KAEG-I [INTL VERSION 2024]: ISA 530 Audit Sampling

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[ISA | KAEGISA530]

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How do we comply with the standards?

ISA 530 Audit Sampling

View the Full Chapter for this Standard

ISA 530 *Audit Sampling*

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

Introduction

International Standards on Auditing: ISA 530.01-05

Introduction

Scope of this ISA

1. This International Standard on Auditing (ISA) applies when the auditor has decided to use audit sampling in performing audit procedures. It deals with the auditor's use of statistical and non-statistical sampling when designing and selecting the audit sample, performing tests of controls and tests of details, and evaluating the results from the sample.

2. This ISA complements ISA 500,[1] which 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. ISA 500 provides guidance on the means available to the auditor for selecting items for testing, of which audit sampling is one means.

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1 ISA 500, *Audit Evidence*

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, when using audit sampling, is to provide a reasonable basis for the auditor to draw conclusions about the population from which the sample is selected.

Definitions

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

(a) Audit sampling (sampling) - The application of audit procedures to less than 100% of items within a population of audit relevance such that all sampling units have a chance of selection in order to provide the auditor with a reasonable basis on which to draw conclusions about the entire population.

(b) Population - The entire set of data from which a sample is selected and about which the auditor wishes to draw conclusions.

(c) Sampling risk - The risk that the auditor's conclusion based on a sample may be different from the conclusion if the entire population were subjected to the same audit procedure. Sampling risk can lead to two types of erroneous conclusions:

(i) In the case of a test of controls, that controls are more effective than they actually are, or in the case of a test of details, that a material misstatement does not exist when in fact it does. The auditor is primarily concerned with this type of erroneous conclusion because it affects audit effectiveness and is more likely to lead to an inappropriate audit opinion.

(ii) In the case of a test of controls, that controls are less effective than they actually are, or in the case of a test of details, that a material misstatement exists when in fact it does not. This type of erroneous conclusion affects audit efficiency as it would usually lead to additional work to establish that initial conclusions were incorrect.

(d) Non-sampling risk - The risk that the auditor reaches an erroneous conclusion for any reason not related to sampling risk. (Ref: Para. A1)

(e) Anomaly - A misstatement or deviation that is demonstrably not representative of misstatements or deviations in a population.

(f) Sampling unit - The individual items constituting a population. (Ref: Para. A2)

(g) Statistical sampling - An approach to sampling that has the following characteristics:

(i) Random selection of the sample items; and

(ii) The use of probability theory to evaluate sample results, including measurement of sampling risk.

A sampling approach that does not have characteristics (i) and (ii) is considered non-statistical sampling.

(h) Stratification - The process of dividing a population into sub-populations, each of which is a group of sampling units which have similar characteristics (often monetary value).

(i) Tolerable misstatement - A monetary amount set by the auditor in respect of which the auditor seeks to obtain an appropriate level of assurance that the monetary amount set by the auditor is not exceeded by the actual misstatement in the population. (Ref: Para. A3)

(j) Tolerable rate of deviation - A rate of deviation from prescribed internal control procedures set by the auditor in respect of which the auditor seeks to obtain an appropriate level of assurance that the rate of deviation set by the auditor is not exceeded by the actual rate of deviation in the population.

ISA Application and Other Explanatory Material: ISA 530.A1-A3

Application and Other Explanatory Material

Definitions

Non-Sampling Risk (Ref: Para. 5(d))

A1. Examples of non-sampling risk include use of inappropriate audit procedures, or misinterpretation of audit evidence and failure to recognize a misstatement or deviation.

Sampling Unit (Ref: Para. 5(f))

A2. The sampling units might be physical items (for example, checks listed on deposit slips, credit entries on bank statements, sales invoices or debtors' balances) or monetary units.

Tolerable Misstatement (Ref: Para. 5(i))

A3. When designing a sample, the auditor determines tolerable misstatement in order to address the risk that the aggregate of individually immaterial misstatements may cause the financial statements to be materially misstated and provide a margin for possible undetected misstatements. Tolerable misstatement is the application of performance materiality, as defined in ISA 320,[2] to a particular sampling procedure. Tolerable misstatement may be the same amount or an amount lower than performance materiality.

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2 ISA 320, *Materiality in Planning and Performing an Audit,* paragraph 9

Sample Design, Size, and Selection of Items for Testing

International Standards on Auditing: ISA 530.06-08

Requirements

Sample Design, Size, and Selection of Items for Testing

6. When designing an audit sample, the auditor shall consider the purpose of the audit procedure and the characteristics of the population from which the sample will be drawn. (Ref: Para. A4-A9)

7. The auditor shall determine a sample size sufficient to reduce sampling risk to an acceptably low level. (Ref: Para. A10-A11)

8. The auditor shall select items for the sample in such a way that each sampling unit in the population has a chance of selection. (Ref: Para. A12-A13)

ISA Application and Other Explanatory Material: ISA 530.A4-A13

Sample Design, Size, and Selection of Items for Testing

Sample Design (Ref: Para. 6)

A4. Audit sampling enables the auditor to obtain and evaluate audit evidence about some characteristic of the items selected in order to form or assist in forming a conclusion concerning the population from which the sample is drawn. Audit sampling can be applied using either non-statistical or statistical sampling approaches.

A5. When designing an audit sample, the auditor's consideration includes the specific purpose to be achieved and the combination of audit procedures that is likely to best achieve that purpose. Consideration of the nature of the audit evidence sought and possible deviation or misstatement conditions or other characteristics relating to that audit evidence will assist the auditor in defining what constitutes a deviation or misstatement and what population to use for sampling. In fulfilling the requirement of paragraph 10 of ISA 500, when performing audit sampling, the auditor performs audit procedures to obtain evidence that the population from which the audit sample is drawn is complete.

A6. The auditor's consideration of the purpose of the audit procedure, as required by paragraph 6, includes a clear understanding of what constitutes a deviation or misstatement so that all, and only those, conditions that are relevant to the purpose of the audit procedure are included in the evaluation of deviations or projection of misstatements. For example, in a test of details relating to the existence of accounts receivable, such as confirmation, payments made by the customer before the confirmation date but received shortly after that date by the client, are not considered a misstatement. Also, a misposting between customer accounts does not affect the total accounts receivable balance. Therefore, it may not be appropriate to consider this a misstatement in evaluating the sample results of this particular audit procedure, even though it may have an important effect on other areas of the audit, such as the assessment of the risk of fraud or the adequacy of the allowance for doubtful accounts.

A7. In considering the characteristics of a population, for tests of controls, the auditor makes an assessment of the expected rate of deviation based on the auditor's understanding of the controls or on the examination of a small number of items from the population. This assessment is made in order to design an audit sample and to determine sample size. For example, if the expected rate of deviation is unacceptably high, the auditor will normally decide not to perform tests of controls. Similarly, for tests of details, the auditor makes an assessment of the expected misstatement in the population. If the expected misstatement is high, 100% examination or use of a large sample size may be appropriate when performing tests of details.

A8. In considering the characteristics of the population from which the sample will be drawn, the auditor may determine that stratification or value-weighted selection is appropriate. Appendix 1 provides further discussion on stratification and value-weighted selection.

A9. The decision whether to use a statistical or non-statistical sampling approach is a matter for the auditor's judgment; however, sample size is not a valid criterion to distinguish between statistical and non-statistical approaches.

Sample Size (Ref: Para. 7)

A10. The level of sampling risk that the auditor is willing to accept affects the sample size required. The lower the risk the auditor is willing to accept, the greater the sample size will need to be.

A11. The sample size can be determined by the application of a statistically-based formula or through the exercise of professional judgment. Appendices 2 and 3 indicate the influences that various factors typically have on the determination of sample size. When circumstances are similar, the effect on sample size of factors such as those identified in Appendices 2 and 3 will be similar regardless of whether a statistical or non-statistical approach is chosen.

Selection of Items for Testing (Ref: Para. 8)

A12. With statistical sampling, sample items are selected in a way that each sampling unit has a known probability of being selected. With non-statistical sampling, judgment is used to select sample items. Because the purpose of sampling is to provide a reasonable basis for the auditor to draw conclusions about the population from which the sample is selected, it is important that the auditor selects a representative sample, so that bias is avoided, by choosing sample items which have characteristics typical of the population.

A13. The principal methods of selecting samples are the use of random selection, systematic selection and haphazard selection. Each of these methods is discussed in Appendix 4.

How do we comply with the Standards?

[ISA | KAEGHDWC]

1 Perform steps for a substantive sample

Perform steps for a substantive sample [ISA | 4154]

[ISA | 4154]

What do we do?

IF we determine that we will perform substantive sampling THEN perform the relevant steps

Why do we do this?

When we determine we will perform a substantive sample, the steps we perform allow us to draw appropriate conclusions from our testing about the sampled population.

Substantive sampling provides a basis for our conclusion as to whether an account, information, or a population and ultimately the financial statements are materially misstated or otherwise in error, without testing all items in the account.

Execute the Audit

What is sampling? [ISA | 4154.1300]

Sampling is a means of selecting items for performing audit procedures, that has the following features:

- The selection and performance of procedures on less than 100% of the items within a population;
- The selection of items that are representative of the population;
- The projection of the results from the selected items to the sampled population; and
- Items are selected such that all items have a chance of selection.

Unless we use sampling, we cannot project the results of testing selected items to the entire population from which they are selected.

Are there different approaches to sampling? [ISA | 4154.1400]

Yes, there are two approaches to sampling. We can either apply a statistical or non-statistical sampling approach. Both these approaches provide sufficient appropriate audit evidence when properly applied.

What is a statistical sampling approach?

Statistical sampling is an approach that has the following characteristics:

- Random selection of the sample items; and
- The use of an appropriate statistical technique to determine the sample size and evaluate sample results, including measurement of sampling risk.

At KPMG, Monetary Unit Sampling (MUS) is our statistical sampling approach.

What is a non-statistical sampling approach and how does it differ from a statistical sampling approach?

Non-statistical sampling is an approach that does not have both characteristics of a statistical sampling approach. Non-statistical methods may result in larger sample sizes than statistical methods.

When do we use a non-statistical sampling approach?

At KPMG we use a non-statistical sampling approach when performing a test of operating effectiveness of a control by using the control sample size table. The substantive sampling techniques which use a non-statistical approach are:

- Attribute sampling (including direct testing of information); and
- KPMG Sampling Plan (KSP).

What is 'substantive sampling'? [ISA | 4154.1500]

Substantive sampling is when we use sampling to select items when performing a test of details or testing information used in the audit. Substantive sampling allows us to draw conclusions about the entire population by testing only a sample of items from that population.

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.

When may we perform substantive sampling? [ISA | 4154.1600]

We may perform substantive sampling when:

- We have performed substantive analytical procedures (SAPs) and/or specific items testing, and determined we do not have sufficient appropriate audit evidence to conclude on the relevant RMM; and/or
- It is not practicable to test the entire population.

What are some examples of when substantive sampling may be inappropriate?

Substantive sampling may be inappropriate when:

- There are few items in the population, and selecting all or specific items is a more efficient means of selecting items than sampling;
- Responding to an RMM related to understatement (unless sampling a reciprocal population); or
- the expected rate of misstatement in the population is unacceptably high

What 'relevant steps' do we perform when substantive sampling? [ISA | 4154.10930]

There are four relevant steps we perform are:

- Design a substantive sample
- Select a representative substantive sample
- Perform procedures over selected items
- Evaluate the substantive sample results, obtaining concurrence if relevant

1.1 Design a substantive sample [ISA | 4155]

What do we do?

Design a substantive sample to provide sufficient, appropriate audit evidence for the audit objective.

Why do we do this?

Since we can use the results of our sampling to draw a conclusion about the sampled population, we design our sample such that it provides a reasonable basis to conclude.

Execute the Audit [ISA | 4155.1300H]

How do we design a substantive sample? [ISA | 4155.1300]

To design a substantive sample we:

- Consider the population to be sampled
- Determine whether to use a KPMG substantive sampling technique, obtaining concurrence if relevant
- Determine the tolerable misstatement when using MUS or KSP
- Determine sub-population performance materiality if applicable
- Determine and perform procedures on individually significant items when using KPMG MUS or KSP
- Determine the substantive sample size
- Determine the substantive sampling approach for multiple locations, seeking assistance if relevant
- Establish an acceptable variance if applicable

1.1.1 Consider the population to be sampled [ISA | 4156]

What do we do?

Consider the population to be sampled and its relationship to the audit objective

Why do we do this?

Our sampling conclusion cannot extend beyond the population we sample from. Therefore, we use a population that is consistent with the purpose of our test.

Having an appropriate population - e.g., a complete population - when we start designing our sample, will enable us to draw a valid conclusion on the risk of material misstatement (RMM) to which we are responding.

Execute the Audit

What is the population to be sampled? [ISA | 4156.1500]

The population to be sampled is the complete set of data from which we intend to select a sample of items/draw a conclusion over. It is made of sample items, which are the individual items constituting the population.

What do we consider about the population to be sampled? [ISA | 4156.11776]

We consider the following about the population to be sampled:

- whether the population to be sampled is complete.
- the characteristics of the population to be sampled. These characteristics assist us in determining whether the population is suitable for sampling and may affect how we design our substantive sample.

What do we consider about the characteristics of the population to be sampled? [ISA | 4156.11777]

The following table is a listing of characteristics that may be present in the population to be sampled and what we consider:

Characteristic	What do we consider?
Sub-populations	If there are groups within our population that have different risks of material misstatement (RMMs), different levels of Combined Assessed Risk (CAR) and/or the nature of controls is different, we reconsider our definition of the populations and determine our audit procedures, before sampling. For example, if there are separate processes for recording domestic sales and international sales, we may design separate procedures over each population.
Positive and negative items	It may not be appropriate to test a combined population with both positive and negative items. To achieve our testing objective, we may: • inspect the population to determine if there are offsetting transactions or to determine if there is a sub-population to be split out (e.g. different types of transactions). The determination of whether items offset may be facilitated by testing items through the 'offsetting routine' in MUS. In this case, we are testing the attribute that the negatives offset positive items. • ask management to remove offsetting items or split the population, as appropriate; • if there are different types of transactions, test those populations separately/treat as subpopulations (and think about if they are representative of different RMMs).
Zero value items	Zero value items do not have a chance to be selected when using MUS. Zero value items cause us to question if we have the correct population and we investigate and consider the appropriateness and the reason for such 0 value items. If appropriate,

	we may perform further procedures over these items.
Multiple locations	If we have a population spread across locations, we perform the activity 'Determine the substantive sampling approach for multiple locations, seeking assistance if necessary ' based on whether the locations represent a single population or multiple sub-populations
Data sets	For cumulative income statement items, such as revenue, it may be appropriate to test cumulatively discrete periods (or data sets) to be able to conclude on the total population. For example, we may choose to test revenue transactions quarterly to conclude on period-end account value.
Sample items to be tested	The sample item to be tested is the level (or unit of measurement) at which we perform our substantive procedures. The sample items might be physical items (for example, checks listed on deposit slips, credit entries on bank statements, sales invoices or debtors' balances) or monetary units. We can break down the sampled population in different ways depending on how we define the sample item. In some cases, management can only provide a population containing aggregated balances, for example, units that represent groups or batches of transactions. However, when we intend to define the sample item at a more detailed level, we use aggregate sampling. MUS facilitates only one layer of aggregation. Increasing the number of layers of aggregation increases the complexity of performing the sample and involves manual intervention. For example, if the population to be sampled contains negative items, which offsets items in another population, this may indicate the level of aggregation is inappropriate.

	A KPMG Accredited Sampling Professional can assist a team when there are multiple layers of aggregation in the population to be sampled.

What is 'aggregate sampling'? [ISA | 4156.11778]

Aggregate sampling provides us with the information to select the sample items from aggregated data. It is appropriate when the population we sample contains data aggregated at a higher level than the defined sample items.

It is possible to use aggregate sampling in MUS and KSP.

What do we do when aggregated balances contain both positive and negative items? [ISA | 4156.11779]

When the aggregated balances we test contain both positive and negative items, we determine whether all negative items offset within the selected balance or the population to be sampled.

For example, if we are sampling the client's accounts receivable balance, the data file obtained from the client may include a list of customer balances. Each customer balance might be comprised of multiple invoices; however, the individual invoices are the sample item to be tested. We may therefore use aggregate sampling to select individual invoices to test. If the customer balance includes negative items - for example, credit memos or unapplied cash - we determine whether each item within the aggregated balance selected offsets an invoice.

In some situations, negative items may only indirectly offset items in an aggregated balance, but nevertheless are considered as offsetting items. For example, lump sum payments on account recorded in a customer receivable balance do not directly offset specific invoices, but we may continue to perform aggregate sampling.

If the negative items do not offset within either the selected balance, or the population to be sampled, then we cannot continue to perform aggregate sampling. We think about performing the following procedures:

- requesting a 'clean' population from the entity and get the analysis for every item in the population so we manually segregate the population into separate sub-populations;
- designing alternative procedures over these sub-populations; and/or
- considering the implication on our risk assessment (i.e. identification of new RMMs).

What is the audit objective? [ISA | 4156.1400]

The audit objective of a substantive sample depends on the population we test. It may be to obtain evidence that an assertion-level RMM did not give rise to a material misstatement). However if we are direct testing information, the objective is to gain evidence that information is reliable.

What do we consider about the relationship of the population to be sampled to its audit objective? [ISA | 4156.11780]

The following table is a listing of factors that we think about regarding the population to be sampled and its audit objective:

Factor	What do we think about?

Misstatement/error	We consider whether we have a clear understanding of what constitutes a misstatement/error. This helps us focus on just those conditions that are relevant. For example, in a substantive sampling procedure relating to confirming accounts receivable, payments made by the customer before the confirmation date but received shortly after that date by the client are not considered a misstatement. In addition, an incorrect posting between customer accounts does not affect the total accounts receivable balance. Therefore, it may not be appropriate to consider this a misstatement, even though it may impact on other areas of the audit, such as the assessment of the risk of fraud, the adequacy of the allowance for doubtful accounts or evaluation of the effectiveness of controls or other substantive procedures. We define misstatements and errors in accordance with 'Define the population and items to be tested, including misstatements/ errors '.
The Procedure	We consider the relationship between our audit objective and the procedure. For example, if the objective of the procedure is completeness of liabilities and the procedure we are performing is a search for unrecorded liabilities, it is not appropriate to sample from the accounts payable ledger at period end. This population will not contain unrecorded items missed and therefore does not provide evidence over the completeness assertion. We therefore sample from a reciprocal population.

What is a reciprocal population? [ISA | 4156.11781]

A reciprocal population is a population of items that are related to the account we are testing. Reciprocal populations contain items that should be included in the account that we are testing; however, they may also include other items. A reciprocal population can be valid even when it includes additional items not relevant to the balance being tested. Reciprocal populations are most often used when we test for understatement.

For example, if we are performing a search for unrecorded liabilities to determine if the liability balance is understated, a reciprocal population may be all cash disbursements subsequent to the balance sheet date. This reciprocal population will include payments for items that were outstanding at year-end, as well as cash payments relating to the subsequent period. We may test these cash payments to obtain evidence that these subsequent payments are correctly not included in the balance being tested.

If we are testing cut-off of revenue, the reciprocal population may be post-period end sales invoices.

How do we determine the appropriate reciprocal population? [ISA | 4156.11782]

To determine the appropriate reciprocal population, we think about facts and circumstances of the entity, and if there are types of transactions that we could test to obtain evidence about transactions that may not be recorded by the entity. As with any population to be sampled, we determine that it is complete (see question 'How do we determine that the population to be tested for a test of details is complete? ') before we select and test items.

For example, if our objective is to test the completeness of accounts payable at year-end, examining subsequent disbursements and items recorded into accounts payable after period-end may provide evidence about accounts payable transactions not recorded by the entity. These are therefore appropriate reciprocal populations.

If accounts payable turnover is 90 days, in other words, items are paid on average 90 days after being received and recorded by the entity; sampling from 60 days of post year-end cash disbursements may not provide sufficient evidence over the completeness of the year-end AP balance on its own.

We think about performing additional procedures when testing completeness, such as an entity's inventory tag control for an inventory count or trend analysis of payments by vendor for the search for unrecorded liabilities.

How do we define misstatements in a reciprocal population? [ISA | 4156.11783]

When we test items that are in the reciprocal population, a misstatement arises if that item is incorrectly omitted in the account we are testing, or is recorded at an incorrect value in the period under audit.

When we test a reciprocal population, we may select items that do not relate to the account we are testing. When we test such items, we confirm that they are not included in account we are testing.

1.1.2 Determine whether to use a KPMG substantive sampling technique, obtaining concurrence if relevant [ISA | 4158]

What do we do?

Determine whether to use a KPMG substantive sampling technique AND which to use AND obtain concurrence from a KPMG Accredited Sampling Professional, if relevant.

Why do we do this?

How our sample size is generated depends on the technique we use and the factors (inputs) we provide. To draw valid conclusions about the sampled population we select an appropriate sampling technique. KPMG substantive sampling techniques help us to determine a sample size that reduces sampling risk to an acceptably low level and assist us in complying with the relevant standards.

Execute the Audit

What are 'KPMG sampling techniques'? [ISA | 4158.1300]

The following table shows the three KPMG substantive sampling techniques and what they are used for:

KPMG substantive sampling technique	What it is used for
Monetary Unit Sampling (MUS)	MUS is a statistical sampling approach to test monetary values. When performing sampling based on monetary values, it is prefer MUS. This may not be possible when it is impracticable to obtain in electronic format - for example when performing an inventory c perpetual inventory is maintained. The term 'MUS' within this topic and the KAEG refers to MUS fun KPMG Clara workflow only. We do not use other MUS capabilities IDEA) without seeking KPMG Accredited Sampling Professional c (see question 'When and why do we obtain concurrence from a K Sampling Professional? ').
KPMG Sampling Plan (KSP)	KSP is a non-statistical sampling approach to test monetary value when it is not possible to use MUS.

Attribute sampling	Attribute sampling is a non-statistical approach to test rate of occu occurrence of a particular characteristic, or attribute, in a populati whether pension census information is correct or incorrect. An attribute sample is not able to provide a monetary evaluation a population. We do not use attribute sampling if we can determine the financia error.

