International Actuarial Association
Association Actuarielle Internationale

27 May 2023

ISAP 7

International Standard of Actuarial Practice 7

“Current Estimates” and Other Matters in Relation to the IAIS Insurance Capital Standard

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Adopted by the IAA Council

27 May 2023

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Tel: +1-613-236-0886 **Fax:** +1-613-236-1386
Email: secretariat@actuaries.org
1203-99 Metcalfe, Ottawa ON K1P 6L7 Canada
www.actuaries.org

TABLE OF CONTENTS

Preface

This International Standard of Actuarial Practice (ISAP) is a model for actuarial standard-setting bodies to consider.

The International Actuarial Association (IAA) encourages relevant actuarial standard-setting bodies to maintain a standard or set of standards that is substantially consistent with this ISAP to the extent that the content of this ISAP is appropriate for actuaries in their jurisdiction. This can be achieved in many ways, including:

- Adopting this ISAP as a standard with only the modifications in the Drafting Notes;
- Customizing this ISAP by revising the text of the ISAP to the extent deemed appropriate by the standard-setting body while ensuring that the resulting standard or set of standards is substantially consistent with this ISAP;
- Endorsing this ISAP by declaring that this ISAP is appropriate for use in certain clearly defined circumstances;
- Modifying existing standards to obtain substantial consistency with this ISAP; or
- Confirming that existing standards are already substantially consistent with this ISAP.

A standard or set of standards that is promulgated by a standard-setting body may be considered to be substantially consistent with this ISAP if:

- There are no material gaps in the standard(s) in respect of the principles set out in this ISAP; and
- The standard or set of standards does not contradict this ISAP.

Local jurisdictions may adopt variants of Insurance Capital Standards, and in that case a local actuarial standard-setter may need to adjust ISAP 7 accordingly.

If an actuarial standard-setting body wishes to adopt or endorse this ISAP, it is essential to ensure that existing standards are substantially consistent with ISAP 1 as this ISAP relies upon ISAP 1 in many respects. Likewise, any customization of this ISAP, or modification of existing standards to obtain substantial consistency with this ISAP, should recognize the important fact that this ISAP relies upon ISAP 1 in many respects.

If this ISAP is translated for the purposes of adoption, the adopting body should select three verbs that embody the concepts of "must", "should", and "may", as described in paragraph 1.6. Language of ISAP 1, even if such verbs are not the literal translation of "must", "should", and "may".

This ISAP is a model standard of actuarial practice and, as such, is not binding on any actuary.

This ISAP was adopted by the IAA Council on 27 May 2023.

[Drafting Notes: When an actuarial standard-setting organization adopts this standard, it should:

1. *Replace "ISAP" throughout the document with the local standard name, if applicable;*
2. *Modify references to ISAP 1 in paragraphs 1.3., 2.1., 2.2.2., 2.3., 2.4., 2.5.1., 2.7.1., 2.9., and 3.1. to point to the local standard(s) that is/are substantially consistent with ISAP 1, rather than referring to ISAP 1 directly, if appropriate;*
3. *Choose the appropriate phrase and date in paragraph 1.8.;*
4. *Review this standard for, and resolve, any conflicts with the local law and code of professional conduct; and*

5. *Delete this preface (including these drafting notes) and the footnote associated with paragraph 1.8.]*

Introduction

This International Standard of Actuarial Practice (ISAP) provides guidance to actuaries when performing actuarial services in connection with the Insurance Capital Standard (ICS) issued by the International Association of Insurance Supervisors (IAIS). ICS Version 2.0 for the monitoring period was issued on 14 November 2019 by the IAIS. The monitoring period ends in 2024 when a final version of ICS is expected to be published.

The Common Framework for the Supervision of Internationally Active Insurance Groups (ComFrame) consists of both quantitative and qualitative supervisory requirements tailored to the complexity and international scope of Internationally Active Insurance Groups (IAIGs). The ICS is one of the components of ComFrame. In June 2017, the IAIS agreed to adopt ICS Version 2.0 as a stand-alone document, to be integrated into ComFrame at a future date.

