



BOARD FOR ACTUARIAL STANDARDS

**TECHNICAL ACTUARIAL STANDARD R:
REPORTING ACTUARIAL INFORMATION**

NOVEMBER 2009

REPORTING ACTUARIAL INFORMATION (TAS R)

Status

This standard (TAS R) is a Generic Technical Actuarial Standard (Generic TAS), as defined in the *Scope & Authority of Technical Standards (Scope & Authority)* of the Board for Actuarial Standards (BAS).

This standard should be read in the context of the *Scope & Authority*.

The *Scope & Authority* sets out circumstances in which material departures from this standard are permitted or required and the disclosures which are required in respect of them.

Scope

This standard, as a Generic TAS, applies to the work specified in the Schedule to the *Scope & Authority*. The scope of this standard will be affected by any amendments to the Schedule to the *Scope & Authority*.

Specific TASs may include provisions that include or exclude particular categories of work from the scope of this standard.

Wider adoption is encouraged.

Commencement

This standard applies to aggregate reports completed on or after 1 April 2010.

Earlier adoption is encouraged.

Relationship with other TASs and with Guidance Notes

This standard sets out principles to be adopted across the range of work to which it applies, as described above. Other Generic and Specific TASs may apply to work that is within the scope of this standard, setting out additional principles that should be adopted.

In the event of a conflict between this standard and a Guidance Note adopted by the BAS (as described in the *Scope & Authority*), this standard shall prevail.

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A PURPOSE OF TAS R

A.1 PURPOSE

A.1.1 The BAS's Reliability Objective is that the users for whom a piece of actuarial information was created should be able to place a high degree of reliance on the information's relevance, transparency of assumptions, completeness and comprehensibility, including the communication of any uncertainty inherent in the information.

A.1.2 The purpose of this standard is to assist the achievement of the Reliability Objective by ensuring that in the reporting of work within its scope:

- sufficient information is included to enable **users**¹ to judge the relevance of the contents of the **reports**;
- sufficient information is included to enable **users** to understand the implications of the contents of the **reports**; and
- information is presented in a clear and comprehensible manner.

¹ Terms appearing in **bold** in the text are explained in the Definitions set out in Part B.

B INTERPRETATION

B.1 INTERPRETATION OF THE TEXT

- B.1.1 All text in this standard has equal status unless stated otherwise. Paragraphs setting out explicit principles are emphasised with boxes for convenience.
- B.1.2 The **Scope & Authority**² states that a failure to follow the principles in this standard need not be considered a departure if it does not have a **material** effect. The contents of this standard should be read in that context, even where the term **material** is not explicitly used or where the word “shall” is used.
- B.1.3 Nothing in this standard should be interpreted as requiring work to be performed that is not proportionate to the scope of the decision or assignment to which it relates and the benefit that **users** would be expected to obtain from the work.
- B.1.4 The form that is taken by any explanations, rationales, descriptions, indications or other analyses required by this standard will need to depend on the scope of the work being performed and the benefit to the **users**. The level of detail required is a matter for judgement. Unless stated otherwise, analyses may be quantitative or qualitative.
- B.1.5 Lists of examples are not intended to be exhaustive.
- B.1.6 This standard should be interpreted in the light of the purpose set out in Part A.
- B.1.7 This standard makes few assumptions about and does not specify the way in which reporting takes place. In particular, there is no assumption or requirement that all the information is contained in a single, formal, document. The definitions of the terms **aggregate report**, **component report** and **report** allow for the provision of information to **users** in a number of separate communications which, in aggregate, provide all the detail that is needed.
- B.1.8 This standard applies to a wide range of **reports** that fall within its scope. It sets out principles for the content and presentation of **reports**, but does not specify any particular format, list of contents, order in which matters are addressed or number of **component reports** that should be used.

B.2 DEFINITIONS

- B.2.1 Terms appearing in **bold** in the text are used with the meanings set out below. Some of the definitions are taken from the **Scope & Authority**.

