

Accounting Estimates – Preliminary Draft of an Exposure Draft of a Proposed Revised ISA 540

The text of this Exposure Draft is not yet fully developed and is included within the agenda papers to provide:

- (a) A context for considering the issues raised in the Issues Paper; and**
- (b) An overview of the totality of the ideas of the Task Force.**

The detail of the drafting should not be closely scrutinized by IAASB members

PROPOSED REVISED INTERNATIONAL STANDARD ON AUDITING 540
ACCOUNTING ESTIMATES
CONTENTS

	Paragraph
Introduction	1-7
Definitions	8-13
Measurement Uncertainty	14-16
Management's Responsibility	17-20
The Meaning of Reasonable	21-26
Risk Assessment Procedures	27-29
Assessing the Risk of Material Misstatement	30-36
Accounting Estimates that are not Subject to Significant Measurement Uncertainty	32-35
Accounting Estimates that are Subject to Significant Measurement Uncertainty	36
Responses to Significant Measurement Uncertainty	37-64
Evaluating the Entity's Estimation Process	38-39
Internal Control	40-41
Substantive Procedures	42-64
Retrospective Review of the Outturn of Previous Estimates	45-46
Evaluating the Reasonableness of Assumptions	47-53
Sensitivity to Changes in Assumptions	54-57
Developing an Independent Accounting Estimate	58-61
Subsequent Events	62-64
Reducing the Number of Possible Outcomes	65-69
Using the Work of an Expert	70-71
Evaluating Compliance with the Financial Reporting Framework	72-74
Evaluating the Results of Audit Procedures	75-83
Narrow Range of Possible Outcomes	79-81
Wide Range of Possible Outcomes	82-83
Evaluating Disclosures in the Financial Statements	84-85
Management Representations	86-87
Reporting on the Financial Statements	88-91
Management Bias	92-94
Documentation	95-96
Effective Date	97
Appendix 1: Categories of Accounting Estimate	
Appendix 2: Example of an Auditor' Evaluation of an Accounting Estimate of Warranty Expense	
Appendix 3: Extract of Summary of Unadjusted Misstatements	
Appendix 4: Summary of Other Audit Findings	

International Standards on Auditing (ISAs) are to be applied in the audit of financial statements. ISAs are also to be applied, adapted as necessary, to the audit of other information and to related services.

ISAs contain the basic principles and essential procedures (identified in bold type black lettering) together with related guidance in the form of explanatory and other material. The basic principles and essential procedures are to be interpreted in the context of the explanatory and other material that provide guidance for their application.

To understand and apply the basic principles and essential procedures together with the related guidance, it is necessary to consider the whole text of the ISA including explanatory and other material contained in the ISA, not just that text which is black lettered.

In exceptional circumstances, an auditor may judge it necessary to depart from an ISA in order to more effectively achieve the objective of an audit. When such a situation arises, the auditor should be prepared to justify the departure.

ISAs need only be applied to material matters.

The Public Sector Perspective (PSP) issued by the Public Sector Committee of the International Federation of Accountants is set out at the end of an ISA. Where no PSP is added, the ISA is applicable in all material respects to the public sector.

Introduction

- 1 The purpose of this International Standard on Auditing (ISA) is to establish standards and provide guidance for evaluating the reasonableness of accounting estimates that are recognized or disclosed in financial statements. Accounting estimates that are based on management's assumptions about future conditions, transactions, or events whose outcome is uncertain, are inherently imprecise. Accounting estimates may need to be revised in subsequent periods as a result of new information, more experience or subsequent developments.
- 2 Accounting estimates and revisions of accounting estimates can have a pervasive effect on reported earnings and the carrying amounts of assets and liabilities. Management's judgment in making accounting estimates is likely to lack objectivity if their motivation is to manipulate reported earnings. Fraudulent financial reporting has often been accomplished through management's intentional misstatement of accounting estimates.
- 3 **The auditor should obtain sufficient appropriate audit evidence that accounting estimates are recognized, measured and disclosed in the financial statements in accordance with the entity's identified financial reporting framework and are reasonable in the circumstances.**
- 4 Recognition is the process of incorporating in the balance sheet or income statement an item that meets the recognition criteria of the identified financial reporting framework. Financial reporting frameworks do not regard the use of reasonable estimates as undermining the reliability of financial statements.
- 5 Some financial reporting frameworks require or permit disclosure by management of information that enables users of financial statements to understand the judgments management has made about the future. Examples of the types of disclosure made are:
 - The nature of the assumptions or other measurement uncertainty
 - The sensitivity of carrying amounts to the methods, assumptions and estimates underlying their calculation, including the reasons for the sensitivity
 - The expected resolution of an uncertainty and the range of reasonably possible outcomes within the next financial year in respect of the carrying amounts of the assets and liabilities affected
 - An explanation of changes made in past assumptions concerning those assets and liabilities, if the uncertainty remains unresolved.
- 6 When a reasonable estimate of a financial statement item cannot be made it is not recognized in the balance sheet or income statement. However, the financial reporting framework may require or permit the presentation and disclosure of information relating to the item in the notes and other statements and explanatory material which are identified as being part of the financial statements.
- 7 Some financial reporting frameworks require certain accounting estimates to be measured at fair value. ISA 545 "Auditing Fair Value Measurements and

Disclosures” provides standards and guidance on auditing those accounting estimates that involve fair value measurement. This ISA provides standards and guidance for those accounting estimates that do not involve fair value measurement.