On 2 November 2017, at its Annual Conference in Kuala Lumpur, the IAIS announced a unified path to convergence of group capital standards, in furtherance of its ultimate goal of a single ICS that includes a common methodology by which one ICS achieves comparable (i.e., substantially the same) outcomes across jurisdictions. The Kuala Lumpur Agreement (KL Agreement) sets out that implementation of ICS Version 2.0 will be conducted in two phases:

- A five-year "monitoring period", during which ICS Version 2.0 will be used for confidential reporting to the Group-wide Supervisor and discussion in supervisory colleges (during the monitoring period, ICS results will not be used as a basis for triggering supervisory action); and
- The "implementation of the ICS as a group-wide Prescribed Capital Requirement (PCR)", a solvency control level above which the supervisor does not intervene on capital adequacy grounds.

A group which reports under the ICS is responsible for the information reported. This means it is responsible for, amongst other things, assumptions and the calculations in its ICS submissions.

Nevertheless, actuaries providing actuarial services in connection with the ICS may be advising the group on decisions, providing any calculations or information required, or undertaking some combination of these.

The IAA intends this ISAP to:

- Facilitate convergence in standards of actuarial practice in connection with the ICS;
- Increase public confidence in actuarial services provided in connection with the ICS; and
- Demonstrate the IAA's commitment to support the work of the IAIS in achieving high-quality, comparable capital standards.

Section 1. General

1.1. Purpose – This ISAP provides guidance to actuaries when performing actuarial services in connection with capital standards promulgated by the IAIS, specifically the ICS. Its purpose is to increase intended users' confidence that:

- Actuarial services are carried out professionally and with due care, consistently with the ICS;
- The results are relevant to their needs, are presented clearly and understandably, and are complete; and
- The assumptions and methodology (including models and modelling techniques) used in the actuary's contribution to the ICS submission are disclosed appropriately.

1.2. Scope – This ISAP applies to actuaries when performing actuarial services related to the ICS submissions. This ISAP addresses:

- The adaptation of the value of insurance liabilities to an ICS current estimate basis, where such is defined in accordance with IAIS requirements; and
- Such elements of the ICS that require professional judgment.

1.3. Relationship to ISAP 1 – Compliance with ISAP 1 is a prerequisite to compliance with this ISAP. In particular, by the nature of the exercise, actuarial services related to the ICS submissions will frequently fall within the scope of ISAP 1 section 2.3.,[1] section 2.6.,[2] and whichever of 2.7.,[3] 2.8.,[4] and 2.9.[5] may be applicable.

1.4. Relationship to ICS – The guidance in this ISAP complements the guidance in the ICS Version 2.0, which is not repeated in this ISAP.

1.5. Defined Terms – This ISAP uses various terms whose specific meanings are defined in the Glossary. These terms are highlighted in the text with a dashed underscore and in blue, which is a hyperlink to the definition (e.g., actuary). This ISAP also uses terms defined in the IAIS Glossary or used in the ICS, in which case they have the same meaning. These terms are highlighted in the text with a double underscore and in orange colour (e.g., current estimate).

1.6. Financial Statements – This ISAP refers in places to "financial statements". This is consistent with the instructions for the ICS calculations, which do not define the term but describe it as the starting point for determining the ICS balance sheet. The instructions require the ICS filers to make adjustments in certain situations to their audited consolidated balance sheets (referred to in the ICS instructions as the group's "financial statements") for the purpose of determining their ICS result. Many of these adjustments are likely to require assistance from actuaries.

1.7. Cross-References – This ISAP refers to the content of the ICS. If the ICS is subsequently amended, restated, revoked, or replaced after 27 May 2023, the actuary should consider the

[1] Reliance on Others

[2] Assumptions and Methodology

[3] Assumptions and Methodology Set by Actuary

[4] Assumptions and Methodology Prescribed (other than by Law)

[5] Assumptions and Methodology Mandated by Law

extent to which guidance in this ISAP is still applicable and appropriate.