² Paragraph 23 of the **Scope & Authority**.

aggregate report	The set of all component reports relating to a piece of work within the scope of this standard. The aggregate report for a decision taken by a user in connection with work within the scope of this standard is the set of all component reports received by the user containing information material to that decision.
component report	A document given to a user in permanent form containing material information which relates to work within the scope of this standard. A component report may be given to the user in hard copy or electronically. Formal written reports, draft reports, emails and presentations are examples of component reports . Possible contents of component reports include tables, charts and other diagrammatic presentations as well as or instead of text. A component report may form part of one or more aggregate reports .
data	Facts or information usually collected from records or from experience or observation. Examples include membership or policyholder data, claims data, asset and investment data, operating data (such as administrative or running costs), benefit definitions and policy terms and conditions.
entity	The pension scheme, insurance company, fund or other body that is the subject of the work being performed.
Generic TAS	A Technical Actuarial Standard which applies to all work specified in the Schedule to the Scope & Authority .
material	Matters are material if they could, individually or collectively, influence the decisions to be taken by users of the related actuarial information. Assessing materiality is a matter of reasonable judgement which requires consideration of the users and the context in which the work is performed and reported.
measure	The approach that is used to define how an (uncertain) asset or liability amount is quantified. Two different measures of the same asset or liability may produce different results.
method	The mechanism that is used to quantify an (uncertain) asset or liability amount. Two different methods of calculating the same asset or liability measure should produce similar results.
report	An aggregate report or a component report .
Scope & Authority	The BAS's <i>Scope & Authority of Technical Standards</i> .
Specific TAS	A Technical Actuarial Standard that is not designated by the BAS as a Generic TAS . A Specific TAS is limited to a specific, defined context.
users	Those people whose decisions a report is intended (at the time of writing) to assist. Those to whom the report is addressed, regulators and third parties for whose benefit a report is written are examples of possible users .

C REPORTING ACTUARIAL INFORMATION

C.1 INTRODUCTION

- C.1.1 This Part contains principles that support the purpose of this standard as set out in Part A. It should be interpreted as described in Part B.
- C.1.2 Work that is within the scope of this standard will also be within the scope of other BAS standards. In particular, the other **Generic TASSs**, including those on *Data* and *Modelling*, apply to all such work.
- C.1.3 Other principles concerning reporting may be contained in **Specific TASSs**.
- C.1.4 Section C.2 describes how this standard should be applied.
- C.1.5 Sections C.3 to C.6 contain principles that contribute to the relevance, transparency, completeness and comprehensibility of **aggregate reports**.

C.2 APPLICATION

C.2.1 All **aggregate reports** relating to work within the scope of this standard shall comply with this standard.

- C.2.2 An **aggregate report** may consist of one or more **component reports**, each of which contributes to the compliance of the **aggregate report**. This standard does not require that any single **component report** on its own complies fully with paragraph C.2.1 unless it is also an **aggregate report**. If there is only one **report** relating to a piece of work within the scope of this standard, that **report** is an **aggregate report**.
- C.2.3 The **aggregate report** for a decision or piece of work includes all **component reports** given to a **user** that contain **material** information. A **component report** cannot be excluded from the **aggregate report** if it includes **material** information relating to the decision or piece of work in question. An **aggregate report** will need to specify its **component reports** clearly.
- C.2.4 **Component reports** issued after the relevant decisions have been made by **users** cannot contribute to compliance with this standard except as described in paragraph C.2.7.
- C.2.5 This standard does not require that each individual **report** accompanying the results of a single calculation which is one of a series of similar calculations, each addressing different individual cases, complies fully with paragraph C.2.1 on its own. The **aggregate report** may include an earlier communication or an easily available document to which it refers.

Information in a non-permanent form

C.2.6 Any **material** information relating to work within the scope of this standard that is conveyed in a non-permanent form shall be confirmed in a **report**.

- C.2.7 If **material** information is conveyed orally or in any other non-permanent way it will need to be confirmed in a **report** as soon as practicable. Such a

report would contribute to compliance with this standard even though its delivery in permanent form may be after the making of decisions based on it.

