviewing the working papers and reports
- observing the work being performed
- confirming relevant data with third parties
- reperforming calculations

What if we intend to use the work of management's specialists? [ISA | 978.1600]

If we intend to use the work of management's specialists, we perform the same procedures to obtain sufficient knowledge of the subject matter as when specific team members, employed KPMG specialists and engaged KPMG specialists are involved.

In the case of management's specialists, it is less likely there will be a written agreement. Inquiry of the management's specialists and other members of management may be the most appropriate way for the auditor to obtain the necessary understanding and may help us determine whether the following are appropriate:

- the nature, scope, and objective of the professional's work;
- roles and responsibilities of management and that professional; and
- nature, timing and extent of communication between the entity and the professional, including the form of any report to be provided by the professional.

3 Perform specific procedures when using the work of a management's specialist [ISA | 7659]

What do we do?

Perform specific procedures when using the work of a management's specialist as audit evidence

Why do we do this?

As auditors, we plan and perform the audit to obtain sufficient appropriate audit evidence. We obtain this evidence from various sources which may include the work of a management's specialist. Management may employ or engage a specialist when the preparation of an entity's financial statements involves expertise in a field other than accounting or auditing. We perform certain procedures to evaluate the work of a management's specialist if we intend to use it to support a conclusion regarding a relevant assertion of a significant account or disclosure and/or internal control over financial reporting.

Execute the Audit

Who is a management's specialist? [ISA | 7659.14234]

A management's specialist is an individual (or firm) engaged (engaged management's specialist) or employed (employed management's specialist) by the entity that possesses special skill or knowledge in a particular field other than accounting or auditing whose work in that field is used by the entity to assist in preparing the financial statements. The auditing standards refer to these individuals (or firms) as either "Specialists" or "Experts." We will refer to them consistently as "management's specialists."

Can an individual (or firm) with a special skill or knowledge in the field of income taxes be considered a 'specialist' in any circumstances?

Yes. There may be situations where the entity's accounting for income taxes may entail an interpretation of specialized areas of income tax law in order to determine appropriate accounting or disclosure under the applicable financial reporting framework. Individuals (or firms) retained by management to lend their knowledge or skill in such area could be considered specialists (e.g., legal specialists). At the same time, individuals (or firms) who then apply the findings and conclusions of these specialists in accounting for the entity's income taxes or related audit procedures would not be considered specialists.

What are examples of parties engaged or employed by management that do not represent management's specialists? [ISA | 7659.14235]

Individuals (or firms) with special skill or knowledge in the field of accounting or auditing do not represent management's specialists. That includes accounting advisory services personnel retained by management. In addition, because income taxes and information technology are considered specialized areas of accounting and auditing, individuals (or firms) with special skill or knowledge in these areas are generally not specialists. Instead, we evaluate the work or information provided by them in the same way we would any other work or information produced by the entity.

Certain individuals (or firms) may or may not be considered a management's specialist depending on the nature of their work. For example:

Relevant Party	Represents a management's specialist when they...	Does not represent a management's specialist when they...

Attorney	Assist in the interpretation of a contractual provision or law to help management determine the appropriate accounting or disclosure.	Provide information to the audit engagement team pursuant to a letter of audit inquiry concerning litigation, claims and assessments. However, if certain matters arising from the letter warrant further evaluation by an attorney that includes, for example, interpretation of a contractual provision or law that assists management in determination of appropriate accounting or disclosure, the attorney may represent a specialist for purposes of that further evaluation (see question 'Is a legal counsel consulted by an entity considered to be a 'specialist'?' for further guidance).
Individual or Firm with Valuation Expertise	Apply their valuation expertise in making an estimate of fair value securities for which there is no observable market.	Provide price data regarding private transactions not otherwise available to the entity, which the entity then uses in its own estimation process.

When might management use a management's specialist? [ISA | 7659.14242]

Management may use a management's specialist when the preparation of the financial statements entails special skill or knowledge in a field other than accounting or auditing. Examples of financial reporting activities that often involve the work of management's specialists may include:

- valuation;
  - land and buildings, plant and machinery, jewelry, works of art, antiques,
  - assets acquired and liabilities assumed in business combinations,
  - environmental remediation contingencies,
  - goodwill impairments,
  - insurance reserves,
  - intangible assets,
  - pension and other post-employment obligations,
  - impairment of real estate or other long-term assets,
  - financial instruments,
- legal interpretations;
  - legal title to property,
  - laws, regulations, or contracts,
- evaluation of physical and other characteristics;

- materials stored in stockpiles,
- mineral reserves and condition,
- oil and gas reserves,
- property, plant, and equipment useful lives and salvage values.

When do we perform audit procedures over a management's specialist's work? [ISA | 7659.14243]

We perform audit procedures over a management's specialist's work when we plan to use it as audit evidence to support a conclusion regarding the relevant RMM(s).

What procedures do we perform when we will use a management's specialist's work? [ISA | 7659.14244]

We perform the following procedures when we plan to use a management's specialist's work as audit evidence:

- assess the knowledge, skill, ability and relationship of the management's specialist , and
- evaluate the work of the management's specialist(s) .

3.1 Assess the knowledge, skill, ability and relationship of the management's specialist [ISA | 7660]

What do we do?

Assess the knowledge, skill, and ability of the management's specialist(s) and the specialist's relationship to the entity.

Why do we do this?

When a management's specialist performs work that we intend to use as part of our audit evidence, we assess the specialist's knowledge, skill and ability, and relationship to the entity. This, in turn, allows us to evaluate the degree of reliability of the specialist's work for our purposes.

Execute the audit

What procedures do we perform to assess the knowledge skill, ability, and relationship of the management's specialist? [ISA | 7660.14023]

We perform the following procedures:

- Understand and assess the professional qualifications of the firm that employs the management's specialist, if other than the entity ;
- Understand and assess the knowledge, skill and ability of the management's specialist ;
- Assess the management's specialist's relationship to the entity ;
- Determine the necessary evidence to assess the knowledge, skill, ability and relationship of the management's specialist .

3.1.1 Understand and assess the professional qualifications of the firm that employs the

management's specialist, if other than the entity [ISA | 7661]

What do we do?

Obtain an understanding of and assess the professional qualifications of the firm that employs the management's specialist, if other than the entity under audit

Why do we do this?

We understand and assess the professional qualifications of the firm that employs a management's specialist because a strong reputation and standing of the specialist's employer in the specialized field can be a signal that the employer maintains qualified staff. On the other hand, an employer with a poor reputation or little expertise in the specialized field can indicate that more scrutiny of the qualifications of the individual specialist is warranted.

Execute the audit

Does this activity apply to management's specialists employed by the entity that we are auditing? [ISA | 7661.14067]

No. This activity is relevant when the management's specialist is employed by a firm other than the entity subject to our audit - i.e., engaged management's specialists.

How do we understand and assess the professional qualifications of the firm that employs the management's specialist? [ISA | 7661.14068]

We obtain an understanding of the professional qualifications applicable to the firm that employs the management's specialist, including whether the firm is subject to technical performance standards or other professional or industry requirements, and assess its suitability to assist management in the particular field.

For example

- ethical standards and other membership requirements of a professional body or industry association;
- accreditation standards or a licensing body or industry association; and
- requirements imposed by law or regulation.

What other factors might we evaluate when assessing the professional qualifications of the firm that employs the management's specialist? [ISA | 7661.14069]

We might additionally evaluate the following factors when assessing the professional qualifications of the firm that employs the management's specialist:

- membership requirements or accreditation standards of the relevant professional or licensing body or industry association; and
- requirements applicable to the firm pursuant to legislation or regulation.

What other factors may impact our assessment of the professional qualifications of the firm that employs the management's specialist? [ISA | 7661.6334]

The following factors may impact our assessment of the firm that employs the management's specialist:

- The relevance of the firm's knowledge and skill to the matter for which the work will be used, including any areas of speciality within that firm;

> - For example, a particular firm may specialize in property and casualty insurance but have limited expertise regarding pension calculations.

- The firm's knowledge and skill with respect to relevant accounting requirements; and

> - For example, knowledge of assumptions and methods, including models where applicable, that are consistent with the applicable financial reporting framework.

- the reputation and standing of the firm in the particular field.

Where might we obtain relevant information for our evaluation of the professional qualifications of the firm that employs the management's specialist? [ISA | 7661.14070]

Examples of potential sources of information that may be relevant to our evaluation include:

- information contained within KPMG, including experience of KPMG specialists, related to the professional qualifications and reputation of the firm in the relevant field and experience with previous work of the firm;
- information available through public sources, such as a broad internet search (e.g., Google, LinkedIn) of the firm to corroborate/disconfirm the firm's experience and expertise in the particular field, which may include what clients it serves;
- professional or industry associations and organizations to which the firm belongs, which may provide information regarding:

  (1) their membership requirements;

  (2) the firm's experience, certification, and license to practice; and

  (3) recognition of, or disciplinary actions taken against, the firm;

- discussions with members of management and reviewing the evidence they gathered regarding their assessment of the professional qualifications of the firm prior to contracting with them;
- information gathered as part of audit planning, when obtaining an understanding of the entity's processes and controls for using the work of the specialists;
- publications of the firm on matters in the particular field.

Do we reconsider our initial evaluation of the professional qualifications of the firm that employs the management's specialist during the audit? [ISA | 7661.14071]

Yes. During the audit, unexpected events or changes in conditions or the audit evidence obtained from the results of audit procedures performed may indicate that it is necessary to reconsider our initial evaluation of the professional qualifications of the firm that employs the management's specialist.

3.1.2 Understand and assess the knowledge, skill and ability of the management's specialist [ISA | 7662]

What do we do?