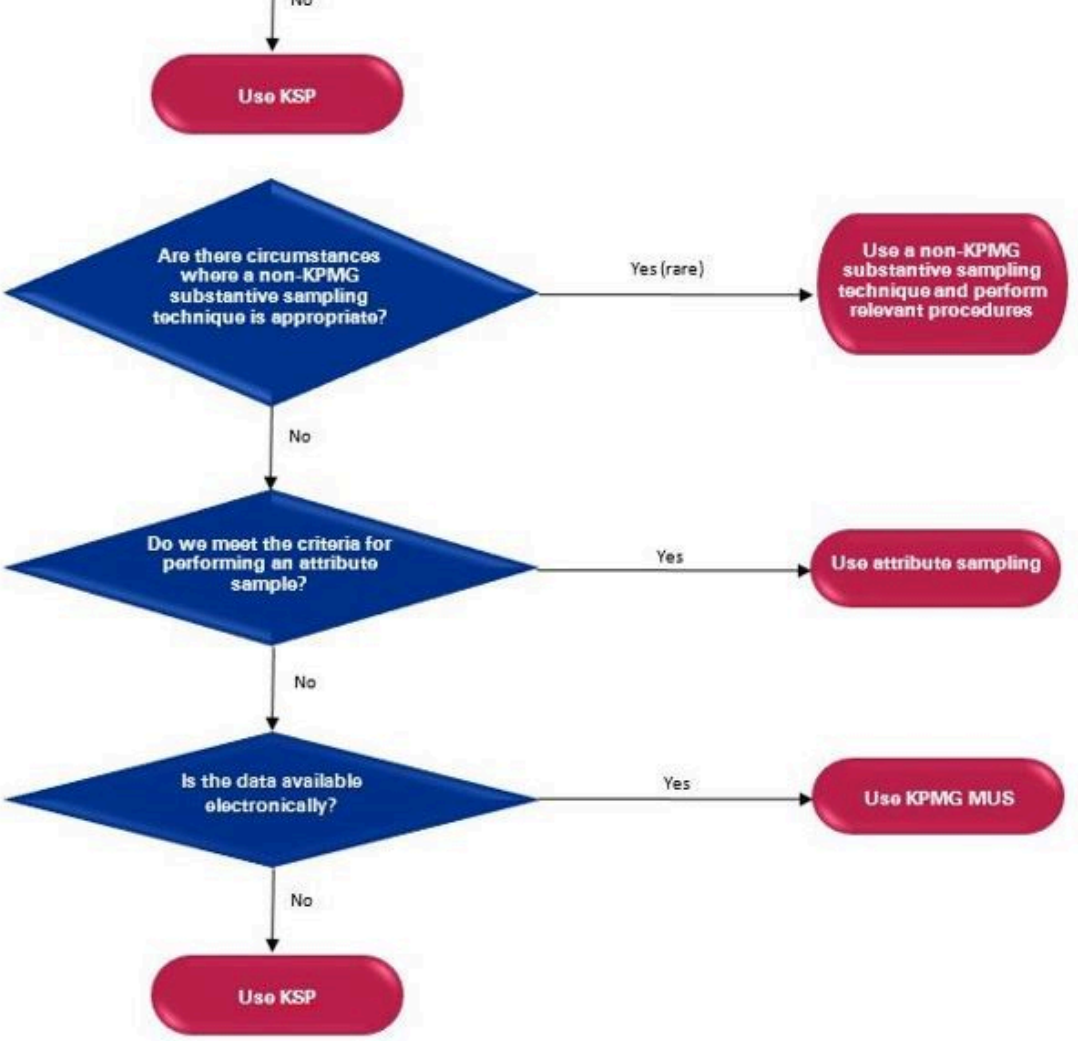
Why is it preferable to use MUS over KSP? [ISA | 4158.10724]

The following table illustrates the advantages of using MUS over KSP:

	MUS	KSP
Automatic selection of items	✓	✗
Automatic identification of individually significant items (due to size)	✓	✗
Quantification of sampling risk	✓	✗
Statistical evaluation of results	✓	✗
Smaller sample size based on same factors and population	✓	✗
Automates testing of multiple data sets	✓	✗
Automates aggregate sampling	✓	✗

How do we determine which substantive sampling technique to use? [ISA | 4158.1400]

The flowchart below assists in determining which substantive sampling technique is appropriate in the circumstances:



What are the criteria to perform an attribute sample? [ISA | 4158.10730]

The criteria to perform an attribute sample are:

- The information to be tested is non-monetary information in disclosures in the financial statements;
- Other literature created within the engagement teams member firm, such as industry-specific guidance indicates that attribute sampling is appropriate; or
- We are direct testing internal information. For example, the information to be tested is used by management in an estimate.

If none of the above criteria applies, then we obtain concurrence from a KPMG Accredited Sampling Professional before performing attribute sampling.

Do we use attribute sampling if we already tested information through a different substantive sampling technique or a different substantive procedure? [ISA | 4158.10734]

No. Sometimes the information may already be subject to substantive procedures that address relevant data elements (RDEs).

> For example while testing a sample of revenue transactions, we also test the RDEs in a 'units sold by product' report by also testing units and product type as part of that test.

This approach is appropriate even if a sampling technique (MUS/KSP) yields a lower sample size than the attribute sample size table indicates.

What 'relevant procedures' do we perform if we use non-KPMG substantive sampling techniques? [ISA | 4158.10731]

It is expected to be rare that we use a non-KPMG substantive sampling technique.

If we use a non-KPMG substantive sampling technique we:

- Describe, and explain the appropriateness of, the technique used;
- Use a confidence level equivalent to, or higher than that MUS in equivalent circumstances; and
- Document the process and procedures applied.

What is a 'KPMG Accredited Sampling Professional' and what may they do? [ISA | 4158.1502]

A KPMG Accredited Sampling Professional is a firm accredited KPMG individual who provides support, assistance and concurrence on sampling related issues. They are not a 'KPMG specialist' or 'specific team member'.

KPMG Accredited Sampling Professionals may be requested to:

- Participate in periodic conference calls to discuss sampling matters;
- Deliver audit training to audit professionals;
- Provide support in engagement team planning decisions, and/or;
- Review engagement team substantive statistical sampling techniques.

When and why do we obtain concurrence from a KPMG Accredited Sampling Professional? [ISA | 4158.1600]

The following table illustrates when and why we obtain concurrence from a KPMG Accredited Sampling Professional:

When we obtain concurrence	Why we obtain concurrence
We plan to use any non-KPMG substantive sampling technique.	We involve a KPMG Accredited Sampling Professional who has more in-depth knowledge about sampling. They assess whether it is appropriate for the engagement team to use another sampling technique.
We plan to use attribute sampling, but do not meet the criteria to do so	The KPMG Accredited Sampling Professional assesses whether it is appropriate for the engagement team to use attribute sampling in any other circumstance or if another sampling technique is more appropriate.

What does 'obtain concurrence from a KPMG Accredited Sampling Professional' mean? [ISA | 4158.1701]

When we obtain concurrence from a KPMG Accredited Sampling Professional, they confirm that our conclusion is appropriate.

We evidence the nature of our discussion, individuals involved and the conclusions reached in our engagement documentation when we obtain concurrence. In contrast, if we are 'seeking assistance' from a KPMG Accredited Sampling Professional we do not evidence this involvement.

1.1.3 Determine the tolerable misstatement when using MUS or KSP [ISA | 4159]

What do we do?

IF we are designing a substantive sample using KPMG Monetary Unit Sampling or KPMG Sampling Plan THEN determine the tolerable misstatement to be used.

Why do we do this?

The tolerable misstatement is an input to Monetary Unit Sampling (MUS) and KPMG Sampling Plan (KSP) when determining the sample size and a reference point for the evaluation of our sample results.

Execute the Audit

What is the tolerable misstatement used for substantive sampling? [ISA | 4159.1300]

Tolerable misstatement used for substantive sampling is the application of performance materiality (PM) to a particular sampling procedure. We determine tolerable misstatement in order to address the risk that the aggregate of individually immaterial misstatements may cause the financial statements to be materially misstated and provide a margin for possible undetected misstatements.

At KPMG, we use performance materiality (PM) or sub-population performance materiality (SPM) as the tolerable misstatement.

When do we use PM for the tolerable misstatement? [ISA | 4159.10762]

We use PM for the tolerable misstatement when:

- the entire population affected by the RMM within an account or transaction class is being tested; or

For example, we use PM as the tolerable misstatement when testing additions within property, plant and equipment, as they represent a transaction class affected by certain RMMs.

- aggregation risk does not arise from splitting up transactions into separate populations.

For example, we do not determine SPM when we:

- separate positive and negative items;
- test combined data sets;
- sample the untested population after specific item testing or testing 100% of a sub-population.

What PM do we use for tolerable misstatement? [ISA | 4159.10756]

When using PM for the tolerable misstatement we use:

- PM; or
- lower PM for those particular accounts or disclosures where a lower materiality has been determined.

When we perform procedures that support multiple audits with different materiality levels, we may choose to use a tolerable misstatement based on the lowest PM level from those audits.

For example, when we're performing an audit for the group auditor and a statutory audit (over a component) where we have a much lower materiality and PM, we may use a tolerable misstatement based on the lower PM when we perform a test of details that is used to support both audits.

When do we use SPM for the tolerable misstatement? [ISA | 4159.10769]

We use SPM for the tolerable misstatement when:

- our population represents a portion of an account or transaction class (unless it is affected by a separate RMM); or

For example, we use SPM when we:

- sample transactions for first 6 months of the year followed by a roll forward Substantive Analytical Procedure (SAP)
- disaggregate a population into separate sub-populations and perform separate procedures on each subpopulation.

- we have control reliance for part of the period.

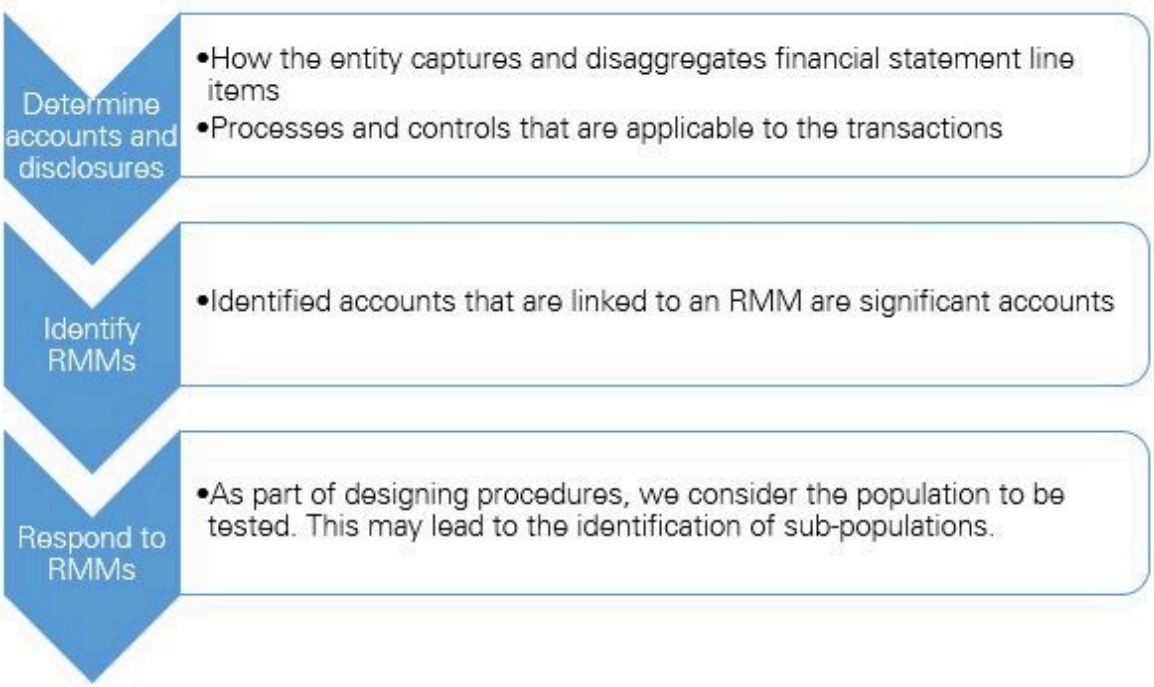
When do we identify separate accounts instead of sub-populations? [ISA | 4159.10770]

It depends. When we identify accounts, we think about how the entity captures (and disaggregates) their financial statements (see question 'At what level do we identify accounts and disclosures?'). It may also be helpful to think about whether the transactions are subject to the same processes and controls, as we may consider this one account. If portions of the account are subject to different risks, then this represents a separate sub-population.

For example, revenue is processed and is subject to the same controls.

- If we had two distinct RMMs that applied to two different sub-populations, we would use PM for the tolerable misstatement.
- If revenue were subject to different processes and controls, we may instead disaggregate into two separate accounts. Each account would have their own unique RMMs and we would use PM for the tolerable misstatement.

The following diagram illustrates how we identify accounts, significant accounts and sub-populations:



1.1.4 Determine SPM if applicable [ISA | 4160]

What do we do?

IF performance materiality is not used as the tolerable misstatement THEN determine sub-population performance materiality.

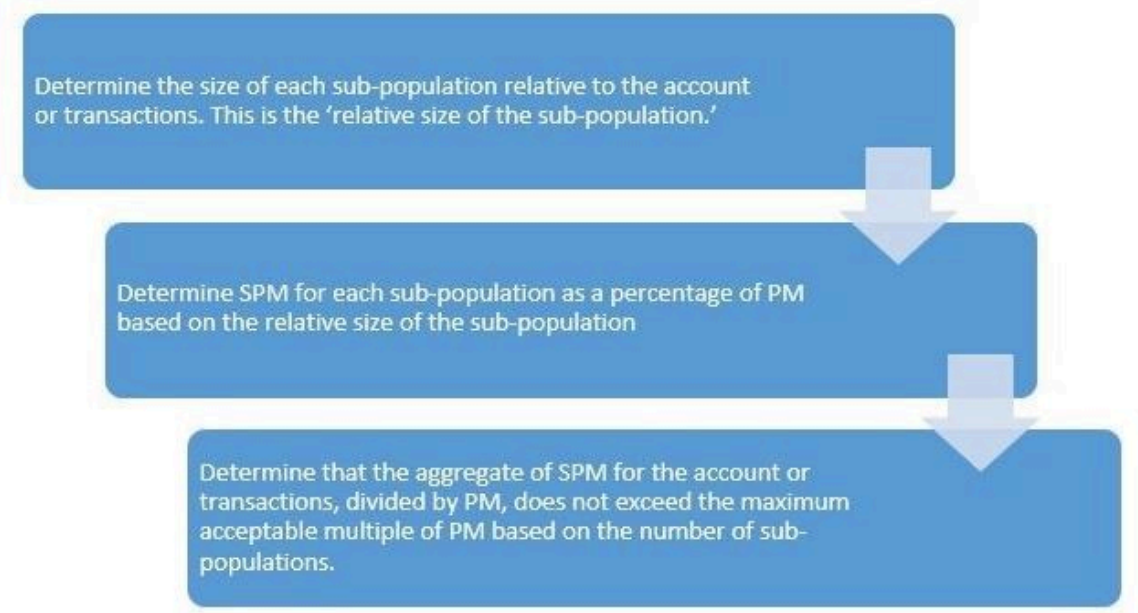
Why do we do this?

When we are testing a portion of an account or transaction class, it allows for the possibility that misstatements arising in other portions of that account or transaction class, individually or in combination with other misstatements, cause the financial statements to be materially misstated. Sub-population performance materiality helps to address this risk.

Execute the Audit

How do we determine SPM? [ISA | 4160.1400]

We determine SPM as a percentage of PM for each sub-population in the following steps:



How do we determine SPM for each sub-population as a percentage of PM based on the relative size of the sub-population? [ISA | 4160.10803]

We determine SPM for each sub-population as a percentage of PM based on the relative size of the sub-population, as follows:

- We use the 'relative size of the sub-population' to select the 'sub-population size range.'
- We determine the 'applicable range of SPM as a percentage of PM' using the 'sub-population size range.'
- We determine the percentage to apply to PM based on the 'applicable range of SPM as a percentage of PM'
- We multiply the percentage by PM to determine SPM. The amount is expressed as a whole amount to two significant digits.

For example, if we determine SPM as 344,627, we express SPM as 340,000 not 300,000 or 345,000. Similarly, if SPM is determined as 3,475,275, we express this as 3,500,000 million not 3,000,000 or 3,480,000 million.

What are the 'applicable ranges of SPM as a percentage of PM' for each 'sub-population size range'? [ISA | 4160.10805]

The following table sets out the applicable range of SPM as a percentage of PM for each sub-population size range:

Sub-population size range	Sub-population performance materiality as a percentage of performance materiality
<10%	<50%

10 - 25%	25% - 60%
26 - 50%	40% - 80%
51 - 85%	60% - 90%
> 85%	Pro rata plus or minus 5% and < 100%
For example, if the relative size of the sub-population is 87%, then the 'sub-population size range' that includes >85% applies. The 'applicable range of SPM as a percentage of PM' is 82% (87%-5%) to 92% (87% + 5%). As such, SPM is set at an amount between 82-92% of PM.	

How do we determine the amount of SPM as a percentage of PM within the applicable range to use? [ISA | 4160.10806]

The following table sets out the factors we think about and how those factors affect the amount of SPM as a percentage of PM we use:

Factor	Consideration
The relative size of the sub-population within the sub-population's size range.	The closer the relative size of the sub-population to the lower or upper end of the range, the closer the percentage of PM is to the lower or upper end of the corresponding range, respectively.
The size of the untested sub-population(s)	The larger the size of the untested population(s) the lower in the range the percentage of PM will be

Can we determine SPM as a percentage of PM outside of the applicable range? [ISA | 4160.10807]

We do not exceed the upper end of the applicable range of SPM as a percentage of PM. We may go below the low end of the corresponding range of SPM when there is a combination of a sub-population with a relative size at the low end of the sub-population size range and specific factors that indicate establishing SPM at the lowest end of the range.

How do we determine that the aggregate of SPM is acceptable? [ISA | 4160.1500]

We determine that the aggregate of SPM is acceptable by performing the following 5 steps:

(1) Calculate the aggregate of SPMs for the account or transactions (i.e. add together the SPM amounts for each sub-populations).
(2) Divide the aggregate of SPM by PM to calculate the actual multiple of PM.

(3) Compare the actual multiple of PM with the maximum multiple of PM based on the number of sub-populations, in the 'Maximum PM Multiple table'.
(4) If the actual multiple of PM does not exceed the maximum multiple, then the aggregate of SPM is acceptable.
(5) If the actual multiple of PM exceeds the maximum multiple, we evaluate whether SPM for certain sub-populations has been set too high and where we determine it has been set too high, we reduce it accordingly so that the maximum multiple is not exceeded.

> For example, we have 8 sub-populations making up one account. We plan to perform a substantive sample on 4 of these subpopulations, and the remaining 4 will be untested.
>
> The Maximum PM multiple is 3.5XPM (4 portions).

What is the 'Maximum PM Multiple table'? [ISA | 4160.10809]

The 'Maximum PM Multiple table' sets out the maximum multiple of PM based on the number of sub-populations:

No. of sub-populations	Max. PM multiple
2	1.5
3	2.5
4	3.5
5 - 8	4.0
9 - 10	4.5

If on further consideration we feel that more than 9 sub-populations is appropriate see the activity 'Determine that the aggregate of component materiality is acceptable' for what an appropriate maximum PM multiple is.

Can the aggregate of SPMs for all sub-populations of an account or transactions exceed PM for the financial statements? [ISA | 4160.1600]

Yes, the aggregate of SPMs for all sub-populations of an account or transactions can exceed PM for the financial statements. SPM isn't an arithmetical portion of PM for the financial statements as a whole.

Examples

Do we use PM or SPM as the tolerable misstatement when sampling a set of transactions which form part of an account? [ISA | 4160.1700]

Fact Pattern

An engagement team is using substantive sampling to test RMMs related to existence and accuracy of PPE additions (the population).

Analysis

If the engagement team uses 100% of additions across asset classes as their population, then this is not considered a sub-population. The entire additions listing represents a set of transactions that constitute a population and therefore they use PM for the tolerable misstatement.

If the engagement team intends to run separate samples for additions by asset class, then the additions by asset class are separate sub-populations. Therefore, they use a separate SPM for each sub-population and evaluate them separately.

How do we determine the tolerable misstatement? [ISA | 4160.1800]

Fact pattern

The engagement team are testing fixed asset additions by asset class. PM for the engagement is 1,000,000 CU. The asset classes within fixed asset additions and the relative size of each sub-population is:

- Software (60%)
- Fixtures and Fittings (35%)
- Leasehold Improvements (5%). The engagement does not intend to perform any testing over this asset class.

Analysis

As the engagement team is testing 2 different sub-populations, they calculate SPM as the tolerable misstatement for each subpopulation separately.

(1) They determine the size of each sub-population relative to the account or transactions;
(2) They determine SPM for each population as a percentage of PM based on the relative size of the sub-population;

Asset Class and relative size of each sub-population	Sub-population size range	Applicable range of SPM as a % of PM	SPM % for the sub-population	Calculated SPM
Software (60%)	51 - 85%	60 - 90	70%	700,000 CU
Fixtures and Fittings (35%)	>26 - 50%	40 - 80	55%	550,000 CU

(1) They determine that the aggregate of SPM for the balance or transactions, divided by PM, does not exceed the maximum multiple of PM based on the number of sub-populations.
- Aggregate SPM = 1,250,000 CU
- Number of sub-populations = 2
- Actual multiple of PM = 1,250,000 / 1,000,000 = 1.250

- Maximum multiple of PM = 1.5

As the actual multiple of PM is less than maximum multiple of PM, the aggregate of SPM is acceptable.

1.1.5 Determine and perform procedures on individually significant items when using MUS or KSP [ISA | 4161]

What do we do?

IF we are using Monetary Unit Sampling or KPMG Sampling Plan THEN determine items that are individually significant, whether due to nature and/or size AND perform audit procedures on them.

Why do we do this?

Separately identifying and testing individually significant items helps us to reduce the risk that a material misstatement arising from overstatement will go undetected. In addition, it may increase the effectiveness of our substantive sample on the remainder of the population because it may reduce the sample size drawn from the remaining population and result in testing fewer total items.

Execute the Audit

What are individually significant items? [ISA | 4161.1300]

Individually significant items are items in the population where an acceptance of some sampling risk is not justified (specific items), or are identified by our sampling techniques. This may be due to their size and/or nature.

What does 'individually significant items due to size and nature' mean and how are they determined? [ISA | 4161.1400]

The following table describes what 'individually significant items due to size and nature mean' and how they are identified:

Individually significant due to:	What does this mean?	How are they identified?
Nature	Individually significant items due to nature relates	We use professional judgement to determine manually

	to qualitative significance.	individually significant items due to nature from the population. This constitutes specific items testing (see 'What are the means of selecting items ?'), these items are not considered in the evaluation of KPMG MUS or KSP.
Size	Individually significant items due to size relates to quantitative significance.	KPMG MUS automatically identifies individually significant items due to size. When we use KSP, we

			determine the individually significant items as either: • all items greater than the tolerable misstatement (PM/SPM); or • population/sample size which is calculated by the tool. We then manually input both the number of items and aggregate value of all individually significant items due to size based

		on the monetary threshold into the KSP tool, and test those items separately.

How do we decide which method to use to determine individually significant items when using KSP? [ISA | 4161.1500]

The following table illustrates what we think about when we decide which method to use to determine individually significant items when using KSP:

Population/sample size	All items greater than the tolerable misstatement (PM/SPM)
This method is more efficient as it leads to the lowest number of items to be tested overall.	This method is appropriate in situations where it is difficult to identify the individually significant items, or the identification could be inaccurate. It may however, lead to an overall larger number of items to be tested than the 'Population/sample size' approach.

What audit procedures do we perform on individually significant items? [ISA | 4161.14565]

We perform the same audit procedures designed for the other sample items on 100% of the individually significant items.

What if we identify misstatements within individually significant items? [ISA | 4161.1600]

Any misstatements identified in individually significant items are not included in the projected misstatement.

They are entered into the sampling tool and taken account of within factual misstatements when evaluating the sample. We may not be able to conclude on our sample unless misstatements in individually significant items are adjusted by the entity.

How may performing procedures on individually significant items reduce the sample size? [ISA | 4161.6220]

Performing procedures on individually significant items may reduce the sample size because:

- the remaining sampled population is smaller;
- the confidence level used in determining the sample size reduces, as the percentage of the population tested as individually significant items increases when:
  - no misstatements are found; and

- The individually significant items selected include characteristics expected to be consistent with those in the remaining population, in other words they have the same or higher risk.

1.1.6 Determine the substantive sample size [ISA | 4162]

What do we do?

Determine the substantive sample size to reduce sampling risk to an acceptably low level.

Why do we do this?

When we determine our substantive sample size, we reduce the sampling risk to an appropriate level to obtain sufficient evidence to conclude on the sampled population.

If we select too small a sample, the sample results will not meet the planned objectives, without performing additional procedures. If we select too large a sample, we examine too many items, leading to an inefficient audit.

Execute the Audit

What is sampling risk for a substantive sample? [ISA | 4162.1300]

Sampling risk is the risk that our conclusion based on a sample, may be different than if we had applied the same procedures to 100% of the population. We therefore reach an erroneous conclusion.

