

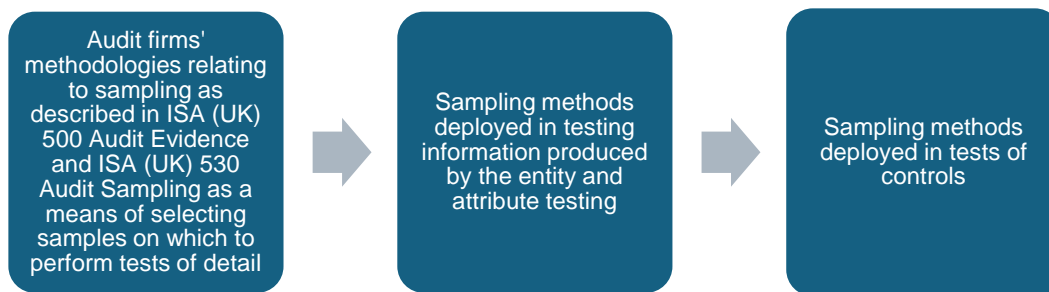
FRC thematic review on sampling (Lecture A857 – 11.28 minutes)

On 24 November 2023, the FRC published its thematic review of audit sampling. The FRC recognises that audit sampling is a fundamental tool for auditors which allow the auditor to draw conclusions about a population based on the sample selected.

The purpose of the thematic review is threefold. Its purpose is to:

- Identify common practice, concerns, and good practice across firms in the sample to drive improvement and support the FRC's monitoring of firms' system of quality management.
- Share findings to educate the wider audit market, as sampling has been an area of repeated Audit Quality Review findings for smaller firms.
- Support audit committees in understanding and evaluating the approach taken by audit teams.

The three key areas in scope of the review were:



High-level observations

Some high-level observations noted by the FRC are as follows:

- Audit sampling for tests of detail and controls is still widespread despite the increasing use of Audit Data Analytics.
- Most firms' methodologies are based on similar statistical models with firms building on these with their own guidance and preferences. This has led to substantial variation in the firms' final methodologies.
- This variation does not indicate one approach is better, but stakeholders, such as audit committees, need to be aware of these variances to understand how the firms obtain audit evidence.
- When applying these methodologies in practice, professional judgement is key, with significant professional judgements made throughout the use of audit sampling. Judgement is needed to use firms' sample size calculators, including to assess inherent risk and determine the contribution of evidence from other

procedures. The extent of firms' guidance to support these judgements is variable.

- Previous Audit Quality Review findings, and the FRC's sample review of ongoing audit inspections, indicate sufficient evidencing of the key professional judgements made when determining sample sizes. Evidencing these key judgements is vital.

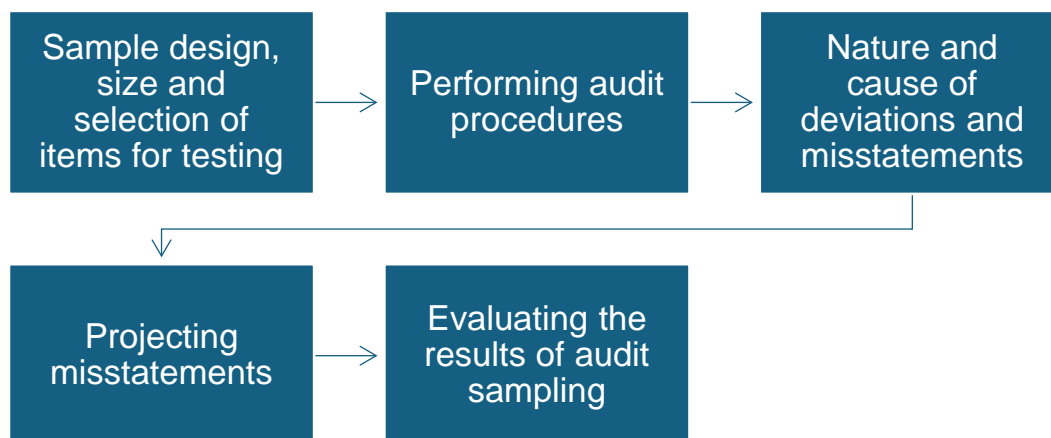
Objective of audit sampling

The objective of audit sampling is described in ISA (UK) 530, para 4 as follows:

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.