Obtain an understanding of the professional qualifications of the management's specialist and assess the knowledge, skill, and ability of the specialist in the particular field

Why do we do this?

In addition to evaluating the professional qualifications of the firm that employs the management's specialist, we also assess the knowledge, skill and ability of the individuals who assist management as specialists when we intend to use their work in our audit. We do this to inform our assessment of the degree of reliability of the specialists' work as audit evidence. That, in turn, informs the nature, timing and extent of the procedures that we will perform to evaluate the specialists' work.

Because specialists by definition possess special skill or knowledge in a field other than accounting or auditing, they may be perceived as people that are always competent and capable. However, as each specialist's experience, skill and knowledge will differ, we perform specific procedures to obtain an understanding of the professional qualifications of the specialist and assess his/her level of knowledge, skill, and ability in the particular field prior to using the specialist's work as audit evidence.

Execute the Audit

Is assessing the knowledge, skill and ability of the management's specialist the same as evaluating the specialist's competence and capabilities? [ISA | 7662.14026]

Yes. Some auditing standards use the term 'competence and capabilities', whereas other standards refer to 'knowledge, skill and ability'. However, these two terms are interchangeable and address the same subject matter, namely qualifications of the specialist to produce reliable work, findings and conclusions when assisting management in the preparation of the entity's financial statements.

Do we include all persons working on the management's specialist's team in our assessment of the knowledge, skill and ability? [ISA | 7662.14033]

It depends. There could be a number of professionals on a specialist team assisting the entity in its financial reporting process, for example when preparing a valuation report for assets acquired in a business combination. We use judgment to determine the individuals for whom we assess their knowledge, skill and ability, which will depend on their specific role and significance to the work performed for the entity.

How might we understand the professional qualifications and assess the level of knowledge, skill, and ability of the management's specialist in the particular field? [ISA | 7662.6335]

We obtain an understanding of the professional qualifications and assess the level of knowledge, skill, and ability of the management's specialist, including whether the specialist is subject to technical performance standards or other professional or industry requirements.

For example:

- ethical standards and other membership requirements of a professional body or industry association;
- accreditation standards or a licensing body or industry association; and
- requirements imposed by law or regulation.

What other factors may impact our assessment of the knowledge, skill and ability of the management's specialist in the particular field? [ISA | 7662.6336]

The following factors may impact our assessment of the knowledge, skill and ability of the management's specialist in the particular field:

- The relevance of the specialist's knowledge and skill to the matter for which the work will be used, including any areas of speciality within that specialist's field;

> For example, a particular actuary may specialize in property and casualty insurance but have limited expertise regarding pension calculations.

- The specialist's knowledge and skill with respect to relevant accounting requirements; and

> For example, knowledge of assumptions and methods, including models where applicable, that are consistent with the applicable financial reporting framework.

- The reputation and standing of the specialist in the particular field.

Do we think about the management's specialist's qualifications in the field of accounting or auditing? [ISA | 7662.14036]

Yes. By definition, a management's specialist is an individual (or firm) who possesses special skill or knowledge in a particular field other than accounting or auditing. Accordingly, our evaluation of the specialist's knowledge, skill and ability is focused on that field. However, the management's specialist's competence with respect to relevant accounting requirements, for example, knowledge of assumptions and methods, including models where applicable, that are consistent with the applicable financial reporting framework, may also be a factor 'relevant to how we design the procedures necessary to evaluate the specialist's work. For example, if we conclude that the specialist is not familiar with the requirements of the applicable financial reporting framework regarding the method to be used in developing an accounting estimate, we may decide to evaluate management's controls over this aspect of the specialist's work or accelerate the timing of when we execute our own substantive procedures to evaluate the appropriateness of the method used by the specialist.

Are there any other relevant factors to think about in our assessment of the management's specialist's ability? [ISA | 7662.14037]

Yes. Our assessment of the management's specialist's ability includes evaluating whether the specialist will be able to exercise his or her professional qualifications in the particular circumstances of the entity and its financial reporting process. Factors that influence the management's specialist's ability include, for example:

- the geographic location of the specialist; and

- the availability of time on the part of the specialist and resources necessary for the specialist to exercise his or her professional qualifications.

Where might we obtain relevant information for our assessment of the management's specialist's knowledge, skill and ability? [ISA | 7662.14040]

Examples of potential sources of information that, if available, may be relevant to our evaluation include:

- information contained within KPMG related to the professional qualifications and reputation of the specialist in the relevant field and experience with previous work of the specialist, including by KPMG specialists;
- information available through public sources, such as a broad internet search (e.g., Google, LinkedIn) of the individual to corroborate/disconfirm experience and expertise in the particular field;
- professional or industry associations and organizations, which may provide information regarding:

  (1) qualification requirements, technical performance standards, and continuing professional education requirements that govern their members;

  (2) the specialist's education and experience, certification, and license to practice; and

  (3) recognition of, or disciplinary actions taken against, the specialist;

- discussions with the specialist, through the entity, about matters such as the specialist's understanding of the financial reporting framework, the specialist's experience in performing similar work, and the methods and assumptions used in the specialist's work we plan to evaluate;
- information obtained as part of audit planning, when obtaining an understanding of the entity's processes and identifying controls for testing;
- information included in the specialist's report about the specialist's professional qualifications (e.g., a biography or resume);
- responses to questionnaires provided to the specialist regarding the specialist's professional credentials;
- published books or papers written by the specialist; and
- a KPMG specialist, if any, that assists us in obtaining sufficient appropriate audit evidence with respect to information produced by the management's specialist.

Are there alternatives to using the work of the management's specialist where we have doubts about the specialist's knowledge, skill and ability? [ISA | 7662.14044]

Yes. In some situations, if we have doubts about the management's specialist's knowledge, skill and ability, we might choose not to use the work of the specialist as audit evidence, instead of performing additional procedures to evaluate the specialist's work. As an alternative, when the work of the management's specialist relates to an accounting estimate, we might consider developing an independent expectation of the estimate. We might also seek - through the entity - to use the work of another specialist.

Do we reconsider our initial evaluation of the knowledge, skill and ability of the management's specialists during the audit? [ISA | 7662.14048]

Yes. During the audit, unexpected events or changes in conditions, or the audit evidence obtained from the audit procedures performed may indicate that it is necessary to reconsider our initial evaluation of the knowledge, skill and ability of the management's specialist.

3.1.3 Assess the management's specialist's relationship to the entity [ISA | 7663]

What do we do?

Assess the relationship to the entity of the management's specialist and the firm that employs the specialist (if other than the entity under audit).

Why do we do this?

We identify relationships between the entity and the specialist, including the firm that employs the specialist (if other than the entity), and assess whether circumstances exist that could give the entity or its management the ability to significantly influence the specialist's judgments about the work performed, conclusions or findings. If these circumstances are not identified and mitigated by appropriate safeguards, they can affect the reliability of the specialist's work as audit evidence and the necessary level of evidence we obtain from our evaluation of the specialist's work.

Execute the Audit

Is assessing the relationship of the management's specialist to the entity the same as evaluating the specialist's objectivity? [ISA | 7663.14291]

Yes. Some auditing standards use the term 'objectivity' when discussing the reliability of the work of a management's specialist and how we can use it in our audit. Other standards focus on relationships between the specialist and the entity that could affect the reliability of the specialist's work as audit evidence without specifically using the term 'objectivity.' Despite these differences in terminology, our focus remains the same: to identify circumstances that could give the entity the ability to significantly affect the specialist's judgments about the work performed, conclusions or findings and hence render those judgments not impartial or objective.

Who do we include in our assessment of the relationship between the management's specialist and the entity? [ISA | 7663.14292]

We assess the relationship between a management's specialist and the entity for both the individual specialist(s) assisting management and the firm that employs the specialist(s) (if other than the entity under audit). The firm that employs the specialist(s) is relevant because management of the entity could exert influence on the specialist(s) indirectly through the entity's relationship to the firm that employs the specialist(s).

What kind of relationships between the management's specialist and the entity do we consider in our assessment? [ISA | 7663.14293]

A variety of relationships between the entity and the management's specialist could result in undue influence on the specialist's work. Examples of the types of circumstances that might give the entity the ability to affect the specialist's judgments include:

- the reporting relationship of an employed management's specialist within the entity;
- the compensation of a management's specialist (whether employed or engaged) based, in part, on the outcome of the work performed;
- relationships an engaged management's specialists has with entities acting as an agent of the entity;
- personal relationships, including family relationships, between the management's specialist and others within entity management;
- financial interests, including stock holdings, management's specialists have in the entity;
- ownership, business relationships, or other financial interests the employer of an engaged management's specialist has with respect to the entity;
- contractual relationships related to other services the management's specialist provides to the entity, including those provided by the specialist's firm (if other than the entity under audit); and
- any other related party relationships, as defined by the financial reporting framework applicable to the entity under audit, such as being an affiliate of the entity.

How might we obtain relevant information for our assessment of a management's specialist's relationships to the entity?

Examples of potential sources of information that, if available, may be relevant to our assessment of the relationship to the entity of a management's specialist include:

- information we obtain from procedures performed pursuant to the activities in the chapter on related parties (ISA 550 , AU-C 550 , AS 2410);
- engagement contracts between the entity and the specialist, or the specialist's firm;
- responses to questionnaires provided to the specialist regarding relationships between the specialist, or the specialist's firm, and the entity;
- information provided by the firm of a specialist regarding relationships with the entity;
- disclosures about relationships with the entity in the specialist's report, or equivalent communication, pursuant to requirements promulgated by the specialist's profession or by legislation or regulation governing the specialist;
- discussions with members of management and reviewing the evidence they gathered regarding their assessment of the engaged management's specialist and the specialist's firm, if any, prior to contracting with them; and
- inquiries of Those Charged with Governance (TCWG)/Audit committee of whether they are aware of any relationships with the engaged management's specialist when they approved the use of the specialist.