There are different types of sampling risk for a substantive sample:

- Risk of incorrect acceptance - The risk that we conclude a material misstatement does not exist, when in fact it does; and
- Risk of incorrect rejection - The risk that we conclude a material misstatement exists, when in fact it does not.

We are most concerned about the risk of incorrect acceptance, as it is more likely to lead to an inappropriate audit opinion.

What do we do to determine the substantive sample size to reduce sampling risk to an acceptably low level? [ISA | 4162.1400]

We perform the following procedures to determine the substantive sample size to reduce sampling risk to an acceptably low level:

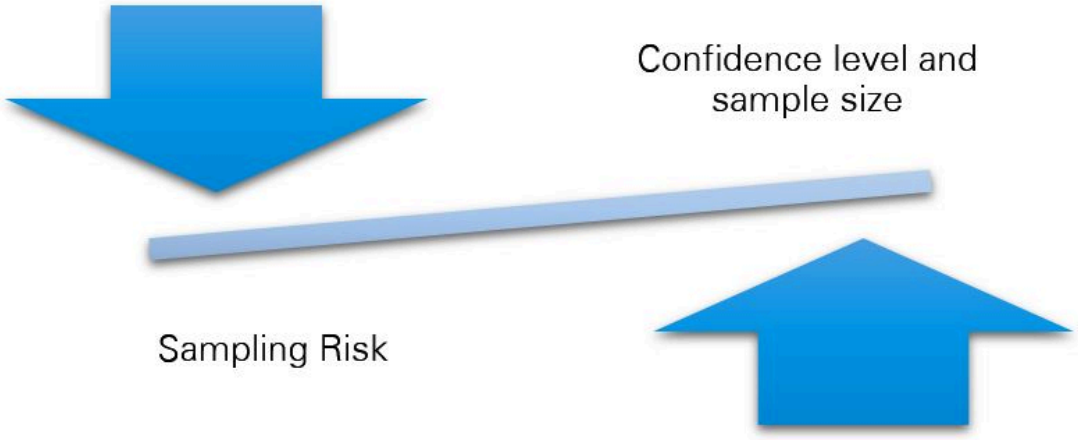
- Consider the relevant factors to determine the sample size, seeking assistance if relevant when using Monetary Unit Sampling or KPMG Sampling Plan
- Use the attribute sample size tables for attribute sampling, seeking assistance if relevant

How do we assess sampling risk for a substantive sample? [ISA | 4162.1500]

At KPMG, we do not directly assess the sampling risk for a substantive sample. Instead, we use Combined Assessed Risk (CAR). KPMG sampling techniques use CAR to determine the appropriate confidence level to use to address the risk.

What is the 'confidence level'?

The confidence level is inversely proportional to sampling risk. As our sampling risk decreases, our confidence level over our sample, and our sample size, increases.



How do the KPMG substantive sampling techniques help us determine a sample size that reduces sampling risk to an acceptable level? [ISA | 4162.1600]

The following table illustrates how the different KPMG substantive techniques help us determine a sample size that reduces sampling risk to an acceptable level:

KPMG substantive sampling techniques	How the technique helps us determine a sample size that reduces sampling risk to an acceptable level
Monetary Unit Sampling (MUS)/ KPMG Sampling Plan (KSP)	MUS/KSP determines an appropriate confidence level to set sampling risk, and ultimately our sample size, based on our inputs of the following: • Combined Assessed Risk (CAR); and • Extent of testing of individually significant items. We can't change the confidence levels when we use MUS/KSP.
Attribute Sampling	The attribute sample size tables are based on the same confidence levels as are used in MUS and KSP, but a different non-financial tolerable error rate.

What is the 'tolerable error rate'?

The tolerable error rate is the maximum rate at which the attribute being tested could be incorrect, and we are still willing to accept and conclude the sample provides a reasonable basis for conclusions

about the sampled population. At KPMG, the attribute sample size tables are based on a tolerable error rate of 5% (2.5% if the relevant risk used to select the sample is Significant +).

If we determine that an alternative tolerable error rate is appropriate, then we perform relevant procedures in accordance with 'Use attribute sample size tables for attribute sampling, seeking assistance if relevant'.

1.1.6.1 Consider relevant factors to determine a substantive sample size, seeking assistance if relevant when using MUS or KSP [ISA | 4163]

What do we do?

IF we are using Monetary Unit Sampling or KPMG Sampling Plan to perform a substantive sample, THEN consider the relevant factors to determine the sample size, adjusting as appropriate AND seeking assistance from a KPMG Accredited Sampling Professional if relevant.

Why do we do this?

We input relevant factors into the Monetary Unit Sampling (MUS) and the KPMG Sampling Plan (KSP) to calculate the sample size and generate a sample that is consistent with our risk assessment. There may be scenarios where we increase the sample size from that which our sampling techniques have determined.

Execute the Audit

What 'relevant factors' do we consider, and how do they affect the substantive sample size when we are using MUS and KSP? [ISA | 4163.1300]

The table below sets out the factors we consider to determine the substantive sample size and how they affect the sample size, when using MUS and KSP:

Factor	How is it determined	Effect on the substantive sample size
Confidence level (inverse of sampling risk)	MUS/KSP determines an appropriate confidence level to set sampling risk and ultimately our sample size, based on our inputs of the following: • Combined Assessed Risk (CAR); and	Increase in the confidence level assessment increases the sample size.

	• Extent of testing of individually significant items. If we have more than one CAR assessment that is relevant to the test, we use the highest applicable confidence level in the design of the sample.	
Tolerable misstatement	Determine the tolerable misstatement as either performance materiality (PM) or sub-population performance materiality (SPM) in accordance with 'Determine the tolerable misstatement when using MUS or KSP' or 'Determine SPM if applicable', respectively.	An increase in the tolerable misstatement may decrease the sample size.
Expected misstatement in the population, being the total amount of misstatement that we expect to find in our population.	See question 'How do we determine the expected misstatement?'	An increase in the expected misstatement in the population may increase the sample size.
Characteristics of the population	Value of the sampled population	An increase in the value of the sampled population may increase the sample size.

When circumstances are similar, the effect on sample size of these factors are similar regardless of whether we use MUS or the KSP.

How do we determine the expected misstatement? [ISA | 4163.10849]

We determine whether the expected misstatement within the population is 0 (0 is the default within the tool) or something greater than 0 (the maximum allowable within the tool is 50% of tolerable misstatement).

For example, if there has been a history of identifying misstatements that has caused us to extend the sample in previous years, we may have a basis for increasing the expected misstatement from 0. We may use an average of previous misstatements to set the expected misstatement for the current period's sample.

In contrast, periods with no or minimal misstatements that did not necessitate extension, followed by one period with a misstatement necessitating extension shows an inconsistent history of misstatements. In this circumstance, there is not a sound basis for quantification of the expected misstatement. We therefore maintain an expected misstatement of 0.

The expected misstatement in the population is a key decision when designing our sample. Not only does it affect our sample size, it may also affect our evaluation of the sample results.

For example, if we assessed expected misstatement in the population too low, our test objective may not be achieved if total factual and projected misstatement is higher than our expected misstatement assessment during planning.

When do we increase the substantive sample size when using MUS or KSP? [ISA | 4163.1500]

- We may increase the substantive sample size when using MUS or KSP to meet the substantive sample size for the equivalent control test when performing a dual-purpose test.

For example, MUS generates a substantive sample size of 3 for an inventory count, however the control test has a sample size of 25, and we increase our substantive sample size to 25.

- We increase the substantive sample size when using MUS or KSP if it has practical implications to how we conduct the audit.

For example, when planning a physical inventory count, even though we estimate the final book value of the population, there is a risk that the actual final book value is larger than our expectation resulting in a sample size that is too small to conclude on the population to be sampled at period-end.

We therefore increase the sample size based on the estimated final book value so that we test enough items to conclude on the final book value of the population to be sampled.

What if the 'relevant factors' used to determine the substantive sample size change when using MUS or KSP? [ISA | 4163.1600]

If the relevant factors change and lead to a reduction in the sample size, then this may affect our item selection.

For example, the following changes to relevant factors may reduce the sample size:

- Lower inherent risk and/or control reliance (changes in CAR)
- Increase to PM and accordingly SPM, if relevant.

How may item selection be affected if the relevant factors used to determine the substantive sample size change? [ISA | 4163.10850]

If the relevant factors used to determine the substantive sample size change and we have not begun performing audit procedures on selected items, then we calculate a new substantive sample size based on the revised factors.

If we have begun performing audit procedures on selected items:

- In MUS, we may complete our testing of the original selected sample, or we may select and test a new sample, treating existing tested items as individually significant items.
- In KSP, we may complete our testing of the original selected sample, or we may use the already tested items in the new sample.

If we wish to exclude items from the originally determined sample, then we seek assistance from a KPMG Accredited Sampling Professional. We do not exclude samples because we are unable to test an item or we have identified a misstatement.

What is a 'KPMG Accredited Sampling Professional' and what may they do? [ISA | 4163.1502]

A KPMG Accredited Sampling Professional is a firm accredited KPMG individual who provides support, assistance and concurrence on sampling related issues. They are not a 'KPMG specialist' or 'specific team member'.

KPMG Accredited Sampling Professionals may be requested to:

- Participate in periodic conference calls to discuss sampling matters;
- Deliver audit training to audit professionals;
- Provide support in engagement team planning decisions, and/or;
- Review engagement team substantive statistical sampling techniques.

How do we determine the correct sample size to use for a dual-purpose test? [ISA | 4163.10852]

When we perform audit sampling, we determine the sample sizes for substantive tests (test of details) and tests of controls differently. When we perform a dual-purpose test, we determine the sample size for the control test and substantive test separately. For example, if our sample size determine for control testing is 25 items, and our substantive testing size is 100 items, then we only apply our control testing procedures and substantive to 25 items and only the substantive procedures to the remaining 75 samples.

When and why do we seek assistance from a KPMG Accredited Sampling Professional? [ISA | 4163.1800]

We seek assistance from a KPMG Accredited Sampling Professional, if we determine a reduced sample size is appropriate after we have begun testing selected items and we wish to exclude items from the originally determined sample.

The KPMG Accredited Sampling Professional has more knowledge of MUS, in order to determine which items to exclude from the original sample and to perform the evaluation of the sample.

The KPMG Accredited Sampling Professionals have the accreditation to perform the relevant functionality within the KPMG substantive sampling techniques that the engagement team does not.

> For example, we are using MUS, our original sample size was 100 and we have already selected items to test. We then determine a reduced sample size of 90 is appropriate based on an increase to PM.

We select and test a new sample of 90, or we complete our testing of the original 100 items. We seek assistance from the KPMG Accredited Sampling Professional if we wish to exclude the 10 'extra' items from our sample.

1.1.6.2 Use attribute sample size tables for attribute sampling, seeking assistance if relevant [ISA | 4164]

What do we do?

IF we are using attribute sampling THEN determine the sample size, based on the relevant risk, using the attribute sample size tables AND seek assistance from a KPMG Accredited Sampling Professional if relevant.

Why do we do this?

We use attribute sample size tables for attribute sampling as to reduce sampling risk to an acceptable level.

Execute the Audit

What are the criteria to perform an attribute sample? [ISA | 4164.10856]

The criteria to perform an attribute sample are:

- The information to be tested is non-monetary information in disclosures in the financial statements;
- Other literature created within the engagement teams member firm, such as industry-specific guidance indicates that attribute sampling is appropriate; or
- We are direct testing internal information. For example, the information to be tested is used by management in an estimate.

If none of the above criteria applies, then we obtain concurrence from a KPMG Accredited Sampling Professional before performing attribute sampling.

What are the 'attribute sample size tables' we use to determine the sample size when using attribute sampling? [ISA | 4164.1300]

The 'attribute sample size tables' determine the sample sizes to be used when using attribute sampling, based on:

- The number of sample items in the population; and
- The relevant risk associated with the information being tested

We use the following attribute sample size table when we have not tested controls:

Number of units in the population	Relevant Risk			
	Significant +	Significant	Elevated	Base
10 or less (a)	10	10	7	5
11-49 (b)	25	20	15	10
50-249 (c)	80	45	25	15
250 +	120	60	30	15

(a) The lower of this sample size and the population
(b) The lower of the sample size and 75% of the population
(c) The lower of this sample size and 50% of the population

We use the following attribute sample size table when we:

- have tested controls over non-monetary information in disclosures in the financial statements and found them to be effective;
- perform further direct testing over data used in an estimate and we have tested controls over the data and found them to be effective; or
- meet the criteria to perform an attribute sample and the attribute sample addresses an RMM with a control reliance CAR.

Number of units in the population	Relevant Inherent Risk (d)			
	Significant +	Significant	Elevated	Base
10 or less (a)	10	10	5	5
11-49 (b)	20	15	10	10
50-249 (c)	45	25	15	10
250 +	60	30	15	10

(a) The lower of this sample size and the population
(b) The lower of the sample size and 75% of the population
(c) The lower of this sample size and 50% of the population

(d) For data used in an estimate, we use our assessed level of inherent risk specific to the data.

How do we determine the relevant risk when we are directly testing the accuracy and completeness of information and we have not tested controls? [ISA | 4164.10857]

We determine the relevant risk when we are directly testing the accuracy and completeness of information and we have not tested controls in accordance with 'Determine the risk associated with the accuracy and completeness of the internal information to be directly tested'.

How do we determine the relevant risk when we are direct testing non-monetary information included in a disclosure, or direct testing data used in an estimate, and we have tested the controls over the completeness and accuracy of that information? [ISA | 4164.10858]

When we are direct testing non-monetary information included in a disclosure, or direct testing data used in an estimate, and we have tested the controls over the completeness and accuracy of that information, we use the inherent risk of the risk of material misstatement (RMM) related to the disclosure or the inherent risk of the risk of material misstatement (RMM) specific to the data used in an estimate, respectively.

Do we assess relevant risk differently when direct testing information relied on in a D&A item matching procedure? [ISA | 4164.10859]

We increase relevant risk or relevant inherent risk by one step to determine the appropriate sample size when direct testing information relied on in a D&A item matching procedure.

For example, if the inherent risk for the RMM being tested by a D&A item matching procedure is Base, then we use the sample size for Elevated risk from the table (see question 'How may we use D&A routines to obtain audit evidence or supplement our judgment?').

What if the tolerable error or expected error rate inherent in the attribute sample tables is not consistent with the circumstances in which we are using attribute sampling? [ISA | 4164.10861]

At KPMG, the attribute sample size tables are based on a tolerable error rate of 5% (2.5 % if the relevant risk used to select the sample is Significant +) and an expected error rate of 0. If we determine that an expected error rate other than 0 is appropriate, or that a 5% (or 2.5% if applicable) error rate in the population results in a misstatement of more than performance materiality (PM) in the related balance, then we determine an attribute sample size based on revised values for expected error and or tolerable error. It is expected that changes to the underlying tolerable error and expected error rates are rare, and therefore rates are changed when there is a sound basis to quantify what the revised values are, and it is not appropriate to adjust these rates to enable errors to be accepted after the sample has been performed.

What is a 'KPMG Accredited Sampling Professional' and what may they do? [ISA | 4164.1502]

A KPMG Accredited Sampling Professional is a firm accredited KPMG individual who provides support, assistance and concurrence on sampling related issues. They are not a 'KPMG specialist' or 'specific team member'.

KPMG Accredited Sampling Professionals may be requested to:

- Participate in periodic conference calls to discuss sampling matters;
- Deliver audit training to audit professionals;
- Provide support in engagement team planning decisions, and/or;
- Review engagement team substantive statistical sampling techniques.

When and why do we seek assistance from a KPMG Accredited Sampling Professional? [ISA | 4164.1500]

We seek assistance from a KPMG Accredited Sampling Professional, when we have determined specific tolerable error rates or expected error rates other than those underlying the attribute sample size tables to be achieved with an attribute sample.

> For example, when we determine that a 5% error rate in the population results in a misstatement of more than PM in the related balance, then we establish a revised tolerable error rate and our sample size will therefore be based on this input.

Determining the sample size based on specific tolerable error rates or expected error rates, involves using attribute sampling functionality outside of the KPMG Clara workflow to set our sample size. KPMG Accredited Sampling Professionals have the accreditation to perform the relevant functionality that the engagement team does not. They do not determine the tolerable error or expected error rates the team uses.

1.1.7 Determine the substantive sampling approach for multiple locations, seeking assistance, if necessary [ISA | 4165]

What do we do?

IF we are using Monetary Unit Sampling or KPMG Sampling Plan AND there are multiple locations over which we wish to perform substantive sample THEN determine the sampling approach, seeking assistance from a KPMG Accredited Sampling Professional if necessary.

Why do we do this?

When sampling an account or transactions that is spread across multiple locations, we may face additional sampling considerations beyond those encountered when applying audit sampling to a population at one location.

Common audit situations where such considerations may apply include inventories, fixed assets, or payables that are in different locations.

The sampling approach we use affects how we design our sample, including whether we use performance materiality (PM) or sub-population performance materiality (SPM) as the tolerable misstatement.

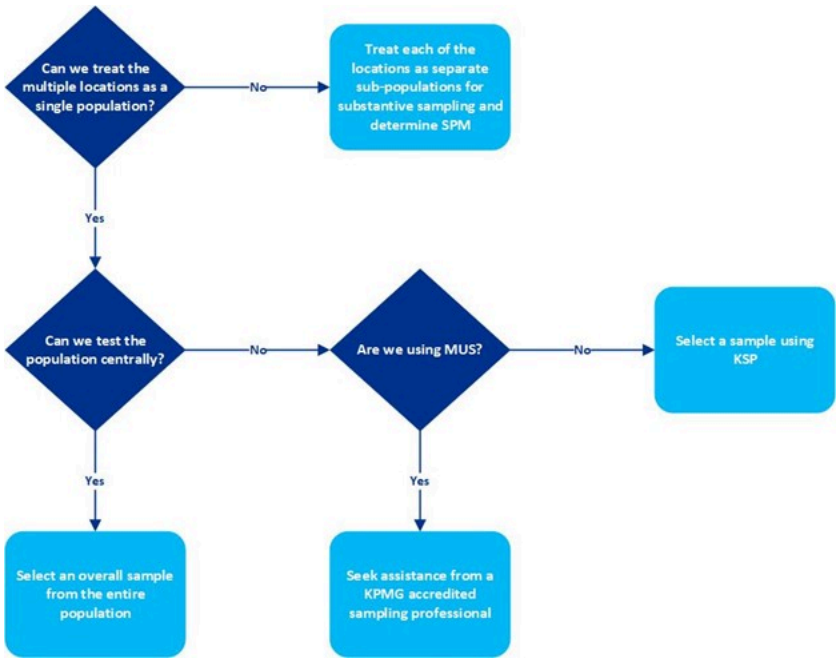
Execute the Audit

What is a location? [ISA | 4165.12444]

A location is a physical site where an entity conducts aspect(s) of its business. Locations may be in the same country as the entity or abroad. Examples of locations include entities or business units of a group, branches of a retailer, warehouses that hold inventory or regional sales offices. Certain operational and financial records (i.e., supporting documentation) may physically exist at the locations.

How do we determine the sampling approach if there are multiple locations over which we wish to perform substantive sample when we are using MUS or KSP? [ISA | 4165.1300]

The following flowchart illustrates how we determine the sampling approach if there are multiple locations over which we wish to perform substantive sample when we are using MUS or KSP:



How do we determine whether to treat populations at multiple locations as a single population? [ISA | 4165.12968]

To determine whether to treat the populations at multiple locations as a single population, we think about:

- Whether the populations at the individual locations share the same risk profile. Where they share the same risk profile, then we may be able to treat them as a single population.
- Whether it is appropriate to extrapolate a misstatement that we identify in one location across the other locations. If the answer is 'yes', then we may be able to treat them as a single population. If we determine that locations are a single population, it is appropriate to project misstatements from one location to the others and we do not treat the locations as separate sub-populations.

How do we select an overall sample from the entire population? [ISA | 4165.14015]

In order to select an overall sample from the entire population, we:

- obtain centralized records covering all locations or combine the data from the individual locations to create one single population and determine our sample from that population;
- do not select a certain number of locations to test since we are selecting sample items directly from the complete centralized or combined population of items; and

- think about the risks that may be introduced in some situations where the quality of evidence may differ when not obtaining evidence from a location, such as not examining original documentation or speaking directly to personnel most familiar with the controls and transactions.

If we are able to test the population centrally, this assists us in completing an efficient audit as we are able to determine a single sample size and conclude on the entire population at all locations, without having to determine how many and which locations to obtain evidence from.

How do we determine whether to test the population centrally? [ISA | 4165.13598]

In order to determine whether to test the population centrally, we think about whether:

- the entity maintains its records centrally, or;
- we are able to aggregate the individual populations of all locations. For example, whether we are able obtain separate account receivable ledgers from separate locations and aggregate them, and;
- we can obtain the evidence centrally. For example, we cannot obtain the evidence centrally when our procedure is to perform inventory test counts by visiting the warehouse locations.

If there are centralized records or we can aggregate individual populations and we can obtain appropriate evidence without physically visiting the locations, we are able to test the population centrally. We do this by selecting one overall sample from that centralized or aggregated population.

What is a 'KPMG Accredited Sampling Professional' and what may they do? [ISA | 4165.1502]

A KPMG Accredited Sampling Professional is a firm accredited KPMG individual who provides support, assistance and concurrence on sampling related issues. They are not a 'KPMG specialist' or 'specific team member'.

KPMG Accredited Sampling Professionals may be requested to:

- Participate in periodic conference calls to discuss sampling matters;
- Deliver audit training to audit professionals;
- Provide support in engagement team planning decisions, and/or;
- Review engagement team substantive statistical sampling techniques.

When and why do we seek assistance from a KPMG Accredited Sampling Professional? [ISA | 4165.1700]

We seek assistance from a KPMG Accredited Sampling Professional when we are performing a substantive sample over multiple locations and are unable to obtain centralized records or aggregate individual populations (i.e. we can't test the population centrally).

The KPMG Accredited Sampling Professional has more knowledge of KPMG sampling techniques, in order to determine the sample size and its allocation over the locations we plan to visit.

When we have a single population we are not testing centrally how many locations do we obtain evidence from? [ISA | 4165.13600]

The following table illustrates the factors we consider when determining how many locations we obtain evidence from for a substantive sample:

Factor	Guidance for determining the number of locations

Whether the locations are subject to homogenous control activities	If we are testing homogeneous control activities across locations then we may choose to obtain evidence from the same locations as those we have determined to obtain evidence from for control testing see activity 'Determine the number of locations to obtain evidence from'. This will help make our audit more efficient, particularly if we are also performing dual purpose testing and are testing the same items anyway.
The number of locations in the population	If there are a few locations, selecting all locations may be more efficient and effective.
The value of the population compared to performance materiality (PM)	The higher the value of the population, the higher the number of locations we obtain evidence from.
Range and concentration of location values	For example, if the book value of the population being sampled is concentrated in a small number of sample items spread across all locations, a larger number of locations may be sampled in order to test all individually significant items.
Combined Assessed Risk (CAR) for the assertion-level RMM	The higher the inherent risk assessment, the more locations we obtain evidence from. If there is no controls reliance, we obtain evidence from more locations.

There are no bright lines or safe harbors on the minimum number of locations to select for testing. However, when an entity has multiple locations, we generally do not test only one location.

How do we select which locations we obtain evidence from? [ISA | 4165.13601]

We select locations to obtain evidence from randomly or haphazardly. Locations that have no chance of selection (for example, because of remote location) are not included in the sampled population and the risk of misstatement at those locations is evaluated separately.

