



The Auditor's Response to the Risks of Material Misstatement arising from estimates made in applying IFRS 17 Insurance Contracts

Global Public Policy Committee of representatives of
the six largest accounting networks

30 June 2021



Dear Member of the Audit Committee:

The Global Public Policy Committee (GPPC) has a public interest objective to enhance quality in auditing and financial reporting. In a paper published at the beginning of 2020, we addressed the implementation of IFRS 17 *Insurance Contracts* and suggested a number of questions for those charged with governance of insurance entities to pose to management and their auditors about implementation plans, progress and accounting policy decisions.

As a member of an Audit Committee of an insurance entity your role is essential in ensuring the quality of financial reporting. This paper is designed to help you in one element of that role - oversight of your auditors; specifically, your auditor's approach to auditing estimates and associated judgements made in the application of IFRS 17.

We believe this paper will also be helpful to auditors because their audits of estimates and associated judgements are expected to follow the approach set out in this paper, and the examples and suggested procedures may guide their approach. Your auditor will likely also have a more granular audit programme, and many more pages of guidance for applying their procedures, but if this paper facilitates your interaction with your auditor and your oversight of their approach to auditing estimates, it will have accomplished its objective.

As we discussed in previously published papers on implementation, IFRS 17 will impact many stakeholders, will have significant impacts for insurers across many areas, and will introduce new areas of estimates and associated judgements.

In addition, since the standards for auditing accounting estimates and related disclosures were recently enhanced, we believe that publishing this paper now, in advance of the IFRS 17 effective date, may help to achieve high quality financial reporting.

For many insurance entities, there may be an increased risk of material misstatement arising from estimates made under IFRS 17, owing in part to the extent of change in the accounting and financial reporting for some entities. For many Audit Committee members, even those with many years of experience in reading the financial statements of the entity which you serve, the ability to leverage that historical knowledge and intuition to understand the results under IFRS 17 will be challenged in the early years of adoption. This makes it more critical for management, Audit Committees, and auditors to refresh their understanding of the risks of material misstatement. Among other changes, IFRS 17 introduces new estimates necessary for the new financial reporting model and increases complexity and subjectivity in some of those estimates. Of course, the level of changes for the auditors will undoubtedly be different from one country to another depending on the level of changes between the current local standard and IFRS 17.

In this paper, through examples, discussion, and insights, we highlight how the enhanced audit requirements may impact the auditor's effort to identify and assess the risks of material misstatement and consequently plan their audit response to the identified risks, including the degree to which they plan to evaluate and rely on controls as part of their testing strategy.

While there are many estimates and associated judgments in IFRS 17, we focus on the following in this paper:

- future cash flows,
- the discount rate,
- the risk adjustment, and
- the contractual service margin (CSM).

To respond to the risk of material misstatement, the auditor must design and perform tests to obtain sufficient appropriate audit evidence. The higher the assessed risk of material misstatement, the more persuasive the evidence needs to be. We emphasise the implications of this to the audit approach and, in section 3, summarise the two most frequently used approaches in auditing estimates:

- testing how management made the accounting estimate; and



- developing an auditor's point estimate or range.

This section also emphasises the key elements of any estimate:

- methods and the related models used to apply them;
- assumptions; and
- data.

The auditor's approach to these areas will likely differ - even within the audit of the same entity - as the approach depends on many factors including the type of business, contractual terms of products offered, risk and experience. We include examples of testing management's determination of the CSM, highlight the situations in which an auditor may develop their own point estimate, and detail some common audit procedures to address methods and models, assumptions and data.

In Section 4 we include additional emphasis on the controls over processes and information systems. We emphasise this because IFRS 17, as discussed in prior papers, will require substantial redesign of controls, processes and information systems. Since there are high volumes of transactions and large amounts of data in most insurance businesses, having a robust system of control is usually very important. We provide suggested procedures and highlight, including through examples, how the auditor's approach may be impacted by effective manual or automated controls.

In Section 5 we address the enhanced disclosure requirements related to estimates. IFRS 17 includes disclosures to enable users of financial statements to assess the impact on financial position, financial performance and cash flows. This enhanced emphasis on financial statement disclosures related to accounting estimates and estimation uncertainty makes it important to understand how the auditor's approach and the timing and extent of their testing of those disclosures are impacted.

Finally, in section 6 of this paper we emphasise the need for specialised skills, knowledge and resources in auditing IFRS 17. We also provide thoughts on how auditors may assess the presence of management bias in estimates and provide some examples of how auditors may exercise their professional scepticism.

We hope that this paper complements the guidance that other international organisations and the audit firms themselves have produced, or will produce, to enhance quality in financial reporting. We appreciate the opportunity to assist you in your oversight of your auditor's approach to auditing estimates and associated judgements in IFRS 17.



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1. Introduction and background

In May 2017, the International Accounting Standards Board (IASB) issued IFRS 17 *Insurance Contracts* (IFRS 17 or “the standard”), and in June 2020 it issued a number of amendments. IFRS 17 is effective for reporting periods beginning on or after 1 January 2023, heralding a new era of accounting for insurers. The current standard, IFRS 4 *Insurance Contracts* (IFRS 4), focuses on enhanced disclosures and allows insurers to continue using their local GAAP with certain limitations. IFRS 17, which replaces IFRS 4, provides principles-based requirements that aim to improve the comparability of the measurement and presentation of insurance contracts across entities.

IFRS 17 addresses the accounting for insurance contracts, so applies to all entities issuing insurance contracts, even if they are not regulated as insurers. However, this paper is intended primarily for insurance entities or groups that have significant insurance operations.

Implementation of IFRS 17 will have significant impacts for insurers across many areas, including:

- accounting policies, judgements and estimates;
- business processes, IT systems and data;
- financial reporting and controls;
- financial statement disclosures;
- resources and training;
- stakeholder communications and performance measures; and
- business strategy, pricing, products and compensation.

The implementation of IFRS 17 will impact many stakeholders, including, but not limited to: preparers of financial statements, those charged with governance, investors, regulators, analysts, policyholders and auditors. Given the importance of insurance entities to the financial services industry and the wider economy, it is essential that the new standard is implemented effectively.

As part of their oversight responsibilities, Audit Committees play an essential role in ensuring that insurers produce high-quality financial statements, and that the financial statement disclosures clearly communicate relevant and reliable information to users. Audit Committees also have the responsibility to evaluate their external auditor’s effectiveness in the audit of financial statements.

The Global Public Policy Committee (GPPC) – comprised of representatives from the six largest global accounting networks: BDO, Deloitte, EY, Grant Thornton, KPMG and PwC – also has a key role to play. The GPPC’s public interest objective is to enhance quality in auditing and financial reporting.

1.1 Previously published papers to assist Audit Committees

The GPPC published two papers in early 2020 which sought to help insurers’ Audit Committees fulfil their responsibilities with respect to an effective implementation of IFRS 17. Those papers were structured as follows:

- ***Main paper***¹ – containing guidance to help Audit Committees evaluate management’s IFRS 17 implementation project and the readiness of the external auditor to audit financial statements applying IFRS 17. The paper discusses key considerations related to:

¹ Implementation of IFRS 17 ‘Insurance Contracts’ – Considerations for those charged with governance. January 2020



- management – including ten questions that those charged with governance might use to focus their discussions with management; and
- the external auditor – including another ten questions that those charged with governance might use in their discussions with the entity’s auditors.
- **Companion paper²** – discussing key considerations related to the main judgements and accounting policy decisions required for the adoption of IFRS 17 and setting out more detailed questions for management in this area.

For most insurers, their first-time application of IFRS 17 will coincide with their first-time application of IFRS 9 Financial Instruments. The GPPC has issued two papers on the implementation of IFRS 9 impairment requirements and the auditor’s response to risks arising from estimates of IFRS 9 expected credit losses respectively³. Whilst these papers are focused on reporting by banks, insurers’ Audit Committees may also find them helpful.

1.2 The auditor’s response to the risk of material misstatement

This paper is focused on the auditor’s response to the risks of material misstatement which arise from accounting estimates (hereinafter “estimates”) and associated judgements made in applying IFRS 17. It is designed to help Audit Committees and those charged with governance in their oversight of the audit and in assessing the effectiveness of the auditor’s response. This paper focuses on estimates, and in particular estimates made in the determination of insurance contract assets and liabilities (whether arising from insurance contracts issued or reinsurance contracts held). It also covers estimates made in determining some items included in the insurance service result and insurance finance income or expenses.

When applying IFRS 17, the risk of misstatement, for most insurers, is high due to inherent risk factors such as significant complexity and subjectivity associated with the selection and application of the methods, assumptions and data used in developing accounting estimates, and the degree of estimation uncertainty. Insurers may face:

- a. Increased estimation uncertainty, complexity and subjectivity in the actuarial models required to produce estimates of future cash flows on an expected present value basis, determine the risk adjustment, and determine and track the Contractual Service Margin (CSM) over time.
- b. Increased complexity and subjectivity in developing the assumptions underpinning the actuarial models.
- c. An increase in the granularity and volume of data required to apply IFRS 17, including data not previously utilised by insurers, and the need to enhance systems and information flows to capture this data.
- d. A potential increase in new IT applications and the involvement of third parties as insurers seek technological solutions to perform the more complex calculations required to comply with IFRS 17.
- e. Enhanced disclosure requirements relating to estimates, including a number of complex reconciliations from the opening to the closing of several components of insurance and reinsurance liabilities/assets.

Complying with IFRS 17 and ensuring that the methods, assumptions and data underpinning the required estimates are appropriate are the responsibilities of management. As they do today, management must ensure that appropriate processes and controls exist over the underlying models and data, whether self-produced or developed by third parties, to ensure the information produced is relevant and reliable and that the presentation and disclosure requirements of the standard are met.

² Implementation of IFRS 17 'Insurance Contracts': Companion document on key judgements and accounting policy choices. January 2020

³ The Implementation of IFRS 9 impairment requirements by banks -June 2016; and the auditor’s response to the risks of material misstatement posed by estimates of expected credit losses under IFRS 9 – July 2017.



The auditor has a responsibility to obtain sufficient appropriate audit evidence to assess whether the accounting estimates and related disclosures in the financial statements are reasonable in the context of the requirements of the applicable financial reporting framework, including IFRS 17. To achieve this, the auditor will need to perform risk assessment procedures to properly identify and assess the risks of material misstatement, including those related to disclosures, design and perform appropriate audit procedures to respond to those risks, and perform an overall evaluation based on the audit procedures performed.

This paper focuses on International Standards on Auditing (ISAs), rather than other country specific auditing standards, because the ISAs are broadly adopted around the world as a framework under which audits are undertaken. In particular, it considers the requirements of ISA 540 (Revised) *Auditing Accounting Estimates and Related Disclosures* (ISA 540(R)) which is effective for audits of financial statements for periods beginning on or after December 15, 2019. This paper references ISA 315 (Revised 2019) *Identifying and Assessing the Risks of Material Misstatements* (ISA 315(R)) which is effective for audits beginning on or after December 15, 2021, since ISA 315(R) will be the auditing standard that will impact the auditor's approach to IFRS 17 in 2023. Note also that ISA 220(R) "*Quality Management for an Audit of Financial Statements*" will also be effective in 2023. The auditing profession is still working through implementation, and additional considerations impacting the audit may arise when these auditing standards are implemented.

No statements in this paper should be construed as requiring auditors to perform procedures that are either incremental to, or inconsistent with, the auditing standards. Rather, this paper sets forth our views on potential ways in which the auditor might respond, in a manner consistent with the auditing standards, to the risks of material misstatement presented by estimates and associated judgements made in applying IFRS 17.

For the avoidance of doubt, this paper does not purport to in any way amend or interpret the requirements of IFRSs. The GPPC fully acknowledges that this is reserved to the International Accounting Standards Board (IASB) and the non-authoritative results of discussions of the IFRS 17 Transition Resource Group (TRG). This paper is intended to be consistent with IFRS 17.

In using terms such as 'experts' and 'specialists' this paper does not imply that any particular party meets the definitions of an 'expert' or 'specialist' in the auditing standards. The identification of experts and specialists under the auditing standards is context specific and requires the exercise of professional judgment by the auditor. Rather, these terms are used in this paper in a more general sense to refer to individuals with particular expertise or knowledge that may be relevant to estimates made in applying IFRS 17.