How do we assess the relationships we have identified between the entity and the management's specialist? [ISA | 7663.14295]

We assess the identified relationships between the entity and the management's specialist, including the specialist's firm (if other than the entity), in two respects:

- Do the relationships create circumstances that give the entity the ability to significantly affect the specialist's judgments about the work performed, conclusions or findings? We may refer to these circumstances as "threats" to the objectivity and impartiality of the specialist's judgments.
- Are there effective safeguards in place to mitigate the identified threats?

What circumstances or threats might affect the management's specialist's judgments about the work performed, conclusions or findings? [ISA | 7663.14296]

The table below shows examples of different types of threats to the management's specialist's judgments. These threats can result from a variety of relationships between the entity and the management's specialist. The table below also includes examples of such relationships.

Type of threats	Definition	Example relationships giving rise to the threat
Self-interest threats	Threat of benefiting from having interest in the entity	Having a direct financial interest in the entity or indirect material financial interest
Advocacy threats	Threat of promoting an audit client's interests or position	Being engaged to promote the entity's securities as part of an initial public offering
Familiarity threats (including close personal relationships)	Threat of becoming too sympathetic to the entity's interests or too accepting of the entity's work or product	Having an immediate family member or close relative in a key position at the entity, such as the entity's CEO
Adverse interest threats	Threat that a specialist will not act with objectivity because the specialist's interests are in opposition to the interests of the entity	Either the entity or the specialist is involved in litigation against the other or expresses the intent to commence litigation
Management participation threats	Threat that a specialist will take on the role of management or otherwise assume management responsibilities for the entity	A specialist serving as an officer or a director of the audit client
Undue influence/ intimidation threats	Threat that management or other interested parties	Professional engagement of the specialist by

	coerce the specialist or exercise influence over the specialist	management that is significant to the specialist or the specialist's firm which management threatens to terminate if the specialist disagrees with management's conclusions or viewpoints

Can we use the work of a management's specialist as audit evidence when they have a relationship with the entity? [ISA | 7663.14297]

Yes. The existence of relationships between the entity and the management's specialist does not preclude our ability to use the specialist's work as audit evidence. We evaluate the entity's ability to significantly influence the specialist's judgments, including considering any safeguards that are in place, and then use our assessment to determine the necessary level of evidence we obtain from our evaluation of the specialist's work. In general, when the ability of the entity to affect the specialist's judgments increases, we exercise increased caution and obtain more persuasive evidence when evaluating the specialist's work.

There may be situations where management's ability to significantly affect the management's specialist's judgments is so great that the specialist cannot be regarded as being more objective than other employees of the entity.

What are examples of safeguards that we may consider in relation to the management's specialist's relationships to the entity?

Safeguards represent measures designed to mitigate (but not necessarily eliminate) the entity's ability to influence the management's specialist's judgments. Safeguards can be put in place through external structures (for example, ethical and performance requirements promulgated by the specialist's profession or by legislation, or regulation governing the specialist) or the work environment of the specialist (for example, quality control policies and procedures within an engaged specialist's firm or the entity).

If a management's specialist is employed by the entity, does that automatically mean that we view the work of the specialist as not more reliable than the work of other employees?

Not necessarily. Because the ability of the entity to significantly affect the judgments of an employed management's specialist created by the employment relationship will always be present, the specialist will *ordinarily* not be regarded as being more likely to be objective than other employees of the entity. However, there may be circumstances (for example, related to the employed management's specialist's reporting relationship within the entity or the nature of the specialist's compensation) which may mitigate to some degree the entity's ability to significantly affect the specialist's judgments and may allow us to assess the reliability of audit evidence provided by the specialist as higher than that of other employees of the entity.

Are there alternatives to using the work of the management's specialist where we have doubts about the ability of the entity to influence the specialist's judgments?

Yes. In some situations, if we have doubts about the entity's ability to significantly influence the specialist's judgments, we might choose not to use the work of the specialist as audit evidence, instead of performing additional procedures to evaluate the specialist's work. As an alternative, when the work of the management's specialist relates to an accounting estimate, we might consider developing an independent expectation of the estimate. We might also seek - through the entity - to use the work of another specialist.

Can we use the work of an engaged management's specialist who is employed by KPMG? [ISA | 7663.14301]

No. Having a business relationship with an audit client causes a conflict of interest that can create an independence issue at the audit client where the management's specialist is employed by KPMG. Refer to the local risk management manual for further details about situations involving business relationships with an audit client.

Do we reconsider our initial assessment of the management's specialist's relationship to the entity during the audit? [ISA | 7663.14302]

Yes. During the audit, unexpected events or changes in conditions, or the audit evidence obtained from the audit procedures performed may indicate that it is necessary to reconsider our initial assessment of the management's specialist's relationship to the entity.

In addition, while we do not design procedures to specifically search for potential conflicts of interest that a management's specialist might have, we may become aware of such conflicts. For example, through obtaining information about the specialist's professional reputation and standing, reading the specialist's report, or performing procedures in other audit areas.

If we become aware of a conflict of interest that could affect the management's specialist's judgments about the work performed, conclusions, or findings, we consider the effect of that conflict on the reliability of the specialist's work and perform additional procedures if necessary to obtain sufficient appropriate evidence regarding the relevant financial statement assertion.

3.1.4 Determine the necessary evidence to assess the knowledge, skill, ability and the relationship of the management's specialist [ISA | 7664]

What do we do?

Determine the necessary evidence to assess the knowledge, skill, ability and the relationship of the management's specialist

Why do we do this?

Our assessment of the knowledge, skill and ability of the management's specialist and the specialist's relationship to the entity influence our assessment of the reliability of the work of the specialist as audit evidence. This, in turn, affects our determination of the necessary evidence from our evaluation of the specialist's work. As the level of knowledge, skill and ability possessed by the specialist in the particular

field decreases or as the ability of management to affect the specialist's judgments increases, we obtain more persuasive audit evidence in our evaluation of the specialist's work. Similarly, if we plan to obtain relatively less persuasive evidence from our evaluation of the work of the specialist, we satisfy ourselves as to the higher level of knowledge, skill and ability of the specialist and that management does not have the ability to significantly affect the specialist's judgments.

Execute the audit

What do we consider when determining the necessary level of evidence to assess the knowledge, skill and ability of a management's specialist and the specialist's relationship to the entity? [ISA | 7664.14024]

The necessary evidence to assess the level of knowledge, skill, and ability of a management's specialist and the specialist's relationship to the entity depends on:

(1) the significance of the specialist's work to our conclusion regarding the relevant assertion; and
(2) the combined assessed risk (CAR) of the relevant assertion.

As the significance of the management's specialist's work and CAR increases, the persuasiveness of the evidence we obtain for those assessments also increases.

What affects the persuasiveness of evidence related to the assessment of the knowledge, skill, ability and relationship of a management's specialist?

The same factors that affect the persuasiveness of audit evidence in other areas of the audit apply here: relevance and reliability. For example, relevant information from a source not affiliated with the entity or specialist or our experience with previous work of the specialist generally provide more persuasive evidence than evidence from the specialist's uncorroborated representations about his or her professional credentials. The reliability of information about the management's specialist's credentials and experience also increases when the entity has effective controls over that information, e.g., in conjunction with controls over the selection of qualified specialists. Additionally, for more persuasive evidence, it may be appropriate to perform procedures to obtain evidence from multiple sources.

3.2 Evaluate the work of a management's specialist [ISA | 7665]

What do we do?

Evaluate the appropriateness of the work of the management's specialist as audit evidence

Why do we do this?

Although we are using a management's specialist's work as audit evidence, our responsibility over the audit engagement is not reduced. Therefore, we evaluate whether the work of the management's specialist provides sufficient appropriate audit evidence to support a conclusion on the related risk of material misstatement.

Execute the audit

What do we do when evaluating the work of a management's specialist? [ISA | 7665.14091]

When evaluating the work of a management's specialist, we perform the following:

- evaluate the relevance and reliability of data used by the management's specialist ,
- evaluate relevant assumptions used by the management's specialist ,
- evaluate the method(s) used by the management's specialist ,
- determine the necessary evidence from evaluation of the work of the management's specialist ,
- evaluate the relevance and reliability of the management's specialist's work , and
- perform additional procedures in specific circumstances .

Does our evaluation require reperformance of the management's specialist's work? [ISA | 7665.14092]

No, it is not necessary for us to reperform the management's specialist's work or evaluate whether the work complies with all technical aspects in the specialist's field. Instead, we evaluate whether the specialist's work provides sufficient appropriate evidence to support a conclusion whether the corresponding accounts or disclosures in the financial statements are in conformity with the applicable financial reporting framework.

3.2.1 Evaluate the relevance and reliability of data used by the management's specialist [ISA | 7666]

What do we do?

Evaluate the relevance and reliability of data used by the management's specialist whose work we intend to use as audit evidence

Why do we do this?

Data is often an integral part of the work performed by a management's specialist that we intend to use as audit evidence, especially if the work relates to an accounting estimate. Therefore, as part of the procedures we perform when evaluating the work of the management's specialist, we evaluate the relevance and reliability of the data that was used in the specialist's work that we intend to use as audit evidence. Otherwise, we risk placing undue reliance on their work.