Definitions

- 8 An “accounting estimate” is an approximation of the amount of a financial statement item in the absence of a precise means of measurement.
- 9 A “point estimate” is the amount that management, or the auditor, believes is the most likely outcome of uncertain future conditions, transactions or events.
- 10 An “interval estimate” is a range of monetary amounts that management, or the auditor, believes includes the most likely outcome (i.e. point estimate) of uncertain future conditions, transactions or events.
- 11 A “narrow range of possible outcomes” is an interval estimate that is less than the materiality¹ of the financial statement item.
- 12 A “wide range of possible outcomes” is an interval estimate that is greater than the materiality of the financial statement item.
- 13 “Bias” is a judgment relating to an accounting estimate that although reasonable is influenced by the subjectivity that arises when management has a pre-determined goal such as earnings management.

Measurement Uncertainty

- 14 The uncertainty associated with different accounting estimates varies, dependent on, for example:
 - The extent to which there are generally accepted estimation measures in respect of the item in question
 - The sensitivity of the estimates to changes in underlying assumptions that management has to make but which may be outside their direct control
 - The extent to which historical experience of making such estimates may be indicative of the outcome of similar estimates made in the current period.
- 15 Significant measurement uncertainty arises when the accuracy of an accounting estimate is highly dependent upon management’s judgment of the outcome of uncertain future conditions, transactions or events, especially where there is little track record upon which to base their judgment. Significant measurement uncertainty often leads to a complex measurement process.
- 16 As the auditor’s response to an assessed risk of material misstatement in an accounting estimate is a function of the degree of measurement uncertainty, accounting estimates are considered in the following categories:
 - (a) Accounting estimates that are not subject to significant measurement uncertainty.

¹ ISA 320 “Materiality in the identification and evaluation of misstatements” provides standards and guidance on the auditor’s reconsideration of materiality levels as the audit progresses.

- (b) Accounting estimates that are subject to significant measurement uncertainty
- (c) Accounting estimates where the degree of measurement uncertainty is so great that the recognition criteria of the financial reporting framework are not met.

Appendix 1 provides further description of each of these three categories and provides examples of each. Accounting estimates in (b) and (c) are significant risks that require special audit consideration.

Management's Responsibility

- 17 Management is responsible for making accounting estimates and disclosures included in the financial statements. Accounting estimates may be made of, for example:
 - Allowances to reduce inventory and accounts receivable to their estimated realizable value
 - The fair value of financial assets
 - The fair value of intangible assets
 - Accruals for warranty claims
 - Provision for a loss from a threatened lawsuit
 - Costs to complete a long term construction contract
 - Recoveries from insurance policies.
- 18 Accounting estimates may be determined as part of the routine accounting system operating on a continuing basis, or may be a non-routine exercise at period end. The process used by one entity may be very different from another's in relation to similar accounting estimates. The processes used by smaller entities may be effective without being complex or formalized. Where there is an effective control environment over these processes management has more confidence in internal control and the reliability of information, concerning accounting estimates, generated within the entity.
- 19 Management's objective when developing an accounting estimate that is to be recognized or disclosed in the financial statements is to determine the single monetary amount (a point estimate) that reflects their judgment of the most likely outcome of uncertain future conditions, transactions or events affecting the financial statement item being estimated.
- 20 Where an accounting estimate is subject to significant measurement uncertainty management's process to determine a point estimate may include an intermediate step of determining the range of possible monetary amounts (an interval estimate) that they believe includes the most likely outcome of uncertain future conditions, transactions or events.

The Meaning of Reasonable

- 21 An accounting estimate is not considered to be reasonable solely on the grounds that it falls within a range of reasonably possible outcomes. An equally important consideration for the auditor is the adequacy of the process used by management to determine the most likely outcome.

- 22 The process followed by management to determine a point estimate may not involve an explicit consideration of a range of possible outcomes. However, in deciding which assumptions to use about the outcome of uncertain future conditions, transactions or events, management is implicitly making choices that reduce the number of reasonably possible outcomes.
- 23 Management may follow a process that neither explicitly nor implicitly determines a point estimate from a range of possible outcomes. For example, management may use a long established computer program to calculate a point estimate from data input to the program. If the computer program becomes outdated there is a risk that it may not take into account all the uncertainties affecting the accounting estimate.
- 24 The auditor's evidence gathering activities recognize that significant measurement uncertainty is likely to give rise to a range of possible outcomes. The auditor evaluates the point estimate in the context of an understanding of the range of possible outcomes. Obtaining an understanding of the sensitivities of the interrelationships of the various assumptions is one way in which the auditor may gain an understanding of the range. Such audit evidence is generally persuasive rather than conclusive in nature. Appendix 2 is an example of the evidence gathering process undertaken by an auditor in respect of an accounting estimate of warranty expense.
- 25 In some situations of measurement uncertainty, neither management nor the auditor may be able to evaluate the likely outcome of uncertain future conditions, transactions or events beyond the determination of a range of reasonably possible outcomes. In such circumstances, if the amount of the point estimate recognized in the financial statements is within a narrow range then the auditor concludes that the accounting estimate is reasonable.
- 26 However, if there is a wide range of possible outcomes the auditor does not conclude that the point estimate is reasonable and seeks to obtain further audit evidence to reduce the number of possible outcomes.