1.3 Structure of the paper

This paper covers the following:

- **Section 2** - discusses how the auditor may assess the risk of material misstatement in financial statements arising specifically from the application of IFRS 17, including consideration of:
 - the insurance entity and its environment; and
 - the risk of material misstatement in estimates including inherent risks and control risks.
- **Section 3** – covers the auditor's responses to the assessed risks of material misstatement including testing how management made the accounting estimates and developing an auditor's point estimate or range.
- **Section 4** – discusses data, information systems, processes and controls (including risk assessment, testing and impact on audit approach).
- **Section 5** – discusses financial statement disclosures related to accounting estimates and estimation uncertainty.
- **Section 6** – discusses other considerations for the auditor and the insurance entity, such as management bias and professional scepticism.



2. Risk assessment and assessing the risks of material misstatement arising from accounting estimates in applying IFRS 17 (ISA 540(R), paragraphs 13-17)

2.1 General requirements

Requirements for auditing accounting estimates are outlined in ISA 540 (Revised) *Auditing Accounting Estimates and Related Disclosures*. ISA 540(R) defines an accounting estimate as “a monetary amount for which the measurement, in accordance with the requirements of the applicable financial reporting framework, is subject to estimation uncertainty”, i.e. it is susceptible to an inherent lack of precision in measurement.

Accounting estimates can vary widely in nature and are required to be made by management when the monetary amounts cannot be directly observed. The estimation uncertainty reflects limitations in knowledge or data. These limitations give rise to inherent subjectivity and variation in the measurement outcomes both in terms of timing and quantum. The process of making accounting estimates involves selecting and applying a method using assumptions and data, which requires judgement by management and can give rise to complexity in measurement. The effects of complexity, subjectivity or other inherent risk factors on the measurement of these monetary amounts increases their susceptibility to misstatement.

Estimation uncertainty is defined in ISA 540(R)⁴ as susceptibility to an inherent lack of precision in measurement. The degree to which any particular accounting estimate is subject to estimation uncertainty will vary substantially. One of the key determinants is the degree to which the applicable financial reporting framework requires the use of assumptions that inherently have a high level of estimation uncertainty, such as assumptions with a long forecast period, assumptions that are based on data that is unobservable and are therefore difficult for management to develop, or the requirement to use assumptions that are interrelated with each other. It will also depend on the nature and complexity of the entity and their products and services, and the capital management or other risk mitigation techniques employed (e.g. reinsurance).

This means that estimation uncertainty is dependent on the nature of the underlying variables to be estimated, not the process used to determine the impact of that variable on an accounting estimate

For insurance, the risks assumed by the entity through the contract are the key sources of estimation uncertainty, namely insurance risk (in all its multiple forms) and the combination of insurance and financial risks. The compounding factor of uncertainty for these variables is the long duration that an entity would need to estimate

the variables in order to form the required accounting estimates. The nature, timing and extent of an auditor’s risk assessment and audit procedures will vary in relation to this estimation uncertainty and related risks of material misstatement.

Key Insights for Audit Committees

For many insurance entities, there will be an increased risk of material misstatement arising from estimates that need to be made in order to apply IFRS 17. Make sure you understand management’s governance, process, and controls over these risks and also the perspective of your auditor.

For many insurance entities, there will be an increased risk of material misstatement arising from estimates that need to be made in the application of IFRS 17. This is because IFRS 17 may increase the degree of estimation uncertainty and subjectivity, could require more complex calculations to measure insurance contract liabilities and assets, uses a large volume of data, and may increase the reliance on specialized knowledge and skills (for

⁴ ISA 540(R), paragraph 12



example, those of actuaries). For many entities, IFRS 17 may also increase the use of third-party service providers and vendor IT applications, and it introduces new disclosure requirements for all entities.

2.2 Risk assessment procedures and related activities - assessing the entity and its environment, and the entity's internal control (ISA 540(R), paragraphs 13-15)

2.2.1 ISA requirements

ISA 540(R) requires the auditor to perform risk assessment procedures, which include obtaining an understanding of the entity and its environment, including the entity's internal control and information systems, related to the entity's accounting estimates. This understanding is critical and is performed to the extent necessary to provide a basis for the auditor's identification and assessment of the risk of material misstatement at the financial statement and at the assertion level. We address the risk assessment elements of information systems and internal control within section 4 of this paper.

When obtaining an understanding of the entity and its environment, ISA 540(R) requires the auditor to obtain an understanding of:

- the entity's transactions and other events and conditions that may give rise to the need for, or changes in, accounting estimates;
- requirements of the applicable financial reporting framework related to accounting estimates;
- regulatory factors relevant to the entity's accounting estimates; and
- the nature of the accounting estimates and related disclosures that the auditor expects to be included in the entity's financial statements⁵.

Further elements of understanding an entity and its environment are included in section 4 "Data, information systems, processes and internal controls" (4.1 ISA requirements) and section 6.1.1 "Assessing the need for specialised skills."

2.2.2 The impact of IFRS 17

Initial implementation of IFRS 17 will require insurance entities to make estimates for previous accounting periods as well as the current period as IFRS 17 is applied on a retrospective basis, unless impracticable, in which case a modified retrospective or fair value approach may be utilised. Under all approaches, items in the opening balance sheet and comparative information will need to be restated, which for a 31 December year-end would be 1 January 2022 for an entity that does not early adopt IFRS 17.

IFRS 17 will dramatically change the financial reporting framework for most insurers and the nature of many accounting estimates and the related presentation and disclosures will fundamentally change, including, but not limited to, the following:

- *Forecasts of expected future cash flows* – IFRS 17 provides principles-based requirements to measure insurance contracts using current estimates of the expected value of cash flows. These requirements may differ from existing IFRS accounting in many areas relating to cash flows including contract boundaries, the granularity of information, the balance of prudence (in certain current IFRS regimes) and neutrality in IFRS 17 applied in making estimates, and the frequency with which assumptions must be updated.
- *Time value of money and financial risk* – IFRS 17 introduces requirements for calculating the impacts of changes relating to the time value of money and financial risk which may be either new or different to existing accounting models. There is a significant number of

⁵ ISA540(R), paragraph 13a-d



judgements and assumptions to be made in estimating and applying a rate or curve to allow for this.

- *Risk Adjustment for non-financial risk* – IFRS 17 does not prescribe a method to calculate the risk adjustment although it does note that the principle of the adjustment is to reflect the compensation an entity requires for bearing the uncertainty about the amount and timing of the cash flows that arises from non-financial risk as the entity fulfils insurance contracts. However, it requires an explicit calculation and disclosure of the amount and method used to determine the risk adjustment. A risk adjustment is required for both insurance contracts issued, and reinsurance contracts held. IFRS 17 also requires disclosure of the equivalent confidence level irrespective of the method used to determine the risk adjustment. These requirements introduce significant subjectivity.
- *Contractual Service Margin (CSM)* – IFRS 17's introduction of an explicit CSM, representing the expected profit from a group of contracts that will be recognised over the coverage period, is a key element of the accounting model and is new compared to most existing financial reporting models applied by insurers.

In many jurisdictions, IFRS reporting provides the primary basis for regulatory reporting and implementation of IFRS 17 may therefore have significant impacts on these other reporting bases. Regulators will be closely scrutinising entities' implementation efforts and may issue guidance on pre-implementation disclosures, implementation issues and technical interpretations.

IFRS 17 enhances the disclosure requirements relating to insurance contracts, including a number of detailed reconciliation tables for the component parts of the insurance contract carrying amounts. It also requires disclosures about significant judgements and insurance and financial risks faced by the entity.

Example 1: The entity and its environment

As required by ISA 540(R), paragraph 13, the auditor needs to obtain an understanding of the entity and its environment, including transactions and conditions, the financial reporting framework, regulatory factors and nature of estimates and disclosures.

Implementing and applying IFRS 17 will present new challenges. The impact will vary from insurer to insurer depending mostly on environmental factors such as the nature of the business (long term contracts vs short term contracts, life vs non-life, reinsurance vs direct), the depth and mix of in-house resources, and current accounting policies and actuarial practices. For example, insurers that already apply similar regulatory reporting frameworks may be more familiar with the use of current cash flows projections.

Under IFRS 17

- Life insurers might need to apply different IFRS 17 accounting models (General Measurement Model, Variable Fee Approach or Premium Allocation Approach) to different business which will increase the challenge of collecting and storing new data (e.g. locked-in discount rates), upgrading processes and updating or changing IT systems.
- The CSM is a new concept and represents the unearned profit that the entity will recognise as it provides services in the future under the insurance contracts in a group. The pattern of release of the CSM may be significantly different from how profit is recognised today under IFRS 4.
- Some non-life insurers will face the challenge of justifying the use of the premium allocation approach under IFRS 17, if applied and will need to perform an estimation of the liability for remaining coverage under the General Measurement Model to evidence that it is not materially different from the measurement under the premium allocation approach. In addition if not eligible for the premium allocation approach, applying IFRS 17's measurement model may require significant changes to processes and systems to obtain and process the data required.

These are but three examples out of many new areas where accounting estimates are applied and of which the inherent risks are different from IFRS 4. The auditor needs to factor these into the assessment of the risks of material misstatement appropriately.



2.2.3 Implications for the auditor

The auditor will need to obtain an understanding of how the entity intends to apply IFRS 17 on transition, including why the entity considers the full retrospective approach to be impracticable or not. Further consideration should be given to the application of the modified retrospective approach (if applicable) and how the simplifications allowed are applied. If the fair value approach is applied the valuation methodology will need to be understood.

The requirements of the financial reporting framework will alter significantly under IFRS 17, and it is critical that the audit team (including specialists) has the appropriate skills, knowledge and understanding of the revised standard. IFRS 17 is a largely principles-based standard, so the ability to critically evaluate management's application of IFRS 17 will be crucial given the lack of prescribed methodology and the increased complexity, subjectivity, judgement and estimation uncertainty.

In addition, as part of obtaining an understanding of the environment, the auditor should be attentive to regulatory pronouncements and inspect any direct communication between the entity and their regulators to understand the expectations of the regulators and their planned supervisory activities in relation to IFRS 17.

The enhanced presentation and disclosure requirements under IFRS 17 (and those under IAS 1 *Presentation of Financial Statements*) for estimates are extensive. It is important that the auditor understands these enhanced requirements and the level of detail required to meet the objective of the disclosure requirements and determines that individuals with appropriate skills and capabilities are used to audit the judgements made by management. Considerations relating to presentation and disclosure are covered in further detail in section 5 of this paper.

2.3 Identifying and assessing the risk of material misstatement in estimates (ISA 540(R), paragraphs 16-17)

2.3.1 ISA requirements

In identifying and assessing the risks of material misstatement relating to an accounting estimate and related disclosures at the assertion level, the auditor is required to separately assess inherent risk and control risk.

When identifying and assessing inherent risks, the auditor considers the degree to which the accounting estimate is subject to estimation uncertainty. The auditor should also consider the degree to which the selection and application of the method, assumptions and data in making the accounting estimate, or the selection of management's point estimate and related disclosures for inclusion in the financial statements, are affected by complexity, subjectivity, or other inherent risk factors⁶.

Accounting estimates are susceptible to an inherent lack of precision in their measurement. The lack of precision in the measurement of an estimate may therefore present a risk of material misstatement to the financial statements. For all estimates impacting account balances, classes of transactions and disclosures considered material for the purposes of the audit, the auditor must obtain sufficient appropriate audit evidence, proportionate to the assessed degree of risk of material misstatement, to assess whether the estimate and its related disclosures are reasonable⁷.

⁶ ISA 540(R), paragraph 16

⁷ ISA 540(R), paragraph 11



The auditor must determine whether any of the risks of material misstatement identified are assessed as a significant risk. If the auditor has determined that a significant risk exists, the auditor should identify controls that address that risk, and evaluate whether such controls have been designed and implemented effectively⁸.

Key Insights for Audit Committees

The implementation of IFRS 17 increases some of the inherent risk factors associated with estimates. Understanding these inherent risk factors is key to management's design of processes and controls and to your auditor's design of testing.