Execute the audit

What is 'data'? [ISA | 7666.14099]

Data, as that term is used in the auditing standards for auditing accounting estimates and using the work of a management's specialist, is equivalent to 'information'(see 'Evaluate the relevance and reliability of information used as audit evidence '). Accordingly, data may be comprised of multiple 'data elements' (see 'What are 'relevant data elements' (RDEs)? ').

In the case of accounting estimates, data elements may be used as either a direct input to the method or model or in developing an assumption. Such data can come in many forms, including, for example, standing membership data and pensionable payroll data used in pension liability calculations, warranty/self-insured claims listings used in determining insurance reserves and historical cash flows used to develop projections used in valuing intangible assets.

Are there different categories of data?

Yes. Data can be analysed in several different ways. However, the key distinction we make and one that impacts our audit approach is based on the source of data. The source of data can be either 'internal' or 'external' (see 'Understand the source and nature of the information and the circumstances under which it is obtained '). Generally, internal data originates from the entity; whereas external data originates from a source outside of the entity (i.e., a third party). The standards refer to internal sources of data as 'information produced by the entity.'

Do we evaluate all data used by the management's specialist? [ISA | 7666.14102]

No. We only evaluate data that is important to the matter (e.g., an accounting estimate) for which we are using the management's specialist's work as audit evidence - i.e., data where we have identified an RMM. However, we consider all data used by the management's specialist when assessing whether the RM related to each piece of data is an RMM.

How do we evaluate data used by the management's specialist? [ISA | 7666.14103]

Once we have identified data used in the work of the management's specialist which we intend to use as audit evidence, we evaluate that data by performing the following:

- Evaluate whether the data is sufficiently relevant, including the identification of RDEs;
- Evaluate whether the data (and RDEs) is sufficiently reliable; and
- For data used by the management's specialist to develop an accounting estimate, evaluate whether the data was appropriately used in the estimation process.

How do we evaluate whether the data used by the management's specialist is sufficiently relevant? [ISA | 7666.14105]

We perform activity 'Evaluate the relevance of information .'

How do we evaluate whether the data used by the management's specialist is sufficiently reliable? [ISA | 7666.14106]

We perform activity 'Evaluate the reliability of information ' The type of procedures we perform to evaluate the reliability of data used by the management's specialist will depend on whether the data represents 'internal information' or 'external information.'

Is data used by the management's specialist 'internal information' or 'external information'?

It depends on the original source of the data:

- If the data was produced by the entity and provided to the management's specialist, such data is considered 'internal information.'
- If the data was obtained by the management's specialist from an external source that is (i) suitable for a broad range of users and (ii) made available to the public for free or for a fee (e.g., subscription), such data is considered 'external information.'
- If the data was generated by the management's specialist specifically for the entity's purposes, such data is not considered 'external information.'

Refer to sub-question 'What do we do over the source data used by management's specialist?' within activity 'What are the different 'sources' of information? ' for further discussion and guidance related to data from the above-listed sources that is used by a management's specialist when evaluating the specialist's work.

How do we evaluate whether the data used by the management's specialist was appropriately used in developing an accounting estimate? [ISA | 7666.15093]

We perform procedures to evaluate whether the data is appropriately used by the entity within activity 'Evaluate the data used in the entity's estimation process .'

Is there anything additional we think of when testing data that was generated by the management's specialist or obtained by the specialist from an external source? [ISA | 7666.14111]

Yes, we may modify the nature, timing and extent of our procedures to evaluate the data generated by the management's specialist or obtained by the specialist from an external source based on our assessment of the factors in 'Determine the necessary evidence from evaluation of the work of the management's specialist '.

3.2.2 Evaluate relevant assumptions used by the management's specialist [ISA | 7667]

What do we do?

Evaluate whether the relevant assumptions used by the management's specialist are reasonable

Why do we do this?

The work that management's specialists perform often relies on various assumptions, especially when the work is related to developing an accounting estimate. If we intend to use the work of a management's specialist as audit evidence, we identify which of the assumptions used by the specialist represent relevant assumptions and evaluate them. Otherwise, we risk placing undue reliance on their work.

Execute the Audit

What are 'assumptions'? [ISA | 7667.14174]

Assumptions represent judgments, decisions, or assessments made in areas which involve a degree of subjectivity or uncertainty. Assumptions that are important to the recognition or measurement of the related matter, including an accounting estimate, are referred to as 'relevant assumptions.'

Are there different categories of assumptions? [ISA | 7667.14175]

Yes. We differentiate between 'assumptions developed by management' and 'assumptions developed by the management's specialist', which is based on who made the judgment(s) that are reflected in an assumption. Our audit approach differs depending on who developed the assumption.

What are 'assumptions used by the management's specialist'? [ISA | 7667.14221]

Those are all assumptions that are used in the work of a management's specialist that we intend to use as audit evidence. They may be developed by the specialist or provided to the specialist by management.

Do we evaluate all assumptions used by the management's specialist? [ISA | 7667.14176]

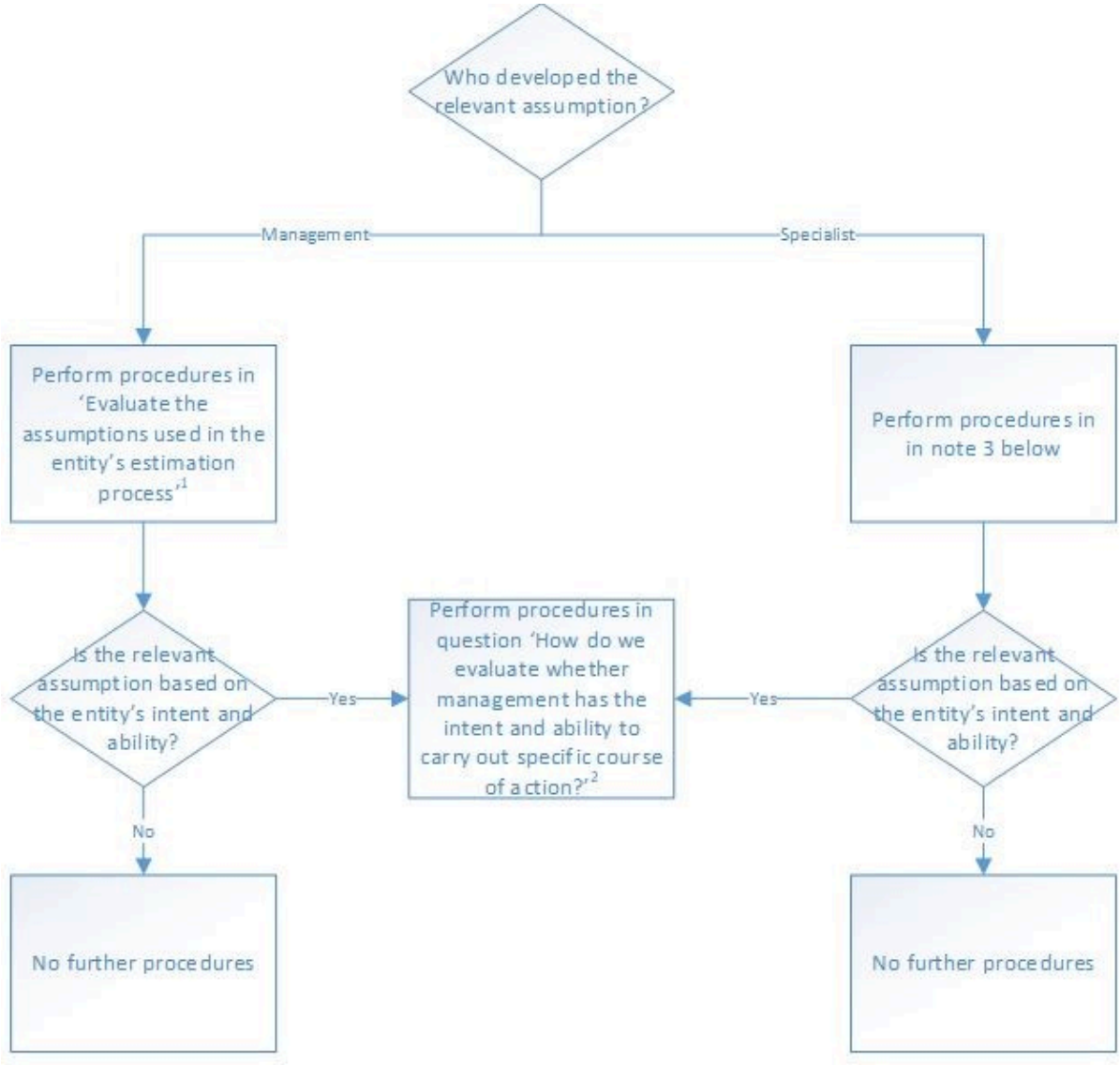
No. We only evaluate relevant assumptions. 'Relevant assumptions' are also referred to in the auditing standards as 'significant assumptions.'

How do we identify relevant assumptions related to an accounting estimate? [ISA | 7667.14179]

We perform procedures in 'Identify which assumptions are relevant to an accounting estimate'. Relevant assumption can include assumptions developed by management, assumptions developed by the management's specialist, or both.

How do we evaluate a relevant assumption used by the management's specialist that relates to an accounting estimate? [ISA | 7667.14202]

We perform the appropriate procedures determined based on the following decision tree.



(1) See 'Evaluate the assumptions used in the entity's estimation process'

(2) See sub-question 'How do we evaluate whether management has the intent and ability to carry out specific course of action?' within 'How do we design and perform tests of controls to be responsive to this RMM?'

(3) See procedures in sub-question 'How do we evaluate a relevant assumption related to an accounting estimate that was developed by the management's specialist?' within 'How do we evaluate a relevant assumption used by the management's specialist that relates to an accounting estimate?'