Judgement

C.2.8 Judgements concerning the application of this standard shall be exercised in a reasoned and justifiable manner.

C.2.9 Judgement may be needed on matters such as the extent of a piece of work, who the **users** of a **report** are, **materiality**, proportionality and the possible obscuring of **material** information by immaterial information.

C.2.10 This standard does not require the documentation or disclosure of judgements concerning its application unless stated otherwise.

C.3 RELEVANCE

C.3.1 An **aggregate report** shall include sufficient information to enable its **users** to judge its relevance to the decisions for which they use it.

C.3.2 It will be necessary to ensure that each **user** is aware of which information might be relevant to their decision(s), especially if different **users** have received different **component reports**. An **aggregate report** will need to indicate any **component reports** or parts of **component reports** which have been superseded or are no longer relevant.

Purpose of reports

C.3.3 An **aggregate report** shall state its purpose, its **users** and who commissioned the work. A **component report** shall state its purpose and to whom it is addressed.

C.3.4 The purpose of any individual **component report** is not necessarily the same as the purpose of an **aggregate report** of which it forms a part. An individual **component report** may have a very limited purpose, such as clarifying a particular point in another **component report** or confirming a point that had previously been made orally, or may have several purposes, not all of which are also served by the **aggregate report**.

C.3.5 If a **report** is prepared, and the underlying work performed, in order to comply with legislative or regulatory requirements, a reference to the legislation may be sufficient as a statement of the purpose.

C.3.6 Statements of the addressees or **users** of a **report** will need to indicate the capacity in which they are being addressed or are expected to use the **report**. For example, the same person could be both a director of a company and a trustee of a pension scheme sponsored by that company.

C.3.7 An **aggregate report** that includes the results of calculations of monetary amounts shall explain for each result whether it is the outcome of a planning exercise, a valuation exercise or some other exercise.

C.3.8 A planning exercise involves the estimation of an amount for budgeting or target-setting purposes. Calculations made for trustees to set contribution rates for pension schemes or calculating loss ratios for insurance pricing are examples of planning exercises.

- C.3.9 A valuation exercise involves the quantification of an amount for use in a transaction or recording in a formal document. Calculating technical provisions for the financial statements of insurance companies, calculating transfer values and calculating surrender values are examples of valuation exercises.
- C.3.10 Regulations and other legal documents do not always distinguish between planning and valuation exercises, using the term “valuation” for both. The explanations required by paragraph C.3.7 may need to include explanations of any differences between the terminology used in the **aggregate report** and that used in the governing documents.

Compliance with TASs

- C.3.11 An **aggregate report** shall:
- a) state which TASs apply to the work that has been carried out;
 - b) state any other TASs with which it is intended that the **report** shall comply;
 - c) state whether it complies with those TASs; and
 - d) give particulars of any **material** departures from the TASs referred to in a) and b) above.

- C.3.12 The **Scope & Authority**³ requires the identification of **material** departures from relevant TASs, and sets out further disclosures that are required.

Subsequent events

- C.3.13 An **aggregate report** shall indicate any **material** changes or events that are known by any person responsible⁴ for the **aggregate report** to have occurred since the effective date of the **data** and other information on which it is based.

C.4 TRANSPARENCY

Data

- C.4.1 An **aggregate report** shall:
- a) describe any **data** or any other information used; and
 - b) state the source of the **data** or other information.
- C.4.2 Paragraph C.4.1 applies to all information used in the **aggregate report**, whether obtained from the **entity** or from other sources.

³ Paragraphs 22 to 24 of the **Scope & Authority**.

⁴ See paragraphs 25 to 28 of the **Scope & Authority**.

C.4.3 If there is any **material** uncertainty over the accuracy of the **data**, an **aggregate report** shall:

- a) describe the uncertainty; and
- b) explain any approach taken to the uncertainty in the calculations or in the results.