Where the auditor has decided to rely on those controls, they are required to test their operating effectiveness – these considerations are covered in further detail in section 4 of this paper.

In responding to ISA requirements, the auditor must also assess how the entity has complied with the disclosure requirements around estimates and significant judgements set out both in IFRS 17 and IAS 1.

2.3.2 Impact of IFRS 17 on inherent risk

The implementation of IFRS 17 may increase the relevance and significance of the inherent risk factors associated with estimates.

Estimation uncertainty

Accounting for insurance contract liabilities is very likely to be subject to inherently high estimation uncertainty because it requires an estimate to be made about the extent, timing and nature of amounts that an insurer will be required to pay in the future to settle claims. There is estimation uncertainty in the elements of the insurance contract liability under IFRS 17 – expected present value of future cash flows, the risk adjustment and the contractual service margin.

Complexity

There may be a high degree of complexity involved in estimating elements such as present values of expected future cash flows, appropriate discount rates, the compensation required for non-financial risk and the development of the CSM over time. These elements are estimated with the help of complex statistical and actuarial models which require input from specialists, using assumptions about the future which are often based on a mixture of past data and expert judgement.

Key Insights for Audit Committees

Four of the most important sources of estimation uncertainty are:

- future cash flows;
- discount rates;
- the risk adjustment; and
- the consequential impact of estimates on the CSM and its subsequent accounting

⁸ ISA 540(R), paragraph 17



Subjectivity

There is a range of possible methodologies for developing estimates which comply with the principles of IFRS 17. The selection and application of an appropriate methodology requires the exercise of significant professional judgement given the inherently uncertain and often long-term nature of insurance contracts, and the innate lack of precision in measurement.

Change in requirements of the financial reporting framework

The implementation of IFRS 17 increases the inherent risk of misstatement associated with measuring insurance contracts during the period that insurance entities and their management gain an understanding of the unfamiliar accounting requirements of the new standard, and implement significant changes to processes, systems and controls.

Susceptibility to management bias

The degree of complexity and subjectivity may mean that insurance contract liabilities are inherently susceptible to intentional or unintentional management bias, particularly as IFRS 17 requires an unbiased estimate of the expected value of cash flows. Auditors need to be mindful that management incentives may create additional risk in the estimation uncertainty. They need to consider what drives a management team (e.g. remuneration basis, pressure to deliver results) and what is their past performance (e.g. constantly missing targets indicates over optimistic approach and estimates may be poorly set).

The above inherent risk factors are integral to the accounting estimates and associated judgements under IFRS 17 discussed below.

Future Cash Flows

The starting point for the forecast of future cash flows is to consider a range of scenarios, each of which reflects the amount and timing of cash flows for a particular outcome, and the estimated probability of each outcome. This involves developing statistical models with a number of parameters reflecting the range and likelihood of potential future outcomes. The cash flows from each scenario are discounted and weighted by the estimated probability of that outcome to derive an expected present value.

If an entity makes a judgement that the probability distribution of outcomes is broadly consistent with a smaller number of parameters or scenarios, it may be sufficient to develop a simpler modelling approach that provides an acceptable degree of precision, or for symmetrical cash flows, a deterministic model may be used. However, in some cases, cash flows may be driven by complex underlying factors; for example, the presence of a series of interrelated options may cause cash flows to respond in a non-linear fashion to changes in economic conditions. In such cases, a more sophisticated stochastic modelling approach is likely to be necessary to satisfy the measurement objective.

Some cash flows are linked to market variables such as interest rates and prices of publicly traded securities which can be used directly in determining cash flow estimates. In other cases, the link to prices of traded market instruments or market variables is more complex and techniques such as replicating portfolios and stochastic modelling are applied with models calibrated to market information. Judgement is required to determine the technique that best meets the objective of consistency with observable market variables and the prices of traded market instruments in specific circumstances.

Some cash flows may be linked to policyholder behaviours. Many insurance contracts, particularly in life insurance, have features that enable policyholders to take actions that change the amount, timing, nature or uncertainty of the amounts that they will receive. Such features include renewal options, surrender options, conversion options and options to cease paying premiums while still receiving benefits of the contracts. It is important for the insurer to consider the full range of scenarios from these and other embedded options and guarantees,



reflect the entity's perspective but also incorporate all available information in an unbiased way.

Discount rates

IFRS 17 mentions two types of approaches for the estimation of discount rates – the “bottom-up” approach and the “top-down” approach. It also sets out separate considerations depending on whether or not cash flows vary on the basis of the return on any underlying items.

Cash flows that do vary in this way should either be discounted using rates that reflect the variability or should be adjusted for the variability and then discounted using rates which reflect the adjustments made. Addressing these considerations requires a degree of judgement or subjectivity which adds complexity to the estimation.

- For cash flows which do not vary on the basis of the returns on underlying items, the insurer may determine discount rates by adjusting a liquid risk-free yield curve to reflect the differences between the liquidity characteristics of the financial instruments that underlie the rates observed in the market and the liquidity characteristics of the insurance contracts (a bottom-up approach). Judgement is required both in the construction of the risk-free yield curve and in the assessment of the degree of illiquidity inherent in the insurance contracts.
- Alternatively, the insurer may determine the appropriate discount rates for insurance contracts based on a yield curve that reflects the current market rates of return implicit in a fair value measurement of a reference portfolio of assets (a top-down approach). The yield curve is adjusted to eliminate any factors that are not relevant to insurance contracts, such as credit risk associated with the reference portfolio. Significant judgement is again required, for example in selecting an appropriate reference portfolio and in deriving appropriate adjustments.

Risk Adjustment

The risk adjustment is defined as the compensation the entity requires for bearing uncertainty about the amount and timing of the cash flows that arises from non-financial risk. All techniques for determining risk adjustments require significant judgements. In particular, assumptions are required about the full potential probability distribution associated with each non-financial risk and how they might interact with one another in future. Such calculations are often performed at a more aggregate level than is required for measurement purposes under IFRS 17 to reflect diversification benefits, introducing further complexity in allocating the risk adjustment to groups of insurance contracts. IFRS 17 also requires disclosure of the equivalent confidence level irrespective of the method used

Contractual Service Margin (CSM)

The CSM is one of the key new aspects introduced by IFRS 17. It represents the unearned profit from writing insurance contracts and is released to the profit and loss account over the coverage period by reference to “coverage units”. Determining the CSM balance and the profit release (i.e. defining coverage units and releasing the

CSM using these coverage units) are dependent on other key estimates including those set out above. If an insurance contract is onerous, then it will have a loss component instead of a CSM. After an entity has recognised a loss component it needs to allocate subsequent changes in fulfilment cash flows of the liability between the loss component and the remainder of the liability on a systematic basis. This will also involve exercising judgements and making estimates.

Key Insights for Audit Committees

The determination of CSM at transition involves numerous key judgements. Release of the CSM will be a key factor in the determination of profit and loss in future years from existing business. Ensure that management describes the key factors in this determination for the auditor to assess.



Example 2: Example of estimates: risk adjustment

ISA 540(R) requires a separate assessment of inherent risk for purpose of assessing the risks of material misstatement at the assertion level for accounting estimates.

One area which requires the use of estimation is the determination of the risk adjustment. The risk adjustment is the compensation the entity requires for bearing uncertainty about the amount and timing of the cash flows that arises from non-financial risk as the entity fulfils insurance contracts.

As there is no specified method of estimating the risk adjustment, the entity must apply judgement to develop its own method which produces results that reflect the risk adjustment definition and objectives. Potential methods to determine the risk adjustment include the cost of capital approach and the confidence level approach. Both approaches include a number of judgements and estimates, which need to be supported by appropriate evidence.

In assessing the inherent risk of the estimate, which includes the entity's risk adjustment, the auditor needs to understand the methodology chosen by the entity and evaluate the supporting justification for the chosen methodology. The auditor would further need to assess the appropriateness of the methodology for the entity and identify the inherent risk factors linked to the methodology choice and the subsequent calculation of the risk adjustment. For example, in performing the risk assessment, the auditor should consider the reliability of sources for data used in calculating the risk adjustment and consider benchmarking the risk adjustment methodology and calculation to industry practice, subject to entity specific assessments of the compensation that it requires for bearing risk.

2.3.3 Implications for the auditor – Identifying inherent risks

The auditor is required to perform an inherent risk assessment and consider the inherent risk factors associated with the relevant assertions of each estimate. The components of an estimate that are the primary sources of risk will be specific to the particular circumstances in which the estimate is made, and certain assertions may be of higher risk than others.

To perform an inherent risk assessment, the auditor will need to understand the accounting policy and methodology decisions made by the entity. For example, applying the Premium Allocation Approach to groups of contracts may reduce the complexity of the calculation of the liability for remaining coverage. The auditor will need to perform relevant inquiries with management and actuarial specialists to understand the approaches applied, and review and assess accounting policy and methodology papers produced by the entity on their application of IFRS 17. Entities should produce sufficient and appropriate documentation setting out their accounting policy and methodology decisions, and the justifications for them.

The auditor will usually perform business process walkthroughs to understand the processes, including information systems, by which management develops the relevant accounting estimates and how accounting policy and methodology decisions have been operationalised by management.

Given the degree of estimation uncertainty, complexity, subjectivity, and potential for management bias, the risks of material misstatement associated with estimates required to measure insurance contract assets and liabilities under IFRS 17 for most insurers will likely be high.



Example 3: inherent risk and CSM

IFRS 17 defines the contractual service margin as “a component of the carrying amount of the asset or liability for the group of insurance contracts representing the unearned profit the entity will recognise as it provides services under the insurance contracts in the group”.

ISA 315 (Revised) addresses inherent risk factors. In situations in which the auditor is auditing the CSM and how profit is recognised, the auditor should consider that most of the inherent risk factors from ISA 315(R) could be present:

- The level of complexity in calculating and accounting for CSM, including CSM release, is usually high except in the simplest of products;
- Release of the CSM involves subjectivity, involving a number of management judgements such as the choice of coverage units;
- Many items are based on future cash flows, the outcome of which is uncertain;
- The CSM adjustment throughout the coverage period, and periodic release to income, could be susceptible to management bias (as explained later in this paper).

Given the presence of all the inherent risk factors the auditor may assess the level of inherent risk to be at the higher end of the inherent risk continuum and may determine the risk to be a significant risk.

2.3.4 Implications for the auditor – Assessing control risk

If the auditor plans to test the operating effectiveness of controls, the auditor shall assess control risk. If the auditor does not plan to test the operating effectiveness of controls, the auditor’s assessment of control risk shall be such that the assessment of the risk of material misstatement is the same as the assessment of inherent risk⁹. If the auditor has determined that a significant risk exists, the auditor needs to identify controls that address that risk and evaluate whether such controls have been designed and implemented effectively.

Regardless of whether the auditor intends to test the operating effectiveness of controls that address significant risks, the understanding about management’s approach to addressing those risks may inform the design and performance of substantive procedures responsive to significant risks. Although risks relating to significant non-routine or judgemental matters are often less likely to be subject to routine controls, management may have other responses intended to deal with such risks. Accordingly, the auditor’s understanding of whether the entity has designed and implemented controls to address the significant risks arising from non-routine and judgemental matters includes whether and how management responds to the risks. Such responses might include:

- Controls such as a review of assumptions by senior management or experts;
- Controls around the creation and change of models used in the determination of insurance liabilities;
- Controls around data transfer, e.g. from policy administration system to actuarial valuation system;
- Documented processes for accounting estimations; and
- Approval by those charged with governance¹⁰.

Furthermore, if the auditor’s assessment of risks of material misstatements at the assertion level includes an expectation that the controls are operating effectively, or if substantive procedures alone cannot provide sufficient appropriate audit evidence at the assertion level, the auditor needs to design and perform tests to obtain sufficient appropriate audit evidence of the operating effectiveness of relevant controls for the relevant assertion(s)¹¹.