What factors do we think about to determine whether the populations at the individual locations share the same risk profile? [ISA | 4165.160334]

The following is a listing of factors we think about:

Factor	How we may consider the factor
The nature and complexity of the transactions included in the population	Routine transactions are more likely to have the same risk profile as compared to transactions that are more complex or involve a greater degree of judgment, knowledge and/or expertise. For example, sales of one product across multiple locations that follow the same simple revenue recognition model is more likely to have the same risk profile than more complex multiple-element revenue arrangements or unique percentage-of-completion construction projects.
Policies, practices and procedures to record the transactions	The more different these are for each location, the less likely the populations have the same risk profile. Policies for an entity may be communicated to locations through a policies and procedures manual. Certain locations may differ from the entity's policies due to differences in management, training, employee turnover, cultural and geographic differences; therefore, the populations at those locations may not be thought to have the same risk profile. It is also possible that different locations follow local accounting practices and not the accounting practices of the consolidated entity.
The IT system (the application and consistency of general IT controls (GITCs)) used to process the transactions	The use of different IT systems introduces the possibility of different business processes and different control activities over the transactions. As such, when the process to record transactions is highly automated, we think about whether the locations use the same IT system to process the transactions in the population and whether RAFITs and GITCs are the same for the IT systems.
Same risks of material misstatement (RMM) (including fraud risks)	The population at the locations relate to the same Risks of Material Misstatement (RMMs) for an account/disclosure. If we identify that the RMMs are different, there is likely a difference in how the transactions are processed and/or accounted for. The identification of different RMMs may call into question whether the locations share the same risk profile.
Process risk points (PRPs) and process control activities related	If there are different PRPs in a specific location, it may be an indication that they have different business activities or types of transactions.

to the transactions in the population	
CERAMIC over the locations	When locations are subject to different CERAMIC, it may indicate the business activities, processes activities, and risks are different for these locations.

1.1.8 Establish an acceptable variance if applicable [ISA | 7609]

What do we do?

IF we establish an acceptable variance THEN define the acceptable variance AND support the rationale for the acceptable variance established

Why do we do this?

When sampling, we define what we consider to be a misstatement. This may be as simple as any difference between the book value of the transaction and the amount the underlying evidence supports. However, sometimes we do tolerate small differences on individual sampled transactions. Given the subjectivity in determining then it is appropriate for us to tolerate these differences, we include support for our rationale and considerations around the precision of the test.

Execute the audit

What is an acceptable variance? [ISA | 7609.10946]

Acceptable variances provide for a range in which a difference between the book value and the audit value (i.e. actual value as determined in testing the sample) that is not considered a misstatement.

When do we establish an 'acceptable variance'? [ISA | 7609.10947]

There may be times where our test is designed with some imprecision and where the entity's calculation is more precise than ours is.

> For example, when our test is designed as an estimate of the entity's precise calculation, or when our test relates to the entity's accounting estimate.

In these instances, it may be appropriate to establish an acceptable variance.

An acceptable variance is not established when our test is designed to be more precise than management's calculation.

> For example, management values its inventory using the first-in, first-out (FIFO) method. In designing our audit approach regarding inventory accuracy, we expect differences in performing

price testing because management's process to estimate the unit price paid for each inventory item only considers the most recent price paid for the item.

Our tests of the sampled items include obtaining sufficient invoices to support the quantity on-hand at year-end and accurately calculating the price in accordance with the FIFO method.

In this situation, we may not establish a range of acceptable variance. Any difference between management's book value and the audited value (i.e. actual costs on a FIFO method) is not considered a misstatement and our projection of such misstatements provides evidence about the impact of management's imprecise application of the accounting policy.

How do we determine whether a difference is a misstatement when we have established an acceptable variance? [ISA | 7609.10948]

The following table illustrates what we think about when determining whether a difference is a misstatement when we have established an acceptable variance, depending on the type of test:

Type of test	Determining whether a difference is a misstatement or an acceptable variance
When our test is an estimate of the entity's precise calculation	We do not identify a misstatement, if we determine that such difference is the result of the design of our audit procedure. We may make such a determination after thinking about the following factors: • the sampling procedure is reasonable and the expected imprecision of the test is acceptable; • there does not appear to be any management bias based upon the results of the test; and • Our rationale for an acceptable variance is properly supported and documented as to the consideration of the imprecision of the test.
Our test relates to the entity's accounting estimate	We do not identify a misstatement, if management's estimate falls within our established range of acceptable variance. We may make such a determination after thinking about the following factors: • there does not appear to be any management bias based upon the results of our test; and

	• Our rationale for the established range of acceptable variance in the sample items is properly supported and documented relative to the expected precision of the test.

1.2 Select a representative substantive sample [ISA | 4166]

What do we do?

Select sample items for a substantive sample, which are expected to be representative of the population so that each item in the population has a chance of selection

Why do we do this?

We select representative items so that we can project our findings to the remaining untested population and draw conclusions about the sampled population.

Execute the Audit

What does 'representative of the population' mean? [ISA | 4166.1300]

When sample items are representative of the population this means that the evaluation of the sample will result in conclusions that, subject to the limitations of sampling risk, are similar to the conclusions drawn if the same procedures were applied to the entire population.

When sample items are representative of the population, it also provides a reasonable basis for conclusions about the population.

How do we select representative sample items, where all items have a chance of selection? [ISA | 4166.1400]

We select representative sample items, where all items have a chance of selection by avoiding bias in our selection. If we have bias in our selection then the items will not be representative of the source population.

For example, we inappropriately introduce bias into our substantive item selection if we:

- select a sample of 10 items from the 15 largest customers for account receivables confirmations when the population includes 10,000 customers;
- We only select items that are on the bottom shelves or at a certain area of the warehouse during a physical inventory count floor to sheet test.

The following table illustrates how we avoid bias in our sample selection when using KPMG substantive sample techniques:

KPMG substantive sampling technique	How we avoid bias in our sample selection
Monetary Unit Sampling (MUS)	MUS avoids bias by using an automatic random selection method, where every item has a chance of selection but the higher the value of the item the more likely it is to be selected.
KPMG Sampling Plan (KSP)	We avoid bias when manually selecting items by performing our selection either randomly or haphazardly. We may use the Random Sample Tool https://alex.kpmg.com/AROWeb/document/lfc/find/un_aasc_ad_fsa_sampling_rst/toc (Excel based) to assist in random sample item selection.
Attribute sampling	We avoid bias when manually selecting items by performing our selection either randomly or haphazardly. We may use either the random sampling functionality within the KPMG Clara workflow or the Random Sample Tool https://alex.kpmg.com/AROWeb/document/lfc/find/un_aasc_ad_fsa_sampling_rst/toc (Excel based) to assist in random sample item selection.

What is random selection? [ISA | 4166.10869]

The random selection method uses random numbers to determine the item selected for testing. MUS uses a form of random selection (value-weighted selection) and we may also use a random selection for attribute sampling and KSP. The random sampling functionality within the KPMG Clara workflow and the Random Sample Tool https://alex.kpmg.com/AROWeb/document/lfc/find/un_aasc_ad_fsa_sampling_rst/toc (Excel based) are two tools we can use to make a random selection.

What is haphazard selection? [ISA | 4166.10870]

Haphazard selection selects sample items without any conscious bias or predictability. In other words, there isn't any special reason for including or omitting items from the sample.

> For example, where the items in the population are included in a physical file cabinet drawer, and we pull samples from the drawer regardless of its size, shape, location, other physical features or the monetary amount associated with the selection.

Random or haphazard selection are used for attribute sampling, KSP and control testing.

Can we select the same sample items that we tested as part of our test of the control activity, when attribute sampling? [ISA | 4166.10876]

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.

2 Perform steps for a control sample [ISA | 4175]

What do we do?

IF we determine that we will perform control sampling, THEN perform the relevant steps.

Why do we do this?

Control sampling provides a basis for our conclusion as to whether controls are operating effectively throughout the period. The steps we perform allow us to draw appropriate conclusions from our testing about the sampled population.

Execute the Audit

What is sampling? [ISA | 4175.1300]

Sampling is a means of selecting items for performing audit procedures. When sampling, we:

- perform procedures on less than 100% of the items within a population;
- select items that are representative of the population;
- project the results from the selected items to the sampled population; and
- select items in a manner that all items in the sampled population have a chance of being selected.

Are there different approaches to sampling? [ISA | 4175.1400]

Yes, there are 2 approaches to sampling. We can either apply a statistical or non-statistical sampling approach when sampling. Both approaches provide sufficient appropriate audit evidence when properly applied.

What is a statistical sampling approach?

Statistical sampling is an approach that:

- selects sample items randomly; and
- uses an appropriate statistical technique to determine the sample size and evaluate sample results, including measurement of sampling risk.

We use KPMG Monetary Unit Sampling (MUS) as our statistical sampling approach.

When do we use a non-statistical sampling approach?

We use a non-statistical sampling approaches when we:

- test the operating effectiveness of a control;
- use attribute sampling, including direct testing of internal information; or

- use the KPMG Sampling Plan (KSP).

What is 'control sampling'? [ISA | 4175.1500]

Control sampling is when we select items to test the operating effectiveness of a control. Sampling allows us to evaluate the entire population by testing only a sample of the occurrences of the control during the period.

When may we perform control sampling? [ISA | 4175.1600]

We may perform control sampling when we are testing manual controls that are designed to be performed in a consistent manner, for example:

- controls that operate daily, weekly, and so on.
- controls that operate each time a particular circumstance/situation arises. In other words, these controls operate on a recurring or an ad hoc basis.

What 'relevant steps' do we perform when we are performing control sampling? [ISA | 4175.1700]

There are 6 relevant steps we perform when control sampling:

- Consider the relevant factors and their effects on the control sample
- Design a control sample
- Select a representative control sample
- Perform procedures over selected items to test operating effectiveness
- Evaluate the control sample results
- Continue to assess RMMs, and revise audit approach as necessary.

2.1 Consider the relevant factors and their effects on the control sample [ISA | 4176]

What do we do?

Consider the relevant factors, including how they affect whether control sampling is appropriate

Why do we do this?

Considering different factors upfront, will help us in properly designing our test of controls. Specifically, it helps us determine whether sampling is an appropriate way to test controls and make sure that our approach will provide us with the audit evidence we expect.

Execute the Audit

What 'relevant factors' do we consider for a control sample, and how do they affect whether control sampling is appropriate? [ISA | 4176.1300]

The following table illustrates the relevant factors that we consider for a control sample and how they affect whether control sampling is appropriate:

Relevant factor	Effect on appropriateness of control sampling

Audit Objective	
For a financial statement audit, the audit objective of a control sample is to obtain evidence about the operating effectiveness of controls during the entire period of reliance, to support our control risk assessment (Reliance), and therefore combined assessed risk (CAR.) For an integrated audit, the control sample is also designed to obtain evidence about the operation of controls to conclude on their effectiveness as of a certain date. We perform a control sample in the same manner regardless of the type of audit we perform.	It is not appropriate to perform a control sample in the following circumstances: • When we are obtaining an understanding of internal controls as part of risk assessment (i.e. performing walkthroughs); • When we are testing controls that are policies such as segregation of duties; and • When we are testing automated controls where we rely on the operation of GITC for the continued effective operation. For example, each attribute of an automated process control activity may be tested only once when effective GITCs are present, and thus the concept of tolerable deviation does not apply.
Population to be sampled	
The population to be sampled is the *complete* set of control occurrences (i.e. instances where the control occurred or should have occurred), from which we intend to select a sample of items and draw a conclusion over. If the population is not complete then we will not be able to draw valid conclusions. We determine that the population to be sampled is complete before we start sampling (see activity 'Determine the extent of procedures over relevant controls'.)	We determine that the population from which the sample is selected is appropriate for the specific audit objective, because sample results can be projected only to the population from which the sample was selected. For example, we wish to test the operating effectiveness of a prescribed control designed to ensure that all shipments are billed, it would be ineffective to sample items that have already been billed. Rather, we would likely sample the population of shipped items to determine whether the control operated over each transaction.
Sampling risk	
Sampling risk is the risk that we reach an incorrect conclusion - meaning that our conclusion based on a sample, may be	Our control sample size tables include acceptable levels of sampling risk based on RAWTC. If we are unable to accept sampling risk, we do not sample.

different than if we had applied the same procedures to 100% of the population. There are different types of sampling risk for a control sample, which result in incorrect conclusions: • Risk of assessing control risk too low - the risk we conclude controls are effective when they are not; and • Risk of assessing control risk too high - the risk that we conclude controls are not effective when they are. We are most concerned about the risk of setting control risk too low because it results in an inappropriately reduced CAR and impacts the substantive audit procedures we perform. This is more likely to lead to an inappropriate audit opinion.	
Tolerable rate of deviation	
The tolerable rate of deviation is the maximum rate at which the control could deviate from its design and we would still be willing to conclude that the control is operating effectively. For example, we may conclude that a control operates effectively if the deviation rate was less than 10%. This is not an indication of the level of deviations we would expect to find in the sample - which at KPMG is zero. Instead, it is based on our assessment of how much evidence will provide sufficient assurance that the rate of deviation is acceptably low.	The tolerable rate of deviation is a function of our assessment of the risk associated with the control (RAWTC) and is built into our control sample size tables that we use to determine the control sample size see activity 'Determine the control sample size'. For example, when the risk associated with the control (RAWTC) is elevated, our methodology builds in a lower tolerable rate of deviation than when the RAWTC is base. This results in a larger control sample size; so that we obtain sufficient assurance that, the rate of deviation is acceptably low based on the RAWTC.

2.2 Design a control sample [ISA | 4177]

What do we do?

Design a control sample to provide sufficient, appropriate audit evidence for the audit objective.

Why do we do this?

Once we have determined that we can use the results of sampling to draw a conclusion about the sampled population, we design our sample, so that the sample size provides sufficient, appropriate audit evidence for our audit objective.

Execute the Audit

How do we design a control sample? [ISA | 4177.1300]

We design a control sample by:

- Determining the control sample size
- If applicable, allocating the sample size across homogeneous locations

2.2.1 Determine the control sample size [ISA | 4178]

What do we do?

Consider relevant factors to determine the control sample size to reduce sampling risk to an acceptably low level

Why do we do this?

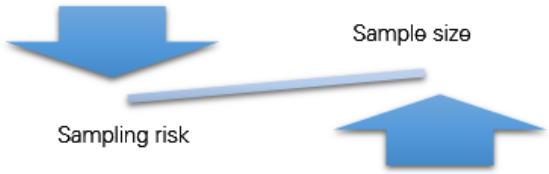
When we determine our control sample size, we reduce the sampling risk to an appropriate level to obtain sufficient evidence to conclude on the operating effectiveness of the relevant control.

Execute the Audit

What 'relevant factors' do we consider to determine the control sample size? [ISA | 4178.1300]

The table below sets out the factors we consider to determine, and how they affect, our control sample size:

Relevant factor	Effect on the control sample size
Tolerable rate of deviation	A decrease in the tolerable rate of deviation increases the sample size. We use RAWTC as an indicator of the tolerable rate of deviation, the higher the RAWTC the lower our tolerable rate of deviation. Therefore, as RAWTC increases the sample size also increases.
Likely or expected rate of deviations	An increase in the likely or expected rate of deviations increases our sample size. Our expected number of deviations for controls is zero.

Sampling risk	The lower the sampling risk we are willing to accept, the greater the sample size.  Sampling risk is not something we directly calculate for each test of controls. Our control sampling methodology uses a consistent factor for the sampling risk, which is embedded in the control sample size table.

The control sample size table provides us sample sizes based on sampling factors that automatically incorporate appropriate considerations of the factors above.

How do we determine the control sample size? [ISA | 4178.1400]

We use the control sample size table to determine the control sample size based on risk associated with the control (RAWTC) and frequency of the control.

What is the 'control sample size table' for manual controls? [ISA | 4178.12157]

The 'control sample size table' represents the control sample size we use to test operating effectiveness of a manual control. It is based on:

- The frequency with which the control operates, and
- RAWTC (Significant+, Significant, Elevated or Base) we have assessed for a control

Frequency of the manual control	Control sample size			
	Significant + RAWTC	Significant RAWTC	Elevated RAWTC	Base RAWTC
Annual	1	1	1	1
Quarterly	1+1 (a)	1+1 (a)	1+1 (b)	1+1 (b)
Monthly	4	3	3	2
Weekly	11	9	7	5
Daily*	30	25	20	15

Recurring**	55	45	35	25

*Daily relates to a control that operates on a daily basis so it can be expected to operate between 250 - 366 times a year.

**For manual recurring controls, if we tested more than the indicated sample size and we meet the relevant criteria to accept some control deviations (see question 'What are the criteria to accept deviations when we increase the sample size for manual recurring controls?'), see question 'How many control deviations may we accept, when the sample size has been increased under the applicable guidance and we meet the relevant criteria to accept control deviations in our control sample?' for the relevant sample size table.

(a) One of the two quarters selected for testing is the fourth quarter instance of the control.

(b) When drawing a conclusion on the operating effectiveness at an interim date, any two quarters can be selected for testing. Procedures are performed to roll forward the conclusions reached at the interim date through the period of reliance or the 'as of' date (in an audit of internal control over financial reporting).

When testing the control for the full period of reliance through the period end or 'as of' date (e.g. all four instances of the control are available for testing at the time the test of effectiveness is performed), or when not drawing a conclusion on the operating effectiveness at an interim date, one of the two quarters selected for testing is the fourth quarter instance of the control.

How do we determine the frequency of a manual control for the purpose of determining the sample size? [ISA | 4178.12158]

We determine the frequency of a manual control by considering its actual frequency and thinking about the number of times the control operation occurs (number of occurrences).

Where a periodic (not recurring) manual control has multiple occurrences, because it operates over parts of accounts/ transactions, we determine the sample size by considering the number of occurrences of the manual control.

For example, we are testing the operating effectiveness of monthly bank reconciliations performed on 100 bank accounts, where RAWTC is Base:

- Our control frequency is 12 months x 100 accounts = 1,200 occurrences in the period. The occurrence is akin to recurring per the table below.
- We consider this equivalent frequency and the RAWTC of Base and refer to the control sample size table to determine a sample size of 25.
- We select these 25 items from multiple points in the year and not just 1 month.

If the frequency or occurrence of a manual control sits between categories, we use the higher of the categories when determining our control sample size.

For example, we are testing the operating effectiveness of monthly bank reconciliations performed on 12 bank accounts, where RAWTC is Base:

- Our control frequency is 12 months x 12 accounts = 144 occurrences in the period. Therefore, occurrence is somewhere between weekly and daily.
- We refer to the table below and determine the equivalent frequency for this control to be daily. Based on the control sample size table, we select a sample of 15 items.

For example, if a manual control is performed twice a week and therefore occurs 104 times in the period, the frequency is somewhere between weekly and daily. We refer to the table below and determine the equivalent frequency to be daily. As the control's RAWTC is Base, we refer to the control sample size table and select a sample of 15 items.

Therefore, when a manual control, including an ad-hoc control, has a number of occurrences that it operates in the period we think about the following in determining the appropriate sample size:

Number of occurrences	Equates to the following frequency only when determining the sample size
1	Annual
2-4	Quarterly
5-12	Monthly
13-52	Weekly
53-366	Daily
>366	Recurring

How do we determine the frequency of a manual control for the purpose of determining the sample size where an entity uses an annual calendar structure with 13 periods or 53 weeks and has controls that operate each period or week? [ISA | 4178.158376]

When an entity uses a 13-period annual calendar (13 periods in a 12-month year) and has a control that operates each period (13 occurrences), we may treat the control as having a monthly control frequency despite it occurring more than 12 times. Similarly, when an entity has an annual period that includes 53 weeks, we may treat a control that operates each week as having a weekly control frequency despite it occurring more than 52 times.

For example, a retail entity may divide an annual period into 13 periods shorter than calendar months. If RAWTC is Significant, our control sample size for the monthly periodic control (13 occurrences) is 3.

When can we reduce the control sample size for a manual control? [ISA | 4178.12159]

We can reduce the control sample size for a manual control, when:

- the period subject to audit is less than 1 year;
- we are testing a superseded control that operated for part of the year;

- we are testing a new control that operates for part of the year; or
- we are testing a remediated control that operates for part of the year.

In these circumstances, we may base our sample size on the number of occurrences in the period (see question 'How do we determine the frequency of a manual control for the purpose of determining the sample size?').

For example, we are auditing a period of 3 months and testing the operating effectiveness of a weekly control, where RAWTC is base:

- Our control frequency is 3 months x 4 weeks = 12 occurrences in the period which is akin to monthly.
- We refer to the control sample size table and select a monthly frequency and a Base RAWTC for a sample size of 2 items.

When testing a remediated control that operates for part of the year, we think about increasing RAWTC to address the risk that the control may not operate effectively upon remediation.

What are the criteria to accept deviations when we increase the sample size for manual recurring controls? [ISA | 4178.12160]

We may only accept deviations for manual recurring controls if we have increased the sample size from the 'control sample size table' and the following criteria are met:

- When we are performing a dual-purpose test and the substantive sample size is higher than the control sample size, and we use the larger of the sample sizes determined for controls and substantive procedures;

For example, if we determined that a sample size of 100 items is appropriate for substantive testing and the determined control sample size is 25 items and we use 100 items as the sample size for both tests.

- When we are testing a control which operates across a number of homogeneous locations (see 'Allocate the control sample size');
- When we are using the work of internal audit and internal audit have tested a larger sample; or
- With concurrence from an accredited sampling professional.

When do we increase the control sample size? [ISA | 4178.12161]

We increase the control sample size in the following circumstances:

- When we are testing a control which operates across a number of homogeneous locations (see 'Allocate the control sample size'); or
- When we are using the work of internal audit and internal audit have tested a larger sample.

In addition, when we are performing a dual-purpose test and the substantive sample size is higher than the control sample size, we may use the larger of the sample sizes determined for controls and substantive procedures.

How do we determine the correct sample size to use for a dual-purpose test? [ISA | 4178.1500]

When we perform audit sampling, we determine the sample sizes for substantive tests (test of details) and tests of controls differently. When we perform a dual-purpose test, we determine the sample size necessary for the control test and substantive test separately. For example, if our sample size determine for control testing is 25 items, and our substantive testing size is 100 items, then we only apply our control testing procedures and substantive to 25 items and only the substantive procedures to the remaining 75 samples.

If we choose to extend the tests of controls performed at interim, what sample sizes do we use to rollforward our conclusions on the operating effectiveness of controls? [ISA | 4178.2200]

There are no bright-line tests or specific requirements for the sample sizes we use during the rollforward period. In practice, we may consider a proportional sample size based on the full period samples outlined in Audit Sampling. We could choose to perform more or less testing, but this approach can be a helpful starting point in deciding the extent of testing necessary.

> For example, suppose we tested and concluded on the operating effectiveness of a daily manual control with Elevated RAWTC through Q3. If we decide to perform additional testing procedures during the rollforward period, we may consider performing our procedures over a selection of 5 items - i.e. 3/12 months × 20 sample size.

What do we do if the number of occurrences increases during the rollforward period? [ISA | 4178.12117]

In certain cases, the total number of actual occurrences of a control may end up being more at year-end than expected during the interim period. If this occurs and the increase in the number of occurrences results in the control being akin to an updated frequency (e.g., from weekly to daily), we perform testing over sufficient samples in the rollforward period to meet the sample size for the updated frequency. In this case, because we are essentially re-evaluating our D&I and updating the frequency of the control and then performing the appropriate TOE sample size according to the updated frequency of the control, the additional sample selections will be selected from throughout the period of reliance, inclusive of the rollforward period.

For example, at interim, 45 occurrences exists for a manual control with a Base RAWTC and we do not expect the number of occurrences to increase over 50 by year-end so we determine that the number of occurrences are akin to a weekly frequency and test a sample of 5 based on the sample size table and conclude on our interim TOE. However, as of year-end, we discover that 60 occurrences existed for the year, indicating that the sample size to conclude for the annual period should be 15 based on a daily frequency. The engagement team tests 10 additional samples in the rollforward period to suffice the 15 sample size for the updated daily frequency for that control.