1.8. Effective Date – This ISAP is effective for {actuarial services performed/actuarial services commenced/actuarial services performed relevant to an ICS submission}[6] on or after [Date].

[6] Phrase to be selected and date to be inserted by standard-setter adopting or endorsing this ISAP.

Section 2. Appropriate Practices

2.1. Relevant Knowledge Requirements – In applying ISAP 1 paragraph 2.2.,[7] the actuary should have or obtain sufficient knowledge and understanding of information necessary to perform the assignment:

a. The ICS, in particular the requirements in relation to current estimates;

b. How those current estimates will be used to determine the capital requirements;

c. Any local regulatory requirements relating to the ICS;

d. The business environment in which the group operates, including the financial market(s) from which it obtains data;

e. The group's products and operations;

f. The methodologies and assumptions used by the group in other relevant contexts and the rationale to help identify modifications needed to comply with the ICS guidance; and

g. How law affects the application of the ICS.

2.2. Materiality – The actuary should understand the distinction between materiality with respect to the actuarial services and to the preparation of an ICS submission:

2.2.1. When appropriate for the work, the actuary should seek guidance from the principal or the group regarding materiality.

2.2.2. In applying ISAP 1 paragraph 2.4.,[8] the actuary's threshold of materiality with respect to the actuarial services should not be greater than the group's threshold of materiality for its ICS submission.

2.2.3. In all following paragraphs of this ISAP, any use of "material" or "materiality" is with respect to the actuarial services carried out in accordance with this ISAP.

2.3. Proportionality – In applying ISAP 1 paragraph 1.5.,[9] and in particular paragraph 1.5.2, the actuary should take into account materiality. In addition, the degree of refinement in specific assumptions or methods recommended by the actuary should be proportionate to their possible impact on the results of the actuarial services.

2.4. Contract Recognition, Contract Boundaries and Time Horizon – The actuary should consider whether the treatment of contract recognition and derecognition, contract boundaries, and time horizon under the ICS are different from those adopted under the financial statements. This may mean that the current estimates reported in the ICS, and/or the underlying assumptions, may need to be adjusted from the insurance liabilities reported externally in the group's financial statements. Where they are different, the relevant ICS assumptions and methodology should be treated as being subject to ISAP 1 paragraph 2.7.[10] or 2.8.[11] The actuary should disclose to the principal the work undertaken to identify what adjustments may or may not need to be made, including the rationale for, and impact of, the

[7] Knowledge of Relevant Circumstances

[8] Materiality

[9] Reasonable Judgment

[10] Assumptions and Methodology Set by Actuary

[11] Assumptions and Methodology Prescribed (other than by Law)

adjustments on the above items.

2.5. Methodology

2.5.1. Current Estimates – The actuary should consider whether the current estimates used for the ICS submission should be adjusted from the insurance liabilities in the financial statements. Any adjustments should be treated as being subject to ISAP 1 paragraph 2.7.[12] or 2.8.[13] The actuary should disclose to the principal the work undertaken to identify what adjustments may or may not need to be made, and the impact of the adjustments.

2.5.1.1. Management Actions – When determining current estimates for participating or adjustable products allowing for objective, realistic, and verifiable management actions as specified in the ICS, the actuary should consider the following:

a. Objective – The circumstances under which particular management actions would be taken should be clearly defined and documented, and agreed by the relevant managing bodies in the group.

b. Realistic and verifiable – The management actions should:

i. Be consistent with other assumptions and estimates within the ICS;

ii. Be consistent with relevant policies approved by the managing bodies and policyholders' reasonable expectations, where applicable;

iii. Not be dependent on actions by third parties such as other market participants to the extent that there could be a material possibility that the management actions could not be implemented in the scenario in which they may be needed; and

iv. Be reviewed in the light of actual management actions employed over time.