⁹ ISA 315(R), paragraph 34

¹⁰ ISA 315(R), paragraph A170

¹¹ ISA 540(R), paragraph 19



Examples of circumstances when risks for which substantive procedures alone may not provide sufficient appropriate audit evidence include¹²:

- When controls are necessary to mitigate risks relating to the initiation, recording, processing or reporting of information obtained from outside of the general and subsidiary ledgers; and
- When information supporting one or more assertions (e.g. completeness, accuracy, valuation or presentation) is electronically initiated, recorded, processed or reported. This is likely to be the case when there is a high volume of transactions or data, or a complex model is used requiring extensive use of information technology to ensure the accuracy and completeness of the information.

Key Insights for Audit Committees

If the auditor has assessed the risks of material misstatement related to certain estimates as significant risks, understand the extent to which the auditor has evaluated and intends to rely on controls as part of the testing strategy

Estimates of future cash flows, discount rates and the risk adjustment, and other estimates under IFRS 17, may meet the criteria for determining that substantive procedures alone cannot provide sufficient appropriate audit evidence because:

- These estimates will be dependent on information obtained, maintained, managed and controlled outside the general and subsidiary ledgers that will be critical to the calculation and presentation of liabilities. While the systems and models may be linked by automation as inputs to subsidiary ledgers, many entities will have separate systems and models for the calculation of such estimates;
- Each of these will require high volumes of data; and
- Each of the models may contain complex calculations in the estimation of insurance contract assets and liabilities and insurance service result under IFRS 17.

Thus, for many key estimates under IFRS 17 it is unlikely that substantive procedures alone can provide sufficient appropriate audit evidence. Internal controls and the related information systems are addressed in more detail in section 4 of this paper.

¹² ISA 540(R), paragraph A88



3. Responses to the risks of material misstatement resulting from accounting estimates made in applying IFRS 17 (ISA 540(R), paragraphs 18-31)

3.1 ISA requirements

Audit procedures are required to be responsive to the assessed risk of material misstatement at the assertion level. The auditor's audit procedures must include one or more of the following approaches:

- obtaining audit evidence from events occurring up to the date of the auditor's report;
- testing how management made the accounting estimate; or
- developing an auditor's point estimate or range.

The higher the assessed risk of material misstatement, the more persuasive the audit evidence needs to be. The auditor designs and performs audit procedures in a manner that is not biased towards obtaining audit evidence that may be corroborative or towards excluding audit evidence that may be contradictory.¹³

The auditor must design and perform tests to obtain sufficient appropriate audit evidence as to the operating effectiveness of relevant controls if their assessment of the risk of material misstatement includes an expectation that controls are operating effectively, or if substantive procedures alone cannot provide sufficient appropriate audit evidence.

In designing and performing tests of controls, the auditor shall obtain more persuasive audit evidence the greater the reliance the auditor places on the effectiveness of a control.¹⁴

For a significant risk relating to an accounting estimate, the auditor's procedures shall include tests of controls in the current period if the auditor plans to rely on those controls. When the auditor's approach to a significant risk consists only of substantive procedures, those procedures shall include tests of details.¹⁵

In addition to the auditor's procedures designed specifically to respond to the components of the estimate that contribute most significantly to the risk of material misstatement, the auditor should also 'stand back' and evaluate the reasonableness of the estimate in the overall context of the financial statements and in light of evidence obtained. In making this evaluation, the auditor exercises professional scepticism, being aware of the potential for management bias.

The auditor is also required to design and perform audit procedures to obtain sufficient appropriate audit evidence regarding disclosures related to accounting estimates. This requirement is covered in section 5 of this guidance.

Key Insights for Audit Committees

Professional scepticism plays a critical role in the auditor's work relating to accounting estimates. Audit Committees should ask/challenge the auditor to identify specific areas in which it has exercised its scepticism.

3.2 Implications for the auditor

The most appropriate audit approach, or combination of approaches, of the three listed at 3.1 is likely to depend on the nature of the insurance contracts issued as well as the maturity of the entity's controls and processes. Given the forward-looking and often long-term nature of

¹³ ISA 540(R), paragraph 18

¹⁴ ISA 540(R), paragraph 19

¹⁵ ISA 540(R), paragraph 20



insurance business, it is unlikely that the post-balance sheet period will provide additional audit evidence about estimates of insurance contract assets and liabilities, but there may be certain lines of business for which this is the case. However, the impact of any audit evidence from events occurring up to the date of the auditor's report which may assist with evaluating the appropriateness of specific significant assumptions should be considered.

Given the number of and impact of inherent risk factors associated with estimating insurance contract assets and liabilities and the resulting risk of material misstatement, a combination of substantive procedures and, where relevant, testing of the operating effectiveness of internal controls will generally be necessary.

3.3 Testing how management made the accounting estimate (ISA 540(R), paragraphs 22-27)

When testing how management made the accounting estimate, ISA 540(R) requires the auditor to include procedures to obtain sufficient appropriate audit evidence regarding the risks of material misstatement relating to methods, significant assumptions, data, and management's selection of a point estimate and related disclosures about estimation uncertainty.

3.3.1 Methods and models

Further audit procedures with respect to the selection and application of the methodology used in calculating the estimate include assessing:

- Whether the method selected is appropriate under IFRS 17, and if changes from the method used in prior periods are appropriate;
- Whether the judgments made in selecting the method give rise to indicators of possible management bias;
- Whether the calculations are applied in accordance with the method and are mathematically accurate;
- When management's application of the method involves complex modelling;
 - Whether judgements have been applied consistently;
 - Whether:
 - the design of the model meets the measurement objectives of IFRS 17;
 - any changes from the prior period's model are appropriate in the circumstances; and
 - adjustments to the output of the model are consistent with the measurement objectives of IFRS 17 and appropriate in the circumstances; and
- Whether the integrity of significant assumptions and the data has been maintained.¹⁶

As IFRS 17 does not prescribe methodologies for determining required estimates, but is rather a principle-based framework, then there are a wide variety of possible methodologies that entities may utilise. The following audit procedures may be important when testing the methodology and actuarial models applied by management in making accounting estimates under IFRS 17:

¹⁶ ISA 540(R), paragraph 23



Methodology:

- Assessing the estimation methodology to determine whether it complies with the requirements of IFRS 17, including consideration of significant judgements and interpretations.
- Understanding the differences between methodologies applied under other existing reporting frameworks (e.g. Solvency II Best Estimate Liability) and that applied under IFRS 17.
- Performing inquiries with management to understand the alternative actuarial methodologies which were considered, and why they were rejected, and consider if there are indicators of management bias.
- Understanding and testing the governance and controls surrounding methodology selection and methodology changes.
- Evaluating the consistency of the methodology from period to period and the reason for any change as evidenced by management documentation.

Actuarial models and IFRS 17 calculation engines if used in application of the methodology:

- Where management has performed an assessment of the functionality of actuarial models in the current reporting period, testing of management's assessment.
- Where prior audit evidence exists over the functionality of the model, assessment of any changes made during the current reporting period (e.g. by testing management's change control process or by examining details of the changes).
- Independent testing would generally be needed, at least on a sample basis, to verify that the models implement the selected methodology as expected and that the calculation is mathematically accurate.
- Evaluating the appropriateness of any adjustments or overlays to model outputs, including testing liabilities which are manually calculated outside of the actuarial model.
- Performing a recalculation of the CSM for groups of contracts to ensure the calculation has been performed correctly.

Example 4: testing how management determined the CSM

The introduction of the CSM is one of the key changes of IFRS 17 that will differ from many accounting policies previously applied and poses significant implementation challenges. For most insurers, it will require new system solutions (or calculation models), some of which have been or are being developed by third party vendors.

When auditing the CSM, the auditor will need to understand and likely test the insurer's models, including the completeness, accuracy and relevance of assumptions and data. Assumptions and data are considered in the following sections. Factors that may be relevant to the audit include the following:

- Assess whether the insurer has appropriate governance over establishing new models and making changes to existing models. This will include model change control and testing.
- Validating models internally is a key element of a robust model governance process. The auditor should consider the process for validation of the model(s) and the internal party performing the validation. Validation of the model prior to its initial use and the revalidating of the model at frequent intervals are indications of a strong model control environment. The independence of the party performing model validation is also important and more reliance can be placed on an independent party such as internal audit or risk management's validation procedures. Validation procedures may include (but are not limited to) evaluation of the model's theoretical or conceptual soundness in determining CSM, the model's mathematical integrity and model output, and the continued appropriateness of the model via an ongoing performance review.
- Assess model features which may be susceptible to management bias.
- Assess whether the insurer has security and access /change controls over the model itself such that unauthorised changes cannot be intentionally or accidentally made.



- Consider the extent to which experts should be involved in performing the procedures to challenge the model's integrity, including how it accurately and completely calculates CSM and responds to changes in cash flows, releases CSM into profit and loss based on approved coverage units, and how coverage units are updated to reflect changes in expectations.
- Consider simplifications in the model and the impacts of such items on the precision of the model within the context of the requirements in IFRS 17, including the controls over such simplifications and the process for incorporating them in the model.
- Consider any deficiencies in the model design and the implication for the auditor's testing.

3.3.2 Significant assumptions

Further audit procedures with respect to the assumptions used in calculating the estimate should address:

- Whether significant assumptions are appropriate in the context of IFRS 17, are mutually consistent, are consistent with observable market prices where relevant, and whether changes from assumptions used in prior periods are appropriate;
- Whether judgments made in selecting significant assumptions give rise to indicators of possible management bias;
- Whether the significant assumptions are consistent with each other and with those used in other accounting estimates, or with related assumptions used in other areas of the entity's business activities;
- Whether management has the intent to carry out specific courses of action and whether it has the ability to do so¹⁷; and
- All relevant audit evidence whether corroborative or contradictory.

The following audit procedures are likely to be important when testing significant assumptions made by management in making the accounting estimate and also when developing an auditor's point estimate or range:

- Assessment of the appropriateness of assumptions used against current economic indicators (e.g. interest rates, inflation), recent experience (e.g. of mortality, morbidity, policyholder lapses, changes to law or regulation, social inflation, emerging latent losses) and any change analysis performed by management (e.g. sensitivity analysis at an assumption level) and any relevant industry benchmarks (e.g. mortality tables, valuation assumption benchmarks). In addition, an overall assessment should be made of the reasonableness of the assumptions as a whole, including considerations of any indications of management bias.
- Assessment of whether assumptions are interdependent and, where appropriate, internally consistent across the business and across different balances in the financial statements (e.g. interest rates, inflation, lapses).
- Testing of governance controls surrounding the setting of risk appetite and the update of assumptions at the committee level, e.g. Asset Liability Committee, Risk Committee or Audit Committee, where appropriate.
- Testing of operational controls for the appropriate entry of assumptions into actuarial models.

¹⁷ ISA 540(R), paragraph 24



Example 5: audit procedures over experience adjustments and changes in assumptions arising from premium received

ISA 540(R) requires the auditor to design and perform procedures to obtain sufficient appropriate audit evidence.

Experience adjustments arising from premium received may impact the CSM balance. For premium received, an experience adjustment is the difference between the estimates at the beginning of the period and the actual cash flows in the period. The experience adjustment arising from premium received that relates to past or current services is typically recognised in the profit and loss account while the experience adjustment arising from premium received that relates to future service is typically recognised as an adjustment to the CSM.

For example, assume that due to a financial crisis, management observes an increase in policyholder lapses that was not anticipated but will significantly impact the assumptions for future periods previously made in the actuarial models.

The auditor designs and performs the following procedures:

- Understands the nature and source of data used to perform estimates of lapses expected over the period;
- Tests the design and implementation and operating effectiveness of internal controls relevant to data that relate to policyholder behaviour;
- Tests the accuracy and the completeness of the data received in the actuarial system (reconciliation between the accounting system and actuarial system); and
- As this event will impact future periods, ensures that the management has appropriately updated the assumptions in actuarial models (e.g. increase in lapses).