Risk Assessment Procedures

- 27 **In obtaining an understanding of the entity and its environment, including its internal control, the auditor should obtain an understanding of the entity's objectives, strategies and the related business risks that may create a need for management to make accounting estimates, and the entity's processes for determining such accounting estimates.**
- 28 Business risk is broader than the risk of material misstatement of the financial statements, although it includes the latter. The auditor's understanding of the entity's risk assessment process includes how management identifies risks, assesses the significance of the risks and the likelihood of their occurrence, and decides upon actions to manage them. One of the auditor's principal purposes in gaining an understanding of the entity's processes for making accounting estimates is to determine all those accounting estimates that may give rise to material misstatement of the financial statements.

- 29 To obtain an understanding of the entity's processes for determining accounting estimates, the auditor considers, for example:
- The types of accounts or transactions to which the accounting estimates relate (for example, whether the accounts arise from the recording of routine and recurring transactions or whether they arise from non-routine or unusual transactions)
 - The expertise, experience and competence of those persons determining the accounting estimates
 - The extent to which the entity uses experts
 - The processes used by management to ensure that the source information used to support accounting estimates is complete, relevant and accurate
 - The significant assumptions made by management in making accounting estimates and whether the assumptions for different accounting estimates are consistent with one another
 - The sensitivity of accounting estimates to changes in assumptions
 - The processes used by management to determine the most likely outcome from a range of possible outcomes
 - The design of the internal controls over the estimation processes.

Assessing the Risk of Material Misstatement

- 30 **Based on the auditor's understanding of the entity's processes for determining accounting estimates, the auditor should:**
- (a) **Assess the risk of material misstatement of accounting estimates.**
 - (b) **Identify those accounting estimates where measurement uncertainty is a significant risk requiring special audit consideration.**
 - (c) **Determine overall responses to such assessed risks of material misstatement and design the nature, timing and extent of further audit procedures to reduce audit risk to an acceptably low level.**
- 31 ISA 401 "The auditor's procedures in response to assessed risks" establishes standards and provides guidance of a generic nature on determining overall responses and designing and performing further audit procedures.

Accounting Estimates that are not Subject to Significant Measurement Uncertainty

- 32 Some accounting estimates may give rise to a risk of material misstatement but may not be subject to significant measurement uncertainty. The risk of material misstatement arises from the magnitude of the accounting estimate rather than from a dependence upon management's judgment of the outcome of uncertain future conditions, transactions or events.
- 33 Examples of accounting estimates where there may be a risk of material misstatement in the absence of significant measurement uncertainty are:
- Estimates that are prescribed by the financial reporting framework (e.g. the mid-market value at the year end date of a marketable security)

- Estimates of amounts that are wholly under the control of management (e.g. liabilities in respect of an employee bonus scheme that is based on sales performance and the entity is contractually obligated to make the payment)
 - Estimates of amounts where the historical experience of the entity will be indicative of the most likely outcome (for example estimates of deposits that will be refunded to customers on the return of reusable containers such as bottles)
 - Estimates that can be made with certainty using an appropriate expert (e.g. the quantity of “board feet” of timber in a pile at a pulp mill which can be determined by a quantity surveyor based, for example, on aerial photographs of the timber pile taken at the year end date).
- 34 **To respond to assessed risks of material misstatement in respect of accounting estimates that are not subject to significant measurement uncertainty the auditor should adopt one or a combination of the following approaches:**
- (a) **Evaluate the process used to develop the estimate.**
 - (b) **Use an independent estimate for comparison with that prepared by management.**
 - (c) **Review subsequent events which confirm the estimate made.**
- 35 Detailed guidance with respect to each of these approaches is set out under the appropriate headings in following sections of this ISA.

Accounting Estimates that are Subject to Significant Measurement Uncertainty

- 36 Accounting estimates that give rise to a risk of material misstatement because of significant measurement uncertainty are significant risks that require special audit consideration. Significant risks are often significant business risks that may result in material misstatement of the financial statements. Management ought to be aware of such risks, and ordinarily will have responded by implementing controls over such risks.

Responses to Significant Measurement Uncertainty

- 37 **In respect of those accounting estimates having significant risks that require special audit consideration the auditor should:**
- (a) **Evaluate, to the extent not already done so, the internal controls within and over the entity’s processes for determining accounting estimates, including the design of the entity’s controls relating to such estimates and determining whether relevant control procedures have been implemented.**
 - (b) **Obtain all audit evidence about the operating effectiveness of internal controls that the auditor plans to rely on from tests of control performed in the current period.**
 - (c) **Perform substantive procedures that are specifically responsive to that risk.**

Evaluating the Entity’s Estimation Processes

- 38 The auditor considers, based on the understanding gained of the entity’s processes for determining accounting estimates:

- (a) Whether the entity's estimation process is likely to give rise to a reasonable estimate.
 - (b) The competence of employees making the accounting estimates and the ability and inclination of senior management to override accounting estimates made by more junior employees.
 - (c) Whether the risk assessment creates an expectation that controls are operating effectively.
 - (d) How substantive procedures might provide audit evidence concerning the accuracy and completeness of the information supporting the accounting estimate that is produced by the entity's information system.
- 39 As the development of accounting estimates is highly judgmental not only is there a greater risk of material misstatement associated with such risks but there is also less likelihood of such accounting estimates being subject to routine control systems. This is because of, for example:
- Management intervention in determining the estimate
 - Manual intervention for data collection and processing
 - The nature of non-routine transactions which may make it difficult for the entity to implement effective controls over the risk.