2.5.1.2. Options and Guarantees – Where valuation of options and guarantees for current estimates should be different from the insurance liabilities in the financial statements, the actuary should consider valuation methodologies, such as a stochastic approach, which take into account the expected cash flows relating to options and guarantees embedded in the insurance contracts.

2.5.2. ICS Capital Requirement

2.5.2.1. Grouping for calculating the ICS values:

a. When deciding on the Homogeneous Risk Groups (HRGs) for life insurance risks, the actuary should consider whether the HRGs are set narrowly enough so that the policies in each risk group reflect similar

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[12] Assumptions and Methodology Set by Actuary

[13] Assumptions and Methodology Prescribed (other than by Law)

risk characteristics but not so narrowly that the risk groups are not significant.

b. When required to map non-life risks to the lines of business and the ICS Non-life Segments, the actuary should consider the relationship between the granular reporting of current estimates in the ICS with the segmentations reported in the group's financial statements.

2.5.2.2. Risk Mitigation – The methodology chosen for allowing for risk mitigation in the ICS risk charges should ensure that the risk mitigation techniques (reinsurance or transfer of risk to the capital markets) are accurately and appropriately reflected. In assessing the effectiveness of the risk mitigation for the ICS risk charges, the actuary should consider:

a. The structure of the risk mitigation; the history, where available, of the impact of the risk mitigation and if this experience is likely to remain relevant; and the impact of credit risk inherent in the risk mitigation transactions; and

b. Under all reasonably foreseeable circumstances, whether the risk mitigation techniques are effective over the ICS time horizon and whether there are any conditions under which the risks would not be transferred or be mitigated.

2.5.2.3. The actuary should disclose to the principal professional judgments involved with grouping for calculating the ICS values and risk mitigation.

2.6. Reinsurance Recoverable, Cash Flow Patterns by Reinsurer Financial Strength Rating

The actuary should consider whether the use of approximate allocation processes is required to provide the requested reinsurance recoverable input into the ICS.

When providing these estimates or allocations, the actuary should consider the materiality of various estimate processes to the overall ICS result and should communicate any material assumptions or professional judgments involved with such estimates or allocations to the principal.

When the actuary undertakes a review of the reinsurance recoverable, the actuary should review the allocations for reasonability, including the reasonability of the distribution by reinsurer credit rating and the reasonability of the estimated cash flow pattern.

In particular, the actuary should be aware of the:

a. Possibility that a difference between the contract boundaries and recognition criteria in the ICS versus the financial statements may have a material impact on the ICS result;

b. Potential for significant professional judgment in the allocation or assignment of ceded liabilities to particular reinsurers or reinsurers of a particular financial strength rating;

c. Possibility for multiple financial strength ratings to exist for a given reinsurer of the group and the resulting possibility of confusion in the application of those ratings; and

d. Possible existence of cessions to external pools and the possible need to look through to the ratings of the individual insurers that are part of those pools.

When advising the principal on the measurement of ceded reinsurance contracts, the actuary should:

a. When estimating amounts recoverable under multiple reinsurance arrangements, consider whether and (if so) to what extent the order in which the reinsurance contracts apply would affect the estimates;

b. When estimating non-recoverable amounts, consider the:

- Financial condition of the reinsurer and the existence of collateral; and
- Possibility of disputes over recoverable amounts; and

c. Consider, where applicable, the impact of reinstatement premiums for ceded reinsurance contracts following claims.

2.7. Assumption Setting

2.7.1. General Considerations – The actuary should consider whether the assumptions under the ICS should be different from those adopted under the financial statements. Where they are different, the relevant ICS assumptions should be treated as being subject to ISAP 1 paragraph 2.7.[14] or 2.8.[15] The actuary should disclose to the principal changes in the assumptions, including the rationale for, and impact of, the changes.