3.3.3 Data

Further audit procedures with respect to the data used in calculating the estimate should address:

- Whether the data is appropriate in the context of IFRS 17 and if the changes from prior periods are appropriate;
- Whether the judgments made in selecting data give rise to indicators of possible management bias;
- Whether the data is relevant and reliable in the circumstances; and
- Whether the data has been appropriately understood or interpreted by management, including with respect to contractual terms.¹⁸

The following audit procedures may be necessary when testing data used in actuarial models and/or IFRS 17 calculation engines:

- Assessment of the appropriateness of the data used in the actuarial modelling, whether all relevant data elements are captured, and whether there are any indicators of management bias;
- Testing of controls over the automated interfaces between operational administration systems (e.g. policy, claims, reinsurance administration systems) and the actuarial models and IFRS 17 calculation engine;
- Testing of data reconciliations between the operational administration systems and the actuarial models and IFRS 17 calculation engines;
- Testing of controls over any cleansing or other manipulation of data prior to use in actuarial models;
- Testing of controls over the data flow within actuarial models and/or IFRS 17 calculation engines, to ensure none is lost or corrupted during the calculation process; and
- Independent testing on data sets from the actuarial models and IFRS 17 calculation engine to ensure accuracy against data on the operational administration systems,

¹⁸ ISA 540(R), paragraph 25



including verification back to underlying documentation (e.g. policy documentation and claim documentation).

Sometimes, an insurer may use simplified modelling techniques or use proxies – this can be common due to data limitations or, for example, the small number of insurance contracts in the initial stages of a new product. The auditor evaluates areas where simplified modelling approaches or proxies are used as a result of data limitations or other practical constraints. The auditor's evaluation of such simplifications or proxies includes obtaining an understanding of and evaluating the insurer's process for assessing the appropriateness of these judgements on an ongoing basis, both individually and considering the significance of their cumulative effect.

The auditor considers communicating and discussing these simplifications or proxies and their impact with the Audit Committee and those charged with governance.

3.3.4 Management's selection of a point estimate and related disclosures about estimation uncertainty

Further audit procedures with respect to understanding management's selection of a point estimate and related disclosures about estimation uncertainty should address whether management has taken appropriate steps to:

- Understand estimation uncertainty; and
- Address estimation uncertainty by selecting an appropriate point estimate and developing related disclosures about estimation uncertainty.

If management has not taken appropriate steps, the auditor may request management to perform additional procedures to understand estimation uncertainty or to address it by reconsidering the selection of management's point estimate or considering additional disclosures relating to the estimation uncertainty and evaluate management's responses.¹⁹

If management's response to the auditor's request does not sufficiently address estimation uncertainty, to the extent practicable, the auditor develops their own point estimate or range. Further, the auditor needs to evaluate whether a deficiency in internal control exists and communicate it to those charged with governance.²⁰

The following audit procedures are likely to be important when assessing the selection of a point estimate and related disclosures:

- Assessment of management's experience or change analysis over insurance contract assets and liabilities to assess current estimates against prior period estimates and any known changes over the period;
- Assessment of experience data and trends observed in the data not captured in current assumptions;
- Assessment of management's sensitivity analysis on insurance contract liabilities;
- Assessment of the significance and risk attached to the balance; and
- Assessment of the adequacy and accuracy of qualitative disclosures, including ensuring that they meet the requirements of IFRS 17 and IAS 1 and provide sufficient information that describes the estimation uncertainty associated with insurance contract assets and liabilities.

¹⁹ ISA 540(R), paragraph 26

²⁰ ISA 540(R), paragraph 27



Example 6: control and substantive testing of data relating to the release of the CSM

The allocation of the CSM to profit or loss is performed in accordance with the following three steps:

- determining the total remaining coverage units in the group;
- allocating the CSM at the end of the period appropriately to each of the coverage units provided in the period and expected to be provided in future periods; and
- recognising in profit or loss the amount of the CSM allocated to the coverage units provided during the period.

The number of coverage units in a group is the quantity of insurance contract services expected to be provided by the contracts in the group, determined by considering, for each contract, the quantity of the benefits provided under a contract and its expected coverage period. Determining the coverage units requires the exercise of judgment and the use of estimates based on relevant data.

Collecting and understanding reliable and accurate data is key in the determination of the coverage units because it will drive the CSM released in the profit and loss account. Data used can come from a wide range of sources, such as via policy administration systems, actuarial systems and the accounting system.

The auditor:

- Considers whether the basis for coverage units is appropriate and in line with the requirements of IFRS 17 (i.e. reflects the quantity of benefits provided and expected coverage period);
- Challenges the nature and source of data used to assess the quantity of insurance contract services provided by the group of contracts over the coverage period, and in the current reporting period;
- Assesses and tests the design and operating effectiveness of:
 - Controls over data used to determine coverage units which ensure the data has been appropriately understood and approved by the management (e.g. data quality committee),
 - Controls over the consistency of data used in the actuarial model with policy administration and accounting systems; and
- Performs further audit procedures to determine that the changes from prior periods are appropriate, that the data used to determine quantity of coverage is relevant and reliable in the context of the financial reporting framework and whether there are indications of management bias in the data selected.

3.4 Developing an auditor's point estimate or range

3.4.1 ISA requirements

ISA 540(R)²¹ notes that:

Developing an auditor's point estimate or range to evaluate all or part of management's point estimate and related disclosures about estimation uncertainty may be an appropriate approach when, for example:

- The auditor's review of similar accounting estimates made in the prior period financial statements suggests that management's current period process is not expected to be effective;
- The entity's controls within and over management's process for making accounting estimates are not well designed or properly implemented;

²¹ ISA 540(R), paragraph A118



- Events or transactions between the period end and the date of the auditor's report have not been properly considered, when it is appropriate for management to do so, and such events or transactions appear to contradict management's point estimate;
- There are appropriate alternative assumptions or sources of relevant data that can be used in developing an auditor's point estimate or a range; or
- Management has not taken appropriate steps to understand or address the estimation uncertainty.

When the auditor develops a point estimate or range to evaluate management's point estimate and related disclosures about estimation uncertainty, the further audit procedures shall include procedures to evaluate whether the methods, assumptions or data used are appropriate in the context of the applicable financial reporting framework. Regardless of whether the auditor uses management's or the auditor's own methods, assumptions or data, these further audit procedures shall be designed and performed to address the matters detailed above.

If the auditor develops an auditor's range, the auditor shall determine that the range includes only amounts that are supported by sufficient appropriate audit evidence and have been evaluated by the auditor to be reasonable in the context of the measurement objectives and other requirements of the applicable financial reporting framework. The auditor shall design and perform further audit procedures to obtain sufficient appropriate audit evidence regarding the assessed risks of material misstatement relating to the disclosures in the financial statements that describe the estimation uncertainty.²²

Key Insights for Audit Committees

The development of an independent point estimate or range by the auditor is common in the non-life insurance business but not in the life business. If the auditor has developed a point estimate or range, ask how the auditor's point of view has been reconciled with the entity's estimates – in total and for significant lines of business.

3.4.2 Implications for the auditor

Developing an auditor's point estimate or range is generally likely to be more practical for short-term business, for example, business qualifying for the Premium Allocation Approach under IFRS 17, or for components valued using simple models and a limited amount of data. However, this approach is sometimes used for non-life long-term business, particularly when there is a number of years of historical experience available relating to the entity-specific population as well as anonymised data from other insurers and the auditor's own research which the auditor uses to form their own point of view on results. This point of view is then reconciled with the entity. For many long terms contracts like those written by life insurers, the amount of time and cost required to build independent models which adequately capture an insurer's unique product features and to run the insurer's complete set of policyholder data through them is usually disproportionate relative to the degree of assurance obtained and would not typically be used.

²² ISA 540(R), paragraph 29



Example 7: use of an auditor's point estimate or range

One of the areas under IFRS 17 in which management of the entity is required to apply judgement is in developing discount rates, an important assumption used by management in making its IFRS 17 estimates. Discount rates are used to reflect the time value of money and financial risk when projecting cash flows and must reflect the characteristics of the insurance contract. Discount rates can be determined using either a top-down or a bottom-up approach and the determination of the discount rate (or curve) to be used under IFRS 17 constitutes a significant area of judgement. Management needs to use consistent methods and assumptions, using relevant sources of data to design the appropriate discount rate curves.

In order to determine the appropriateness of the discount rate curve used by the entity, an auditor can use their own assumptions and methods to develop an independent discount rate curve. This may reflect inputs from observable market prices. The curve determined by the auditor could differ from the curve determined by the entity, as the auditor may use alternative assumptions, methods or sources of data. In order to assess the result, the auditor can determine a range of possible measurement outcomes inside which every result of the entity would be considered acceptable from an audit perspective. As an example, the auditor can assess their own discount rate curve and define an acceptable tolerance. If the result of the auditor's comparison to management's result shows that management's discount rate is within a defined tolerance, this could be considered positive evidence towards the acceptability of the discount rate (there may be other factors to consider as well). Tolerances that may be viewed as acceptable from an audit perspective may differ.



4. Data, information systems, processes and controls (including risk assessment, testing and impact on audit approach)

In section 2, we discussed the need to assess the risk of material misstatement in estimates, including a separate assessment of inherent risk and control risk. Then, in section 3, on the auditor's response to the risk of material misstatement, we identified some audit procedures, including tests of controls, which are likely to be important when testing the methods and models, assumptions, and data used in developing estimates. This paper is written from the perspective of a financial statement audit. The considerations below would be different if the auditor were issuing an opinion on controls (eg. if performing an integrated audit).

In this section we focus in more detail on data, information systems, processes and internal controls relating to estimates, which will be a critical part of the development, and the audit, of estimates under IFRS 17.

4.1 ISA requirements

As part of their overall risk assessment procedures, an auditor is required to obtain an understanding of the information systems and related business processes relevant to financial reporting. When looking at estimates, an auditor is also required to obtain an understanding of:

- The nature and extent of oversight and governance that the entity has in place over management's financial reporting process relevant to accounting estimates;
- How management identifies the need for, and applies, specialised skills or knowledge related to accounting estimates, including with respect to the use of an expert;
- How the entity's risk assessment process identifies and addresses risks relating to accounting estimates;
- The entity's information system as it relates to accounting estimates;
- Control activities relevant to the audit over management's process for making accounting estimates; and
- How management reviews the outcome of previous accounting estimates and responds to the results of that review.²³

4.2 The impact of IFRS 17

Implementation of IFRS 17 may require insurers to redesign their systems, processes, and internal controls to ensure they can meet the reporting requirements of the standard. The extent of the impact to an entity's systems, processes, and internal controls will vary depending on, amongst other things, the entity's existing infrastructure and complexity, the existing level of automation, the accounting policy decisions made, and whether management uses IFRS 17 as an opportunity to optimise systems, process and controls or just aims to minimise change.

4.2.1 Information systems and data

Depending on the IFRS 17 measurement model applied (General Measurement Model (GMM), Variable Fee Approach (VFA) and/or Premium Allocation Approach (PAA)), it is likely that insurers will need to implement substantial system changes and review their technology landscape and architecture in order to ensure they comply with the requirements of the new accounting standard. In addition, the requirements in IFRS 17 for accounting for reinsurance contracts held can be complex and new systems and processes may be needed to apply these.

²³ ISA 540(R), paragraph 13



Many will need to either build or buy and configure an IFRS 17 calculation engine and reinsurance accounting model to enable the calculation and release of the CSM over time. Information systems will need to capture, process, store and enable analysis of significant amounts of data to estimate insurance contract liabilities (and assets) and related balances, and to prepare related disclosures. Regardless of the technology and collaboration-model selected, the decision will have a significant impact on people, processes, data and controls.

Management needs to understand how their implementation approach will impact existing information systems and how the complex data requirements of IFRS 17 can be fulfilled, including obtaining the data that will be required to support the opening balance sheet adjustments upon transition. They should have a clear understanding of their IT systems relevant to IFRS 17, including policy administration systems, claims administration systems, data processing and Extract, Test and Load (ETL) systems, data repositories (e.g. data lakes, data cubes, data warehouses, data marts), actuarial models, IFRS 17 calculation engines, sub-ledgers, general ledgers and consolidation systems.

Regardless of whether management decides to develop new information systems internally or to use third party vendors, the entity will need a robust governance process over information systems development and implementation, including a defined process for system integration testing, user acceptance testing and end-to end testing before the new information systems go live. There should also be a clearly defined information system access management process and related controls, such as security access, to ensure unauthorised changes cannot be processed.

As the production of IFRS 17 compliant information will require new sets of high-quality data, insurers will also need to have a robust data management strategy. The entity should ensure that information systems have automated controls embedded within them to ensure the completeness and accuracy of data transfers, consistency of all data sets used and the reliability of the information systems' processing logic.