Internal Control

- 40 Where, however, the auditor's assessment of risks of material misstatement at the assertion level is based on an expectation that controls are operating effectively, the auditor performs tests of control to obtain sufficient appropriate audit evidence that the controls were operating effectively at relevant times during the current period.
- 41 An entity's internal control may reduce the likelihood of material misstatements of accounting estimates. Specific relevant aspects of internal control include the following:
- Accumulation of relevant, sufficient, and reliable data on which to base an accounting estimate
 - Preparation of the accounting estimate by qualified personnel
 - Adequate review and approval of the accounting estimates by appropriate levels of authority including, where appropriate, the Board or Audit Committee:
 - Review of sources of relevant factors
 - Review of the development of assumptions
 - Review of the reasonableness of assumptions and resulting estimates
 - Consideration of the need to use the work of experts.
 - Consideration of changes in previously established methods to arrive at accounting estimates.
 - Comparison by management of prior accounting estimates with subsequent outcomes to evaluate the reliability of the process used to develop estimates

- Management communication to other employees of the need for proper accounting estimates
- Consideration by the Board or Audit Committee of the interrelationship of the accounting estimate with the operational plans of the entity.

Substantive Procedures

- 42 The auditor performs substantive procedures to obtain sufficient appropriate audit evidence as to the completeness, accuracy and relevance of the information used by the entity to support accounting estimates. The extent of these substantive procedures takes account of the results of any tests of control undertaken by the auditor.
- 43 ISA 401 requires auditors to plan and perform substantive procedures for each material class of transactions, account balance and disclosure irrespective of the assessed risk of material misstatement. The auditor, therefore, evaluates whether the information on which the accounting estimates are based, including the data used in the work of an expert, are accurate, complete and relevant, and whether the accounting estimates have been properly calculated using such information.
- 44 The auditor's substantive audit procedures may include:
- Tracing the information back to its source, reperforming computations and reviewing information for internal consistency, including whether such information is consistent with management's intent to carry out specific courses of action
 - A retrospective review of the outturn of previous estimates (Paragraphs 45 to 46)
 - An evaluation of the reasonableness of assumptions used in making accounting estimates (Paragraphs 47 to 53)
 - Evaluating the sensitivity of the accounting estimate to changes in assumptions (Paragraphs 54 to 57)
 - Developing an independent accounting estimate (Paragraphs 58 to 61)
 - Considering subsequent events (Paragraphs 62 to 64).

RETROSPECTIVE REVIEW OF THE OUTTURN OF PREVIOUS ESTIMATES

- 45 A retrospective review of the outturn of accounting estimates reflected in the financial statements of the prior year may provide the auditors with an understanding of the reasons for outturns that are significantly different from the respective amount recognized in the financial statements of the previous period.
- 46 Reviewing the outturn of the prior year's accounting estimates may also provide useful information to the auditor about matters such as:
- The effectiveness of internal controls in the previous year over the making of the accounting estimate and therefore the extent to which reliance might be placed on such controls
 - Whether the nature of the measurement uncertainty is such that it may be helpful to engage an expert to assist the auditors

- Whether the variance between the estimate and the outturn arose because of changes in factors which management could have influenced or because of changes in assumptions that were outside the influence of management
- The effectiveness of management's process to determine the most likely outcome within the range of an interval estimate
- The possibility of bias on the part of management in making the current-year's estimates.

EVALUATING THE REASONABLENESS OF ASSUMPTIONS

- 47 **When management has had to make significant assumptions about the outcome of uncertain future events and conditions, the auditors should evaluate whether those assumptions taken individually, and as a whole, are:**
- (a) **Likely to provide a reasonable basis for the accounting estimates and disclosures in the entity's financial statements.**
 - (b) **Reflect their understanding of the entity's strategies, plans and risk analysis.**
- 48 Management's support for accounting estimates is derived from the regular information systems underpinning an entity's operations and its continuing processes of strategic analysis and risk management. If these processes are not formalized the auditor may be able to evaluate the assumptions through discussion with management.
- 49 In developing their plans and strategies, management may need to make assumptions about matters that they are able to control and matters that are outside their control. Examples of assumptions that are outside the control of management include:
- Future interest rates
 - Future exchange rates
 - Future mortality and morbidity rates
 - Future changes in prices affecting other costs.
- 50 The auditor's evaluation of whether the assumptions provide a reasonable basis for the accounting estimates relates to the whole set of assumptions as well as to each assumption individually. Assumptions are frequently interdependent, and therefore, need to be internally consistent. A particular assumption that may appear reasonable when taken in isolation may not be reasonable when used in conjunction with other assumptions.
- 51 The auditor's consideration of management's assumptions is based on information available to the auditor at the time of the audit and the auditor is not responsible for predicting future conditions, transactions or events which, had they been known at the time of the audit, may have had a significant effect on management's actions or management's assumptions underlying the accounting estimates and disclosures.
- 52 The environment in which business is conducted is dynamic and even the most well developed business plans and strategies can be rapidly overtaken by events.

Consequently, a process established by management to determine a point estimate may, through changing circumstances, no longer provide reliable information about the most likely outcome.

- 53 Consequently, there is a risk that the determination of such a point estimate may give a spurious impression of precision about the accounting estimate. In these circumstances the auditor considers the range of possible outcomes as a means of providing a basis for evaluating whether the accounting estimate recognized in the financial statements is the most likely outcome.