How do we evaluate a relevant assumption related to an accounting estimate that was developed by the management's specialist? [ISA | 7667.14203]

When a relevant assumption in an accounting estimate was developed by the management's specialist, we generally follow the same guidance as for assumptions developed by management in the activity 'Evaluate the assumptions used in the entity's estimation process' with the following two modifications:

- We do not evaluate the entity's basis for the relevant assumption since the assumption was developed by the specialist; instead, we evaluate whether the assumption is consistent with supporting information provided by the specialist and assumptions generally accepted in the specialist's field, if relevant.
- We may modify the nature, timing and extent of our procedures to evaluate the assumption developed by the management's specialist based on our assessment of the factors in 'Determine the necessary evidence from evaluation of the work of the management's specialist.'

How do we evaluate a relevant assumption used by the management's specialist related to a matter other than an accounting estimates? [ISA | 7667.14208]

If a relevant assumption used by the management's specialist relates to a matter other than an accounting estimate and it was developed by management, we design our procedures to evaluate the assumption using applicable guidance in 'Design and perform substantive procedures for each RMM', considering the relevant requirements of the applicable financial reporting framework.

What about a relevant assumption not related to an accounting estimate that was developed by the management's specialist? [ISA | 7667.14209]

When the management's specialist developed a relevant assumption related to a matter other than an accounting estimate, we evaluate the reasonableness of the assumption by assessing its consistency with relevant information. Examples of information that, if relevant, we may take into account include:

- Assumptions generally accepted within the specialist's field;
- Supporting information provided by the specialist;
- Industry, regulatory, and other external factors, including economic conditions;
- The entity's objectives, strategies, and related business risks;
- Existing market information;
- Historical or recent experience, along with changes in conditions and events affecting the entity; and
- Relevant assumptions used in determining other matters, including estimates tested in the entity's financial statements.

What if a relevant assumption used by the management's specialist is based on the entity's intent and ability to carry out a particular course of action? [ISA | 7667.14210]

If a relevant assumption used by the management's specialist is based on the entity's intent and ability to carry out a particular action, we take into account the following further factors in evaluating the reasonableness of the assumption:

- The entity's past history of carrying out its stated intentions;
- The entity's written plans or other relevant documentation, such as budgets or minutes;
- The entity's stated reasons for choosing a particular course of action;
- The entity's ability to carry out a particular course of action, which includes consideration of whether:
  - The entity has the financial resources and other means to carry out the action;
  - Legal, regulatory or contractual restrictions could affect the entity's ability to carry out the action; and
  - The entity's plans require the action of third parties and, if so, whether those parties are committed to those actions.

How does a controls based approach affect the substantive procedures we choose to perform? [ISA | 7667.14216]

If we have tested internal controls and found them to be effective, we still perform some level of substantive procedures to be satisfied that the assumptions are reasonable. In some cases, we may accomplish this through performing a 'dual-purpose test'. Our testing will depend on the nature of the assumption and/or data that the assumption is based upon.

When an assumption is based on underlying data, we audit that data in the same manner as we audit any other data - i.e. we perform substantive procedures to address the objectives at activity, 'Evaluate the relevance and reliability of data used by the management's specialist'.

3.2.3 Evaluate the method(s) used by the management's specialist [ISA | 7668]

What do we do?

Evaluate whether the methods used by the management's specialist are appropriate under the circumstances

Why do we do this?

We typically encounter methods and/or models when we audit accounting estimates, including fair value measurements. And if management employs or engages a specialist to develop (or assist in developing) an accounting estimate, it is often because the specialist has access to and experience with a method or model needed to develop the estimate that is not available to management. If we use the work of the management's specialist that includes application of a method and/or a model as audit evidence, we perform procedures to evaluate whether the method and/or model used by the specialist is appropriate under the circumstances. Otherwise, we risk placing undue reliance on their work.

Execute the audit

What is a 'method'? [ISA | 7668.14027]

A method is a measurement technique used by management or a management's specialist to make an accounting estimate in accordance with the relevant measurement basis. A method may include application of a model or models.

What is typically the role of a management's specialist when it comes to methods and/or models? [ISA | 7668.14028]

If a management's specialist uses a method and/or model to develop (or assist management in developing) an accounting estimate, it is typically the specialist's method(s) and/or model(s) that are used. Therefore, when we refer to 'method(s) used by the management's specialist,' we mean methods and/or models that were developed by the specialist and are applied to develop an accounting estimate.

How do we evaluate the methods used by the management's specialist? [ISA | 7668.14029]

When a management's specialist uses their own method and/or model to develop (or assist in developing) an accounting estimate that we intend to use as audit evidence, we design procedures to evaluate the method and/or model following the guidance in 'Test and evaluate the methods used in the entity's estimation process .' This is the same guidance we use when evaluating any other methods used in the entity's estimation processes.

What about the fact that the method and/or model was developed and is applied by the management's specialist rather than management itself? [ISA | 7668.14030]

Because the method and/or model was developed and is applied by a specialist, we may modify the nature, timing and extent of our procedures to evaluate the method and/or model based on our assessment of the factors in 'Determine the necessary evidence from evaluation of the work of the management's specialist .'

Does 'evaluating whether the data and relevant assumptions are appropriately applied' mean recalculating or reperforming the method and/or model calculations in all circumstances? [ISA | 7668.14031]

In depends on our assessment of the risk(s) associated with the method and/or model used by the management's specialist and other factors in 'Determine the necessary evidence from evaluation of the work of the management's specialist .'

When our risk assessment procedures indicate an increased risk related to the mathematical accuracy or integrity of the method and/or model calculations, our procedures may include reperformance of the method and/or model calculations or other procedures designed to achieve the same objective - for example, comparing an alternative (or challenge) model with the outputs from the method/and or model used by the management's specialist.

In circumstances where the risk is lower, reperformance of the method and/or model calculations may not be necessary and we may be able to achieve the objectives of evaluating whether the data and relevant assumptions are appropriately applied under the applicable financial reporting framework by performing other procedures including, for example:

- Reading descriptions of the method and/or model in the management's specialist's report or equivalent communication;
- Testing the entity's controls over the design of the method and/or model and its application;

- Discussing the design and application of the model directly with the management's specialist, including with appropriate involvement in these discussions by KPMG specialists, if necessary; and
- Performing certain analytical procedures to assess the reasonableness of the outputs from the method and/or model.

What if the management's specialist's model is proprietary and we cannot access it? [ISA | 7668.14032]

It may not be necessary for us to obtain access to the model used by the management's specialist in order to evaluate it. We may be able to perform other procedures to obtain information to assess whether the model is appropriate and applies the selected method in conformity with the applicable financial reporting framework. Depending on the model and the factors discussed in 'Determine the necessary evidence from evaluation of the work of the management's specialist ,' we may gather sufficient information to assess the appropriateness of the model by, for example:

- Obtaining an understanding of the model;
- Reviewing descriptions of the model in the management's specialist's report or equivalent communication;
- Testing controls over the entity's evaluation of the specialist's work; or
- Assessing the inputs to and outputs from the model, if necessary, using an alternative (or challenge) model for comparison.

3.2.4 Determine the necessary evidence from evaluation of the work of the management's specialist [ISA | 7669]

What do we do?

Determine the necessary evidence from evaluation of the work of the management's specialist

Why do we do this?

The persuasiveness of the audit evidence provided by the management's specialist's work varies depending on the circumstances, including the specialist's professional qualifications and the entity's ability to influence the specialist's judgments. Therefore, we consider these and other factors to determine the nature and extent of our evaluation procedures that will be appropriate for the particular situation. This allows us to appropriately calibrate our procedures over the management's specialist's work.

Execute the Audit

What factor do we consider when determining the necessary audit effort for evaluating the management's specialist's work? [ISA | 7669.14222]

Our audit effort related to (or, in other words, the necessary evidence we gather from) our evaluation of the management's specialist's work depends on the significance of the specialist's work to our conclusions regarding the related risks of material misstatement (RMM).

What additional factors may affect the necessary audit effort for evaluating the management's specialist's work? [ISA | 7669.6338]

The table below provides some examples of what additional factors may affect the nature, timing and extent of our procedures when evaluating the data, assumptions, and methods developed by the management's specialist

Factors	Necessary evidence from our evaluation of the specialist's work is	
	Higher	Lower
Nature and complexity of the matter to which the management's specialist relates	In situations where the matter is more complex, we obtain more persuasive evidence about any data, assumptions or methods developed by the specialist by altering the nature, timing, and extent of our audit procedures.	In situations where the matter is less complex, we may reduce our audit effort to evaluate some of the data, assumptions or methods used by the specialist to develop the entity's estimate.
Risks of material misstatement in the matter and the nature and extent of any controls within the entity over the management's specialist's work	In situations where we assess the CAR as SC or SN, we may perform more expansive audit procedures, such as recalculation of the model used by the management's specialist.	In situations where we assess the CAR as BC or BN, we may perform less expansive audit procedures, such as a combination of inquiry and inspection of documentation for a model used by the management's specialist.
Availability of alternative sources of audit evidence	In situations where alternative sources of audit evidence are not available to us, we may place more reliance on the management's specialist's work. We may alter the nature, timing and extent of our audit procedures to obtain more persuasive evidence.	In situations where alternative sources of audit evidence are available to us, we may place less reliance on the management's specialist's work and can reduce our testing of it.