Furthermore, data will likely have to be checked and cleansed to ensure it has the necessary fields and descriptors in the policy administration or other up-stream systems before it can be processed in the IFRS 17 calculation engine. Examples of such data requirements are IFRS 17 defined contract start and end dates, split of services, etc.

4.2.2 Processes and internal controls

In our previous papers on the implementation of IFRS 17, we included the following topics for management to focus on in their implementation projects:

- Changes to their system of internal control;
- Controls over data;
- Controls over calculation models;
- Controls around significant judgements, assumptions changes and other inputs (highlighting future cash flows, the risk adjustment, CSM and the data and inputs to these calculations);
- Monitoring controls;
- Control considerations relating to temporary transition solutions; and
- Group considerations (e.g. whether multi-business unit operations will take a centralised or decentralised approach to processes, control and IT systems).

Key Insights for Audit Committees

In order to fulfil their governance responsibility, Audit Committees will have to understand the impact on the entity's system of controls over the processes and significant assumptions used to produce IFRS 17-compliant information.



In this paper, we provide more granular considerations for insurers and auditors related to estimates of insurance contract assets and liabilities.

In order to fulfil their governance responsibility, Audit Committees will have to understand the impact on the entity's system of internal controls over the processes and significant assumptions used to produce IFRS 17-compliant information. It will also be important to understand the audit procedures performed by the auditor to evaluate the effectiveness of internal controls and challenge judgements on methods, models, assumptions and data to estimate insurance contract assets and liabilities, and the presentation and disclosure of items in the financial statements.

An insurer's ability to produce reasonable estimates of insurance contract assets and liabilities and the insurance service result will be dependent upon a robust system of internal control over the critical sources of data, processes, models and judgements upon which the insurer's estimates are based. These controls must cover the information systems on which the estimates and the financial reporting will be heavily dependent.

Insurers will need to ensure appropriate business processes and controls are developed and implemented effectively, to enable the development of IFRS 17 estimates and other key elements of IFRS 17, including, but not limited to, the following:

- Estimates of the expected value of future cash flows are accurately captured, aggregated, recognised and measured.
- Controls operate over the probability distribution to ensure that it is calibrated to produce a statistical mean of probability-weighted cash flows;
- Discount rate curves are appropriately applied to reflect the time value of money and financial risks and reflect the characteristics of the contract;
- The risk adjustment is consistently calculated based on management's methodology and risk appetite established for the entity's consideration of non-financial risk;
- Onerous contracts are identified, and loss components calculated and captured correctly;
- The contractual service margin is appropriately calculated and released, and
- Data and inputs into these calculations are accurate and reliable.

Furthermore, insurers will need to have processes and controls in place to ensure that:

- The methods selected and data used are appropriate;
- The judgements made in selecting the methods, data and significant assumptions are clearly documented and have been applied consistently;
- The calculations are applied in accordance with the methods selected and are mathematically accurate;
- The calculation models are subject to appropriate governance to ensure that they operate as designed;
- The integrity of the assumptions and the data has been maintained in applying the methods;
- The assumptions are appropriate in the context of IFRS 17; and
- The data is relevant and reliable in all circumstances and has been appropriately understood by management.²⁴

Particularly during the transition phase, when new IT applications and databases are still being developed, insurers might use temporary workarounds (e.g. spreadsheet-based calculations) for processing of data, calculations or to assess the eligibility criteria of measurement models (PAA and VFA). Insurers will need to design and implement controls to ensure the reliability of these temporary solutions.

Management will need to engage experienced and specialist resources including accounting, actuarial, IT, risk & governance and project management specialists. In the context of an

²⁴ ISA 540(R), paragraph 22-25



effective system of internal controls, significant decisions and judgments taken by these specialised resources should be documented, justified, and subject to appropriate review.

The insurer's estimates must be supported with appropriate controls and documentation. Without a robust system of internal control, an estimate may be unsupported. Importantly, the insurer's system of internal controls should be in place during implementation to ensure that estimates are well-controlled and that calculations occur in a well-governed environment with oversight by all "three lines of defence". The "business as usual" (BAU) controls should be in place at the effective date of IFRS 17, which is for annual accounting periods beginning on or after January 1, 2023. However, given the financial statements will also show retrospectively restated comparative information entities may wish to have BAU controls operating before the effective date to ensure the robustness of comparative financial information. The calculation of the retrospectively restated numbers may be performed by different systems and processes which may require the application of different controls.

Due to the complex business and measurement models of IFRS 17 and the significance of changes to information systems and internal controls, the insurance entity and the auditor need to be prepared for a significant amount of work in the periods preceding IFRS 17 implementation, as the systems, data flows and the design of newly implemented controls need to be understood and assessed before

Key Insights for Audit Committees

The insurance entity and the auditor need to be prepared for a significant amount of work in the periods preceding IFRS 17 implementation, as the systems, data flows and the design of newly implemented controls need to be understood and assessed before the effectiveness of controls can be tested and relied on. We encourage you to understand the status of this effort.

the effectiveness of controls can be tested and relied on. We recommend that management provides their auditors with access to the updated IT and controls landscape early in the implementation process in order that audit work can commence.

4.3 Implications for the auditor

The impact of the implementation of IFRS 17 on information systems, processes and internal controls to support estimates will affect the auditor's approach significantly. In the run up to the implementation of IFRS 17 and in the year of its first application, the auditor will need to gain an understanding of the entity's updated system of control relevant to financial reporting, including the entity's use of IT, in order to identify and respond to the risks of material misstatement of insurance contract assets and liabilities and the related presentation and disclosure. For IT applications relevant to the audit of estimates, the auditor will identify the risks arising from the use of IT and the general IT controls which address those risks.

The auditor will be required to obtain an understanding of the operation of the estimation process, the information systems used and the internal controls over that estimation process. This will include an assessment of the insurer's general information technology environment.

4.3.1 Information systems and data

Given the importance of information systems and data processing under IFRS 17, the auditor is required to obtain an understanding of the IT environment and data relevant to the insurer's information system, including:

- How information relating to significant classes of transactions (e.g. receipt of premium, payment of expenses and policyholder claims, receipt of investment returns, payment and receipt of reinsurance amounts), account balances and disclosures flows through the entity's information system, whether manually or using IT, and whether obtained from within or outside the general ledger, actuarial models, IFRS 17 calculation engine and/or subsidiary ledgers;
- The completeness and accuracy of the underlying data used in making the determination of the right IFRS 17 measurement model, identification of onerous



contracts and calculations such as risk adjustment, contractual service margin, as well as transition amounts and disclosures;

- The accounting records, specific amounts in the financial statements and other supporting records relating to the flows of information mentioned above; and
- The financial reporting process used to prepare the entity's financial statements from the accounting records, including as it relates to disclosures and to accounting estimates relating to significant classes of transactions (such as insurance revenue and insurance contract assets and liabilities), account balances and disclosures.

The auditor will also obtain an understanding of the IT processes and personnel involved in maintaining the IT environment, which assists the auditor in understanding the complexity of the IT environment. This understanding may include identifying significant changes to the IT environment, which may be revealed through significant changes in the flows of transactions or information through the entity's information system.

The procedures required to gain an understanding of the updated information system will be significant given the expected scope of changes in the run up to implementation and in the first year of application. Across this period auditors will also need to assess and test the governance and controls implemented by management over IT program changes and IT program acquisition and development in the implementation period to ensure that:

- Acquired or newly developed IT systems or major enhancements to existing IT systems are appropriately authorised;
- Acquired or newly developed IT systems or major enhancements to existing IT systems are appropriately tested in the production environment;
- Acquired or newly developed IT systems, and enhancements to existing systems function as intended;
- Data migration into acquired or newly developed IT systems is complete and accurate; and
- Appropriate logical access rights are established and implemented for acquired or newly developed IT systems.

In addition, the audit work on information systems and internal controls will generally need to include testing of the operating effectiveness of controls, including IT general controls, IT application controls, IT dependent manual controls and a typically limited number of manual controls, where relevant. These are covered in the following sub-section.

Key Insights for Audit Committees

The insurer's ability to support reasonable estimates will be dependent upon a robust system of internal control over the critical sources of data, processes and models, and judgements on which the insurer's estimates are based. Does the auditor have any observations or concerns about the entity's internal control over sources of key data, new or updated systems and models, or key assumptions and estimates?

4.3.2 Processes and internal controls

As previously mentioned, the insurer's ability to support reasonable estimates will be dependent upon a robust system of internal control over the critical sources of data, processes and models, and judgements upon which the insurer's estimates are based. Estimates will be dependent upon the unique information, experience and perspective of each insurer. Accordingly, key components of these estimates will be subjective in nature and susceptible to management bias. The auditor will seek to understand, assess and, in most cases, test the insurer's internal controls over estimates, including controls addressing:

- The appropriateness, completeness, accuracy, relevance and reliability of historical data, including information sourced from outside of the finance function or obtained from third party sources;



- The appropriateness of the development, selection, maintenance and validation of the integrity of methods and models, including the appropriateness of any approximations or simplifications or post model adjustments;
- The review and approval of accounting estimates including assumptions and data used in their development, by the appropriate level of management with oversight from those charged with governance to ensure identification and mitigation of potential management bias;
- The higher subjectivity that is present in manual processes where the risk of management override is inherently high; and
- The segregation of duties between those responsible for making the accounting estimates and those committing the entity to transactions.

Based on their assessment of the entity's internal controls including the entity's information systems in the assessment and planning phase, the auditor will identify the IT applications relevant to the audit. The auditor will generally test IT general controls ("ITGCs") as well as test the design, implementation and operational effectiveness of the relevant IT application controls and IT dependent manual controls.

ITGCs are implemented to address risks arising from the use of IT. ITGCs include the entity's processes for management of logical access, program changes and IT operations for each IT application within the financial reporting process. If ITGCs related to IT applications and databases are not designed, implemented and operating effectively, the auditor may not be able to rely on the automated controls within those applications and databases.

When designing the audit procedures, the auditor will consider whether the insurer's IT applications include or address:

- How IT facilitates communication between applications, databases or other aspects of the IT environment, internally and externally, as appropriate through system interfaces;
- Maintenance of the integrity of information stored and processed in the information system that relates to significant classes of transactions, account balances or disclosures (e.g. for insurance revenue and insurance contract liabilities);
- Who can access the underlying system and make changes to how transactions are processed and recorded;
- Controls that address risks for which substantive procedures alone do not provide sufficient appropriate audit evidence;²⁵
- The extent of automated procedures for processing, and the complexity of those procedures;
- Automated controls that management is relying on and that the auditor has determined to be relevant to the audit;
- The type of application (e.g. commercial application with little or no customisation, or a highly customised or highly integrated application that may have been purchased and customised, or developed in-house); and
- System-generated reports on which the auditor intends to rely on without directly testing the inputs and outputs of such reports.²⁶

The extent to which the auditor will be able to rely on IT system processing, calculations and automated controls will largely depend on the maturity level of the insurer's system of controls and IT landscape. In case of ineffective controls or other information system shortcomings, the auditor may test compensating controls over the deficiencies identified. Information system shortcomings or significant control deficiencies within the system of internal controls may result in the modification of the audit approach, from a controls-based approach to a substantive audit approach.

²⁵ ISA 315(R), paragraph A168

²⁶ ISA 315(R), appendix 5, paragraph 4



We highlighted examples of circumstances when risks for which substantive procedures alone cannot provide sufficient appropriate audit evidence in section 2.3.4 “Implications for the Auditor – Assessing Control Risk”.

Example 8: Examples of internal controls and how the operating effectiveness of the controls will impact the audit approach

It is likely that the production of estimates of expected cash flows for liability measurement under IFRS 17 will require a complex actuarial modelling process. The auditor will assess the design and implementation of internal controls and, where there is an intention to place reliance on those controls, will test their operating effectiveness. This could also be required if the auditor determines that, sufficient appropriate audit evidence at the assertion level cannot be obtained solely with substantive tests (ISA 330, paragraph 19b).