ISA (UK) 530,
para 4

ISA (UK) 530 then goes on to set requirements in relation to the following key areas:

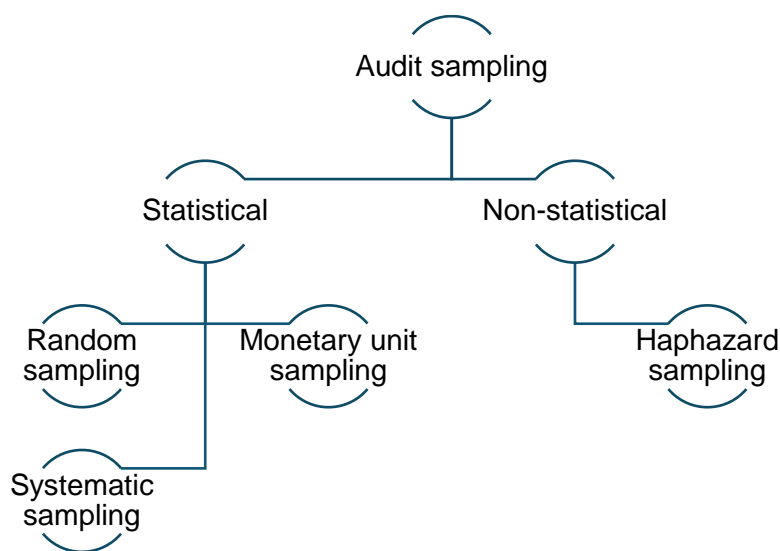


'Audit sampling' itself, is defined as:

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.

ISA (UK) 530,
para 5

Audit sampling consists of **statistical** sampling and **non-statistical** sampling, a summary of which is shown below:



When reviewing firms' methodologies and guidance, the FRC noted no significant deficiencies in meeting the objectives of ISA (UK) 530. The methodologies applied by audit firms provided a range of statistical and non-statistical tools for engagement teams to use.

The FRC did note that most firms sampling methodologies are based on the American Institute of Public Accountants (AICPA) *Audit Sampling Guide* which introduces statistical and non-statistical sampling approaches and includes case studies, monetary unit sampling size tables and methods for projecting errors across the population. ISA (UK) 530 does not prescribe the AICPA's approach but the FRC acknowledge it has become the most common foundation model for the audit firms within its thematic review.

Only three firms made small additions to the AICPA approaches, usually in their approaches to calculating sample sizes, and their methodologies were very similar, or identical to those included within the AICPA sampling guide. Four other firms in the thematic review sample build significantly on the AICPA model with substantial additional guidance, case studies to assist engagement teams and stated preferences for certain approaches, while still enabling engagement teams to judge when other techniques may be appropriate.

Five firms in the FRC's thematic review sample did not express a preference for any approach over another when selecting samples for tests of detail and leave the method of sample selection to the engagement teams' judgement. One firm's methodology stated a preference for monetary unit sampling. This firm stated that it preferred monetary unit sampling as it can be easier to apply in a consistent manner. One firm had stated a preference for the use of non-statistical sampling although it noted that the outcomes are broadly consistent with established statistical principles.

Most firms made use of internally developed tools which facilitate the deployment of their sampling methodologies, including:

Sample size calculators

These range from reasonably simple spreadsheet-based tools to more complex bespoke solutions. Generally, engagement teams are required to input the population size and materiality, indicate if any key items or transactions are tested elsewhere and select the determined level of inherent risk. The engagement team is usually required to input if they obtained any evidence over the balance or transactions from other procedures, for example if they have performed tests of controls. Some tools will select a random sample for the audit team while others provide just a sample size and teams select items themselves.

Monetary unit sampling (MUS) tools

These tools are used at some firms to aid in the semi-automated use of MUS. These tools require similar inputs as more general sample size calculations but will typically select a sample automatically for the engagement team to examine.

The FRC note that although all methodologies have a statistical model as their basis, one of the key determining factors in effective audit sampling is professional judgement and the application of this judgement to key decisions made throughout the process, specifically around the following:

- **Level of inherent risk** – The level of risk attributed to a balance or series of transactions has a significant effect on the number of items selected when sampling as this is a key input into a sample size calculator. Balances or transactions at the lower end of the spectrum of inherent risk will require fewer samples to be tested for an engagement team to be able to conclude.
- **Level of evidence obtained from other procedures** – The amount of evidence obtained from other procedures has a significant impact on the sample size. Where engagement teams state that they have obtained assurance from other procedures (such as substantive analytical procedures), most firms' methodologies allow the engagement team to select smaller sample sizes.