Examples

What is an example of a scenario in which we test the new or remediated control? [ISA | 4178.159376]

Fact Pattern

Entity R implemented a process control activity in Q2 related to a risk of material misstatement that revenue may not be recognized in the period that the performance obligation is satisfied (delivery). In this control, the control operator matches all revenue sales transactions to supporting documentation of delivery to validate the existence of revenue. The control operates over all revenue transactions

from the date of implementation through period end. Entity R did not have a process control activity over this process risk prior to Q2. Rather, Entity R had a control that operated without appropriate precision. The revenue in Q1 is material to the financial statements.

Analysis

For Entity R, the implementation of the process control activity in Q2 represents a significant change. Assuming that the control is properly designed and operating effectively and the engagement team obtains a sufficient level of persuasive audit evidence, the engagement team could place reliance on the process control activity in the financial statement audit from the Q2 implementation date through period end. However, they could not place reliance on the process control activity for Q1 prior to its implementation. They would have a different control risk for the Q1 period when determining the combined assessed risk (CAR).

In this situation, the team may conclude there is sufficient evidence that Entity R maintained effective internal control over financial reporting as of December 31 20XX in an integrated audit; however, the team would still assess the severity of the control deficiency that existed in Q1.

How do we determine whether to test the Q4 instance of a quarterly control? [ISA | 4178.6276]

Fact pattern #1

A calendar year-end entity has a manual reconciliation control that occurs at the end of each quarter. We have assessed RAWTC for the control as base and believe reaching a conclusion at an interim date is appropriate. We have tested the control's effectiveness for the period from January to the end of September. We have designed the interim test selecting 2 control occurrences from throughout the interim period. We would determine which two quarters to test based on considerations included in 'Design procedures over relevant controls to obtain persuasive evidence'.

Analysis #1

We are able to conclude on the operating effectiveness of the control as of the end of the period from which we selected the samples (i.e. September 30, since three quarterly instances of the control had occurred and were subject to selection). However, because we reached an interim conclusion, procedures are required to rollforward that conclusion to year-end.

We determine what evidence is necessary during the rollforward period to extend our conclusion through year-end. In this example, because of the base RAWTC and the samples subject to the interim testing included those up to the end of September, which is within four months of the fiscal year-end, inquiry alone may be an acceptable procedure in the rollforward period. For further guidance, see 'Determine additional evidence for the rollforward period, if applicable'.

Fact pattern #2

Assume the same facts as in Fact pattern #1, except that we have decided to test the control's effectiveness during interim procedures performed through June 30 by testing the operation of the control in March and June.

Analysis #2

Only two instances of the control have occurred as of the date of performance of interim procedures. The procedures performed give us evidence about the operation of the control from January through June (the period from which the sample was drawn). As such, we are able to conclude on the

operating effectiveness of the control as of June, which is the end of the period from which they selected the samples. However, our interim procedures do not provide evidence over the operation of the control for the remainder of the year (July to December).

We then determine the evidence necessary during the rollforward period to extend our conclusion through year-end. In this example, since the samples subject to the interim testing are through June, which is not within four months of the fiscal year-end, inquiry alone would not be an acceptable procedure to rollforward the conclusion. We would need to perform additional audit procedures beyond inquiry for the period July1 to December 31 to rollforward the interim conclusion. For further guidance, see 'Determine additional evidence for the rollforward period, if applicable'.

Fact pattern #3

Assume the same facts as in Fact Pattern #1, except that we have decided not to reach an interim conclusion and decides to test the control's effectiveness for the period from January to the end of December and performs test procedures in January of the following year once the full population of the quarterly controls have occurred. Accordingly, we have selected the fourth quarter instance of the control plus one additional quarter during the period.

Analysis #3

In this example, since we are performing audit procedures subsequent to the occurrence of all four operations of the control, we are required to test the fourth quarter instance of the control. We test the control throughout the entire period of reliance and reaches a conclusion at the period end or 'as of' date and for the entire period of reliance. Therefore, no rollforward period exists.

2.2.2 Allocate the control sample size when testing homogeneous control activities [ISA | 4179]

What do we do?

IF we are testing the operating effectiveness of a control activity that operates homogeneously across locations and we plan to obtain audit evidence from certain locations THEN allocate the sample size.

Why do we do this?

When testing the operating effectiveness of a control activity that operates homogeneously across locations, we allocate our determined sample size over the locations we plan to obtain audit evidence from so that we test a sufficient number of samples at each location in order to conclude on the operating effectiveness and support our initial assessment of homogeneity.

Execute the Audit

How do we allocate the control sample size across locations when we are obtaining audit evidence from certain locations? [ISA | 4179.1300]

We allocate the control sample size across the locations we plan to obtain audit evidence from in a rationale manner and select a minimum number of sample(s) at each location as indicated in the following table:

Frequency of control	Minimum sample at each location
Any periodic control	1
Recurring	5

For example, we are testing the operating effectiveness of a monthly reconciliation control with a Base RAWTC. This control operates homogenously at 30 locations, but we are only obtaining audit evidence from 8 of the locations.

The number of occurrences is akin to a daily control (30 x 12 = 360 so between 53-366 occurrences), so the control sample size is 15. We test the minimum of one occurrence at each location as the control frequency is a monthly periodic control. However, we decide to test 2 at each location in this situation to achieve a minimum sample size of 15.

What do we do if we are able to obtain audit evidence centrally for all locations? [ISA | 4179.1400]

In these circumstances, we select one overall sample from the combined population and determine the sample size based on the combined number of occurrences.

2.3 Select a representative control sample [ISA | 4180]

What do we do?

Select control sample items, which are expected to be representative of the population so that each item in the population has a chance of selection

Why do we do this?

We select representative items haphazardly or randomly so that we can project our findings to the remaining untested population and draw conclusions about the sampled population.

Execute the Audit

What does 'representative of the population' mean? [ISA | 4180.1300]

Control sample items are representative of the population when the evaluation of the sample will result in conclusions that are similar to those that would be drawn if the same procedures were applied to the entire population.

How do we select representative sample items? [ISA | 4180.1400]

We select representative sample items by avoiding bias in our selection and selecting our control sample items either randomly or haphazardly and throughout the period. This allows all items to have a chance of being selected.

For example, we inappropriately introduce bias into our control item selection if we:

- specifically select either lower or higher dollar items,
- select items that have particular attributes, such as near end of year or from a certain customer or division.

We expect controls to be applied in the same way to all transactions subject to the design of the control, regardless of the magnitude of the transaction. Therefore, it is not appropriate to select only high dollar amounts in tests of controls, unless the control is applied only to high dollar transactions.

What is random selection?

The random selection method uses random numbers to determine the item selected for testing. MUS uses a form of random selection (value-weighted selection) and we may also use a random selection for attribute sampling and KSP. The random sampling functionality within the KPMG Clara workflow and the Random Sample Tool https://alex.kpmg.com/AROWeb/document/lfc/find/un_aasc_ad_fsa_sampling_rst/toc (Excel based) are two tools we can use to make a random selection.

What is haphazard selection?

Haphazard selection selects sample items without any conscious bias or predictability. In other words, there isn't any special reason for including or omitting items from the sample.

For example, where the items in the population are included in a physical file cabinet drawer, and we pull samples from the drawer regardless of its size, shape, location, other physical features or the monetary amount associated with the selection.

Random or haphazard selection are used for attribute sampling, KSP and control testing.

Performing Audit Procedures

International Standards on Auditing: ISA 530.09-11

Performing Audit Procedures

9. The auditor shall perform audit procedures, appropriate to the purpose, on each item selected.

10. If the audit procedure is not applicable to the selected item, the auditor shall perform the procedure on a replacement item. (Ref: Para. A14)

11. If the auditor is unable to apply the designed audit procedures, or suitable alternative procedures, to a selected item, the auditor shall treat that item as a deviation from the prescribed control, in the case of tests of controls, or a misstatement, in the case of tests of details. (Ref: Para. A15-A16)

ISA Application and Other Explanatory Material: ISA 530.A14-A16

Performing Audit Procedures (Ref: Para. 10-11)

A14. An example of when it is necessary to perform the procedure on a replacement item is when a voided check is selected while testing for evidence of payment authorization. If the auditor is satisfied that

the check has been properly voided such that it does not constitute a deviation, an appropriately chosen replacement is examined.

A15. An example of when the auditor is unable to apply the designed audit procedures to a selected item is when documentation relating to that item has been lost.

A16. An example of a suitable alternative procedure might be the examination of subsequent cash receipts together with evidence of their source and the items they are intended to settle when no reply has been received in response to a positive confirmation request.

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

1 Perform procedures over selected items [ISA | 4167]

What do we do?

Perform procedures over the selected items to gain evidence over the audit objective.

Why do we do this?

We perform the planned substantive audit procedures over selected sample items to obtain evidence over our audit objective, the results of which we project to the sampled population.

Execute the Audit

What procedures do we perform over sample items? [ISA | 4167.1300]

We perform the following procedures over sample items:

- Perform substantive procedures over sample items
- Perform relevant procedures for misstatements/errors.

1.1 Perform substantive procedures over sample items [ISA | 4168]

What do we do?

Perform substantive audit procedures over each sample item.

Why do we do this?

We perform substantive audit procedures on each sample item to gain evidence over our audit objective and to identify any misstatements/errors.

Execute the Audit

What substantive audit procedures do we perform over each sample item? [ISA | 4168.1300]

We perform the substantive audit procedures over each sample item that we have designed in accordance with 'Design and perform substantive procedures for each RMM' and 'Design and perform

procedures to directly test the accuracy and completeness of the internal information based on the determined risk' including suitable alternative procedures.

Our substantive audit procedures are performed over the sample item.

> For example, if we have defined the sample item as the customer balance we perform the procedure on the entire balance, not a sub-sample of invoices comprising the balance.

What are 'alternative procedures'? [ISA | 4168.1400]

Alternative procedures are specific substitutes to the originally designed procedure that:

- Achieve the same objective as the original planned test, and;
- Provide sufficient appropriate audit evidence over that audit objective.

Alternative procedures are only performed when the planned audit procedures can't be completed.

> For example, if we are testing existence and accuracy of trade receivables via confirmations, and set the sample item as the total customer balance. In the case we do not receive a confirmation from the customer, despite multiple attempts, a suitable alternative procedure may be to agree all the individual invoices within the customer balance to shipping documents and subsequent cash receipts.

Can sampling items be made up of multiple transactions?

Yes. The sample item is all the transactions that make up the audit value of the item.

> For example, the sample item for accounts receivable may be either the customer balance at period-end or an individual outstanding invoice. If the sample item is the customer balance at year end, it may be made up of a net value comprising invoices, debit and credit notes.

Do we audit all transactions making up a sample item?

Yes. We test each transaction or balance and do not select individual items within, or a portion, of that sample item for testing. Performing procedures over a sample of sampled transactions ('sampling a sample') does not provide sufficient evidence of the audited value of the sample item as the entire sample item has not been tested.

When the sample item represents an aggregation of balances/transactions, we still perform procedures over all transactions within that item. However, in those instances, we think about whether using aggregate sampling is appropriate during sample design.

If we do not test a portion of a sample item, these become unexamined items and we treat them as misstatements.

What do we do if we identify a difference between the sample item value (book value) and underlying audit support/evidence (audit value) when applying an appropriate procedure to the sample item? [ISA | 4168.1500]

If we identify a difference between the book value and audit value when applying an appropriate procedure to the sample item, we treat that difference as a misstatement, unless:

- we have set an acceptable variance and the difference falls within the range of acceptable variance;
- we can reconcile the difference, and determine it is appropriately recorded by performing procedures over all the reconciling items; or
- the difference is not relevant to the objective of our test (see question 'How do we define a misstatement for a test of details?').

If we treat the item as a misstatement, we:

- Record the audit value of the item based on the underlying audit support/evidence; and
- The difference between audit and book value is recorded as a misstatement. A misstatement may be 100% of the substantive sample item, when the entire value is unsupportable, or it may be a partial value, if only part of the book value is supported.

What if we identify a difference between the book value and audit value that is outside of our acceptable variance?

If we have set an acceptable variance and we identify a difference between the book value (sample item value) and audit value (underlying audit support/evidence) greater than the acceptable variance, then we identify the whole difference as a misstatement.

What if we can't perform substantive audit procedures over a sample item? [ISA | 4168.1600]

If we can't perform the planned substantive audit procedures or suitable alternative procedures over a sample item, we treat that item as unexamined by entering an audit value of 0 and as a misstatement/ error.

> For example, we are testing existence and accuracy of trade receivables, which includes sending our 100 confirmations. Our alternative procedure for non-responses is to agree the individual invoices to shipping documents and subsequent cash receipts. We received 90 confirmations back with no differences identified and 10 non-replies.
>
> When we performed our alternative procedures on the non-replies, management could not produce the shipping documents associated with these 3 invoices and the customer has not yet paid as of the date of audit fieldwork.
>
> As we are unable to perform adequate alternative procedures on the 3 sample items, we treat these unexamined items as misstatements.

What if the substantive audit procedure is not applicable to the selected sample item? [ISA | 4168.1700]

This situation is unlikely to occur in a substantive test. If the substantive audit procedure is not applicable to the selected sample item, it may be an indication that our population is not appropriate, due to imprecision that resulted in inapplicable items being included. Therefore, we reconsider our determination of the population in accordance with 'Define the population and items to be tested, including misstatements/errors'.

If the population is determined to be appropriate and the procedure is not applicable to the selected item, we perform the procedure over a replacement item from the population.

Can we select a replacement sample item if it is appropriate to test the item, but we can't perform the substantive audit procedure over the selected item?

No. Selecting a replacement item is only appropriate if the planned or alternative audit procedure is not applicable to the selected item.

What if the sample item we select is offset by another item in the population? [ISA | 4168.1800]

If we determine through our testing that the sample item we selected is offset by another item in the population, we adjust the book value of the item to its net value. If the net value is 0, it is not counted in our evaluation.

> For example, we are testing accounts payable by invoice and we select an item with a book value of 100 CU. Upon requesting support from the client, we determine that this invoice is fully offset by a subsequent debit note in the same population. We therefore update the book value of the item to 0 and audit value to 0, so that we can evaluate the item on a net basis.
>
> If the debit note only offset 50 CU, we test the 50 book value and determine the audit value.

When testing aggregated balances that contain both positive and negative items, we determine whether all negative items within the sample item selected offset within the selected balance or the population to be sampled. If the negative items do not offset within either the sample item, or the population to be sampled, we do not continue to perform aggregate sampling.

What do we do when aggregated balances contain both positive and negative items? [ISA | 4168.10875]

When the aggregated balances we test contain both positive and negative items, we determine whether all negative items offset within the selected balance or the population to be sampled.

> For example, if we are sampling the client's accounts receivable balance, the data file obtained from the client may include a list of customer balances. Each customer balance might be comprised of multiple invoices; however, the individual invoices are the sample item to be tested. We may therefore use aggregate sampling to select individual invoices to test. If the customer balance includes negative items - for example, credit memos or unapplied cash - we determine whether each item within the aggregated balance selected offsets an invoice.
>
> In some situations, negative items may only indirectly offset items in an aggregated balance, but nevertheless are considered as offsetting items. For example, lump sum payments on account recorded in a customer receivable balance do not directly offset specific invoices, but we may continue to perform aggregate sampling.

If the negative items do not offset within either the selected balance, or the population to be sampled, then we cannot continue to perform aggregate sampling. We think about performing the following procedures:

- requesting a 'clean' population from the entity and get the analysis for every item in the population so we manually segregate the population into separate sub-populations;
- designing alternative procedures over these sub-populations; and/or
- considering the implication on our risk assessment (i.e. identification of new RMMs).

2 Perform procedures over selected items to test operating effectiveness [ISA | 4181]

What do we do?

Perform procedures over the selected items to test the operating effectiveness of the control

Why do we do this?

We perform the planned control audit procedures over the selected sample items to obtain evidence over our audit objective, the results of which we can apply to the sampled population.

Execute the Audit

What procedures do we perform over sample items? [ISA | 4181.1300]

We perform the following procedures over sample items:

- Perform control procedures over sample items
- Perform relevant procedures when control deviations are identified.

2.1 Perform control procedures over sample items

[ISA | 4182]

What do we do?

Perform control audit procedures over each sample item

Why do we do this?

We perform control audit procedures on each sample item to obtain evidence over our audit objective and to identify any deviations.

Execute the Audit

What control audit procedures do we perform over each control sample item? [ISA | 4182.1300]

We perform the designed procedures for all relevant attributes of each sample item to determine if the control operates as designed.

If we reduce the extent of audit procedures (i.e. test only some of the attributes or some of the procedures) performed over each sample item, we risk reaching an erroneous conclusion on the control effectiveness.

What do we do if we can't perform control audit procedures over a sample item? [ISA | 4182.1500]

If we cannot perform the planned control audit procedures or suitable alternative procedure over a sample item, we treat that item as unexamined and as a control deviation. For example, the documentation relating to a sample item is lost.

What do we do if the control audit procedure is not applicable to the selected control sample item? [ISA | 4182.1600]

If the audit procedure is not applicable to a selected sample item, we perform the procedure over a replacement item from the population.

> For example, when a voided check is selected while testing for evidence of payment authorization and we are satisfied that the check has been properly voided that does not constitute a deviation, an appropriate replacement item is examined.

Selecting a replacement item is only appropriate if the planned or alternative audit procedure is not applicable to the selected item.

Nature and Cause of Deviations and Misstatements

International Standards on Auditing: ISA 530.12-13

Nature and Cause of Deviations and Misstatements

12. The auditor shall investigate the nature and cause of any deviations or misstatements identified, and evaluate their possible effect on the purpose of the audit procedure and on other areas of the audit. (Ref: Para. A17)

13. In the extremely rare circumstances when the auditor considers a misstatement or deviation discovered in a sample to be an anomaly, the auditor shall obtain a high degree of certainty that such misstatement or deviation is not representative of the population. The auditor shall obtain this degree of certainty by performing additional audit procedures to obtain sufficient appropriate audit evidence that the misstatement or deviation does not affect the remainder of the population.

ISA Application and Other Explanatory Material: ISA 530.A17

Nature and Cause of Deviations and Misstatements (Ref: Para. 12)

A17. In analyzing the deviations and misstatements identified, the auditor may observe that many have a common feature, for example, type of transaction, location, product line or period of time. In such circumstances, the auditor may decide to identify all items in the population that possess the common feature, and extend audit procedures to those items. In addition, such deviations or misstatements may be intentional, and may indicate the possibility of fraud.

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

1 Perform relevant procedures for misstatements/errors [ISA | 4169]

What do we do?

IF we identify misstatements/errors when performing a substantive sample THEN perform relevant procedures.

Why do we do this?

Identified misstatement(s)/error(s) may affect our sample results, the procedure and may have implications on the rest of the audit.

Execute the Audit

What is a misstatement? [ISA | 4169.1300]

A misstatement, if material individually or in combination with other misstatements, causes the financial statements not to be presented fairly in conformity with the applicable financial reporting framework.

A misstatement may relate to a difference between the reported amount, classification, presentation or disclosure of a financial statement item and the amount, classification, presentation or disclosure that should be reported in conformity with the applicable financial reporting framework.

What is an error? [ISA | 4169.1400]

When performing an attribute sample, an error is either incorrect classification or omission.

What 'relevant procedures' do we perform if we identify misstatements/errors when performing a substantive sample? [ISA | 4169.1600]

We perform the following relevant procedures:

- Consider the nature and circumstances;
- Perform relevant procedures for anomalies, obtaining concurrence if relevant;
- Evaluate the possible effect of misstatements/errors, obtaining concurrence if relevant;
- Calculate the total factual and projected misstatement when using Monetary Unit Sampling (MUS) or KPMG Sampling Plan (KSP).

1.1 Consider the nature and circumstances [ISA | 4170]

What do we do?

Consider the nature and circumstances of misstatements/errors

Why do we do this?

Understanding the nature of a misstatement/error and the circumstances in which it arose, helps us consider whether the misstatement indicates additional impacts to our sampling procedure and our audit.

Execute the Audit

What do 'nature' and 'circumstances' of a misstatement/error mean? [ISA | 4170.1300]

The 'nature' refers to *what* the misstatement/error is. For example, a misstatement arising from a difference between the book value as per the general ledger and supporting documentation.

The circumstance is *why* the misstatement/error occurred. For example, a misstatement/error due to human error or fraud.

How do we consider the nature and circumstances of misstatements/errors? [ISA | 4170.1400]

To consider the nature and cause of misstatements/errors, we perform 'Evaluate the nature, circumstances, effect and implications of misstatements'.

When we are performing a substantive sample, we specifically think about whether the misstatements share a common feature, which are limited to a sub-population. In these instances, we may have incorrectly defined our sampled population during planning, as not all items share the same risk profile.

What do we do if the misstatements share a common feature, which are limited to a subpopulation?

If the misstatements share a common feature, which are limited to a subpopulation, then we think about:

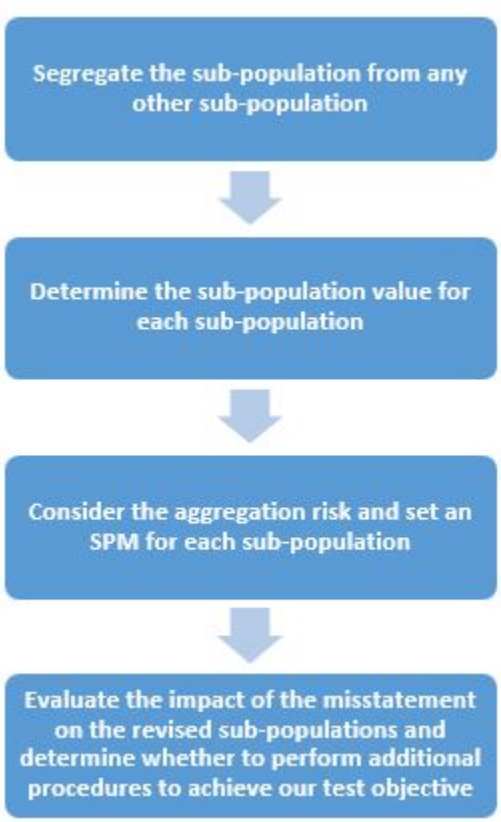
- Whether the common feature is unique to the items identified and if the sub- population containing the feature can be separated from the rest of the population. It may then be appropriate to separate the population into sub-populations before evaluating the possible effect on our conclusion. This is known as post-stratification.
- Whether the identification of such a misstatement/error may be intentional, and may indicate the possibility of fraud. The discovery of fraud may result in a broader consideration of possible implications than does the discovery of an error.
- When testing homogeneous locations, any assessment that those misstatements are isolated to one location may be inconsistent with our assessment that the locations are homogeneous (see activity 'Reassess homogeneity and consider audit impact if we identify contradictory information') and therefore cause us to revise our sampling approach and treat each location as a separate sub population (i.e., nonhomogeneous locations).

When is it appropriate to perform a post-stratification?

It is appropriate to perform a post-stratification, when we perform additional substantive procedures to obtain sufficient evidence to support our assertion that such misstatement are limited to a sub-population. These additional procedures go beyond inquiry of management.

How do we perform a post-stratification of a substantive sample?

The following diagram illustrates the steps we perform for post-stratification of a substantive sample:



We may seek the assistance of a KPMG Accredited Sampling Professional in the separation of the populations and (re)evaluation of the results.

Example

What do we do when the misstatement is limited to a sub-population? [ISA | 4170.1600]

Fact Pattern

The engagement team has identified a misstatement of a revenue item in a sample, which appears to be solely due to a faulty procedure for accounting for foreign currency transactions. Foreign currency transactions can be easily separated from the population and a foreign exchange misstatement is clearly only applicable to the sub-population.