The auditor performs procedures to obtain an understanding of how management oversees and reviews the assumptions and the data used in the actuarial models. The auditor reads the detailed documentation which presents an overview of the models and provides justification for the assumptions used to calculate the expected cash flows.

The auditor determines whether the following controls have been designed and implemented, and were operating effectively during the period audited:

- Approval of models by the relevant committees (e.g. Audit & Risk committee, executive committee);
- Approval by appropriate individuals of changes to models, key assumptions and financial impacts;
- Monitoring and approval of model changes by relevant committees;
- Reasonableness checks are performed to ensure information or data used is reliable and accurate;
- Adequate segregation of duties between those responsible for risk assessment activities and those responsible for developing the models; and
- Appropriate validation of calculations (inputs and outputs).

If the auditor concludes that the controls were operating effectively the auditor may reduce the level of substantive testing of details.

Irrespective of whether the controls are automated or manual, the auditor needs to test data quality, data flows and key interfaces, for policy and claims data, asset data and actual cash flow data by re-performing and testing the entity’s reconciliations with source systems, parameter completeness, consistency checks and validations.

In banks’ implementation of IFRS 9, the amount of effort needed to design, implement, document and test the major control changes necessary for IFRS 9 was, in some cases, underestimated, creating challenges for management and auditors, especially in the year of initial application. We encourage strong emphasis by management on internal controls to avoid a similar situation for IFRS 17. We recommend that management provides their auditors with access to the updated IT and controls landscape early in the implementation process in order that audit work can commence.



Example 9: Manual controls in the absence of automated controls

According to ISA 540(R) “Generally it may be more difficult for management to design controls that address subjectivity and estimation uncertainty in a manner that effectively prevents, or detects and corrects, material misstatements, than it is to design controls that address complexity. Controls that address subjectivity and estimation uncertainty may need to include more manual elements, which may be less reliable than automated controls as they can be more easily bypassed, ignored or overridden by management. (ISA 540(R), paragraph A51).

Through discussions with management, the auditor may note at the time of transition that all automated controls may not yet have been implemented in the systems, and to compensate for the increased risk associated with this situation, the entity may have put in place manual controls (e.g. reconciliation between the actuarial systems and accounting systems). These manual controls must be sufficiently robust to ensure that the data used in the actuarial systems is completely and accurately included in the financial systems.

In such cases, the auditor should understand and evaluate the control that management has designed and implemented and may also test the effectiveness of the control so as to obtain sufficient appropriate audit evidence that the control is operating effectively.



5. Financial statement disclosures related to accounting estimates

5.1 ISA requirements

ISA 540(R), paragraph 31 requires the auditor to design and perform further audit procedures to obtain sufficient appropriate audit evidence regarding the assessed risks of material misstatement at the assertion level for disclosures related to an accounting estimate.²⁷

5.2 The impact of IFRS 17

One of the main objectives of IFRS 17 is to establish principles for the disclosures of insurance contracts which give a basis for the users of financial statements to assess the effect that insurance contracts have on an entity's financial position, financial performance and cash flows²⁸. To achieve that objective, an entity should disclose qualitative and quantitative information about:²⁹

- The amounts recognised in its financial statements from insurance contracts;
- The significant judgements, and changes in those judgements, made when applying the standard; and
- The nature and extent of the risks from contracts within the scope of IFRS 17.

As discussed throughout this paper, IFRS 17 will require significant judgement and key decisions by management on estimates, explicit accounting policy choices and interpretation of the standard. The financial reporting disclosures will be the primary source of information for the users of financial statements to understand the new presentation and an opportunity for the entities to contextualise and explain the key components of IFRS 17.

5.3 Other disclosure requirements

IAS 8 "Accounting policies, changes in accounting estimates and errors" requires, rather than encourages, disclosures of an impending change in accounting policy when an entity has yet to implement a new IFRS that has been issued but not yet come into effect. In addition, it requires disclosure of known or reasonably estimable information relevant to assessing the possible impact that application of the new IFRS will have on the entity's financial statements in the period of initial application³⁰.

5.4 Implications for the insurance entity

The insurance entity should ensure that its financial statement disclosures for IFRS 17 are complete, reliable and clearly presented by establishing a well-defined and well-controlled process for evaluating whether the entity's financial statements contain all disclosures required by IFRS 17. These include:

- Significant accounting policies covering the new accounting treatments (e.g. separating components of a contract, level of aggregation, recognition, onerous group of contracts, contract boundary and measurement) and the selected transition approach(es) as well as the impacts on the current period of the transition approaches adopted to establish CSMs;
- Explanation of recognised amounts with particular emphasis placed by IFRS 17 on the reconciliation of the opening and closing balances of several components of the insurance contracts assets/liabilities and claims development tables;

²⁷ ISA 540(R), paragraph 31

²⁸ IFRS 17, paragraph 1

²⁹ IFRS 17, paragraph 93

³⁰ IAS 8, paragraph 30



- The significant judgements, and changes in those judgements, made when applying the standard, related to the methods used to measure insurance contracts, discount rates, risk adjustment for non-financial risk and release of the CSM; and
- The nature and extent of the risks from contracts within the scope of IFRS 17.

To provide the users of financial statements with information that is most relevant for the entity's circumstances, insurers need to aggregate or disaggregate information in disclosures, so that useful information is not obscured, either by the inclusion of large amounts of insignificant detail or by the aggregation of items that have different characteristics. Entities need to apply judgement as to how or whether they break down the required disclosures, for example by:

- types of contract (for example, major product lines);
- geographical areas (for example, country or region); or
- reportable segments, as defined in IFRS 8 "Operating Segments" if different.

Once it has been concluded what level of aggregation is needed for each disclosure, it is important for insurers to verify at an early stage of the implementation project, whether the required level of information for disclosures is available in their systems, or if existing information systems and processes need to be adapted, to appropriately disclose, for example:

- The various sensitivity analyses;
- The equivalent confidence level that the risk adjustment for non-financial risks represents;
- The yield curve (or range of yield curves) used to discount cash flows; and
- The effect of groups of insurance contracts measured at the transition date applying the modified retrospective approach or the fair value approach on the contractual service margin and insurance revenue in subsequent periods.

When designing their system architecture, management also need to consider how data needs will be captured and processed from group entities and whether the chart of accounts needs to be adapted, for example, to obtain relevant information for reconciliation disclosures.

5.5 Implications for the auditor

The auditor should assess whether the financial statement disclosures of the insurance entity are complete and accurate and whether the accounting estimates on insurance contract assets and liabilities are reasonable and disclosed at the right level of detail to allow the users of the financial statements to assess their effect on the entity's financial position, financial performance and cash flows. Therefore, the auditor should:

- Have sufficient knowledge of the disclosure requirements of IFRS 17;
- Ensure the disclosures are complete and accurate (including quality of underlying data);
- Assess whether disclosures are free from management bias; and
- Conclude as to whether the disclosures provide useful information that meet the disclosure objectives set out in IFRS 17.

Based on the audit procedures performed and the audit evidence obtained, the auditor is required to evaluate whether the accounting estimates on insurance contract assets and liabilities and related disclosures are reasonable or misstated in the context of the applicable financial reporting framework. Reasonable in the context of the applicable financial reporting framework means that the relevant requirements have been applied appropriately, including those that address:

- The making of the accounting estimate, including the selection of the method, assumptions and data in view of the nature of the accounting estimate and the facts and circumstances of the entity;
- The selection of the management point estimate; and



- The disclosure about the accounting estimate, including disclosures about how the accounting estimate was developed and that explain the nature, extent and sources of estimation uncertainty.

For example, attention should be paid to the insurance entity's disclosures in respect of the determination of the coverage units, risk adjustment and discount rates.

5.5.1 Evaluating disclosures including as regards estimation uncertainty

IAS 1, paragraph 125 requires an entity to disclose information about the assumptions it makes about the future, and other major sources of estimation uncertainty at the end of the reporting period, that have a significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities within the next financial year. For an insurance entity applying IFRS 17, the assumptions used in estimating the insurance contract assets and liabilities and other sources of estimation uncertainty are expected to require disclosure.

The auditor's assessment of the insurance entity's disclosures includes ensuring the entity has made all required disclosures, used the right level of detail and that those disclosures are accurate and descriptive as to the key judgements made by the entity in estimating its insurance contract liabilities and other sources of estimation uncertainty.

An auditor, based on their understanding of the insurance entity's operations, its measurement model(s) and the quality of its insurance contract portfolio, reads the disclosures to evaluate whether the disclosures are consistent with the auditor's understanding. Furthermore, based on the knowledge obtained in the audit, they assess, whether key judgements and other sources of estimation uncertainty have been disclosed consistently and completely, and whether significant assumptions are consistent with each other and with those used in other accounting estimates and with related assumptions used in other areas of the entity's business activities.

5.5.2 Testing for accuracy and consistency in disclosures

As discussed earlier, the volume, detail and complexity of data needed to comply with the disclosure requirements, have increased significantly. Therefore, the auditor should understand and evaluate the insurance entity's process over completeness and accuracy of disclosures, including the use of IT. This includes evaluation of:

- the reliability and reasonableness of sources of information used to prepare disclosures;
- the adequacy of the disclosures in terms of providing users of financial statements with clear, balanced and understandable information about the risks taken by the insurance entity;
- ITGCs over the insurance entity's accounting system and any other sub-system utilised to gather financial statement disclosures (see section 4 of this paper for further discussion);
- the communication and coordination process within the insurance entity, including between those involved in the estimation process and those involved in drafting the financial statement disclosures;
- the controls and review processes within the insurer's financial reporting team to test accuracy and consistency of information gathered from various sources across the insurer; and
- the communication and review process between the financial reporting team, the CFO and those charged with governance.



6. Other considerations for the auditor

6.1 Assessing the need for specialised skills

6.1.1 ISA requirements

With respect to accounting estimates, the auditor shall determine whether the engagement team requires specialised skills or knowledge to perform the risk assessment procedures, to identify and assess the risks of material misstatement, to design and perform audit procedures to respond to those risks, or to evaluate the audit evidence obtained.³¹

6.1.2 Impact of IFRS 17

Due to the increased complexity of calculations under IFRS 17, management may engage experts (for example, actuarial experts within the organisation or independent actuaries) in making the estimates. In accordance with paragraph 8(c) of ISA 500, if the auditor relies on information produced by management's experts as audit evidence, then the auditor will need to evaluate the competence, capabilities and objectivity of that expert, obtain an understanding of the work of that expert and evaluate the appropriateness of that expert's work as audit evidence.

6.1.3 Implications for the insurance entity

During the implementation phase, management should have a clear understanding of their needs for specialised skills or knowledge to properly implement IFRS 17 requirements. There will be an increased need for knowledgeable accountants, actuaries, IT experts and project managers. In the first paper, we emphasised the need for greater cross-functional collaboration between accountants and the actuarial resources during and after implementation to respond to the higher degree of estimation and judgement.

Key Insights for Audit Committees

The increased complexity of IFRS 17 will require specialised knowledge and may bring the need for increased resources. How has the audit firm ensured that the audit team has the skills, knowledge and resources to respond to the risks of material misstatement arising from the implementation of IFRS 17? To what extent will the structure and profile of the audit team change as a result of IFRS 17?

6.1.4 Implications for the auditor

In evaluating the planned audit approach and the auditor's findings, the audit team evaluates the skills, knowledge and resources required to audit the financial statements applying IFRS 17 in order to ensure that it is appropriately equipped to address the risks presented by the estimate of the insurance contract liabilities. Given the complexity of calculations under IFRS 17, it is likely that audit teams will require the involvement of individuals with specialised skills or knowledge in the audit. The auditor considers:

- Skills – Auditors may need to supplement their teams with skills in a variety of areas including, for example, actuarial modelling, actuarial techniques for estimating future cash flows, IT, asset valuation skills, tax and economic forecasting.
- Knowledge – In addition to knowledge of IFRS 17 and the financial reporting framework, knowledge of the insurance industry and its unique risks are required for an audit of the financial statements applying IFRS 17.
- Resources – Auditors should ensure that they have access to appropriate audit tools (technical, technological, etc.) and have sufficient staffing at appropriate levels to execute a high-quality audit in a timely fashion.