SENSITIVITY TO CHANGES IN ASSUMPTIONS

- 54 The auditor considers the need to obtain audit evidence about the sensitivity of accounting estimates to changes in the underlying assumptions and to the achievement of management's intent to carry out specific courses of action.
- 55 A sensitivity analysis involves evaluating the effect on the accounting estimate of varying one or more assumption while maintaining all other assumptions constant. For example, an accounting estimate may be based on an assumed exchange rate between two currencies. A sensitivity analysis involves evaluating the effect on the accounting estimate of changes in the exchange rate from the assumed rate.
- 56 If management has undertaken a sensitivity analysis this is likely to provide the auditors with appropriate audit evidence concerning the reasonableness of the accounting estimate. If management has not performed a sensitivity analysis the auditor considers whether to perform their own sensitivity analysis or develop their own independent accounting estimate.
- 57 In some financial reporting frameworks, management's intentions with respect to an asset or liability are criteria for determining measurement, presentation and disclosure requirements. Management often documents plans and intentions relevant to specific assets or liabilities and the financial reporting framework may require it to do so. While the extent of audit evidence to be obtained about management's intent is a matter of professional judgment, the auditor's procedures ordinarily include inquiries of management, with appropriate corroboration of responses, for example, by:
- Considering management's past history of carrying out its stated intentions
 - Reviewing written plans and other documentation, including, where applicable, budgets, minutes, etc.
 - Considering management's stated reasons for choosing a particular course of action
 - Considering management's ability to carry out a particular course of action given the entity's economic circumstances, including the implications of its existing commitments.

DEVELOPING AN INDEPENDENT ACCOUNTING ESTIMATE

- 58 **Where the entity's estimation process is not likely to give rise to a reasonable estimate, the auditor should consider the need to develop an independent accounting estimate.**

- 59 The need for the auditor to develop an independent accounting estimate is most likely to arise in circumstances where the auditor has concerns about the adequacy of the controls within and over management's processes for determining accounting estimates. Where management has not, for example, performed a sensitivity analysis or has recognized a point estimate without apparently considering the range of reasonably possible outcomes, there may be a greater risk that an accounting estimate is misstated.
- 60 In these circumstances the auditor may decide to make an independent accounting estimate (for example by using an auditor-developed model) to corroborate the entity's accounting estimate. When developing an independent accounting estimate using management's assumptions, the auditor evaluates those assumptions as discussed in paragraphs 47 to 53. Where information used by the auditor to develop an independent accounting estimate is produced by the entity's information system, the auditor obtains evidence about the accuracy and completeness of the information.
- 61 Instead of using management's assumptions the auditor may develop separate assumptions to make a comparison with management's accounting estimate. In that situation, the auditor nevertheless obtains an understanding of management's assumptions. The auditor uses that understanding to evaluate whether the auditor's model considers the significant variables and to evaluate any significant difference from management's estimate.

SUBSEQUENT EVENTS

- 62 **The auditor should consider the effect of subsequent events on accounting estimates and disclosures in the financial statements.**
- 63 Transactions and events that occur after the period end, but prior to completion of the audit, may provide appropriate audit evidence regarding an accounting estimate. If sufficient appropriate audit evidence is obtained from considering subsequent events this may reduce or even remove the need for the auditor to evaluate the process used by management to develop the accounting estimate or to use an independent estimate in evaluating the reasonableness of the accounting estimate.
- 64 In the period after a financial statement period-end, however, circumstances may change from those existing at the period-end. Information after the period-end may reflect events occurring after the period-end and not the circumstances existing at the balance sheet date.

Reducing the Number of Possible Outcomes

- 65 **Where the audit evidence indicates that management may not have performed adequate procedures to establish the point estimate, the auditor should consider whether additional audit evidence can be obtained to reduce the number of possible outcomes.**
- 66 Where there is a wide range of possible outcomes management may be motivated to recognize an accounting estimate that, although possible, is not the most likely outcome. For example, management may choose higher estimates of assets and lower estimates of liabilities as a means of managing earnings.

- 67 The auditor may obtain audit evidence to reduce the number of possible outcomes through discussing with management:
- (a) The reasons for significant differences between management's accounting estimate and the auditor's independent estimate.
 - (b) The reasons for significant changes in the processes used by management to determine accounting estimates from previous periods.
 - (c) Significant variances between estimates made in previous periods compared to the actual outcome.
- 68 For complex accounting estimates where the outcome is dependent upon the accuracy of a number of different assumptions it may be possible to disaggregate the effect on the accounting estimate of the various assumptions underlying the estimate. For example, accounting estimates relating to future pension liabilities of defined benefit schemes are subject to a number of measurement uncertainties such as future investment returns, inflation rates and pay awards. As assumptions for each of these variables affect the range of the interval estimate, the more variables there are the wider will be the range of the interval estimate.
- 69 Disaggregating complex accounting estimates may reduce the range of possible outcomes and enable the most likely outcome to be determined with greater precision. Continuing the pension liability example, the auditor may conclude that the expected rate of inflation used by management of 8% is an error and that 5% is the rate that the company is required to use under applicable regulations. The effect of the error on the inflation assumption can be treated as a known misstatement and the estimate re-evaluated using the correct inflation rate.

Using the Work of an Expert

- 70 The auditor may have the necessary skill and knowledge to plan and perform the procedures that respond to an assessed risk of misstatement and which are described above. Alternatively, the auditor may decide to use the work of an expert in respect of one or more of these procedures.
- 71 **The auditor should consider the need to use an expert.** If the use of an expert is planned, the auditor obtains sufficient appropriate audit evidence that such work is adequate for the purposes of the audit and complies with the requirements of ISA 620 "Using the Work of an Expert".