2.7.2. Selecting Assumptions – Where the assumptions under the ICS to calculate current estimates should be different from those adopted under the financial statements for determining insurance liabilities, the actuary should consider criteria and factors such as the following to select assumptions that are relevant to the current estimates:

2.7.2.1. Policyholder Behaviour/Lapsation

a. Likely behaviour of policyholders, taking into account factors such as anti-selection and the effects of non-financial considerations;

b. Characteristics of how the insurance contracts are sold and serviced;

c. Significant scheduled changes in premiums, charges, benefits, or terms and conditions; and

d. Any short-term spikes in cancellation rates created by the exercise of certain options.

2.7.2.2. Future Discretionary Benefits

a. Discount rates used to calculate the present value of the cash flows that are consistent with the investment returns anticipated in the estimates of the future cash flows;

b. Returns on assets which are estimated using prospective expectations consistent with current expectations of future economic conditions; and

c. The associated impact, if any, on the estimates of future cash flows for cash flows which are subject to a floor or a cap.

2.7.2.3. Expenses

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[14] Assumptions and Methodology Set by Actuary

[15] Assumptions and Methodology Prescribed (other than by Law)

a. The group's cost-accounting and expense allocation policies;

b. The group's past experience and current business plans, and treatment of non-recurring expenses; and

c. Terms of any outsourcing arrangements.

2.7.2.4. Inflation

a. Relationship between the inflation and investment assumptions.

2.7.2.5. Currency Exchange

a. Current expectations of future currency exchange rates.

2.7.2.6. Insurance Risk

a. Characteristics of the insurance contract including the risks being insured;

b. Characteristics of the policyholder and the way the contract was sold;

c. Changes in risks due to pandemics, climate change impacts, etc.;

d. Past experience of incurred claims, including patterns of delays in reporting and payment, and the relevance to expected future experience; and

e. Practices of the entities of the group, such as underwriting procedures and claims management.

2.7.3. Taxation Effects – When the actuary undertakes a review of taxation effects in the ICS balance sheet, the actuary should review the deferred tax adjustments resulting from the ICS adjustments.

2.8. Non-Life Specific Issues

2.8.1. Premium Liabilities – The treatment of certain underwriting expenses such as general overheads can be a significant area of professional judgment in the calculation of the premium liability under the Market-Adjusted Valuation (MAV) approach. When the actuary's estimate of the premium liability includes such professional judgments, these should be disclosed in a communication to the principal. If instead the actuary utilizes a premium liability valuation option under the ICS that does not require such professional judgments, that should also be communicated to the principal.

2.8.2. Catastrophe Estimates – When the actuarial services include review of the catastrophe scenario and probable maximum loss (PML) estimates reported in that template, the actuary should review those catastrophe estimates for reasonability and consistency, including the consistency and comparability of the estimates across perils and jurisdictions.

2.9. Alternative Assumptions and Sensitivity Testing – In applying ISAP 1 paragraph 2.7.7.[16] the actuary should consider the sources and degree of uncertainty the actuary has assessed in relation to the adjustment to the estimates in the financial statements and in the calculation of the values reported in the ICS submission. The actuary should disclose to the principal the potential sources of uncertainty and, where appropriate, illustrate uncertainty by reference to

[16] Alternative Assumptions and Sensitivity Testing

possible scenarios.

Section 3. Communication

3.1. Disclosures – In addition to complying with ISAP 1 Section 3. Communication, the actuary should provide to the principal:

3.1.1. Descriptions of the material changes and adjustments in assumptions or methods from those used in the financial statements (2.5.1., 2.7.).

3.1.2. The following items, together with the rationale for and impact of any material changes, where applicable:

a. Adjustments made to contract recognition, contract boundaries, and time horizon (2.4.);

b. Assumptions or professional judgments involved with estimation or allocations for reinsurance recoverable (2.6.);

c. Professional judgments included in estimates of premium liability (2.8.); and

d. Potential sources of uncertainty (2.9.).

3.1.3. Professional judgments involved with grouping for calculating the ICS values and risk mitigation (2.5.2).

3.1.4. Any material uncertainties or limitations in the law and the approach taken to these in the context of the calculation of current estimates.