³¹ ISA 540(R), paragraph 15



Therefore, additional engagement team members with the right expertise may need to be added to the audit team to ensure the team has the right complement of skills to audit the financial statements applying IFRS 17.

Auditing financial statements applying IFRS 17 will require designing and performing audit procedures on the significant volume of data underpinning the valuation models which generate the estimates of insurance contract assets and liabilities. For those audit procedures, as well as for the planned reliance on newly built IT systems, automated procedures and automated controls, the auditor should consider their needs for IT skills/knowledge and data analysts.

6.2 Management bias (ISA 540(R), paragraph 32)

6.2.1 ISA requirements

ISA 540(R), paragraph 32 states: “The auditor shall evaluate whether judgments and decisions made by management in making the accounting estimates included in the financial statements, even if they are individually reasonable, are indicators of possible management bias. When indicators of possible management bias are identified, the auditor shall evaluate the implications for the audit. Where there is intention to mislead, management bias is fraudulent in nature.”

When the auditor identifies indicators of possible management bias, the auditor may need a further discussion with management and may need to reconsider whether sufficient appropriate audit evidence has been obtained to ensure that the method, assumptions and data used were appropriate and supportable in the circumstances. An example of an indicator of management bias in a particular accounting estimate may be seen when management has developed appropriate ranges for several different assumptions, but in each case the assumption used was from the end of the range that resulted in the most favourable measurement outcome.

Indicators of possible management bias do not on their own constitute a misstatement. The existence of management bias is an inherent risk factor in the estimation of insurance contract assets and liabilities and may be difficult to detect.

6.2.2 The impact of IFRS 17

With the change to IFRS 17, management and others may change the performance measures and reconsider the indicators they regard as important. Performance measures, whether external or internal, create pressures on the entity. These pressures, in turn, may motivate management to take action to improve the business performance or to misstate the financial statements resulting in a potential risk of management bias in the preparation of the financial statements.

Some examples of possible indicators of management bias related to IFRS 17 are:

- changes to the methodology and/or assumptions used in estimating insurance contract liabilities;
- indications that certain assumptions have been used to derive an estimate that has a favourable outcome for management, e.g. improving the insurer’s profit or changing the classification of contracts from onerous to profitable. Therefore, lack of consistency in setting assumptions year on year or across the assumption set could be a sign of management bias. Also, other considerations include a lack of consistency of assumptions across other insurance assets or liabilities within an insurer’s balance sheet;
- inconsistencies year on year, or across the business, in the treatment of one-off manual adjustments or non-modelled business;
- if there was a consistent bias in insurance contract assets and liabilities, possible indicators of this would be persistent lack of management action taken where assumptions are not in line with the entity’s experience (e.g. prudent estimates of assumptions being allowed to persist), claims development tables could also help to



identify such bias if liabilities are consistently under or over stated in comparison to actual experience;

- where adjustments to calculate insurance contract liabilities are being booked outside the normal results production process; and
- if management does not consider, or selectively considers, new internal or external data that becomes available when setting their assumptions.

IFRS 17 is a principles-based standard and therefore there is room for interpretation in its application. The auditor should be cognisant of the risk of management bias (both intentional and unintentional) in these interpretations.

6.2.3 Implications for the auditor

Indicators of possible management bias may affect the auditor's conclusion as to whether the auditor's risk assessment and related responses remain appropriate. The auditor may also need to consider the implications for other aspects of the audit, including the need to further question the appropriateness of management's judgments in making accounting estimates. Indicators of possible management bias may affect the auditor's conclusion as to whether the financial statements as a whole are free from material misstatement.

When indicators of possible management bias are identified, the auditor evaluates the implications of these. Auditors discuss with management to understand the steps taken by management to identify and address the susceptibility to misstatement due to management bias or fraud in making accounting estimates. These steps may include how management:

- pays particular attention to selecting or applying the methods, assumptions and data used in making accounting estimates;
- monitors key performance indicators (KPIs) that may indicate unexpected or inconsistent performance compared with historical or budgeted performance or compared with other known factors;
- identifies financial or other incentives that may be a motivation for bias;
- monitors the need for changes in methods, significant assumptions or the data used in making accounting estimates;
- establishes oversight and review of models used in making accounting estimates;
- establishes stringent controls around intervention in information systems or override of internal controls governing information systems; and
- requires documentation of the rationale for, or an independent review of, significant judgements made in making accounting estimates.



Example 10: Management bias

Under IFRS 17, the amount of the CSM represents the unearned profit the entity will recognise as it provides insurance contract services in the future and will be released to future periods of profit or loss based on coverage units that reflect the services provided in those periods. Determining the amount of CSM and the release pattern involves a high degree of judgement and can have a direct impact on KPIs that impact management compensation such as profit or enterprise value.

The auditor should obtain sufficient appropriate audit evidence to assess the reasonableness of those judgements that present a risk of material misstatement. It is therefore critical that the auditor considers information that both supports and contradicts the insurer's selected judgements that impact the CSM and the future release patterns, the rationale for the particular judgements and the impact on management incentives. Such information for consideration may include indications of intervention by those impacted by the judgement, management override of the controls or failure of the entity to consider information contradictory to the selected judgements. Besides the impact on management compensation, the auditor should also consider whether management is under undue pressure to deliver favourable results in any given reporting period.

In addition to the CSM, the risk adjustment is also highly judgemental and should be accorded the same scrutiny by the auditor. This is particularly important for entities in which the risk adjustment may exceed the CSM in size and significance (e.g. for some non-life insurance products).

6.2.4 Internal controls to identify and mitigate management bias

The insurance entity is expected to implement controls to identify and mitigate the risk of management bias when judgements are made in selecting an appropriate method, significant assumptions, data or a point estimate. The auditor should understand and consider testing those controls.

The auditor should also evaluate whether their work on the understanding of the entity's system of control relevant to financial reporting including IT systems, gives rise to indicators of possible management bias. Such indicators may include indication of intervention in the information systems or management override of the internal controls governing the information systems.

6.2.5 Financial statement disclosures

When evaluating the quality of an insurer's disclosures, auditors should consider whether the disclosures are reasonably presented to reflect the requirements of IFRS 17 and other applicable IFRSs and are free from management bias.

With the high level of complexity involved with IFRS 17 it will also be important for the auditor to stand back and assess whether the disclosures:

- are consistent with their understanding of the insurance portfolio and entity's business, as well as the market context and prevailing risks;
- are descriptive of the sources of insurance and financial risk specific to the entity;
- help the users of financial statements to understand the insurer's estimation process and the judgements made;
- contextualise the estimate in terms of its uncertainty;
- provide additional information to users on the key drivers of profit in the current and future years; and
- are not inconsistent with other information that the entity has disclosed or that the auditor is aware of.



6.3 Professional scepticism

6.3.1 Applying professional scepticism to IFRS 17 estimates

Professional scepticism plays a critical role in the auditor's work relating to estimates under IFRS 17, especially given the risk of management bias, the subjective and complex nature of judgements the insurer is required to make, and the complex modelling techniques used when determining the accounting estimates. For example, the application of professional scepticism is specifically important when:

- evaluating the reasonableness of the significant assumptions used by management in determining insurance contract liabilities;
- assessing whether changes in accounting estimates or in the method for making them from the prior period are appropriate in the circumstances; and
- challenging the judgments and decisions made by management in the estimation of the insurance contract liabilities to assess whether there are indicators of possible management bias.

Professional scepticism is relevant and necessary throughout the audit. For an audit of financial statements applying IFRS 17, professional scepticism should be exercised, for example, when:

- Identifying and assessing risks of material misstatement:
 - Performing risk assessment procedures, including the engagement team discussion on the susceptibility of the entity's financial statements to material misstatement, specifically in respect of judgments used in the estimation of the insurance contract liabilities;
 - Revising the auditor's assessment of the risks of material misstatement and modifying the further planned audit procedures accordingly, for example, as a result of new information that is inconsistent with the audit evidence on which the auditor originally based the assessment, or through being alert to changes in circumstances, new information, or a change in the auditor's understanding of the entity and its operations as a result of performing further audit procedures. Another example could be information on inconsistencies between assumptions used, contrary information from benchmarking procedures or from developing an independent point estimate or range.
- Designing the nature, timing and extent of further audit procedures that are responsive to assessed risks of material misstatement, and evaluating audit evidence:
 - Considering, for areas such as estimation of insurance contract liabilities, the need to increase the quantity of evidence or obtain evidence that is more relevant or reliable, for example, by placing more emphasis on benchmarking with external evidence or developing an independent point estimate or range.
 - Designing and performing substantive analytical procedures, including when evaluating the reliability of data from which the auditor's expectation is developed (such as interest accretion, CSM release over the period, incurred claim ratios, the impact of mortality rates and the impact of discount rate changes), and when identifying and investigating fluctuations or relationships that are inconsistent with other relevant information or that differ from expected values by a significant amount. The auditor's expectations serve an important role when evaluating the results of analytical procedures and challenging management's explanations for deviations from expected results.



Application of appropriate professional scepticism is demonstrated by:

- the quality of the auditor's assessment of 'what could go wrong' with IFRS 17 estimates;
- the critical evaluation of all reasonably available audit evidence, regardless of whether it corroborates or contradicts the insurer's assertions - the auditor should not just accept the evidence provided by the insurer, but also independently consider alternative sources of audit evidence including information from external sources;
- the auditor's professional judgements, which may be supplemented by those of experts, including the consideration of both subjective (e.g. how mortality may develop over time) and objective factors (e.g. observable market yields or prices);
- how the auditor has considered management bias in their audit procedures, including their challenge of the insurer's assumptions;
- challenging management and the auditor's considerations of the appropriateness and accuracy of the insurer's responses to enquiries and challenges; and
- the auditor's appropriate consideration and use of individuals with specialised skills and knowledge - this could include the audit team's accounting and actuarial experts who are knowledgeable in the application of IFRS 17.

The auditor's actions throughout the audit that relate to the above items, as well as other activities during the audit, form the basis for the Audit Committee's conclusion on the quality of the audit performed. This is supported by the Audit Committee's general interactions with the auditor and periodic review of audit effectiveness.

Example 11: Contradictory information

An entity applying IFRS 17 may need to make assumptions about the expected mortality rate that applies to its policyholders in order to develop an estimate of the expected present value of future cash flows. In doing so entities commonly make use of either internally developed or externally published mortality tables. The tables are developed based on the actual observed mortality in the relevant population and an estimate of future trends. The mortality table is developed based on a specific population and judgement is required as to whether this table is an appropriate input to develop expectations about the mortality of the actual policyholders of the entity.

An insurer may use a mortality table that is different to another table in use in the industry which contains different or contradictory information about achieved and expected mortality. The auditor independently assesses the appropriateness of the table used by the insurer in light of this contradictory information. In undertaking this assessment, the auditor should examine the difference between the external evidence and the mortality table being used by the insurance entity. The auditor should also explore any differences or similarities between the populations used to develop the relevant mortality table. The auditor also obtains and evaluates for reasonableness management's explanation for any inconsistency between their table and the external audit evidence.



Abbreviations and terms used

CSM	Contractual Service Margin
GAAP	Generally Accepted Accounting Principles/Practice
GMM, PAA, VFA	General Measurement Model, Premium Allocation Approach, Variable Fee Approach
GPPC	Global Public Policy Committee of representatives of BDO, Deloitte, EY, Grant Thornton, KPMG and PwC
IAS	International Accounting Standard
IAS 1	IAS 1 Presentation of Financial Statements
IASB	International Accounting Standards Board
IFRS	International Financial Reporting Standard
IFRS 4	IFRS 4 Insurance Contracts
IFRS 8	IFRS 8 Operating Segments
IFRS 9	IFRS 9 Financial Instruments
IFRS 17	IFRS 17 Insurance Contracts
ISA	International Standards on Auditing
ISA 315(R)	ISA 315(R) Identifying and Assessing the Risks of Material Misstatements
ISA 330	ISA 330 The Auditor's Responses to Assessed Risks
ISA 500	ISA 500- Audit Evidence
ISA 540(R)	ISA 540(R) Auditing Accounting Estimates and Related Disclosures
IT	Information Technology
ITGCs	Information Technology General Controls
TRG	Transition Resource Group on IFRS 17