



ACTUARIAL STANDARDS BOARD

**Actuarial Standard
of Practice
No. 55**

Capital Adequacy Assessment

**Developed by the
Enterprise Risk Management Committee of the
Actuarial Standards Board**

**Adopted by the
Actuarial Standards Board
June 2019**

Doc. No. 194

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June 2019

TO: Members of Actuarial Organizations Governed by the Standards of Practice of the Actuarial Standards Board and Other Persons Interested in Capital Adequacy Assessment

FROM: Actuarial Standards Board (ASB)

SUBJ: Actuarial Standard of Practice (ASOP) No. 55, *Capital Adequacy Assessment*

This document contains ASOP No. 55, *Capital Adequacy Assessment*.

History of the Standard

When the ASB's Enterprise Risk Management (ERM) Task Force (now Committee) started work on ASOP No. 46, *Risk Evaluation in Enterprise Risk Management*, and ASOP No. 47, *Risk Treatment in Enterprise Risk Management*, it was intended that those standards would, in addition to providing general guidance to actuaries performing ERM work, provide support as building blocks for a standard on actuarial opinions regarding the still-developing own risk and solvency assessment (ORSA) process.

Starting in 2012, insurance regulators began implementing the ORSA process throughout the world. Specifically, the ORSA process is a part of the Insurance Core Principles (ICP) set out by the International Association of Insurance Supervisors (IAIS) and is required by the NAIC accreditation standards. A key feature of ORSA is that it requires a formal assessment of capital adequacy be a part of an insurer's ERM program. However, what is included in a capital adequacy assessment varies significantly across the industry. Given the disparity in current practices, the ASB determined that a separate ASOP covering capital adequacy assessments was needed to supplement ASOP Nos. 46 and 47.

In addition to satisfying regulatory requirements, risk-taking enterprises will, on occasion, want to assess their capital adequacy. The purpose of this proposed standard is to provide additional guidance to actuaries preparing an assessment of capital adequacy, whether for a specific regulatory requirement or for general management purposes.

First Exposure Draft

The ASB issued a first exposure draft of this ASOP in September 2016 with a comment deadline of January 31, 2017. Nine comment letters were received and considered in developing modifications that were reflected in the second exposure draft.

Second Exposure Draft

The ASB issued a second exposure draft in September 2017 with a comment deadline of March 1, 2018. Nine comment letters were received and considered in making changes that were reflected in the third exposure draft.

Third Exposure Draft

The ASB issued a third exposure draft in November 2018 with a comment deadline of March 1, 2019. Four comment letters were received and considered in making changes that were reflected in this ASOP. For a summary of the issues contained in these comment letters, please see appendix 2.

Notable Changes from the Third Exposure Draft

There were no notable changes from the third exposure draft. Certain changes were made to improve readability, clarity, or consistency.

The ASB thanks everyone who took the time to contribute comments and suggestions on the exposure drafts.

The ASB voted in June 2019 to adopt this standard.

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The Actuarial Standards Board (ASB) sets standards for appropriate actuarial practice in the United States through the development and promulgation of Actuarial Standards of Practice (ASOPs). These ASOPs describe the procedures an actuary should follow when performing actuarial services and identify what the actuary should disclose when communicating the results of those services.

ACTUARIAL STANDARD OF PRACTICE No. 55

CAPITAL ADEQUACY ASSESSMENT

STANDARD OF PRACTICE

Section 1. Purpose, Scope, Cross References, and Effective Date

- 1.1 Purpose—This actuarial standard of practice (ASOP or standard) provides guidance to actuaries when performing professional services with respect to an evaluation of the resiliency of an insurer through a **capital adequacy assessment**.
- 1.2 Scope—This standard applies to actuaries involved in **capital adequacy assessment** work for life or health insurers (including fraternal benefit societies and health benefit plans), property and casualty insurers, mortgage and title insurers, financial guaranty insurance companies, risk retention groups, public entity pools, captive insurers, and similar entities or a combination of such entities, when affiliated (collectively, referred to as “insurer”). The term insurer includes entities that insure or reinsure any entity mentioned in the preceding sentence. For the purposes of this standard, if an actuary is asked to assess the **capital** needed to support self-insured obligations of the types of insurance written by the businesses listed in the first sentence, the term “insurer” includes such self-insured obligations.

This standard applies to actuaries designing, performing, or reviewing a **capital adequacy assessment**.

If the actuary’s actuarial services involve reviewing a **capital adequacy assessment**, the reviewing actuary should be reasonably satisfied that the **capital adequacy assessment** was performed in accordance with this standard. The reviewing actuary should use the guidance in this standard to the extent practicable within the scope of the actuary’s assignment.

When designing, performing, or reviewing a **capital adequacy assessment** of a **group**, the actuary need not assess the **capital** of individual members of the **group** unless warranted by the specific circumstances of the **group**.

This standard does not apply to actuaries when providing actuarial services within the scope of ASOP No. 6, *Measuring Retiree Group Benefits Obligations and Determining Retiree Group Benefits Program Periodic Costs or Actuarially Determined Contributions*.