Evaluating Compliance with the Financial Reporting Framework

- 72 **The auditor should evaluate whether the measurements used in making accounting estimates and related disclosures in the financial statements are in accordance with the entity's financial reporting framework.**
- 73 The auditor's understanding of the requirements of the financial reporting framework and knowledge of the business and industry, together with the results of other audit procedures, are used to evaluate whether the measurements used in making accounting estimates are appropriate and whether the disclosures about the estimates and significant uncertainties related thereto are appropriate under the entity's financial reporting framework.

74 Evaluating whether the method of measurement of an accounting estimate is appropriate requires the use of professional judgment. When management selects one particular estimation method from alternative methods available under the entity's financial reporting framework, the auditor obtains an understanding of management's rationale for its selection by discussing with management its reasons for selecting the method. The auditor considers whether, for example:

- Management has sufficiently evaluated and appropriately applied the criteria, if any, provided in the financial reporting framework to support the selected method
- The measurement method is appropriate in the circumstances given the nature of the asset or liability being valued and the entity's financial reporting framework
- The measurement method is appropriate in relation to the business, industry and environment.

Evaluating the Results of Audit Procedures

75 **In evaluating whether accounting estimates are in accordance with the entity's financial reporting framework and are reasonable in the circumstances the auditor should evaluate the sufficiency and appropriateness of the audit evidence obtained as well as the consistency of that evidence with other evidence obtained during the audit.**

76 The auditor may obtain evidence that in making an accounting estimate management has misinterpreted or overlooked facts that are relevant to the estimate or used inappropriate assumptions. The auditor records "known misstatements" in the appropriate column on a Summary of Unadjusted Misstatements such as the one illustrated in Appendix 3.²

77 The auditor may have obtained sufficient appropriate audit evidence to support a point estimate that is different to the point estimate recognized in the financial statements. As such an accounting estimate is not reasonable, the difference between the amount recognized in the financial statements and the amount supported by the audit evidence is a misstatement. Such misstatements are recorded in the "differences in judgment" column of the Schedule of Unadjusted Misstatements (Appendix 3).

78 The auditor may have been able to obtain sufficient appropriate audit evidence to support an interval estimate but have been unable to obtain sufficient appropriate evidence to support a point estimate. In these circumstances the evaluation of what constitutes a misstatement depends on the size of the range of possible outcomes.

Narrow Range of Possible Outcomes

79 If the range of possible outcomes determined by the auditor is narrow a point estimate recognized by management and falling within that range is considered to be reasonable and does not give rise to a misstatement of the financial statements. Consequently there is no unadjusted misstatement to record.

80 If a point estimate recognized by management falls outside the auditor's range of possible outcomes the auditor records on the Summary of Unadjusted Misstatements

² The auditor's overall evaluation of all unadjusted misstatements on the financial statements taken as a whole is dealt with in ISA 320 "Materiality in the identification and evaluation of misstatements".

an “unadjusted difference in judgment” of the difference between management’s point estimate and an appropriate point within the auditor’s range of likely outcomes.

- 81 If there is a normal distribution of possible outcomes within the range the use of the mid-point in the range as the appropriate point usually gives rise to the most neutral determination of the “unadjusted difference in judgment”. The auditor chooses to use the nearest point in the range to management’s point estimate as the appropriate point only if audit evidence has been obtained that supports such a conclusion.

Wide Range of Possible Outcomes

- 82 If the range of possible outcomes is wide and the point estimate recognized by management falls within that range the financial statements could be misstated because the range is greater than the materiality for that financial statement item.
- 83 In such instances the auditor’s response is to consider:
- (a) Whether the measurement of the financial statement item may be so uncertain that it does not meet the recognition criteria of the financial reporting framework.
 - (b) The adequacy of the note disclosures in the financial statements.
 - (c) The effect of the measurement uncertainty on the auditor’s report on the financial statements.

Evaluating Disclosures in the Financial Statements

- 84 **Where an accounting estimate falls within a wide range of possible outcomes the auditor should evaluate the adequacy of the disclosures in the financial statements of the uncertainties future conditions, transactions or events that affect the accounting estimate.**
- 85 If management’s point estimate falls within a wide range of possible outcomes it may not be possible for management to narrow the range of possible outcomes by obtaining more information at the date they approve the financial statements. In such circumstances, the auditors encourage management to describe, in the financial statements, the circumstances giving rise to the uncertainty, the range of possible outcomes and the potential effects of the best and worst case scenarios on the financial statements.

Management Representations

- 86 **The auditor should obtain written representations from management regarding the reasonableness of accounting estimates, including whether they appropriately reflect management’s intent and ability to carry out specific courses of action on behalf of the entity.**
- 87 ISA 580, “Management Representations” discusses the use of management representations as audit evidence. Depending on the nature, materiality and extent of measurement uncertainty, management representations about accounting estimates recognized or disclosed in the financial statements may include representations about:

- The appropriateness of the measurement methods, including related assumptions, used by management in determining accounting estimates within the applicable financial reporting framework, and the consistency in application of the methods
- The completeness and appropriateness of disclosures related to accounting estimates under the entity's financial reporting framework
- Whether subsequent events require adjustment to the accounting estimates and disclosures included in the financial statements
- Management's intent to carry out courses of action relevant to the accounting estimate.