Assumptions

C.4.4 An **aggregate report** shall state:

- a) the **material** assumptions on which any calculations or judgements are based; and
- b) any differences between the assumptions used or recommended in different parts of the work.

C.4.5 Paragraph C.4.4 applies to all **material** assumptions, whether they are implicit or explicit, qualitative or quantitative.

Rationales

C.4.6 An **aggregate report** shall describe the rationales for:

- a) any **material** assumptions used or recommended;
- b) any differences between the assumptions used or recommended in different parts of the work; and
- c) the **measures** and **methods** used in any **material** calculations.

C.4.7 Rationales will need to distinguish between fact, judgements based purely on evidence and judgements influenced by personal opinion.

C.4.8 The assumptions, **measures** or **methods** to be used for some purposes may be specified in regulations (or in some other legal document governing the work) or they may be the responsibility of some other party (such as the **entity** or a **user**). In either case, a statement that a **report** is required to comply with regulations and does so, or that it complies with the other party's instructions, would constitute a sufficient rationale.

C.4.9 If the assumptions, **measures** or **methods** are considered to be **materially** inaccurate or inappropriate by a person responsible for a **report**, the **report** will need to include a statement to that effect, or other explanations in order to comply with paragraph C.3.1.

C.5 COMPLETENESS

C.5.1 An **aggregate report** shall include all **material** matters relating to the work being reported on.

Uncertainty

C.5.2 An **aggregate report** shall indicate the nature and extent of any **material** uncertainty in the information it contains.

- C.5.3 Uncertainty may concern the results of calculations, assumptions on which information is based or other aspects. It may arise from random variations, lack of information or other sources. The extent of any **material** uncertainty may itself be subject to uncertainty.
- C.5.4 There are many ways of indicating the extent of uncertainty, such as:
- giving a range, measure of the value at risk or other statistical calculation;
 - showing the numerical consequences of changes in assumptions;
 - presenting the outcomes of scenarios, possibly including extreme scenarios; and
 - describing the uncertainty and explaining why it has not been quantified.

Risks faced by the entity

C.5.5 For each **material** risk or uncertainty faced by the **entity** in relation to the work being reported on, an **aggregate report** shall state the nature and significance of the risk and explain the approach taken to the risk.

C.5.6 Whether a risk or uncertainty is related to the work being reported on is a matter for judgement. The level of detail required will need to take into account the scope of the work in order to comply with paragraph C.6.6.

C.5.7 The statement of the nature of the risk may need to distinguish those aspects that are quantifiable from those that are not. The significance of a risk includes matters such as its relative importance to the **entity** compared to other risks and to the **entity's** capacity to bear risk, and any actions or decisions that would influence the probability of the risk crystallising or its impact. The approach taken to the risk includes matters such as the assumptions that are made in relation to it and the effects of any actions taken to mitigate it.

Calculations

C.5.8 For any **material** calculations that have been performed an **aggregate report** shall explain:

- a) the nature and objective of the calculations;
- b) any specific **measure(s)** adopted; and
- c) the **methods** used to achieve the calculation objective.

C.5.9 The calculations within the scope of paragraph C.5.8 include any calculations that are used to derive **material** assumptions.

Cash flows

C.5.10 An **aggregate report** shall indicate the nature of any future cash flows being quantified, including their timing.

C.5.11 There are many ways of indicating the timing of future cash flows, such as:

- presenting their values by period;
- providing a textual description such as a statement of the period over which they are likely to be received or paid; and
- stating their mean discounted term.

C.5.12 There are many ways of analysing the values of future cash flows by period. The values themselves could be either discounted or undiscounted, and either real or nominal. They could be presented in charts or other diagrams, in tables or within text.

Probabilities

C.5.13 If an **aggregate report** includes probabilities it shall also explain:

- a) the intended meaning of the probability;
- b) the nature of any statistics on which the probability is based.

C.5.14 The intended meaning of a probability depends on what it relates to (in statistical terminology, the population or sample space). Probabilities can be applied to a large population – for example to estimate the likely number of car accidents over a given period – or to a particular member of the population – for example to make a statement about the likelihood that an individual company will become insolvent. In the latter case, the sample space for the probability consists of the possible future scenarios, only some of which will involve the company's insolvency.