Nature, scope and objectives of the management's specialist's work	If the scope and objectives of the specialist's work are such that they provide key input into management's determination of relevant accounts and disclosures, we may test the specialist's work more.	If the scope and objectives of the specialist's work are such that they don't provide key inputs into management's determination of relevant accounts and disclosures, we may reduce our testing of the specialist's work.
Ability of the entity to affect the specialist's judgment (can management exercise control or influence over the specialist's work), this may include whether the management's specialist is employed by the entity, or is a party engaged by it to provide relevant services	If we determine that the specialist has a relationship with the entity that may significantly affect the specialist's judgments (e.g. the specialist is an employee of the entity reporting to the entity's controller), we may consider involving a KPMG specialist to assist us in evaluating the management's specialist's work.	If we determine that the specialist does not have a relationship that could significantly affect the specialist's judgments, we may satisfy ourselves with less persuasive evidence that can be obtained without involvement of a KPMG specialist.
Level of knowledge, skill, and ability possessed by the specialist in the particular field, including whether the management's specialist is subject to technical performance standards or other professional or industry requirements	If we have doubts about the knowledge, skill and ability of the management's specialist, we discuss our concerns with management and inquire of their process to assess the knowledge, skill and ability of the management's specialist. We may consider developing our own independent expectation using assistance from KPMG specialists.	If we determine that the specialist is highly qualified and experienced in the relevant field and is employed by a highly regarded firm with many clients, we may satisfy ourselves with less persuasive evidence about some of the data, assumptions or methods developed by the specialist.
Our knowledge and experience of the specialist's particular field	In situations where we don't know the specialist's area well, we may rely more on the specialist's work and conclusions and hence we may perform more work to evaluate those matters.	In situations where we know the specialist's area well, we may be able to place less reliance on the specialist's work and conclusions and hence we may be able

		to perform less work to evaluate those matters.
Our previous experience of the work of that specialist	In situations where we don't have previous experience of the work of that specialist, we may perform more extensive procedures to assess the knowledge, skill and ability of the specialist and alter the nature, timing and extent of our audit procedures accordingly.	In situations where we have previous experience of the work of that specialist, we may perform fewer procedures to assess the knowledge, skill and ability of the specialist and alter the nature, timing and extent of our audit procedures accordingly.

In general, when evaluating the work of the management's specialist, the audit effort is greatest when our CAR assessment for the related RMM is significant; the specialist's work is critical to our conclusions; the specialist has a lower level of knowledge, skill and ability in the particular field; and the entity has the ability to significantly affect the specialist's judgments.

What do we think about when assessing the significance of the management's specialist's work to our conclusions? [ISA | 7669.14345]

The significance of the management's specialist's work refers to the degree to which we intend to use the work of the specialist to support our conclusions about the related RMM(s). The significance of the specialist's work stems from the following two consideration:

Consideration	Significance of the management's specialist's work	
	Higher	Lower
The extent to which the specialist's work affects the RMM and the related significant accounts and disclosures in the financial statements	For example, the work of the specialist is a primary determinant in one or more significant accounts and disclosures in the financial statements	For example, the specialist's work is used by management only as a secondary check for a significant account or disclosure
Our approach to testing the relevant RMM	For example, we test the entity's process for developing an accounting estimate which is principally based on the work of the specialist	For example, we address the RMM related to an accounting estimate by developing an independent expectation of the estimate

What may we think about when we determine that more persuasive evidence is needed from our evaluation of the work of the management's specialist? [ISA | 7669.14347]

When we determine that more persuasive evidence is warranted from our evaluation of the work of the management's specialist, we focus on the issues that led us to that determination (for example issues related to the specialist's knowledge, skill and ability) and design procedures to address aspects of the specialist's work that could be affected by these issues.

Are there alternatives to gathering more persuasive evidence from our evaluation of the management's specialist's work? [ISA | 7669.14351]

Yes. In some situations, if we have doubts about the management's specialist's knowledge, skill and ability or about the entity's influence over the specialist's judgments, we might choose not to use the work of the specialist as audit evidence, instead of performing additional procedures with respect to evaluating the specialist's work. As an alternative, when the work of the management's specialist relates to an accounting estimate, we might consider developing an independent expectation. We might also seek - through the entity - to use the work of another specialist.

Examples

What are some examples of the practical application of the factors we use to determine the necessary evidence from our evaluation of the management's specialist's work? [ISA | 7669.14353]

The following examples illustrate how the factors discussed in this activity affect the necessary audit effort in evaluating the work of a management's specialist.

Example 1 - An oil and gas production entity employs an experienced petroleum reserve engineer to assist in developing the estimated proved oil and gas reserves that are used in multiple financial statement areas, including: (1) the entity's impairment analysis; (2) depreciation, depletion and amortization calculations; and (3) related financial statement disclosures, such as reserve disclosures. A substantial portion of the engineer's compensation is based on entity's earnings, and the engineer has a reporting line to the entity's chief financial officer. We conclude that the combined assessed risk (CAR) of the valuation of oil and gas properties is SC, and the reserve engineer's work is significant to our conclusion regarding the assertion. Thus, we obtain more persuasive audit evidence commensurate with a CAR at SC, devoting more audit attention to the data, relevant assumptions, and methods that are more important to the specialist's findings and more susceptible to error or significant management influence. On the other hand, we may obtain relatively less audit evidence for the work of an individual reserve engineer if the entity has several properties of similar risk, and the reserve studies are performed by different qualified reserve engineers who are either (1) engaged by the entity, having no significant ties that give the entity significant influence over the specialists' judgments or (2) employed specialists for which the entity has implemented compensation policies, reporting lines, and other measures to prevent management from having significant influence over the specialists' judgments.

Example 2 - A financial services entity specializes in residential mortgage and commercial mortgage loans, which are either sold or held in its portfolio. During the financial statement audit, we may inspect appraisals prepared by the management's specialists for the real estate collateralizing loans for a variety of reasons, including in conjunction with testing the valuation of loans and the related allowance for loan losses. Under these circumstances, the persuasiveness of the evidence we obtain from (and the necessary degree of audit attention devoted to evaluating the methods,

relevant assumptions, and data used in) an individual appraisal would depend, among other things, on the importance of the individual appraisal to our conclusion about the related financial statement assertion. In general, we apply more audit attention to appraisals used in testing the valuation of individually large loans that are valued principally based on their collateral than to appraisals inspected in loan file reviews for a portfolio of smaller loans with a low risk of default and a low loan-to-value ratio.

Example 3 - A manufacturing entity engages an actuary to calculate the projected pension benefit obligation ("PBO") for its pension plan, which is used to determine the related accounts and disclosures in the financial statements. We assessed the CAR for the valuation of the PBO as SC and concluded that the actuary's work is significant to our conclusion. The actuary has extensive experience and is employed by a highly regarded actuarial firm with many clients. The actuary and actuarial firm have no relationships with the entity other than performing the actuarial pension plan calculations for the entity's financial statements. Under these circumstances, the necessary extent of our audit procedures can be less than it otherwise would be for a situation where a specialist has a lower level of knowledge, skill and ability, or the entity has the ability to significantly affect the specialist's judgments about the work performed, conclusions, or findings. We might also modify the nature and timing of our planned audit procedures.

3.2.5 Evaluate the relevance and reliability of the management's specialist's work [ISA | 7670]

What do we do?

Evaluate the relevance and reliability of the management's specialist's work and whether it supports or contradicts our conclusions on the related risk(s) of material misstatement

Why do we do this?

We evaluate whether the management's specialist's findings support the relevant financial statement assertions and whether they are consistent with other audit evidence we have obtained. If we don't do this, we may inappropriately use the work of the management's specialist or fail to consider disconfirming evidence or inconsistencies with other audit evidence.

Execute the audit

What do we mean by 'relevance'? [ISA | 7670.1300]

Relevance deals with the logical connection, or relationship, between the information and the objective of the procedure being performed. We think about how the information relates to our risk assessment procedure, RMM addressed by our substantive procedure, or to the objective of the control we are testing.

Information from one source may be relevant when performing one or more audit procedures.

For example, sales information provided by management may be used for procedures over both the entity's warranty provision and evaluation of management's cash flows forecast related to the entity's warranty provision.

Relevance is often very simple to assess because it is obvious. For example, relevance is often simple to assess because management is providing us with information that we have requested for our audit procedure (e.g. listing of related party transactions) and/or the information is otherwise very common audit evidence that is obtained when performing our audit procedures (e.g. invoices, bank statements).

However, assessing the relevance of information is not always easy or obvious (as the example below illustrates).

For example, the engagement team is evaluating whether the entity's discount rate is reasonable. The engagement team obtains the discount rate from 10 publicly traded companies and assesses which of the 10 are relevant to the objective of their procedure. When evaluating the relevance of the discount rates, the engagement team might consider the size, capital structure, industry etc. of each of the companies compared to the entity being audited.

What do we mean by 'reliable'? [ISA | 7670.14355]

Reliable means that the information used in our audit is trustworthy - i.e., the information is authentic, comes from a reputable / knowledgeable source or is accurate and complete for purposes of our procedures.

What does 'reliable' mean in the context of a management's specialist? [ISA | 7670.14146]

Our evaluation of the management's specialist's professional qualifications and whether the specialist is free from undue influence by the entity's management combined with the work we perform on the data, assumptions and methods used by the management's specialist, helps us evaluate the reliability of the specialist's work.

How do we evaluate the relevance and reliability of the work of the management's specialist? [ISA | 7670.14148]

When we evaluate the relevance and reliability of the management's specialist's work, we step back and consider whether the work and the specialist's findings support or contradict the related management assertions in the financial statements and provide sufficient appropriate evidence for our own conclusions on the related risks of material misstatement.