Analysis

Had the team carefully considered the population when setting up the test, foreign currency transactions might have been examined separately for this issue. In such a case, it may be acceptable not to project the foreign currency issue misstatement to the entire population of revenue but to relate the foreign currency misstatement from the sample to the foreign currency transactions from the population (i.e. perform post-stratification.)

The team may then consider the sufficiency of evidence concerning this issue, and whether to obtain additional evidence regarding other possible misstatements that might be in the sub-population of foreign currency transactions or in the general population. Based on this assessment, the team may consider the sufficiency of evidence concerning these issues, and may decide to perform additional

procedures to determine more precisely the nature and extent of misstatement due to the foreign currency procedure or any other additional misstatement conditions.

When there is sufficient representation of such transactions in the original sample[1] or in an expanded sample of these transactions, the identified currency misstatements in a sample may be projected to the sub-population of foreign currency transactions.

The original (whole) population is used for projecting any other types of misstatements not due to the foreign currency or related unique sub-population issues, such as a failure to account properly for revenue recognition under generally accepted accounting principles. The sample related to the original population may be too small to allow the engagement team to conclude on the population. When it is too small, the sample may be extended.

_____

[1] When a significant number of sample items relate to an insignificant portion of the population, the team may reconsider whether the sample is "representative" of the population.

1.2 Perform relevant procedures for anomalies, obtaining concurrence if relevant [ISA | 4171]

What do we do?

IF we consider a misstatement discovered in a sample to be an anomaly THEN we obtain a high degree of certainty that such misstatement is not representative of the population, obtaining concurrence from a KPMG Accredited Sampling Professional if relevant.

Why do we do this?

If an anomaly is identified it is not appropriate to project it to the rest of the sampled population, as it is not representative. It is extremely rare that we identify a true anomaly when we perform a substantive sample, and therefore we obtain a high degree of certainty that such a misstatement is not representative of the population.

Execute the Audit

What is an anomaly? [ISA | 4171.1300]

When we are performing a substantive sample, an anomaly is a misstatement that is demonstrably not representative of misstatements in a population. Anomalous misstatements result from events that are isolated (non-recurring) and do not represent other misstatements within the population.

If a misstatement is not systematic, this does not mean it is anomalous. Misstatements may arise from multiple causes in a sample and still be representative of misstatements in the population.

How do we identify a misstatement as an anomaly? [ISA | 4171.1400]

As we perform 'Consider the nature and circumstances', we may identify circumstances that we believe indicate that the misstatement is anomalous. The identification of anomalies is however considered extremely rare and we think about whether it is appropriate to deem the circumstances as isolated and unrepresentative of other misstatements in the sampled population.

For example, the following table illustrates possible circumstances leading to misstatements and what we think about when considering anomalies:

Circumstances of the misstatement	What we think about
Human error in entering the information leading to the transaction being inaccurately recorded.	Is this situation truly isolated? If human error could cause other misstatements in the population this is not an anomaly and is representative of the population. We think about whether the misstatement is actually limited to a sub-population (transactions entered by a particular staff member) and post-stratification is appropriate in order to conclude on the populations separately.
The client has lost/misplaced the documentation related to that substantive sample item.	If we are unable to perform the procedure or alternative procedures, this is not an anomaly, we treat this item as unexamined and a misstatement.
The audit procedure is not applicable to the substantive sample item.	We may reconsider our definition of the population or select a replacement item. This is not an anomaly; the item is not part of the population and is not treated as a misstatement.

If after consideration of the above items, we are still in doubt about whether to consider a misstatement as an anomaly, we think about seeking further assistance from a KPMG Accredited Sampling Professional.

How do we obtain a high degree of certainty that a misstatement is not representative of the population?

[ISA | 4171.1500]

We obtain a high degree of certainty by performing additional audit procedures to obtain sufficient appropriate audit evidence that a misstatement is not representative of the population.

Due to the large volume of work we perform to achieve a high degree of certainty, sometimes it may be more efficient to treat the item as a non-anomalous misstatement. For example, when sample extension is appropriate or where the total factual and projected misstatement is small enough for us to conclude on the sampled population.

For example, we consider the nature and circumstance of a misstatement and discover that a new member of staff did not have appropriate training on the accounting system and made an error in raising a sales invoice on their first day. They subsequently received the appropriate training. In order to consider this misstatement as an anomaly, we design and perform procedures to obtain evidence that:

- The staff member received appropriate training which rectified the original misunderstanding;
- The staff member only input one sales transaction on their first day and then after subsequent training there are no other misstatements in the population that resulted from the staff member's lack of training; and
- There are no other misstatements in the population that resulted from other staff members' lack of training who record transactions in the sampled population.

We may look at nearly all the transactions to be able to consider this misstatement as an anomaly. We may also perform additional control testing, that we had not originally planned to perform. We may therefore choose to treat this item as a non-anomalous misstatement when evaluating our sample results and concluding on the sampled population.

What is the implication of considering a misstatement to be an anomaly? [ISA | 4171.1600]

When a misstatement is considered as an anomaly, we exclude it when projecting misstatements to the population. However, the effect of any such misstatement, if uncorrected, is still considered in addition to the projection of the non-anomalous misstatements. We obtain concurrence from a KPMG Accredited Sampling Professional to perform this functionality within the tool.

We only consider a misstatement to be an anomaly if we have obtained a high degree of certainty that such misstatement is unique.

What is a 'KPMG Accredited Sampling Professional' and what may they do? [ISA | 4171.1502]

A KPMG Accredited Sampling Professional is a firm accredited KPMG individual who provides support, assistance and concurrence on sampling related issues. They are not a 'KPMG specialist' or 'specific team member'.

KPMG Accredited Sampling Professionals may be requested to:

- Participate in periodic conference calls to discuss sampling matters;
- Deliver audit training to audit professionals;
- Provide support in engagement team planning decisions, and/or;
- Review engagement team substantive statistical sampling techniques.

When and why do we obtain concurrence from a KPMG Accredited Sampling Professional? [ISA | 4171.10886]

We obtain concurrence from a KPMG Accredited Sampling Professional when we consider a misstatement to be anomaly to assist us in appropriately reflecting the effect of the misstatement in our evaluation of the sample results within the sampling tools.

It remains the engagement team's responsibility to determine whether a misstatement is anomalous and to obtain a high degree of certainty that a misstatement is not representative of the population.

1.3 Evaluate the possible effect of misstatements/ errors, obtaining concurrence if relevant [ISA | 4172]

What do we do?

Evaluate the possible effect of misstatements/errors, obtaining concurrence from a KPMG Accredited Sampling Professional, if relevant.

Why do we do this?

If we have identified misstatements, our initial sample size may not be sufficient to achieve provide a reasonable basis for conclusions about the sampled population. It may be appropriate to modify nature, timing and extent of procedures to conclude.

Execute the Audit

What are the possible effects of misstatements/errors? [ISA | 4172.1300]

The possible effects of misstatements/errors are:

- an inability to conclude whether the related population is misstated without performing further testing (see activity 'Take into account all relevant audit evidence')
- performance of post-stratification on the sample (see question 'What do we do if the misstatements share a common feature, which are limited to a subpopulation?';
- extension of our sample in some circumstances;
- recording a misstatement that management corrects (see activity 'Communicate accumulated misstatements to management AND request their correction');
- an indication of disconfirming evidence of homogeneity (see activity 'Reassess homogeneity and consider audit impact if we identify contradictory information');
- additional impacts to other areas of the audit (see activity 'Evaluate the nature, circumstances, effect and implications of misstatements') including changes to our risk assessment (new Risks of Material Misstatement (RMMs) or changes to Combined Assessed Risk (CAR)), fraud risk, control deficiencies, and other potential undetected misstatements.

Under what circumstances is it appropriate to extend a sample? [ISA | 4172.10895]

It may be appropriate to extend a sample when we have used Monetary Unit Sampling (MUS) or KPMG Sampling Plan (KSP) and we have obtained an appropriate understanding of the misstatements and population.

We extend our sample when we:

- find misstatements in a sample of 10 or fewer items when using KSP;
- conclude on the population if the confidence level was reduced due to the size of individually significant items and we identify misstatements in the individually significant items;
- conclude that our planning assumptions were inappropriate;
- seek to support a more precise projection of that misstatement in order to conclude that the total misstatement in the population does not have a reasonable possibility of being material; or
- sampling risk is too high.

Note that we use the total factual and projected misstatement as the revised expected misstatement to perform a sample extension.

Under what circumstances is it not appropriate to extend a sample? [ISA | 4172.10896]

It is not appropriate to extend our sample when using attribute sampling.

There may also be scenarios where MUS will not allow the sample to be extended.

By how many items do we extend KSP sample size when we identify misstatements in a sample of 10 items or less? [ISA | 4172.10897]

We extend the sample to at least a sample size greater than 10 when we identify misstatements in a sample of 10 items or less.

What is a 'KPMG Accredited Sampling Professional' and what may they do? [ISA | 4172.1502]

A KPMG Accredited Sampling Professional is a firm accredited KPMG individual who provides support, assistance and concurrence on sampling related issues. They are not a 'KPMG specialist' or 'specific team member'.

KPMG Accredited Sampling Professionals may be requested to:

- Participate in periodic conference calls to discuss sampling matters;
- Deliver audit training to audit professionals;
- Provide support in engagement team planning decisions, and/or;
- Review engagement team substantive statistical sampling techniques.

When and why do we obtain concurrence from a KPMG Accredited Sampling Professional? [ISA | 4172.1500]

We obtain concurrence from a KPMG Accredited Sampling Professional when we are using MUS and intend to set a revised expected misstatement for sample extension greater than the total factual and projected misstatement in the population. The revised expected misstatement does not exceed a maximum of 50% of performance materiality (PM) or sub-population performance materiality (SPM).

The KPMG Accredited Sampling Professional assesses whether it is appropriate for the engagement team to use a higher revised expected misstatement. They also advise the team on other possible responses and help the team to design further testing.

What does 'obtain concurrence from a KPMG Accredited Sampling Professional' mean? [ISA | 4172.1701]

When we obtain concurrence from a KPMG Accredited Sampling Professional, they confirm that our conclusion is appropriate.

We evidence the nature of our discussion, individuals involved and the conclusions reached in our engagement documentation when we obtain concurrence. In contrast, if we are 'seeking assistance' from a KPMG Accredited Sampling Professional, we do not evidence this involvement.

2 Perform relevant procedures when control deviations are identified [ISA | 1285]

What do we do?

IF we identify deviations when testing controls, THEN perform relevant procedures.

Why do we do this?

Control deviations are present when a control does not operate consistently as designed. When performing a test of controls, we define what constitutes a control deviation in relation to the purpose of the test of controls. When a deviation is identified, we understand them in order to evaluate whether they indicate a control deficiency, or whether they are the result of an acceptable level of human error within the prescribed design of the control.

Execute the Audit

What 'relevant procedures' do we perform when we identify control deviations? [ISA | 1285.1300]

We perform the following relevant procedures when we identify control deviations:

- Consider the nature, cause and potential consequences of the control deviations;
- Determine the effect of control deviations.

What is a control deviation? [ISA | 1285.1400]

A deviation is an instance where the control does not operate in the way it was designed. Deviations may occur for many reasons - e.g. where the control:

- was not performed on a timely basis;
- did not include the elements it was supposed to;
- is not supported by retained evidence of its operation (if applicable); or
- did not operate at the right level of precision.

Sometimes a deviation is an isolated instance, and sometimes it is a consistent (systematic) failure to operate the control as designed, which is a deficiency in the operating effectiveness of the control.

Is a control deviation the same as a misstatement?

No. A deviation is an item that does not have an expected characteristic - i.e., for a control deviation, it is missing the application of the control. A misstatement refers to the difference between the recorded book value and the audit value. A control deviation does not indicate that a misstatement actually exists.

If we identify a control deviation, do we consider the monetary amount of the related transaction? [ISA | 1285.12065]

No, we do not consider the monetary amount of the related transaction when we identify a control deviation.

We evaluate operating effectiveness in terms of the rate (number) of control deviations and we do not consider the monetary amount of the transactions related to control deviations to determine whether the control is effective or not.

> For example, we are testing the operating effectiveness of a monthly bank reconciliation through inspection. One control attribute is designed to agree the balance per the bank statement to the bank reconciliation within USD 1. When we tested the control through inspection, we found that the bank balance per the reconciliation differs from the bank statement by $10,000, but the difference was not identified by the control operator.
>
> This is a control deviation. Even though the $10,000 difference may be immaterial to our audit, it is an indication that the control did not operate consistently as designed.

2.1 Consider the nature, cause and potential consequences of control deviations [ISA | 1286]

What do we do?

IF we identify control deviations THEN consider the nature, cause and potential consequences of the control deviation.

Why do we do this?

Understanding the nature of a control deviation and its causes, can be helpful as we consider whether the control deviation has additional impacts on our audit.

Execute the Audit

What does 'nature and cause' of a control deviation mean? [ISA | 1286.1300]

The 'nature' refers to what the deviations is. For example, authorization of a bank payment not being performed.

The cause is *why* the deviation occurred. For example, the deviation arose due to human error or fraud.

How do we identify the nature and cause of a control deviation? [ISA | 1286.1400]

We make specific inquiries to understand the nature of control deviations, their cause and potential consequences.

What are the possible causes of a control deviation and what are their potential consequences? [ISA | 1286.1500]

The following table illustrates the possible causes of control deviations and their potential consequences:

Cause of a control deviation	Potential consequence

Systematic deviations are control deviations that are not random, isolated instances or issues that occur by chance. These deviations arise from inaccuracies or issues that are inherent in how the control is designed or operates. When the deviation is caused by systematic issues, the control is likely ineffective. Making this determination is not always straightforward. A control deviation that initially appears as a random, isolated mistake may be caused a systematic issue - e.g. a control operator who doesn't understand their responsibilities or changes in the nature of transactions subject to the control. We therefore seek to understand the nature and cause of the deviation and evaluate deviations that appear to be isolated.	When a deviation is caused by systematic issues, we: • conclude that the control is ineffective; • identify and evaluate control deficiencies.
Intentional deviations are control deviations resulting from an intentional action of the control operator or other management. These deviations may be indicative of fraud.	When we identify that a control deviation was intentional, we consider the possible implications of fraud and the impact on our audit approach. We re-evaluate our risk assessment conclusions and determine whether there are fraud risks we did not previously identify.
Control deviations share a common feature	If control deviations share a common feature this may be intentional, and may indicate the possibility of fraud.
Possible Fraud	If the cause of the control deviation is suspected fraud, even if the amount may not be material, we complete the activities within the *Fraud* chapter (AS 2401, ISA 240, AU-C 240). The discovery of suspected fraud may result in a broader consideration of possible implications than does the discovery of an error.
Inability to perform procedures on the control	We consider the reason we are unable to perform the procedures and any impact to our

	risk assessment (including risk of fraud), our assessment of the integrity of management or employees and possible effects on other aspects of the audit.
Isolated instance of human error	First we understand the deviation in order to evaluate whether the deviation is really isolated. What can initially seem like an honest mistake can sometimes be a pattern of consistent failure to operate a control as designed. If a single deviation does seem to be an isolated instance, we can validate that by extending our sample if it is a recurring manual control and we have not tested a larger sample size that enables us to accept a small number of deviations. See Audit Sampling for further guidance on when and how to extend a controls sample.

What do we do if we believe a deviation is an anomaly? [ISA | 1286.1700]

If we believe that a deviation is an anomaly then we perform relevant procedures for control anomalies in *Audit Sampling*.

Is the lack of documentation of a manual control's operation a deviation? [ISA | 1286.1900]

Maybe. Some level of evidence is necessary to conclude that the manual control operated as designed.

For more formalized control structures and for certain controls the design of the control may include clear documentation of the control's performance, then lack of such documentation may be considered a deviation.

For other controls, however, documentation may not be available or relevant. For example, documentation of operation may not exist for some types of controls, such as controls performed by a computer. In such circumstances, audit evidence about operating effectiveness may be obtained through inquiry in combination with other audit procedures such as observation or the use of CAATs.

Is the lack of documentation of an automated control's operation a deviation? [ISA | 1286.2000]

For automated controls, documentation of the control's performance may not be available, so we may obtain evidence of the control's operating effectiveness using different methods. Regardless of the method used, we obtain evidence that all of the attributes of the automated control were operating effectively.For example, we may:

- inspect configuration settings in an IT system;
- re-perform the business rules configured in an IT system for a single transaction - e.g., manually validate the intended processing and output of the configuration settings;

- re-perform the business rules configured in an IT system for all transactions - e.g., using computer assisted audit techniques (CAATs) to validate the intended processing and output of the configuration settings;
- observe the business rules configured in an IT system - e.g., executing a test transaction to validate the intended processing and output of the configuration settings.

In a typical scenario where an automated process control activity is applied to every transaction, inspecting the configuration settings in an IT system may be the most appropriate testing technique. However we may not be able to inspect the IT system settings because of the way the automated process control activity is implemented in the system - e.g. when the configuration exists within pre-packaged applications and management does not have access to the underlying source code of the application. In these instances, we may perform other procedures, including:

- inquiry of personnel with knowledge of the IT system configuration functionality; and
- performing one of the other procedures listed above, such as re-performing the business rules configured in an IT system or observing the business rules configured in an IT system by executing a test transaction.

Examples

Is the lack of documentation of a control's operation a deviation? [ISA | 1286.2200]

Fact pattern

At month end, the accounting manager reviews a proposed expense reimbursement report before payments are issued. As part of the review, the accounting manager:

- agrees each proposed disbursement to the original invoices;
- identifies any proposed expense reimbursement that does not agree to the underlying invoice;
- obtains department supervisor approval for proposed reimbursements without associated invoices based on proof of the employee's payment via company credit card; and
- signs and dates the report.

The entity has controls over the completeness and accuracy of the reports, which have been tested by the engagement team and found to be operating effectively.

The engagement team obtains the proposed expense reimbursement report and observes evidence of review - i.e. notes showing payments agreed to invoices, department supervisor approval - but the reimbursement report is not signed or dated.

Analysis

The report was not signed and dated, but there was sufficient evidence that the review was performed. Assuming the appropriate outliers were followed up on, the control is designed appropriately and there is no deviation. To confirm that there is no control deviation and conclude on the control's operating effectiveness, the team obtains evidence that the review was performed at the right time and before the payments were made.

2.2 Determine the effect of control deviations [ISA | 621]

What do we do?

IF we identify deviations when testing controls, THEN determine the effect of the deviations on the risk associated with the control and the evidence we obtain as well as the operating effectiveness of the control

Why do we do this?

When we assess control risk, we are looking to reach the right conclusion about the operating effectiveness of controls we test. If we conclude a control is operating effectively when it is not, we may make the wrong control risk assessment and perform insufficient substantive procedures.

When our tests reveal no deviations in a control's operation, our conclusion is straightforward. But when we identify deviations, we perform additional procedures, including evaluating their possible effect on the purpose of the audit procedure and on other areas of the audit before we can conclude on the operating effectiveness of the control.

Execute the Audit

How do we consider the effect of the deviation on the control's RAWTC? [ISA | 621.1300]

Our understanding of the underlying cause of a deviation may change our initial views on the factors we used to evaluate the RAWTC - e.g. a deviation may reveal that the level of complexity and judgment associated with a control is higher than we thought.

When we reconsider the relevant factors in determining RAWTC, we may revise our initial assessment of the RAWTC. This could affect the nature, timing and extent of procedures to continue testing the control (see Audit Sampling) or the extent of our later testing of the remediated control.

We also consider how a systematic deviation may affect the RAWTC for:

- other controls in the process; and
- other components of internal control, including any controls within the control environment, risk assessment process and the monitoring of controls.

How do we determine whether a control deviation is a control deficiency? [ISA | 621.1400]

It can be helpful to think about the following questions to determine whether a deviation is a control deficiency.

- How was the deviation detected?

  For example, detection by another control may signify an effective detective control, while detection through management or our testing may indicate a deficiency.

- Is the deviation confined to a single location, process or application, or is it pervasive across the entity?

  When we test homogeneous locations and assess that a control deviation is isolated to that location, this finding may be inconsistent with and undermine our assessment that the locations are homogeneous.

- How significant is the control deviation from stated policy?

  For example, was the control performed late but still before the financial statements were prepared, or was the control not performed at all?

- How often were deviations detected in relation to how frequently the control is performed?

  When performing control sampling, our evaluation of the number of actual deviations vs. the number of expected deviations assists us in determining whether a control is deficient.

When is a deviation a control deficiency? [ISA | 621.12108]

A deviation results in a control deficiency in the following circumstances:

- The deviation is systemic or intentional based on our consideration of the nature and cause of the deviation (see activity 'Consider the nature, cause and potential consequences of control deviations' for further guidance);
- The deviation is identified for any of the following types of controls:
  - Periodic controls, including those that may be akin to recurring controls based on the number of occurrences; or
  - Automated controls
- The deviation is identified in a General IT control
- The deviation is identified in a control related to an RMM for which we are not able to get all our evidence from substantive procedures alone
- When testing controls at homogeneous locations and we identify more than one deviation at the same location

When can we accept a deviation and conclude that a control is operating effectively? [ISA | 621.12109]

When we encounter deviations for manual recurring controls that do not result in a control deficiency (see applicable guidance in Q&A 'When is a deviation a control deficiency?'), once we have obtained an appropriate understanding of the identified control deviation, we may accept deviations for manual recurring controls and conclude the control is operating effectively in certain circumstances:

Circumstance	Relevant criteria to accept deviations and conclude the control is operating effectively
Our sample size was based on the 'control sample size table'	Only one deviation was identified in the initial sample size; We tested an extended sample size equal to at least the initial sample size; and No deviations were identified in the additional testing of the extended sample size
Sample size was an increased sample size and we met the criteria based on the applicable guidance in Q&A 'What are the criteria to accept deviations when we increase our sample size for manual recurring controls?'	The total number of deviation(s) is acceptable for the sample size under the applicable guidance in Q&A 'How many control deviations may we accept?'

The control was tested across more than one homogeneous location AND the initial sample size was allocated across the locations that were visited based on the applicable guidance	Only one deviation identified at any single location; Sample size for the location(s) where a deviation was identified was extended by at least five samples AND no further deviations were identified (see further guidance in Q&A 'Homogeneous Locations | What do we do when determining the number of deviations we may accept when testing at more than one location?); and If the sample size is an increased sample size, the total number of deviation(s) is acceptable for the sample size under the applicable guidance in Q&A 'How many control deviations may we accept?'; or If the sample size was based on the 'control sample size table', we tested an extended sample size across the locations equal to at least the initial sample size and no deviations were identified in the additional testing of the extended sample size.

Do we always accept deviations when we meet the relevant criteria to accept control deviations in our sample for a manual recurring control? [ISA | 621.12123]

No, we do not always accept deviations when we meet the relevant criteria to accept control deviations. Each time we encounter a deviation we perform the procedures in activity 'Consider the nature, cause and potential consequences of control deviations' to determine whether it is appropriate to accept the deviation, even if we identify less than the maximum number of control deviations we may accept.

How many control deviations may we accept for manual recurring controls, when the sample size has been increased under the applicable guidance and we meet the relevant criteria to accept control deviations in our control sample? [ISA | 621.12124]

The following table illustrates the maximum amount of control deviations we may accept for manual recurring controls, when we have increased the sample size from the 'control sample size table' for manual controls' and we meet the relevant criteria to accept control deviations (see question 'What are the criteria to accept deviations when we increase the sample size for manual recurring controls?'). The amount of control deviations we may accept depends on RAWTC and sample size as determined for controls:

Sample Size (for manual recurring controls)				Maximum number of deviations we can accept
Base RAWTC	Elevated RAWTC	Significant RAWTC	Significant + RAWTC	
50	70	90	110	1

60	81	105	132	2
71	101	132	166	3
85	121	158	198	4
98	141	184	230	5
111	160	209	262	6
124	179	234	292	7
137	198	258	323	8
150	216	282	353	9
163	235	306	383	10*

If our sample size falls between two categories in the table above, we default to the lower maximum number of deviations we can accept.