C.5.15 Explanations of the nature of any statistics on which probabilities are based will need to distinguish between evidence of past events and research into expected future developments, and indicate how similar the events now under consideration are to the past events.

C.5.16 Paragraph C.5.13 does not apply to probabilities such as mortality rates which have been adopted entirely from another source as assumptions for input into calculations. The **aggregate report** will need to comply with paragraphs C.4.1, C.4.4 and C.4.6 in respect of such probabilities.

Comparisons

C.5.17 An **aggregate report** shall include a comparison with an **aggregate report** which has previously been provided for a similar purpose (if one exists), with explanations of any differences. The comparison shall cover assumptions, results of calculations, recommendations and other **material** matters. The comparison of the results of calculations shall include a reconciliation of the two sets of results.

C.5.18 The similarity of the purposes of two **aggregate reports** (and hence the need for a comparison) is a matter for judgement, and will depend on such matters as whether the entities being reported on, or for whom the **reports** are intended, are the same.

C.5.19 The forms of the comparison and reconciliation and the level of detail at which they are presented are matters for judgement.

Projections

C.5.20 An **aggregate report** that includes the results of calculations that are performed at regular intervals shall indicate the projected results from future corresponding calculations.

C.5.21 There are many ways of indicating the results from future calculations, such as:

- a statement of the results anticipated if experience is in line with the assumptions used for the current calculations;
- a chart of the anticipated pattern of results over a longer period; and
- a description of the anticipated evolution of the results.

C.5.22 The **aggregate report** will need to include explanations of any differences between the assumptions on which the current calculations are based and those used to project the results from future corresponding calculations.

C.6 COMPREHENSIBILITY

C.6.1 The style, structure and content of **reports** shall be suited to the skills, understanding and levels of relevant technical knowledge of their **users**.

C.6.2 **Reports** will need to address the needs of, and be understandable by, all their **users**, recognising they may have varied levels of relevant technical knowledge. This could be achieved by, for example, providing more detailed explanations in addition to setting out the basic information, or by providing clear explanations of technical terms.

C.6.3 It may be convenient to use standard formats and wordings for **reports** covering similar work performed for different **users**. However, paragraphs C.6.1 and C.6.6 always apply. It may be necessary to depart from standard formats and wordings in order to avoid including information that is not **material** for some **users** and that obscures **material** information (see paragraph C.6.6), or to avoid the use of a style that is not readily understood by some **users**.

C.6.4 If a person responsible⁵ for a **report** becomes aware of any evidence of that **report** not being understood by any **user** they shall provide clarification or correct the misunderstanding. If a person responsible for part of a **report** becomes aware of any evidence of any other part of that **report** not being understood by any **user**, they shall notify a person responsible for that other part of the **report**.

C.6.5 Whether the clarification needs to be issued in a supplementary **component report** is a matter for judgement.

Obscuring material information

C.6.6 A **report** shall not include information that is not **material** if it obscures **material** information.

⁵ See paragraphs 25 to 28 of the **Scope & Authority**.

- C.6.7 The **materiality** of information depends, among other things, on the level of relevant technical knowledge of the **users**. For example, in many cases it is not necessary to know the details of the underlying calculations in order to understand their results or to make decisions based on the information.

Descriptions

C.6.8	An aggregate report shall state the intended meaning of any material description which is not uniquely defined.
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- C.6.9 Examples of descriptions that may not be uniquely defined include “best estimate”, “central estimate” and “prudent”. Descriptions could be applied to assumptions, results, or other matters.

C.6.10	An aggregate report shall explain what the results of any material calculations are intended to represent.
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- C.6.11 Explanations may be needed for matters such as:

- the totals to which percentages apply;
- the definitions of any relevant dates or periods; and
- the nature of any result presented as a value (such as market values, realisable values, fair values, book values, surrender values and transfer values).

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