In making this evaluation, we read the management's specialist's report or equivalent communication and take into account everything we have learned about the management's specialist's work and their findings. In particular, we consider the following factors:

- The results of our procedures over data, relevant assumptions and methods used by the specialist;
- The nature of any restrictions, disclaimers or limitations in the specialist's report or equivalent communication; and

- The consistency of the specialist's work with other evidence we have obtained and our understanding of the entity and its environment.

What else do we think about when evaluating the relevance and reliability of the management's specialist's work? [ISA | 7670.14151]

When stepping back and evaluating the management's specialist's work, we may also think about whether the specialist's findings and conclusions are:

- Based on an appropriate time period and take into account subsequent events, where relevant;
- Based on appropriate consideration of any errors or deviations encountered by the management's specialist; and
- Supporting the amounts recorded and disclosed in the financial statements.

Is there an expectation that there will be a formal report prepared by the management's specialist? [ISA | 7670.14153]

Not necessarily. A management's specialist may communicate his or her findings in a report, a memorandum, or other written alternative to a formal report. However, in all cases we would expect there to be some written record of the work performed by the specialist and his or her findings and conclusions that we can read, evaluate and include in our audit evidence.

3.2.6 Perform additional procedures in specific circumstances [ISA | 7671]

What do we do?

Perform additional procedures when the management's specialist's findings or conclusions appear to contradict the relevant assertion or the specialist's work does not provide sufficient appropriate evidence for the related RMM.

Why do we do this?

As a result of our evaluation of the relevance and reliability of the management's specialist's work, we may determine that the specialist's work or conclusions appear to contradict the relevant assertion made by management in its financial statements. We may also identify matters that indicate that the specialist's work does not provide sufficient appropriate audit evidence for the related RMM. In these situations, we perform additional procedures to address the specific matters identified and be able to conclude on the related RMM(s).

Execute the audit

What are examples of situations where we ordinarily perform additional procedures? [ISA | 7671.14072]

Examples of situations where we ordinarily perform additional procedures to address specific matter(s) identified include:

- The management's specialist's findings and conclusions are inconsistent with:
  - What is presented in the entity's financial statements;
  - Other information, if any, in the specialist's report, or equivalent communication;

  - Other evidence obtained by us; or
  - Our understanding of the entity and its environment;

- The management's specialist's report, or equivalent communication, contains restrictions, disclaimers or limitations regarding our use of the report or communication;
- We identified exceptions in performing the procedures related to data, relevant assumptions or methods used by the management's specialist;
- We have doubt about the management's specialist's knowledge, skill and ability, or about the entity's effect on the specialist's judgments; or
- The management's specialist has a conflict of interest relevant to the specialist's work.

Do all restrictions, disclaimers or limitations included in the management's specialist's report prevent us from using the specialist's work as audit evidence?

Generally not. Not all restrictions, disclaimers or other limitations are created equal and we evaluate their nature to understand their effect, if any, on our ability to use the management's specialist's work as audit evidence.

> For example, a management's specialist's report that states "the values in this report are not an indication of the fair value of the underlying assets" generally would not provide sufficient appropriate evidence related to fair value measurements. On the other hand, a management's specialist's report that indicates that the specialist's calculations were based on information supplied by management may still be appropriate for use by us to support the relevant assertion, since we may have tested the entity-produced data used in the specialist's calculations.

How do we identify 'conflicts of interest' that may affect the management's specialist's work?

Unlike relationships between the management's specialist and the entity which we identify and assess in 'Assess the management's specialist's relationship to the entity ,' we do not search for potential conflicts of interest that a management's specialist might have, other than those resulting from the specialist's relationship with the entity. However, throughout the audit we remain alert for and may become aware of conflicts of interest arising from the management's specialist's relationships with parties outside the entity (e.g., through obtaining information about the specialist's professional reputation and standing, reading the specialist's report or performing procedures in other audit areas).

> For example, in reviewing an appraisal of the collateral for a material loan receivable, we may become aware that the appraiser has a substantial financial interest in the collateral. If we become aware of a conflict of interest that could affect the management's specialist's judgments about the work performed, conclusions, or findings, we think about the effect of that conflict on the reliability of the specialist's work, and perform additional procedures if necessary to obtain sufficient appropriate evidence regarding the relevant financial statement assertion.

What do we do if we determine that the management's specialist's findings or conclusions are not appropriate or are inconsistent with our other audit evidence? [ISA | 7671.14077]

If we determine that the management's specialist's findings or conclusions are not appropriate or their work is inconsistent with or contradicts our other audit evidence, we first discuss the issues with the management's specialist along with management to reach a common understanding of all the

facts. Thereafter, we perform additional audit procedures appropriate to the circumstances, which may include having further discussions with management on how they are planning to resolve the matter.

If the matters are not resolved or it is clear that the management's specialist's work does not provide sufficient evidence, we consider whether there is a potential misstatement and evaluate the nature of and reasons for the misstatement and possible impact on the auditor's report.

Selecting Items for Testing to Obtain Audit Evidence

International Standards on Auditing: ISA 500.10

Selecting Items for Testing to Obtain Audit Evidence

10. When designing tests of controls and tests of details, the auditor shall determine means of selecting items for testing that are effective in meeting the purpose of the audit procedure. (Ref: Para. A53 - A57)

ISA Application and Other Explanatory Material: ISA 500.A63-A67

Selecting Items for Testing to Obtain Audit Evidence (Ref: Para. 10)

A63. An effective test provides appropriate audit evidence to an extent that, taken with other audit evidence obtained or to be obtained, will be sufficient for the auditor's purposes. In selecting items for testing, the auditor is required by paragraph 7 to determine the relevance and reliability of information to be used as audit evidence; the other aspect of effectiveness (sufficiency) is an important consideration in selecting items to test. The means available to the auditor for selecting items for testing are:

(a) Selecting all items (100% examination);

(b) Selecting specific items; and

(c) Audit sampling.

The application of any one or combination of these means may be appropriate depending on the particular circumstances, for example, the risks of material misstatement related to the assertion being tested, and the practicality and efficiency of the different means.

Selecting All Items

A64. The auditor may decide that it will be most appropriate to examine the entire population of items that make up a class of transactions or account balance (or a stratum within that population). 100% examination is unlikely in the case of tests of controls; however, it is more common for tests of details. 100% examination may be appropriate when, for example:

- The population constitutes a small number of large value items;
- There is a significant risk and other means do not provide sufficient appropriate audit evidence; or

- The repetitive nature of a calculation or other process performed automatically by an information system makes a 100% examination cost effective.

Selecting Specific Items

A65. The auditor may decide to select specific items from a population. In making this decision, factors that may be relevant include the auditor's understanding of the entity, the assessed risks of material misstatement, and the characteristics of the population being tested. The judgmental selection of specific items is subject to non-sampling risk. Specific items selected may include:

- *High value or key items* . The auditor may decide to select specific items within a population because they are of high value, or exhibit some other characteristic, for example, items that are suspicious, unusual, particularly risk-prone or that have a history of error.
- *All items over a certain amount* . The auditor may decide to examine items whose recorded values exceed a certain amount so as to verify a large proportion of the total amount of a class of transactions or account balance.
- *Items to obtain information* . The auditor may examine items to obtain information about matters such as the nature of the entity or the nature of transactions.

A66. While selective examination of specific items from a class of transactions or account balance will often be an efficient means of obtaining audit evidence, it does not constitute audit sampling. The results of audit procedures applied to items selected in this way cannot be projected to the entire population; accordingly, selective examination of specific items does not provide audit evidence concerning the remainder of the population.

Audit Sampling

A67. Audit sampling is designed to enable conclusions to be drawn about an entire population on the basis of testing a sample drawn from it. Audit sampling is discussed in ISA 530.[17]

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17 ISA 530, *Audit Sampling*

How do we comply with the Standards? [ISA | KAEGHDWC]

1 Determine the appropriate means of selecting items [ISA | 513]

What do we do?

Determine the appropriate means of selecting items for a test of details and a test of controls to obtain sufficient audit evidence

Why do we do this?

When we design our tests of control or tests of details, we determine the appropriate means of selecting items for testing so that the extent of our testing appropriately responds to the combined assessed risk (CAR) of the risk of material misstatement (RMM).

Execute the Audit

What are the means of selecting items? [ISA | 513.1300]

The following table describes the three means of selecting items:

Means of selecting items	Testing approach
All items	Test the entire population of items in an account balance or transaction class, or the entire population of occurrences of a control
Specific items	Test the items in a population that have a specified characteristic (e.g., high value items).
Substantive sampling	See question 'What is sampling?'.

How do we determine appropriate means of selecting items in certain circumstances? [ISA | 513.1500]

The following table describes what we think about when determining the appropriate means of items:

Means of selecting items	May be more appropriate when...
All items / entire population (100% examination)	• There are fewer items in the population, or the frequency of a control lends itself to selecting the entire population (e.g. annual controls) • We are testing the entire population through the use of computer assisted audit techniques (D&A routines) - e.g. procedures over a repetitive calculation, such as depreciation expense. • The audit procedure is designed to respond to a significant risk, and other means of selected items for testing do not provide sufficient appropriate audit evidence - e.g. a grant of several different stock option awards, each with its own set of complex terms and valuation models.
Specific items	• We are testing items that meet certain criteria, for example amounts that are greater than a certain amount, inventory items that have not moved for more than six months, or accounts receivable that are older than three months. • There is a very high proportion of the population made up of only a few higher value transactions of interest and the untested population can be reduced to an appropriately low level of risk - e.g. customer balances in accounts receivable

	when an entity sells nearly all of their products to a few customers. • The audit procedure is designed to respond to an RMM, including a fraud risk, which is more likely to occur when certain characteristics exist for example, items that are suspicious, unusual, particularly risk-prone or that have a history of error.
Substantive Sampling (see Audit Sampling)	• See question 'When may we perform substantive sampling?' and 'When may we perform control sampling?'.