*We do not accept more than 10 deviations.

If we do not have an appropriate rationale to increase the sample size, see question 'What is the 'control sample size table' for manual controls? for the relevant sample sizes.

Can we accept deviations, when a periodic manual control has a frequency that is akin to a recurring control? [ISA | 621.6223]

No. We cannot accept any control deviations for a periodic manual control, even when the number of occurrences of the manual control is akin to recurring.

> For example, if we are testing the operating effectiveness of monthly bank reconciliations performed on 100 bank accounts, where RAWTC is Base our control frequency is 12 months x 100 accounts = 1,200 occurrences in the period. Therefore, the frequency is more akin to recurring than monthly. However, we still have a frequency of monthly so you cannot use the sample size table that allows for control deviations.

Can we increase our sample size based on the number of control deviations? [ISA | 621.6275]

No. Once we have determined a sample size from the sample size in the table above, we test that sample size.

If we identify more deviations than indicated for the sample size in the table, the control is not effective. For example, say we tested 70 items with base RAWTC, we identify 3 control deviations. We

do not test 1 additional item to come to a total of 71, which allows for 3 deviations. In this example, this control would not be operating effectively.

Homogeneous Locations | What do we do when determining the number of deviations we may accept when testing manual recurring controls at more than one location? [ISA | 621.12125]

The following table describes what we do when determining the number of deviations we may accept when testing at more than one location:

Number of deviations identified	What do we do
No more than one deviation identified at any location	We determine whether it is appropriate to accept the deviation in accordance with 'Perform relevant procedures when control deviations are identified', then extend the sample size by 5 items at that location. We also consider whether the deviation causes us to question our initial assessment that locations are homogeneous in accordance with 'Homogeneous Locations | Reassess homogeneity and consider audit impact if we identify contradictory information'). If we conclude it is appropriate to accept the deviation, we identify no further deviations at that location and the number of control deviations in the sample size is less than the maximum we may accept (see 'How many control deviations we may accept, when we meet the relevant criteria to accept control deviations in our control sample?') we may conclude that the control is operating effectively.
More than one deviation identified at the same location	We conclude that the control is ineffective at that location and therefore all locations. We consider whether the deviation causes us to question our initial assessment that locations are homogeneous in accordance with 'Homogeneous Locations | Reassess homogeneity and consider audit impact if we identify contradictory information').
For example, if we test a recurring homogeneous control with a base RAWTC at 20 locations, the sample size is 100 items (i.e., minimum of 5 samples per location) and the maximum number of expected control deviations we may accept in the sample is 5. If one control deviation is detected in each of 3 locations, and no control deviations are detected in the remaining 17 locations, we may conclude that the control is effective, if none of the control deviations are considered to be representative of a systematic or intentional control deviation. However, if we find more than 5 control deviations in total or more than 1 deviation at the same location, we conclude the control	

is ineffective, reassess homogeneity and do not test additional items or place reliance on this control.

Homogeneous Locations | What if the deviation(s) identified at the homogeneous locations are anomalies? [ISA | 621.12126]

In the extremely rare circumstances when we consider the deviations discovered to be anomalies that may therefore not be applicable to other locations, we analyze the deviation in accordance with 'Perform relevant procedures for control anomalies'

What is a KPMG Accredited Sampling Professional and what may they do? [ISA | 621.12127]

A KPMG Accredited Sampling Professional is a firm accredited KPMG individual who provides support, assistance and concurrence on sampling related issues. They are not a 'KPMG specialist' or 'specific team member'.

KPMG Accredited Sampling Professionals may be requested to:

- participate in periodic conference calls to discuss sampling matters;
- deliver audit training to audit professionals;
- provide support in engagement team planning decisions; and/or
- review engagement team substantive statistical sampling techniques.

When do we obtain concurrence from a KPMG Accredited Sampling Professional? [ISA | 621.12128]

We obtain concurrence from a KPMG Accredited Sampling Professional when we wish to accept control deviations for manual recurring controls in circumstances other than the following:

- When we are performing a dual-purpose test, the substantive sample size is larger than the indicated control sample size, and we apply our controls testing to the substantive sample;
- When we are testing a control which operates across a number of homogenous locations and we are testing a minimum of 5 operations of the control per location (see 'Allocate the control sample size'); or
- When using the work of internal audit and internal audit has tested a sample larger then the indicated control sample size.

What does 'obtain concurrence from a KPMG Accredited Sampling Professional' mean? [ISA | 621.1701]

When we obtain concurrence from a KPMG Accredited Sampling Professional, they confirm that our conclusion is appropriate.

We evidence the nature of our discussion, individuals involved and the conclusions reached in our engagement documentation when we obtain concurrence. In contrast, if we are 'seeking assistance' from a KPMG Accredited Sampling Professional, we do not evidence this involvement.

What if we identify control deviations when we are performing dual-purpose testing? [ISA | 621.12130]

Refer to guidance in our sampling chapter discussing when we 'Determine the effect of control deviations'.

Examples

How does a control deviation affect the RAWTC? [ISA | 621.1700]

Fact pattern

When performing risk assessment procedures, the engagement team identifies an RMM related to revenue being recorded before it meets the revenue recognition criteria. In response, the team plans to test controls to support a lower combined assessed risk (CAR) for the identified RMM. The team designs and executes interim audit procedures at four months before period end to test controls A, B, and C, which address the process risk points related to the RMM.

The results of the procedures lead the team to conclude that Controls A and B are designed and operating effectively. However, they identify a deviation in Control C - a manual recurring control with a RAWTC of Base - because the control operator had not executed the control in a manner consistent with its design.

When the team investigated the reason for the deviation, they determined that the deviation related to the first time the control was performed by a new control operator. The team had not previously identified this change in personnel or considered that change in their initial assessment of the RAWTC.

Analysis

The current control operator does not have the same experience or background as the former control operator. The team therefore re-evaluated the RAWTC and reassessed the risk as Elevated.

As a result of the re-assessed RAWTC of Control C, the team also considered modifying the nature, timing and extent of the procedures needed to test Control C for the remainder of the period. They also consider whether to change:

- the testing they already performed at interim over other controls,
- their testing to confirm it was an isolated incidence or a systemic issue,
- their evaluation of whether a control deficiency existed at interim and whether to re-assess control risk and CAR,
- their rollforward procedures for controls they concluded on at interim,
- their evaluation of the control environment and monitoring of controls.

3 Perform relevant procedures for control anomalies [ISA | 4184]

What do we do?

IF we consider a deviation discovered in a sample to be an anomaly THEN we obtain a high degree of certainty that such deviation is not representative of the population

Why do we do this?

If an anomaly is identified it is not appropriate to extrapolate it to the rest of the sampled population, as it is not representative. It is extremely rare that we identify a true anomaly when we perform a control sample and therefore we obtain a high degree of certainty that such a deviation is not representative of the population before we make this assertion.

Execute the Audit

What is an anomaly? [ISA | 4184.1300]

When we are performing a control sample, an anomaly is a deviation that is demonstrably not representative of deviations in a population. Anomalous deviations result from events that are isolated (non-recurring) and do not represent other deviations within the population.

If a deviation is not systematic, this does not mean it is anomalous. Deviations may arise from multiple causes in a sample and still be representative of deviations in the population.

How do we identify a deviation as anomaly? [ISA | 4184.1400]

When we perform procedures, we may identify circumstances that we believe indicate that the deviation is anomalous. The identification of anomalies is extremely rare and we think about whether it is appropriate to deem the cause as isolated and unrepresentative of other deviations in the sampled population.

For example, the following table illustrates possible causes of deviations and what we think about when considering anomalies:

Cause of the deviation	What we think about
Control operator was on vacation/off sick	Is this situation truly isolated? If there are other instances where the control activity did not operate as designed when the control operator was absent, this is a recurring event and not an anomaly. Does another staff member perform the control activity in the operator's absence? In this case, we may revise our understanding of the control and perform alternative procedures to obtain evidence of the control activity operating effectively (e.g., evidence the backup control operator performed the control).
The client has lost/misplaced the documentation related to that operation of the control activity	If we are unable to perform the procedure, this is not an anomaly, we treat this item as unexamined and a deviation.
The audit procedure is not applicable to the control sample item	If this is an item that was erroneously included in the population of occurrences we are testing, it is not an anomaly.

	We may reconsider our definition of the population.

If after consideration of the above items, we are still in doubt about whether to consider a control deviation as an anomaly, we might seek further assistance from a KPMG Accredited Sampling Professional.

How do we obtain a high degree of certainty that a deviation is not representative of the population? [ISA | 4184.1500]

We obtain a high degree of certainty by performing additional audit procedures to obtain sufficient appropriate audit evidence that a deviation is not representative of the population.

Due to the large volume of work to achieve a high degree of certainty, sometimes it may be more efficient to treat the item as a deviation. This may be a more efficient approach, for example, when sample extension is appropriate or where we have determined that we are able to accept deviations in our sample and still conclude the control activity is operating effectively.

For example, we consider the nature and cause of a deviation in a recurring control activity and determine if it arose because control operator was absent and therefore the control was not performed. In order to consider this deviation as an anomaly, we design and perform procedures to obtain evidence that:

- The control operator was not absent in other circumstances that lead to a deviation; and
- There are no other deviations in the population resulting from the control operator's absence.

Due to the volume of occurrences in a recurring population, this may mean we would look at nearly all occurrences of the control activity to be able to consider this deviation as an anomaly. We may therefore choose to treat this item as a deviation.

What is the implication of considering a deviation to be anomaly? [ISA | 4184.1600]

If we are able to conclude that a deviation is an anomaly, then we exclude it from our sample evaluation, as it is not representative of potential deviations in the remainder of the population. Instead we perform procedures on a replacement item.

Projecting Misstatements

International Standards on Auditing: ISA 530.14

Projecting Misstatements

14. For tests of details, the auditor shall project misstatements found in the sample to the population. (Ref: Para. A18-A20)

ISA Application and Other Explanatory Material: ISA 530.A18-A20

Projecting Misstatements (Ref: Para. 14)

A18. The auditor is required to project misstatements for the population to obtain a broad view of the scale of misstatement but this projection may not be sufficient to determine an amount to be recorded.

A19. When a misstatement has been established as an anomaly, it may be excluded when projecting misstatements to the population. However, the effect of any such misstatement, if uncorrected, still needs to be considered in addition to the projection of the non-anomalous misstatements.

A20. For tests of controls, no explicit projection of deviations is necessary since the sample deviation rate is also the projected deviation rate for the population as a whole. ISA 330[3] provides guidance when deviations from controls upon which the auditor intends to rely are detected.

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3 ISA 330, *The Auditor's Responses to Assessed Risks* , paragraph 17

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

1 Calculate the total factual and projected misstatement when using MUS or KSP [ISA | 4173]

What do we do?

IF we are using Monetary Unit Sampling or KPMG Sampling Plan THEN calculate the total factual and projected misstatement.

Why do we do this?

We use the total factual and projected misstatement as a basis to evaluate our sampling results.

We do not conclude solely on the specific factual misstatements (if any) that where identified.

Execute the Audit

What is the 'total factual and projected misstatement'? [ISA | 4173.1300]

The total factual and projected misstatement is made up of two elements as illustrated by the below diagram

Are all misstatements projected to the sampled population? [ISA | 4173.10900]

No, not all misstatements are projected to the sampled population. We do not project the following misstatements:

- Misstatements arising from individually significant items;
- Misstatements identified in reciprocal populations are only projected to the reciprocal population, not the population being tested for completeness. Further work may be performed to determine, what conclusion, if any, can be drawn about the population being tested for completeness;
- A misstatement that is considered an anomaly.

How do we calculate the total factual and projected misstatement? [ISA | 4173.1500]

Monetary Unit Sampling (MUS) and KPMG Sampling Plan (KSP) calculate the total factual and projected misstatement for us. They automatically calculate the projected misstatement across the sampled population.

KSP performs two different automatic calculations of the projected misstatement based on the number and value of sample items; however, the calculation that results in the highest projected misstatement is used in the sample result evaluations.

The techniques separately project misstatements for overstatement and understatement.

Each sampling technique then adds the calculated projected misstatements with the factual misstatements identified in sample items and individually significant items to produce a total factual and projected misstatement. If there are overstatements and understatements, these are two separate calculations (total factual and projected overstatement, total factual and projected understatement).

Can we net off understatements and overstatements? [ISA | 4173.10901]

Yes, we may net off understatements and overstatements for the total factual and projected misstatement only, depending on the nature and circumstances of the misstatements in the population. However, we do not net off misstatements in sampled items before projecting the sample results.

When the circumstances of the misstatement is different, we evaluate the overstatement and understatement separately; this is because factors that cause the overstatement may be different from those that cause the understatements.

When the nature and circumstances of both the overstatements and understatements are similar, we think about whether it is appropriate to offset to arrive at a net total factual and projected misstatement.

For example, an inventory price test resulted in some samples that have a cost per unit that is overstated, and some samples that have a cost per unit that is understated.

The nature and circumstances of the misstatement is the same, due to standard cost differences from the actual costs used in determining the inventory price.

In this case, it may be appropriate to offset overstatements and understatements when determining the total factual and projected misstatement.

In contrast, when testing trade receivable invoices to shipping documents and subsequent cash receipts, it is not appropriate to offset an overstatement due to human error in recording the invoice

amount, against an understatement due to relevant supporting documentation being misplaced by the client. This is because the circumstance surrounding the misstatements are not the same.

Evaluating Results of Audit Sampling

International Standards on Auditing: ISA 530.15

Evaluating Results of Audit Sampling

15. The auditor shall evaluate:

(a) The results of the sample; and (Ref: Para. A21-A22)

(b) Whether the use of audit sampling has provided a reasonable basis for conclusions about the population that has been tested. (Ref: Para. A23)

ISA Application and Other Explanatory Material: ISA 530.A21-A23

Evaluating Results of Audit Sampling (Ref: Para. 15)

A21. For tests of controls, an unexpectedly high sample deviation rate may lead to an increase in the assessed risk of material misstatement, unless further audit evidence substantiating the initial assessment is obtained. For tests of details, an unexpectedly high misstatement amount in a sample may cause the auditor to believe that a class of transactions or account balance is materially misstated, in the absence of further audit evidence that no material misstatement exists.

A22. In the case of tests of details, the projected misstatement plus anomalous misstatement, if any, is the auditor's best estimate of misstatement in the population. When the projected misstatement plus anomalous misstatement, if any, exceeds tolerable misstatement, the sample does not provide a reasonable basis for conclusions about the population that has been tested. The closer the projected misstatement plus anomalous misstatement is to tolerable misstatement, the more likely that actual misstatement in the population may exceed tolerable misstatement. Also if the projected misstatement is greater than the auditor's expectations of misstatement used to determine the sample size, the auditor may conclude that there is an unacceptable sampling risk that the actual misstatement in the population exceeds the tolerable misstatement. Considering the results of other audit procedures helps the auditor to assess the risk that actual misstatement in the population exceeds tolerable misstatement, and the risk may be reduced if additional audit evidence is obtained.

A23. If the auditor concludes that audit sampling has not provided a reasonable basis for conclusions about the population that has been tested, the auditor may:

- Request management to investigate misstatements that have been identified and the potential for further misstatements and to make any necessary adjustments; or
- Tailor the nature, timing and extent of those further audit procedures to best achieve the required assurance. For example, in the case of tests of controls, the auditor might extend the sample size, test an alternative control or modify related substantive procedures.

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

1 Evaluate the substantive sample results, obtaining concurrence, if relevant [ISA | 4174]

What do we do?

Evaluate the substantive sample results, considering sampling risk AND obtaining concurrence from a KPMG Accredited Sampling Professional, if relevant.

Why do we do this?

We evaluate our sample results to determine whether we have a reasonable basis on which to draw a conclusion about the population and if not, we perform further procedures to conclude on the population.

Even if we have not identified any misstatements/errors in our sampled population, there is still a risk that the true misstatement/error in the sampled population is greater than the tolerable misstatement/our tolerable error rate, as we have not tested 100% of the items in the population. We therefore consider sampling risk as part of our evaluation of our results.

Execute the Audit

How do we evaluate the substantive sample results, considering sampling risk when using Monetary Unit Sampling (MUS) or KPMG Sampling Plan (KSP)? [ISA | 4174.1300]

In practice, we input our findings into MUS or KSP, which provide us with a preliminary evaluation of our sample results to determine whether they provide a reasonable basis for conclusions about the sampled population. We consider the allowance for sampling risk for each procedure.

The following table illustrates how MUS and KSP perform our sample evaluation, considering sampling risk:

Substantive sampling technique	How sampling evaluation is performed	How sampling risk is considered
MUS	MUS calculates the total factual and projected misstatement and allowance for sampling risk. If the total factual and projected misstatement plus allowance for sampling risk is lower than the tolerable misstatement, then the sample results provide a reasonable basis for	MUS quantifies the effect of our sampling risk.

	conclusions about the sampled population.	
KSP	KSP calculates the total factual and projected misstatement, but does not quantify allowance for sampling risk. The sample results provide a reasonable basis for conclusions if: • Misstatements were expected and if the total factual and projected misstatement is less than 50% of the tolerable misstatement. • Misstatements were *not* expected and the total factual and projected misstatement is less than 20% of the tolerable misstatement.	As KSP is non-statistical sampling approach, the precision of the total factual and projected misstatement calculated by KSP cannot be ascertained mathematically. The KSP sample size factors allow for an acceptable level of sampling risk as long as the total factual and projected misstatement does not exceed 20% or 50% of the tolerable misstatement when the expected misstatement was 0 or greater than 0, respectively.

How may we respond to the sample evaluations when using MUS or KSP? [ISA | 4174.10907]

The following table illustrates what our response may be based on whether the sample provides a reasonable basis for conclusions about the sampled population:

Does the sample provide a reasonable basis for conclusion about the population?	What is our response
Yes	No further procedures are performed, as we are able to conclude on the sampled population.
No	This does not mean we cannot use the sample, just that we have insufficient information to conclude whether it is materially misstated and we obtain additional audit evidence. Possible responses include: • requesting management to record an adjustment to the financial statements; • Extension of the sample;

	• Further investigation by management of the population or a portion thereof. If we are unable to obtain sufficient appropriate audit evidence on the population then we discuss the matter with management and consider the possible impact on the auditors' report if management does not appropriately reflect the matter in the financial statements.

How do we evaluate our sample if the materiality has changed since planning? [ISA | 4174.10908]

The following table illustrates the impact when the tolerable misstatement has changed since planning:

Change in materiality	Impact
Materiality has increased	We may reconsider our initial evaluation. An increase in tolerable misstatement may lead to a 'test objective achieved' evaluation. Any misstatements identified prior to the increase in materiality are addressed in accordance with 'Accumulate, communicate and evaluate misstatements'.
Materiality has decreased	We assess whether to reduce the tolerable misstatement by reperforming the activity 'Determine the tolerable misstatement when using MUS or KSP' using the revised materiality amounts. We revaluate the sampled population using the revised tolerable misstatement and determine whether to perform further procedures.

How do we evaluate the substantive sample results, considering sampling risk when using attribute sampling? [ISA | 4174.1400]

We evaluate the sample results when using attribute sampling by comparing the expected number of errors and actual number of identified errors in the sample. Our attribute sample sizes have been built using an expected error rate of 0, unless we have determined to set an expected error rate and sought assistance of a KPMG Accredited Sampling Professional.

Sampling risk is built into our methodology.

The following table illustrates how we perform our sample evaluation, considering sampling risk:

Relationship between actual and expected number of errors	Sample evaluation	How sampling risk is considered
Less actual errors than we expect because: • we have either found no errors; or • the number of errors in our sample is less than our determined expected number of errors	Yes - the sample provides a reasonable basis for conclusions about the sampled population.	As attribute sampling is a non-statistical approach, the precision of the total error rate cannot be ascertained mathematically. The attribute sample sizes allow for an acceptable level of sampling risk as long as the actual errors in our sample is less than our determined expected number of errors.
More actual errors than we expect	No - the sample does not provide a reasonable basis for conclusions about the sampled population.	As above

How may we respond to the sample evaluations when using attribute sampling? [ISA | 4174.10916]

The following table illustrates what our response may be based on whether the sample provides a reasonable basis for conclusions about the sampled population:

Does the sample provide a reasonable basis for conclusion about the population?	What is our response
Yes	No further procedures are performed, as we are able to conclude on the sampled population.
No	This does not mean we cannot use the sample, just that we have insufficient information to conclude and we obtain additional audit evidence. We think about the impact of the error in determining our audit response, if any, which may include: • management investigates and corrects the population or a portion thereof

	• think about changes to our audit approach and reliance on the information if we re-evaluate our understanding of the population • tailor the nature, timing and extent of further procedures to achieve assurance over the information provided (e.g. test specific items or 100% of the population).

How do we evaluate the results of a sample for a dual-purpose test? [ISA | 4174.1500]

We evaluate the control sample results and the substantive sample results separately, by performing this activity and performing 'Evaluate the control sample results'.

What is a 'KPMG Accredited Sampling Professional' and what may they do? [ISA | 4174.1502]

A KPMG Accredited Sampling Professional is a firm accredited KPMG individual who provides support, assistance and concurrence on sampling related issues. They are not a 'KPMG specialist' or 'specific team member'.

KPMG Accredited Sampling Professionals may be requested to:

- Participate in periodic conference calls to discuss sampling matters;
- Deliver audit training to audit professionals;
- Provide support in engagement team planning decisions, and/or;
- Review engagement team substantive statistical sampling techniques.

When and why do we obtain concurrence from a KPMG Accredited Sampling Professional? [ISA | 4174.1700]

We obtain concurrence from a KPMG Accredited Sampling Professional when we perform an MUS independent evaluation.

The KPMG Accredited Sampling Professional assesses whether it is appropriate for the engagement team to use the MUS independent evaluation.

What is an MUS independent evaluation and when do we perform it? [ISA | 4174.10917]

An MUS independent evaluation allows us to evaluate MUS sample results when we are unable to use MUS to perform the evaluation. An MUS independent evaluation is only performed when we have used MUS to design our sample and select sample items.

The following table illustrates situations where the use of the MUS independent evaluation is and isn't appropriate:

Use of MUS independent evaluation is appropriate	Use of MUS independent evaluation isn't appropriate
• When the original sample files were lost or corrupted	• Sample selected using other methods than MUS, such as KSP or specific items

• When we consider a misstatement to be an anomaly • Post-stratification	• Combining samples from 'related populations/sub-populations', for example, intercompany and external sales

What does 'obtain concurrence from a KPMG Accredited Sampling Professional' mean? [ISA | 4174.1701]

When we obtain concurrence from a KPMG Accredited Sampling Professional, they confirm that our conclusion is appropriate.

We evidence the nature of our discussion, individuals involved and the conclusions reached in our engagement documentation when we obtain concurrence. In contrast, if we are 'seeking assistance' from a KPMG Accredited Sampling Professional, we do not evidence this involvement.

2 Evaluate the control sample results [ISA | 4185]

What do we do?

Evaluate the control sample results, considering sampling risk

Why do we do this?

We evaluate our sample results and determine whether to perform any further procedures to conclude on the population.

Execute the Audit

How do we evaluate the control sample results, considering sampling risk? [ISA | 4185.1300]

We evaluate the control sample results by comparing the number of actual identified control deviations in our sample, to the expected number of control deviations for the sample. For tests of controls, no explicit projection of deviations is made since the sample deviation rate is also the projected deviation rate for the population as a whole.