Reporting on the Financial Statements

- 88 **Where the disclosures in the financial statement clearly explain the uncertainty, the circumstances giving rise to the uncertainty and the range of possible outcomes, the auditor should consider the need to modify the auditor's report by adding an emphasis of matter paragraph to the auditor's report on the financial statements.**
- 89 In certain circumstances, an auditor's report may be modified by adding an emphasis of matter paragraph to highlight a matter affecting the financial statements which is included in a note to the financial statements that more extensively discusses the matter. The addition of such an emphasis of matter paragraph does not affect the auditor's opinion which ordinarily refers to the fact that the auditor's opinion is not qualified in this respect.
- 90 If the auditor considers that the disclosures in the financial statements are inadequate or that the item should not have been recognized in the financial statements the auditor should consider modifying the auditor's opinion on the financial statements.
- 91 Where the auditors disagree with management regarding either the recognition of the financial statement item or the adequacy of the financial statement disclosures, they either qualify their opinion or issue an adverse opinion. Guidance with respect to the modification of auditor's reports is set out in ISA 700, "The Auditor's Report on Financial Statements".

Management Bias

- 92 **The auditor should consider if the audit evidence obtained indicates bias on the part of management in the development of accounting estimates.**
- 93 Bias may arise in management's judgments in a number of ways, for example:
- When estimates looked at in isolation are reasonable, but when looked at collectively consistently lie at one boundary of the range of possible outcomes. For example when management consistently uses conservative assumptions with respect to a number of accounting estimates
 - When accounting estimates move from one consistent location within a reasonable interval estimate to another in successive periods. For example, management may change from recognizing estimates of assets from the mid point of the range to the top end of the range.

- 94 Although management bias in the making of accounting estimates does not, of itself, give rise to unadjusted misstatements it is helpful for the auditor to keep track of their concerns and, where appropriate, discuss them with those charged with governance of the entity. The Summary of Other Audit Findings Form illustrated in Appendix 4 may be used to track concerns about management bias.

Documentation

- 95 **The auditor should document:**

- (a) **The results of the risk assessments.**
 - (b) **The audit evidence obtained as a result of performing the audit procedures required by this ISA.**
 - (c) **The auditor's evaluation of the audit evidence obtained including the auditor's evaluation of the likely range of an interval estimate.**
 - (d) **Where applicable, the auditor's reasoning in determining the most likely outcome from the range of an interval estimate.**
 - (e) **The auditor's evaluation of misstatements and management bias in accounting estimates.**
- 96 The manner in which these matters are documented is based on the auditor's professional judgment. Appendix 2 provides an illustrative example of an auditor's evaluation of an estimate of warranty expense. Appendix 3 provides an illustrative example of a possible evaluation tool for recording unadjusted misstatements and Appendix 4 is a possible evaluation tool on which findings relating to management bias can be summarized.

Effective Date

- 97 This ISA is effective for audits of financial statements for periods beginning on or after XXXX. [Earlier application of the provisions of this ISA is permissible].

Appendix 1

Categories of accounting estimate

<i>Description</i>	<i>Examples</i>	<i>Audit evidence</i>
Accounting estimate not subject to significant measurement uncertainty. <i>e.g. made in accordance with financial reporting framework or based on the outcome of, relatively, certain future events</i>	<ol style="list-style-type: none"> 1. Mid-market values of marketable securities 2. Liabilities in respect of a bonus scheme based on sales performance. 3. Bottle return rates of a brewery. 	<ul style="list-style-type: none"> • Fair value measurements see ISA 545 • Evaluating the entity's estimation processes; or • Independent estimate; or • Subsequent events.
Accounting estimate where measurement uncertainty is a significant risk requiring special audit consideration <i>e.g. highly dependent upon management's judgment of the outcome of uncertain future conditions, transactions or events</i>	<ol style="list-style-type: none"> 1. Warranty provisions 2. Future sales of a new drug in order to determine whether carrying amount of development costs is impaired. 3. Additional revenues on a long term contract where contractor is negotiating for additional payments from customers 	<ul style="list-style-type: none"> • Fair value measurements see ISA 545 • Evaluate the entity's processes including the design of the entity's controls and determining whether control procedures implemented; • Obtain all evidence about operating effectiveness of controls in current period • Perform substantive procedures that are specifically responsive to the significant risk • Narrowing the range of possible outcomes
Not possible to make an accounting estimate	<ol style="list-style-type: none"> 1. Expected cost of a threatened law suit 2. Research costs into the development of an entirely new technology such as trains powered by linear motors. 	<ul style="list-style-type: none"> • Evaluate the entity's processes including the design of the entity's controls and determining whether control procedures implemented; • Obtain all evidence about operating effectiveness of controls in current period • Perform substantive procedures that are specifically responsive to the significant risk

Appendix 2

Example of an auditor's evaluation of an accounting estimate of warranty expense

Set out below is an example of an accounting estimate falling within Category B of Appendix 1. The example is for illustrative purposes only and is not intended to indicate what might constitute sufficient appropriate audit evidence in the particular circumstances described.

Background and management's estimate

- A motor manufacturing entity introduced a new model at the beginning of the period under audit.
- The entity provides a comprehensive three year warranty for all parts and labor.
- Sales of the new model during the period were \$100 million.
- Management's point estimate of the ultimate expense for warranty costs relating to these sales is \$3,500,000 being 3.5% of retail sales value. This is the amount that they intend to recognize as an expense in the financial statements.
- The expense consists of payments made during the year to customers of \$400,000 and an accrual of \$3,100,000.
- The auditor's materiality for this component of the warranty expense is \$1 million.