Sampling in tests of details

The FRC found that sampling undertaken when carrying out tests of details forms only part of most audit firms' approaches to obtaining sufficient appropriate audit evidence. Substantive analytical procedures, audit data analytics and tests of controls are usually used alongside sampling to obtain sufficient appropriate audit evidence. Moreover, the overall amount of audit evidence is driven by the risk assessment of the balance being audited, with audit teams typically placing balances or transactions at three or four points along the spectrum of inherent risk from significant risk to low risk.

The FRC found that audit firms often express this spectrum as a range of confidence levels (CL). Each of the risk levels (high, medium and low) are assigned a required CL that must be obtained through all sources of evidence for an engagement team to conclude that it has sufficient and appropriate audit evidence.

In the context of audit sampling, the CL is the % probability that the auditor is required to have that a balance is not materially misstated. For example, a test performed to a 95% CL is interpreted by the auditor to mean that there is a 95% probability that the balance being tested is not materially misstated. Generally, firms' methodologies require CLs are in the range of:



It should be noted that these are a generic representation of the levels used across the seven firms in the FRC's scope. Although no specific CL is required by the ISAs (UK), audit firms must be satisfied that a given CL is sufficient for obtaining evidence to support their conclusions over the specific risk.

Many firms attach a numerical measure to the procedures, other than the test of detail element, so that engagement teams are able to understand the extent of sampling required to reach a final conclusion on a balance. Generalised indicative ranges, based on the seven firms in the FRC's review, are explained below:

Type of procedure	CL % from other procedures	Observations
Controls testing over relevant assertions	Ranges across firms in scope	In most methodologies this is a binary choice to take controls reliance or not, though some firms allow for engagement teams to take enhanced reliance where they have tested additional controls above the minimum required.
Substantive analytical procedures	CL in the range of 40% to 60%	The CL obtainable is usually dependent on the tolerable difference between the actual amount and auditor's expectation. Substantive analytical procedure performed with a lower tolerable difference will usually generate higher amounts of evidence, for example to achieve a 60% CL, the difference between actual and the auditor's expectation would need to be very small.
Data analytics	CL in the range of 20% to 60%	The CL obtainable is dependent on the sophistication of the analytic being used and in instances where the analytic involves setting an expectation, how close that expectation is to actual.

The FRC recognise that in practice the calculation is usually undertaken within the audit firms' sample size calculator, where an engagement team is able to select the amount of evidence obtained from other procedures from drop-down boxes. Determining how much assurance is obtained from other procedures is challenging as CLs are calculated statistically by reference to populations and cannot easily be assigned to other types of

procedures with a non-statistical basis. Some firms do not assign a numerical value and leave the determination of amount of evidence obtained to auditor judgement.

The FRC state that given the importance of this key professional judgement on the sample size calculator, audit firms should ensure they provide audit teams with sufficient guidance to support professional judgement in this area. Firms with less guidance and support should consider expanding it.

Key items selection and selecting specific items

The thematic review clarifies that selecting specific items is a means of selecting items to test where an auditor does not apply sampling techniques. Engagement teams select items based on their understanding of the entity, the assessed risk of material misstatement and the characteristic of the population being tested.

Most firms in the FRC's scope provide guidance to engagement teams on selecting key items, with a focus on high-value items and those which indicate an increased risk of fraud. Two firms provide limited guidance which focuses almost exclusively on the size of the items, with less consideration given to other risk factors. Two firms have substantially more detailed guidance than other firms on the range of factors that may indicate that something is a key item, with a particular focus on understanding the risks associated with items in the population.

AQR comments state that in several reviews, the FRC saw insufficient documentation of the reasons for selecting items either as key items when audit sampling, or as specific items. When the FRC did see justification, it was generally focused on size, such as 'selecting everything over 50% of performance materiality', with no consideration of why that was an appropriate threshold.

The AQR also notes that it did see good practice in one review, where they selected specific items for testing based on risk, understood the population well and documented their judgements and conclusions effectively.

Haphazard sampling

This type of sampling was historically most useful when transaction listings were not available in electronic format that would allow for random sampling. Today, transaction listings and trial balances can be exported into a format suitable for analysis and use in sampling tools and makes random sampling substantially easier to perform. However, there may still be instances where haphazard sampling is the most appropriate method, for example in a stock count when testing stock in a two-way direction.

The AQR have commented that it has seen confusion in the method of sample selection applied. The sample calculator stated 'random' as the means of sample selection, but 'haphazard' was actually used by the engagement team. This led, in some cases, to potentially inaccurate projection of errors and to improper consideration of bias in the sample.