Sampling risk is built into our methodology through our control sample size tables. If no deviations are identified, we accept the results and conclude sampling risk is reduced to an acceptably low level. If deviations are identified then we may perform additional procedures. Under certain circumstances, we may be able to accept some deviations in our sample and still conclude on the sampled population. See activity 'Determine the effect of control deviations'.

How do we evaluate the results of a sample for a dual-purpose test? [ISA | 4185.1400]

We evaluate the results of a dual-purpose test as if it were two completely separate tests - even though we perform the control test and substantive test concurrently in a dual-purpose test.

For each exception we identify as part of a dual-purpose test, we first consider if a control deficiency exists, and then determine the impact on our risk assessments and planned procedures.

2.1 Determine the effect of control deviations [ISA | 621]

What do we do?

IF we identify deviations when testing controls, THEN determine the effect of the deviations on the risk associated with the control and the evidence we obtain as well as the operating effectiveness of the control

Why do we do this?

When we assess control risk, we are looking to reach the right conclusion about the operating effectiveness of controls we test. If we conclude a control is operating effectively when it is not, we may make the wrong control risk assessment and perform insufficient substantive procedures.

When our tests reveal no deviations in a control's operation, our conclusion is straightforward. But when we identify deviations, we perform additional procedures, including evaluating their possible effect on the purpose of the audit procedure and on other areas of the audit before we can conclude on the operating effectiveness of the control.

Execute the Audit

How do we consider the effect of the deviation on the control's RAWTC? [ISA | 621.1300]

Our understanding of the underlying cause of a deviation may change our initial views on the factors we used to evaluate the RAWTC - e.g. a deviation may reveal that the level of complexity and judgment associated with a control is higher than we thought.

When we reconsider the relevant factors in determining RAWTC, we may revise our initial assessment of the RAWTC. This could affect the nature, timing and extent of procedures to continue testing the control (see Audit Sampling) or the extent of our later testing of the remediated control.

We also consider how a systematic deviation may affect the RAWTC for:

- other controls in the process; and
- other components of internal control, including any controls within the control environment, risk assessment process and the monitoring of controls.

How do we determine whether a control deviation is a control deficiency? [ISA | 621.1400]

It can be helpful to think about the following questions to determine whether a deviation is a control deficiency.

- How was the deviation detected?

  For example, detection by another control may signify an effective detective control, while detection through management or our testing may indicate a deficiency.

- Is the deviation confined to a single location, process or application, or is it pervasive across the entity?

  When we test homogeneous locations and assess that a control deviation is isolated to that location, this finding may be inconsistent with and undermine our assessment that the locations are homogeneous.

- How significant is the control deviation from stated policy?

  For example, was the control performed late but still before the financial statements were prepared, or was the control not performed at all?

- How often were deviations detected in relation to how frequently the control is performed?

  When performing control sampling, our evaluation of the number of actual deviations vs. the number of expected deviations assists us in determining whether a control is deficient.

When is a deviation a control deficiency? [ISA | 621.12108]

A deviation results in a control deficiency in the following circumstances:

- The deviation is systemic or intentional based on our consideration of the nature and cause of the deviation (see activity 'Consider the nature, cause and potential consequences of control deviations' for further guidance);
- The deviation is identified for any of the following types of controls:
  - Periodic controls, including those that may be akin to recurring controls based on the number of occurrences; or
  - Automated controls
- The deviation is identified in a General IT control
- The deviation is identified in a control related to an RMM for which we are not able to get all our evidence from substantive procedures alone
- When testing controls at homogeneous locations and we identify more than one deviation at the same location

When can we accept a deviation and conclude that a control is operating effectively? [ISA | 621.12109]

When we encounter deviations for manual recurring controls that do not result in a control deficiency (see applicable guidance in Q&A 'When is a deviation a control deficiency?'), once we have obtained an appropriate understanding of the identified control deviation, we may accept deviations for manual recurring controls and conclude the control is operating effectively in certain circumstances:

Circumstance	Relevant criteria to accept deviations and conclude the control is operating effectively
Our sample size was based on the 'control sample size table'	Only one deviation was identified in the initial sample size; We tested an extended sample size equal to at least the initial sample size; and No deviations were identified in the additional testing of the extended sample size
Sample size was an increased sample size and we met the criteria based on the applicable guidance in Q&A 'What are the criteria to accept deviations when we increase our sample size for manual recurring controls?'	The total number of deviation(s) is acceptable for the sample size under the applicable guidance in Q&A 'How many control deviations may we accept?'

The control was tested across more than one homogeneous location AND the initial sample size was allocated across the locations that were visited based on the applicable guidance	Only one deviation identified at any single location; Sample size for the location(s) where a deviation was identified was extended by at least five samples AND no further deviations were identified (see further guidance in Q&A 'Homogeneous Locations | What do we do when determining the number of deviations we may accept when testing at more than one location?); and If the sample size is an increased sample size, the total number of deviation(s) is acceptable for the sample size under the applicable guidance in Q&A 'How many control deviations may we accept?'; or If the sample size was based on the 'control sample size table', we tested an extended sample size across the locations equal to at least the initial sample size and no deviations were identified in the additional testing of the extended sample size.

Do we always accept deviations when we meet the relevant criteria to accept control deviations in our sample for a manual recurring control? [ISA | 621.12123]

No, we do not always accept deviations when we meet the relevant criteria to accept control deviations. Each time we encounter a deviation we perform the procedures in activity 'Consider the nature, cause and potential consequences of control deviations' to determine whether it is appropriate to accept the deviation, even if we identify less than the maximum number of control deviations we may accept.

How many control deviations may we accept for manual recurring controls, when the sample size has been increased under the applicable guidance and we meet the relevant criteria to accept control deviations in our control sample? [ISA | 621.12124]

The following table illustrates the maximum amount of control deviations we may accept for manual recurring controls, when we have increased the sample size from the 'control sample size table' for manual controls' and we meet the relevant criteria to accept control deviations (see question 'What are the criteria to accept deviations when we increase the sample size for manual recurring controls?'). The amount of control deviations we may accept depends on RAWTC and sample size as determined for controls:

Sample Size (for manual recurring controls)				Maximum number of deviations we can accept
Base RAWTC	Elevated RAWTC	Significant RAWTC	Significant + RAWTC	
50	70	90	110	1

60	81	105	132	2
71	101	132	166	3
85	121	158	198	4
98	141	184	230	5
111	160	209	262	6
124	179	234	292	7
137	198	258	323	8
150	216	282	353	9
163	235	306	383	10*

If our sample size falls between two categories in the table above, we default to the lower maximum number of deviations we can accept.

*We do not accept more than 10 deviations.

If we do not have an appropriate rationale to increase the sample size, see question 'What is the 'control sample size table' for manual controls? for the relevant sample sizes.

Can we accept deviations, when a periodic manual control has a frequency that is akin to a recurring control? [ISA | 621.6223]

No. We cannot accept any control deviations for a periodic manual control, even when the number of occurrences of the manual control is akin to recurring.

> For example, if we are testing the operating effectiveness of monthly bank reconciliations performed on 100 bank accounts, where RAWTC is Base our control frequency is 12 months x 100 accounts = 1,200 occurrences in the period. Therefore, the frequency is more akin to recurring than monthly. However, we still have a frequency of monthly so you cannot use the sample size table that allows for control deviations.

Can we increase our sample size based on the number of control deviations? [ISA | 621.6275]

No. Once we have determined a sample size from the sample size in the table above, we test that sample size.

If we identify more deviations than indicated for the sample size in the table, the control is not effective. For example, say we tested 70 items with base RAWTC, we identify 3 control deviations. We

do not test 1 additional item to come to a total of 71, which allows for 3 deviations. In this example, this control would not be operating effectively.

Homogeneous Locations | What do we do when determining the number of deviations we may accept when testing manual recurring controls at more than one location? [ISA | 621.12125]

The following table describes what we do when determining the number of deviations we may accept when testing at more than one location:

Number of deviations identified	What do we do
No more than one deviation identified at any location	We determine whether it is appropriate to accept the deviation in accordance with 'Perform relevant procedures when control deviations are identified', then extend the sample size by 5 items at that location. We also consider whether the deviation causes us to question our initial assessment that locations are homogeneous in accordance with 'Homogeneous Locations | Reassess homogeneity and consider audit impact if we identify contradictory information'). If we conclude it is appropriate to accept the deviation, we identify no further deviations at that location and the number of control deviations in the sample size is less than the maximum we may accept (see 'How many control deviations we may accept, when we meet the relevant criteria to accept control deviations in our control sample?') we may conclude that the control is operating effectively.
More than one deviation identified at the same location	We conclude that the control is ineffective at that location and therefore all locations. We consider whether the deviation causes us to question our initial assessment that locations are homogeneous in accordance with 'Homogeneous Locations | Reassess homogeneity and consider audit impact if we identify contradictory information').
For example, if we test a recurring homogeneous control with a base RAWTC at 20 locations, the sample size is 100 items (i.e., minimum of 5 samples per location) and the maximum number of expected control deviations we may accept in the sample is 5. If one control deviation is detected in each of 3 locations, and no control deviations are detected in the remaining 17 locations, we may conclude that the control is effective, if none of the control deviations are considered to be representative of a systematic or intentional control deviation. However, if we find more than 5 control deviations in total or more than 1 deviation at the same location, we conclude the control	

is ineffective, reassess homogeneity and do not test additional items or place reliance on this control.

Homogeneous Locations | What if the deviation(s) identified at the homogeneous locations are anomalies? [ISA | 621.12126]

In the extremely rare circumstances when we consider the deviations discovered to be anomalies that may therefore not be applicable to other locations, we analyze the deviation in accordance with 'Perform relevant procedures for control anomalies'

What is a KPMG Accredited Sampling Professional and what may they do? [ISA | 621.12127]

A KPMG Accredited Sampling Professional is a firm accredited KPMG individual who provides support, assistance and concurrence on sampling related issues. They are not a 'KPMG specialist' or 'specific team member'.

KPMG Accredited Sampling Professionals may be requested to:

- participate in periodic conference calls to discuss sampling matters;
- deliver audit training to audit professionals;
- provide support in engagement team planning decisions; and/or
- review engagement team substantive statistical sampling techniques.

When do we obtain concurrence from a KPMG Accredited Sampling Professional? [ISA | 621.12128]

We obtain concurrence from a KPMG Accredited Sampling Professional when we wish to accept control deviations for manual recurring controls in circumstances other than the following:

- When we are performing a dual-purpose test, the substantive sample size is larger than the indicated control sample size, and we apply our controls testing to the substantive sample;
- When we are testing a control which operates across a number of homogenous locations and we are testing a minimum of 5 operations of the control per location (see 'Allocate the control sample size'); or
- When using the work of internal audit and internal audit has tested a sample larger then the indicated control sample size.

What does 'obtain concurrence from a KPMG Accredited Sampling Professional' mean? [ISA | 621.1701]

When we obtain concurrence from a KPMG Accredited Sampling Professional, they confirm that our conclusion is appropriate.

We evidence the nature of our discussion, individuals involved and the conclusions reached in our engagement documentation when we obtain concurrence. In contrast, if we are 'seeking assistance' from a KPMG Accredited Sampling Professional, we do not evidence this involvement.

What if we identify control deviations when we are performing dual-purpose testing? [ISA | 621.12130]

Refer to guidance in our sampling chapter discussing when we 'Determine the effect of control deviations'.

Examples

How does a control deviation affect the RAWTC? [ISA | 621.1700]

Fact pattern

When performing risk assessment procedures, the engagement team identifies an RMM related to revenue being recorded before it meets the revenue recognition criteria. In response, the team plans to test controls to support a lower combined assessed risk (CAR) for the identified RMM. The team designs and executes interim audit procedures at four months before period end to test controls A, B, and C, which address the process risk points related to the RMM.

The results of the procedures lead the team to conclude that Controls A and B are designed and operating effectively. However, they identify a deviation in Control C - a manual recurring control with a RAWTC of Base - because the control operator had not executed the control in a manner consistent with its design.

When the team investigated the reason for the deviation, they determined that the deviation related to the first time the control was performed by a new control operator. The team had not previously identified this change in personnel or considered that change in their initial assessment of the RAWTC.

Analysis

The current control operator does not have the same experience or background as the former control operator. The team therefore re-evaluated the RAWTC and reassessed the risk as Elevated.

As a result of the re-assessed RAWTC of Control C, the team also considered modifying the nature, timing and extent of the procedures needed to test Control C for the remainder of the period. They also consider whether to change:

- the testing they already performed at interim over other controls,
- their testing to confirm it was an isolated incidence or a systemic issue,
- their evaluation of whether a control deficiency existed at interim and whether to re-assess control risk and CAR,
- their rollforward procedures for controls they concluded on at interim,
- their evaluation of the control environment and monitoring of controls.

Appendix 1 - Stratification and Value-Weighted Selection

International Standards on Auditing: ISA 530.Appendix 1

Appendix 1 Stratification and Value-Weighted Selection

(Ref: Para. A8)

In considering the characteristics of the population from which the sample will be drawn, the auditor may determine that stratification or value-weighted selection is appropriate. This Appendix provides guidance to the auditor on the use of stratification and value-weighted sampling techniques.

Stratification

1. Audit efficiency may be improved if the auditor stratifies a population by dividing it into discrete sub-populations which have an identifying characteristic. The objective of stratification is to reduce the variability of items within each stratum and therefore allow sample size to be reduced without increasing sampling risk.

2. When performing tests of details, the population is often stratified by monetary value. This allows greater audit effort to be directed to the larger value items, as these items may contain the greatest potential misstatement in terms of overstatement. Similarly, a population may be stratified according to a particular characteristic that indicates a higher risk of misstatement, for example, when testing the allowance for doubtful accounts in the valuation of accounts receivable, balances may be stratified by age.

3. The results of audit procedures applied to a sample of items within a stratum can only be projected to the items that make up that stratum. To draw a conclusion on the entire population, the auditor will need to consider the risk of material misstatement in relation to whatever other strata make up the entire population. For example, 20% of the items in a population may make up 90% of the value of an account balance. The auditor may decide to examine a sample of these items. The auditor evaluates the results of this sample and reaches a conclusion on the 90% of value separately from the remaining 10% (on which a further sample or other means of gathering audit evidence will be used, or which may be considered immaterial).

4. If a class of transactions or account balance has been divided into strata, the misstatement is projected for each stratum separately. Projected misstatements for each stratum are then combined when considering the possible effect of misstatements on the total class of transactions or account balance.

Value-Weighted Selection

5. When performing tests of details it may be efficient to identify the sampling unit as the individual monetary units that make up the population. Having selected specific monetary units from within the population, for example, the accounts receivable balance, the auditor may then examine the particular items, for example, individual balances, that contain those monetary units. One benefit of this approach to defining the sampling unit is that audit effort is directed to the larger value items because they have a greater chance of selection, and can result in smaller sample sizes. This approach may be used in conjunction with the systematic method of sample selection (described in Appendix 4) and is most efficient when selecting items using random selection.

Appendix 2 - Examples of Factors Influencing Sample Size for Tests of Controls

International Standards on Auditing: ISA 530.Appendix 2

Appendix 2 Examples of Factors Influencing Sample Size for Tests of Controls

(Ref: Para. A11)

The following are factors that the auditor may consider when determining the sample size for tests of controls. These factors, which need to be considered together, assume the auditor does not modify the nature or timing of tests of controls or otherwise modify the approach to substantive procedures in response to assessed risks.

FACTOR	EFFECT ON SAMPLE SIZE	
1. An increase in the extent to which the auditor's risk assessment takes into account plans to test the operating effectiveness of controls	Increase	The more assurance the auditor intends to obtain from the operating effectiveness of controls, the lower the auditor's assessment of the risk of material misstatement will be, and the larger the sample size will need to be. When the auditor's assessment of the risk of material misstatement at the assertion level includes an expectation of the operating effectiveness of controls, the auditor is required to perform tests of controls. Other things being equal, the greater the reliance the auditor places on the operating effectiveness of controls in the risk assessment, the greater is the extent of the auditor's tests of controls (and therefore, the sample size is increased).
2. An increase in the tolerable rate of deviation	Decrease	The lower the tolerable rate of deviation, the larger the sample size needs to be.
3. An increase in the expected rate of deviation of the population to be tested	Increase	The higher the expected rate of deviation, the larger the sample size needs to be so that the auditor is in a position to make a reasonable estimate of the actual rate of deviation. Factors relevant to the auditor's consideration of the expected rate of deviation include the auditor's understanding of the business (in particular, risk assessment procedures undertaken to obtain an understanding of internal control), changes in personnel or in internal control, the results of audit procedures applied in prior periods and the results of other audit procedures. High expected control deviation rates ordinarily warrant little, if any, reduction of the assessed risk of material misstatement.

4. An increase in the auditor's desired level of assurance that the tolerable rate of deviation is not exceeded by the actual rate of deviation in the population	Increase	The greater the level of assurance that the auditor desires that the results of the sample are in fact indicative of the actual incidence of deviation in the population, the larger the sample size needs to be.
5. An increase in the number of sampling units in the population	Negligible effect	For large populations, the actual size of the population has little, if any, effect on sample size. For small populations however, audit sampling may not be as efficient as alternative means of obtaining sufficient appropriate audit evidence.

Appendix 3 - Examples of Factors Influencing Sample Size for Tests of Details

International Standards on Auditing: ISA 530.Appendix 3

Appendix 3 Examples of Factors Influencing Sample Size for Tests of Details

(Ref: Para. A11)

The following are factors that the auditor may consider when determining the sample size for tests of details. These factors, which need to be considered together, assume the auditor does not modify the approach to tests of controls or otherwise modify the nature or timing of substantive procedures in response to the assessed risks.

FACTOR	EFFECT ON SAMPLE SIZE	
1. An increase in the extent to which the auditor's risk assessment takes into account plans to test the operating effectiveness of controls.	Increase	The higher the auditor's assessment of the risk of material misstatement, the larger the sample size needs to be. The auditor's assessment of the risk of material misstatement is affected by inherent risk and control risk. For example, if the auditor does not perform tests of controls, the auditor's risk assessment cannot be reduced for the effective operation of internal controls with respect to the particular assertion.

		Therefore, in order to reduce audit risk to an acceptably low level, the auditor needs a low detection risk and will rely more on substantive procedures. The more audit evidence that is obtained from tests of details (that is, the lower the detection risk), the larger the sample size will need to be.
2. An increase in the use of other substantive procedures directed at the same assertion	Decrease	The more the auditor is relying on other substantive procedures (tests of details or substantive analytical procedures) to reduce to an acceptable level the detection risk regarding a particular population, the less assurance the auditor will require from sampling and, therefore, the smaller the sample size can be.
3. An increase in the auditor's desired level of assurance that tolerable misstatement is not exceeded by actual misstatement in the population	Increase	The greater the level of assurance that the auditor requires that the results of the sample are in fact indicative of the actual amount of misstatement in the population, the larger the sample size needs to be.
4. An increase in tolerable misstatement	Decrease	The lower the tolerable misstatement, the larger the sample size needs to be.
5. An increase in the amount of misstatement the auditor expects to find in the population	Increase	The greater the amount of misstatement the auditor expects to find in the population, the larger the sample size needs to be in order to make a reasonable estimate of the actual amount of misstatement in the population. Factors relevant to the auditor's consideration of the expected misstatement amount include the extent to which item values are determined subjectively, the results of risk assessment procedures, the results of tests of control, the results of audit procedures applied in prior periods, and the results of other substantive procedures.
6. Stratification of the population when appropriate	Decrease	When there is a wide range (variability) in the monetary size of items in the population, it may be useful to stratify the population. When a

		population can be appropriately stratified, the aggregate of the sample sizes from the strata generally will be less than the sample size that would have been required to attain a given level of sampling risk, had one sample been drawn from the whole population.
7. The number of sampling units in the population	Negligible effect	For large populations, the actual size of the population has little, if any, effect on sample size. Thus, for small populations, audit sampling is often not as efficient as alternative means of obtaining sufficient appropriate audit evidence. (However, when using monetary unit sampling, an increase in the monetary value of the population increases sample size, unless this is offset by a proportional increase in materiality for the financial statements as a whole [and, if applicable, materiality level or levels for particular classes of transactions, account balances or disclosures].)

Appendix 4 - Sample Selection Methods

International Standards on Auditing: ISA 530.Appendix 4

Appendix 4 Sample Selection Methods

(Ref: Para. A13)

There are many methods of selecting samples. The principal methods are as follows:

(a) Random selection (applied through random number generators, for example, random number tables).

(b) Systematic selection, in which the number of sampling units in the population is divided by the sample size to give a sampling interval, for example 50, and having determined a starting point within the first 50, each 50th sampling unit thereafter is selected. Although the starting point may be determined haphazardly, the sample is more likely to be truly random if it is determined by use of a computerized random number generator or random number tables. When using systematic selection, the auditor would need to determine that sampling units within the population are not structured in such a way that the sampling interval corresponds with a particular pattern in the population.

(c) Monetary Unit Sampling is a type of value-weighted selection (as described in Appendix 1) in which sample size, selection and evaluation results in a conclusion in monetary amounts.

(d) Haphazard selection, in which the auditor selects the sample without following a structured technique. Although no structured technique is used, the auditor would nonetheless avoid any conscious bias or predictability (for example, avoiding difficult to locate items, or always choosing or avoiding the first or last

entries on a page) and thus attempt to ensure that all items in the population have a chance of selection. Haphazard selection is not appropriate when using statistical sampling.

(e) Block selection involves selection of a block(s) of contiguous items from within the population. Block selection cannot ordinarily be used in audit sampling because most populations are structured such that items in a sequence can be expected to have similar characteristics to each other, but different characteristics from items elsewhere in the population. Although in some circumstances it may be an appropriate audit procedure to examine a block of items, it would rarely be an appropriate sample selection technique when the auditor intends to draw valid inferences about the entire population based on the sample.

Maintaining a KPMG Accredited Sampling Professional accreditation policy

What additional activities do we perform?

What additional activities do we perform?

[ISA | KAEGWAAP]

1 Maintain an Accredited Sampling Professional accreditation policy [ISA | 4187]

What do we do?

KPMG member firm maintains a formal written accreditation policy for designating KPMG Accredited Sampling Professionals including specific training.

Why do we do this?

We may seek assistance or obtain concurrence from KPMG Accredited Sampling Professionals during our audit. Having an accreditation policy helps these KPMG individuals have the appropriate knowledge and skills to assist the engagement team with sampling related issues.

Execute the Audit

What is a 'KPMG Accredited Sampling Professional' and what may they do? [ISA | 4187.1300]

A KPMG Accredited Sampling Professional is a firm accredited KPMG individual who provides support, assistance and concurrence on sampling related issues. They are not a 'KPMG Specialist' or 'specific team member'.

KPMG Accredited Sampling Professionals may be requested to:

- Participate in periodic conference calls to discuss sampling matters;
- Deliver audit training to audit professionals;

- Provide support in engagement team planning decisions, and/or;
- Review engagement team substantive statistical sampling techniques.

What specific training does the accreditation policy for designating KPMG Accredited Sampling Professionals include? [ISA | 4187.1400]

At a minimum, the accreditation policy for designating an individual as a KPMG Accredited Sampling Professionals includes the following 'specific training:

- KPMG Accredited Sampling Professionals attend:
  - KPMG Accredited Sampling Professional training issued by Global Audit Learning and Development to achieve initial accreditation, and
  - Subsequent periodic KPMG Accredited Sampling Professional update training issued by Global Audit Learning and Development and identified for Accredited Sampling Professional accreditation.

What else may the accreditation policy for designating KPMG Accredited Sampling Professionals include? [ISA | 4187.1500]

The policy may also include how a KPMG Accredited Sampling Professional whose accreditation has lapsed due to non-attendance at update training may be re-accredited. It may be appropriate to evaluate the KPMG Accredited Sampling Professional's knowledge and reinstate the accreditation once the relevant update training has been completed.

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