Auditor's initial evaluation of management's estimate

In evaluating management's estimate of the annual expense the auditor has obtained the following audit evidence:

- Management has previously determined, and the auditor has been satisfied, that estimates of ultimate warranty expense are most reliably based on invoiced sales value rather than any other measure such as cost of sales. The basis of management's determination is their retrospective comparison of warranty expense to invoiced sales and cost of sales.
- The internal controls over the recording of warranty expenses (upon which both management's and the auditor's analysis depends) have operated effectively during each of the last ten years.
- The company's experience of warranty costs over each of its ranges of motor vehicles over the last ten years varies from 1.5% to 9% of invoiced sales value with the weighted average over all ranges being 4%.
- The incidence of warranty costs of 9% was isolated as it arose from an identified flaw in a type of power train that is now obsolete and no longer used.
- The incidence of warranty costs of 1.5% related to the production of a specialist sports utility vehicle that was subject to stringent quality control procedures prior to dispatch.
- The range of warranty costs disregarding the incidences at the two extremes is from 2% to 5% with a weighted average over the revised range of 3.8%
- Over time it is expected that warranty costs will decline reflecting management's efforts to embed better quality into the production process and also improve end of production line quality control procedures.

- In the entity's five year plan warranty expense is equal to 3% of sales value. The entity's business plan shows a continuing financial commitment to improving quality control.
- Experience has shown that actual expenditure in the first year of production of \$400,000 on sales of \$100 million would probably result in an ultimate warranty expense of £3.0 million.

The auditor might initially conclude:

- That the range of possible outcomes for the expense lies in the range \$2 million to \$5 million;
- Although management's booked estimate of \$3.5 million lies at the mid point of the possible range and has a cushion of \$500,000 compared to projections of the ultimate expense the auditor is reluctant to accept the estimate as being reasonable because the range of possible outcomes is wider than materiality of \$1 million.
- Although historical experience of warranty costs of cars in production may be an accurate indicator of future costs for those cars it may not be an indicator for a new car. This conclusion is supported by the fact that previous experience of other models gives rise to a wider range.

The auditor, therefore, asks management to provide more support for its point estimate.

Management carries out a further review of warranty expense of this model which reveals:

- Management's monitoring processes in operation since the year end (but before completion of the audit) had revealed that \$150,000 of expenditures relating to warranty costs of the new model had been incorrectly recorded in the month after the year end due to a delay in receiving data from a major non-affiliated dealership. These expenses should have been accrued.
- Based solely on historical experience costs in the first year of \$550,000 would probably develop into an ultimate expense of \$4 million
- Almost 50% of the sales of the new model had been made on a heavily discounted basis to the Post Office. The historical relationship between warranty costs and sales revenue would therefore be unlikely to be such an accurate predictor of the actual expense. (i.e. Warranty costs would be a higher percentage of revenue than average historical experience would indicate).
- The vehicles sold to the Post Office were painted in a colour that has not previously been used by the entity and there was evidence from the Post Office of dissatisfaction with the way in which the colour was wearing and a significant backlog of requests for vehicles to be re-sprayed.
- Although management accepted that there had been a cut off error of \$150,000 they did not wish to make an adjustment to the amount recognized as a liability for warranty expense because they were of the view that their provision of \$3.5 million had been conservative relative to their original forecast of ultimate expense. The new information still supported an estimate of \$3.5 million although they conceded that the perceived degree of conservatism had reduced.

The auditor might finally conclude:

- that the possible range within which the estimate of the expense should fall is between \$4 million and \$5 million

- based on previous experience of outcomes from such forecast ranges the most likely outcome was \$4.5 million.
- Consequently the auditor posts the following to the summary of unadjusted misstatements (See Appendix 3):
 - (a) \$150,000 known misstatement being the under accrual of actual warranty costs; and
 - (b) \$850,000 difference in judgment
(being \$4.5 million less 3.5 million equals \$1 million less \$150,000 known difference)

Appendix 3

[Extract of] SUMMARY OF UNADJUSTED MISSTATEMENTS

Working paper reference	Description	Income before tax over (under) stated			Balance Sheet		
		Known misstatements*	Likely misstatements**	Differences in judgment***	Assets (over) under-stated	Liabilities over (under) stated	Equity over (under) stated
From Appendix 2	Warranty expense	150,000		850,000		(1,000,000)	

Classification of misstatements from ISA 320

*Known misstatements:

These are specific misstatements identified during the audit including, for example, those arising from mistakes in gathering or processing data and, in the context of accounting estimates, the oversight or misinterpretation of facts. Their existence is not in doubt.

**Likely misstatements:

These are misstatements estimated by the auditor that most likely exist based on audit evidence obtained. For example the projected effect of known misstatements identified in audit samples.

***Differences in judgement:

These are differences between management's and the auditor's judgments concerning accounting estimates or the application of accounting principles.

Appendix 4

SUMMARY OF OTHER AUDIT FINDINGS

1. Possible breaches of law or regulations.
2. Transactions that appear unusual as to nature or amount.
3. Inadequate or inaccurate descriptions of an accounting policy.
4. Failure to maintain proper financial records.
5. Management bias.

[Blank Page]