Is specific items testing a form of substantive sampling?

No, specific items testing is not a form of sampling and therefore activities within *Audit Sampling* do not apply. This is because our use of selection criteria to identify items for testing means those items are not representative of the population and we can't project the results of this testing to the entire population. However, we can make inferences about the untested population.

> For example, specific item testing may inform our assessment of the likelihood of risk in the untested population but it doesn't allow us (as is the case with substantive sampling) to draw a conclusion as to whether the population is materially misstated.

2 Perform relevant procedures when we use specific items testing [ISA | 517]

What do we do?

IF we determine to use specific items as a means of selecting items for a test of details, THEN perform relevant procedures

Why do we do this?

We identify the items and criteria for selection to demonstrate how we addressed the RMM (or how we used the test to gain an understanding of the population) and how we addressed the possibility of misstatement in the untested population (since we cannot project the results of on the specific item test to the untested population).

Execute the Audit

What relevant procedures do we perform when selecting specific items for a test of details? [ISA | 517.1400]

We perform the following relevant procedures do we perform when selecting specific items for a test of details:

- Determine the selection criteria
- Determine whether and how to address the untested population

2.1 Determine the selection criteria [ISA | 518]

What do we do?

Determine the selection criteria for specific items for a test of details and document the rationale for the selection criteria.

Why do we do this?

Determining our selection criteria for specific items helps us demonstrate how we addressed the risk of material misstatement (RMM) and how the items matched the purpose of the test.

Execute the Audit

How do we determine the selection criteria for specific items? [ISA | 518.1300]

To determine the selection criteria for specific items we think about:

- our understanding of the entity,
- the assessment of RMMs, and
- the characteristics of the population being tested.

For example, selection criteria for specific items include:

- items within a population because they are of high value;
- items which exhibit a specific characteristic, for example, items that are suspicious, unusual, particularly risk-prone or that have a history of error;
- items whose recorded values exceed a certain amount so as to test a large proportion of the total amount of an account;
- items to obtain information about matters such as the nature of the entity or the nature of transactions.

2.2 Determine whether and how to address the untested population [ISA | 519]

What do we do?

Determine whether and how to address the untested population AND do not project the results of audit procedures applied to the items tested to the untested population

Why do we do this?

Although selective examination of specific items from an account may be an efficient means of obtaining audit evidence, it does not constitute audit sampling. Therefore, we cannot extend our conclusion to the untested population and think about whether to perform additional procedures over the untested population of items.

Execute the Audit

How do we determine whether to address the untested population? [ISA | 519.1300]

Determining whether to address the untested population depends on whether there is a reasonable possibility that the untested population could contain a material misstatement either individually or in the aggregate based on the audit evidence we have gathered.

If we determine the risk of material misstatement in the untested population is acceptably low, we may determine not to perform further testing on that population. If the risk of material misstatement is not acceptably low, we test the untested population.

The following table describes the factors we consider individually and in combination when determining whether the risk of material misstatement in the untested population is acceptably low:

Factor	What do we consider?
Materiality	When the untested population is greater (e.g., above performance materiality), we may decide to perform further testing over the untested population.
CAR assessment	When CAR of the RMM is higher, including the existence of a fraud risk, we may decide to perform further testing over the untested population.
Misstatements in the specific item testing	When misstatements are detected in the specific item testing, we may decide to perform further testing over the untested population.
Other audit procedures	When no other audit procedures (such as, a substantive analytical procedure) provide audit evidence over the untested population, we may decide to perform further testing over the untested population.
Other factors	There may be other factors that impact our assessment of whether the risk of material misstatement in the untested population is acceptably low.

How do we address the untested population when performing a test of details using specific items selection? [ISA | 519.1500]

To address the RMM that is not directly covered by the specific items selected, and reduce it to an acceptably low level, we may perform the following procedures:

- Perform a sample over the untested population in accordance with the chapter on audit sampling (AS 2315 , ISA 530 , AU-C 530).
- Selecting more items or changing our criteria; and/or

- Performing a substantive analytical procedure (SAP) over the account balance or class of transaction, or where possible, the untested population in accordance with the chapter on substantive analytical procedures (AS 2305 , ISA 520 , AU-C 520).

Inconsistency in, or Doubts over Reliability of, Audit Evidence

International Standards on Auditing: ISA 500.11

Inconsistency in, or Doubts over Reliability of, Audit Evidence

11. If:

(a) audit evidence obtained from one source is inconsistent with that obtained from another; or

(b) the auditor has doubts over the reliability of information to be used as audit evidence,

the auditor shall determine what modifications or additions to audit procedures are necessary to resolve the matter, and shall consider the effect of the matter, if any, on other aspects of the audit. (Ref: Para. A58)

ISA Application and Other Explanatory Material: ISA 500.A68

Inconsistency in, or Doubts over Reliability of, Audit Evidence (Ref: Para. 11)

A68. Obtaining audit evidence from different sources or of a different nature may indicate that an individual item of audit evidence is not reliable, such as when audit evidence obtained from one source is inconsistent with that obtained from another. This may be the case when, for example, responses to inquiries of management, internal auditors, and others are inconsistent, or when responses to inquiries of those charged with governance made to corroborate the responses to inquiries of management are inconsistent with the response by management. ISA 230 includes a specific documentation requirement if the auditor identified information that is inconsistent with the auditor's final conclusion regarding a significant matter.[18]

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18 ISA 230, *Audit Documentation,* paragraph 11

How do we comply with the Standards? [ISA | KAEGHDWC]

1 If there are inconsistencies or doubts, modify or perform additional audit procedures and evaluate the effect on our audit [ISA | 2703]

What do we do?

IF conditions are identified that indicate there are inconsistencies or that cause doubts over the reliability of the information used in our audit, THEN modify or perform additional audit procedures AND evaluate the effect on the other aspects of our audit.

Why do we do this?

Whenever there are inconsistencies in information or in the results of our audit procedures, or doubts over the reliability of the information used in our audit, we modify or perform additional audit procedures to resolve the condition and evaluate the effect on the other aspects of our audit. If these conditions exist and are not addressed in our audit response, the information is not sufficiently reliable, and does not provide the evidence we are trying to obtain.

Execute the Audit

What are the conditions that affect the reliability of the information used in our audit? [ISA | 2703.1300]

When performing our audit procedures, we may come across conditions that affect the reliability of the information used in our audit. These conditions include:

(1) information obtained from one source that is inconsistent with information obtained from another.

For example, this can occur when we are performing a particular audit procedure and (i) we obtain information from another source that is inconsistent with or contradicts the information we obtained from management -or- (ii) we identify that the information used in our procedure is inconsistent with or contradicts the same information used in other parts of the audit.

(2) the results of an audit procedure are inconsistent with the results of another audit procedure.

For example, this can occur when we are performing a particular audit procedure and we identify that the results of that procedure contradict the results of our other procedure(s).

(3) circumstances that cause us to have doubt about the reliability of the information.

For example:

- indications that a document may not be authentic;

- indications that a document may have been modified and the modifications were not disclosed to us as the auditor or that undisclosed side agreements may exist; or

- findings identified from the audit procedures we perform to evaluate the reliability of the information / RDEs used in our audit.

What do we do when we identify conditions that affect the reliability of the information used in our audit? [ISA | 2703.1400]

We modify our planned audit procedures or perform additional procedures to resolve the matter and evaluate the effect, if any, on the other aspects of our audit by performing the activity 'Continue to assess RMMs, and revise audit approach as necessary'.

The effect on our audit varies depending on the condition that was identified and the specific facts and circumstances. We may determine that the information only impacts a particular RMM we are testing or we may identify that there is a more widespread or pervasive issue e.g., indication of fraud that may lead us to question the integrity of management.

What if we identify information that is inconsistent with or contradicts our final conclusions? [ISA | 2703.11649]

Whenever we identify information related to significant findings or issues that is inconsistent with or contradicts our final conclusions (e.g. disconfirming evidence), we retain documentation of the resolution (see activity 'Document how we addressed information that is inconsistent with conclusions on significant matters').

What if we doubt the authenticity of information or believe that it has been inappropriately modified? [ISA | 2703.11650]

Whenever we doubt the authenticity of information or believe that it has been inappropriately modified, we investigate further. We understand the specific facts and circumstances surrounding the information in question and, where applicable, obtain additional information that corroborates our understanding. For example, if we identify a document that may not be authentic, we may:

- obtain the same document from another source or directly from the original source, where applicable, and compare them
- use the work of a KPMG specialist to assess the document's authenticity.

What if the information has multiple RDEs and we conclude that one of the RDEs is not reliable? [ISA | 2703.11651]

Although we evaluate and conclude on the reliability of each data element that is relevant (RDE) to our audit procedure, we always 'step-back' and consider the information as a whole. Specifically, we consider whether the findings from our procedures (i.e. a deficient RDE) is indicative of issues with the other RDEs in the information. This is because data elements in the information are often inter-dependent.

If we conclude that one of the RDEs is not reliable and determine that there is an inter-dependency with other RDEs in the information, we conclude that the information as a whole is not reliable and evaluate the effect on our audit, including the impact on all the procedures in which that information is used in our audit.

Do we authenticate all information that we use in our audit? [ISA | 2703.1500]

No, we are not experts in document authentication. However, we maintain an awareness and apply professional skepticism when we inspect information obtained from the entity or third parties that is used in our audit. We perform appropriate audit procedures to determine whether the information used in our audit is sufficiently reliable.

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