In multiple reviews, the AQR saw no documentation or consideration of why haphazard sampling is the most appropriate method when random was clearly a plausible option and would have reduced bias.

The thematic review suggests that while haphazard sampling is permissible in the context of the ISAs (UK) and, in some cases, be the most appropriate sampling technique, firms' methodologies should actively encourage the use of random sampling over haphazard where it is feasible to do so.

Sampling methodologies for information produced by the entity (IPE) and attribute testing

IPE testing, in a similar manner to controls testing, uses fixed sample sizes, with engagement teams using these samples to ensure that reports provided to them by the client are reliable. For example, it could be used to test completeness by ensuring that supplier invoices are included in the creditors report.

Attribute testing is used to gather sufficient evidence to either accept or reject a characteristic of interest (i.e. a 'correct' or 'incorrect' conclusion). It does not provide evidence over the monetary amount within a population. For example, attribute testing can be used to test if a sample of sales invoices have had the correct rate of VAT applied to them.

Some firms' methodologies allow engagement teams to test IPE by either testing the controls relevant to the report or by performing tests of details on the report itself. Other firms only allow engagement teams to make use of test of details approaches, though often with fixed sample sizes. Even at those firms where testing controls is an available approach, tests of detail has been the approach most commonly seen by AQR inspections.

These approaches are summarised below:

Approach 1: Test of controls

- Test controls relevant to the extraction of the information from the system.
- Approach to calculating sample size is firm dependent:
 - sample sizes used for test of controls; or
 - other fixed sample size.
- Deviations are addressed in line with controls testing methodology and the number of deviations planned in testing. This may involve concluding the information is NOT reliable if deviations indicate controls cannot be relied upon.

Approach 2: Tests of detail

- Test the detail of the report, agreeing a sample back to the system.
- Approach to calculating sample size is firm dependent:
 - sample size calculator used for test of details; or
 - specific IPE sample calculator; or
 - Fixed sample size.

- Errors are addressed in line with tests of detail methodology. This may involve concluding the information is NOT reliable where errors are found and are not determined to be isolated.

Most firms in the FRC's thematic review included guidance within their methodology on how to undertake dual-purpose testing. Dual-purpose testing is where an engagement team selects a sample and performs both IPE or attribute testing and undertakes additional procedures to obtain assurance over the monetary value of the population.

Firms without extensive additional guidance and case studies within their IPE and/or attribute testing methodologies should consider how their inclusion could support more effective deployment of IPE testing, especially more complex techniques such as dual-purpose testing.

Controls testing and sampling

ISA (UK) 330 *The Auditor's Responses to Assessed Risks* defines a 'test of control' as an audit procedure designed to evaluate the operating effectiveness of controls in preventing, or detecting and correcting, material misstatements at the assertion level.

All firms' methodologies in the review included controls testing as a tool available to engagement teams, though two firms explained that they use controls testing less routinely as their clients typically have less mature control environments.

All audit firms provide guidance to staff on selecting a sample of control occurrences to test. Two audit firms have a separate sample size set by a central team, specifically to be used for testing a control operating multiple times a day where a deviation is expected. Other firms do not have a centrally set sample size for that situation, but would expect engagement teams to consult a sampling expert if they were anticipating control deviations.

The FRC emphasise that as with audit sampling in substantive testing, the application of appropriate professional judgement is the key to ensuring the effective use of audit sampling methodology in test of controls. Firms should ensure that engagement teams understand the importance of appropriate professional judgements and are able to evidence their judgements appropriately.

Sampling and ISQM (UK) 1

All the firms in the FRC's thematic were driven by a global methodology, usually developed centrally outside the UK.

Three firms relied heavily on their global methodology teams to address the FRC's questions and the FRC were surprised by the extent to which some firms relied on them to explain how underlying statistical models were used to develop methodology applied in the UK.

ISQM (UK) 1 states that even when firms belong to networks and make use of resources, the firm 'remains responsible for its system of quality management, including professional judgements made in the design, implementation and operation of the system of quality management.

To that end, the FRC emphasise that firms must ensure they have a proper and full understanding of the sampling techniques developed globally and are able to understand and apply those methodologies in the UK.

In addition, the FRC's thematic review notes that some firms struggled to explain how their methodologies were developed from more general statistical models, often due to the time that had elapsed from the model's original development. Audit firms must ensure that their understanding of how their methodology relates to key statistical concepts is current.