If the actuary departs from the guidance set forth in this standard in order to comply with applicable law (statutes, regulations, and other legally binding authority), or for any other reason the actuary deems appropriate, the actuary should refer to section 4. If a conflict

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exists between this standard and applicable law, the actuary should comply with applicable law.

- 1.3 Cross References—When this standard refers to the provisions of other documents, the reference includes the referenced documents as they may be amended or restated in the future, and any successor to them, by whatever name called. If any amended or restated document differs materially from the originally referenced document, the actuary should consider the guidance in this standard to the extent it is applicable and appropriate.
- 1.4 Effective Date—This standard is effective for work commenced on or after November 1, 2019.

Section 2. Definitions

The terms below are defined for use in this actuarial standard of practice and appear in bold throughout the ASOP.

- 2.1 Adverse Capital Event—A modeled or actual event that either a) causes **capital** to be significantly less than the **risk capital target(s)** or b) causes **capital** to be less than the **risk capital threshold(s)**.
- 2.2 Capital—The excess of the value of assets over the value of liabilities, which depends on the **valuation basis** chosen.
- 2.3 Capital Adequacy Assessment—An assessment of **capital** of an insurer relative to its **risk capital target(s)** or **risk capital threshold(s)**.
- 2.4 Group—Affiliated group of individual entities, of which at least one is an insurer.
- 2.5 Risk Appetite—The level of aggregate risk that an organization chooses to take in pursuit of its objectives.
- 2.6 Risk Capital Target—The preferred level of **capital** based on specified criteria, which is expressed as a function of a measure of risk. A **risk capital target** can be a single value or a range. There may be multiple **risk capital targets** based on different risk metrics at any one time. A **risk capital target** is aligned with the insurer's **risk tolerance** and may include individual company, regulatory, and rating agency developed targets.
- 2.7 Risk Capital Threshold—The minimum level of **capital** necessary for an entity to operate effectively based on specified criteria and expressed as a function of a measure of risk. There may be multiple **risk capital thresholds** based on different risk metrics at any one time. A **risk capital threshold** is aligned with the insurer's **risk tolerance** and may include individual company, regulatory, and rating agency developed thresholds or targets.

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- 2.8 Risk Profile—The risks to which an organization is exposed over a specified period of time.
- 2.9 Risk Tolerance—The aggregate risk-taking capacity of an organization.
- 2.10 Valuation Basis—An accounting or economic framework for the recognition and measurement of assets and liabilities.

Section 3. Analysis of Issues and Recommended Practices

- 3.1 General Considerations—In designing, performing, or reviewing a **capital adequacy assessment**, the actuary should take into account the following:
 - a. the insurer’s **risk profile** and **capital**;
 - b. the business and risk drivers, including the legal, tax, regulatory, and economic environments in which the insurer operates, as well as any past and anticipated changes or trends in those drivers;
 - c. the insurer’s plans and strategies and the likelihood of their successful execution;
 - d. the timing and variability of projected liability-related and asset-related cash flows (commonly the basis of a liquidity analysis), reflecting the marketability and availability of assets and other financial resources including reinsurance;
 - e. the timing and intensity of future calls on **capital** and the means and ability to replenish **capital** in a timely manner;
 - f. existing or accessible resources, including those from affiliated entities as well as the capabilities of the insurer and affiliated entities to use these resources. Examples of resources may include **capital**, data, computing power and storage, and human resources;
 - g. the effect on capital adequacy of changes, or projected changes, in the **risk profile**;
 - h. correlation of risks and events, concentration of exposures, diversification benefits, and the uncertainty of the interdependence between risks;
 - i. projections of future economic conditions;
 - j. parameter uncertainty; and
 - k. the methodology used to assess the adequacy of **capital** consistent with the scope of the actuary’s assignment.

3.2 Additional General Considerations—In designing, performing, or reviewing a **capital adequacy assessment**, the actuary should consider the following:

- a. the insurer’s definition of risk, the primary risk metric(s) used in the risk management system of the insurer, the risk identification process, the risks identified by the insurer, relevant management risk reports, and the limitations of the analytical tools and processes that will be used by the insurer to evaluate and quantify each risk;
- b. the insurer’s **risk appetite** and **risk tolerance**, including any conflicts between the **risk profile** and the **risk appetite** and how the **risk appetite** and **risk profile** are expected to change over time;
- c. inconsistencies between the **capital adequacy assessment** and information contained in publicly released reports the actuary considers relevant, such as annual statements and SEC filings, and the rationale for any inconsistencies;
- d. prior **capital adequacy assessments**, including underlying assumptions;
- e. if the insurer is part of a **group**, or the assessment is of a **group**:
 1. access to **capital** from the entities in the **group**;
 2. intra-**group** transactions, including, for example, dividends, reinsurance, and guarantees;
 3. transfers of risks from the **group** to each individual entity, for example, reinsurance with aggregates or limits on a multi-company basis; and
 4. transfers of risks from each entity to the **group** and the degree to which the **group** manages capital adequacy for each individual entity or primarily at the **group** level; and
- f. management actions, including whether they can be executed in a timely manner (see section 3.7).

3.3 Valuation Bases Underlying a Capital Adequacy Assessment—When designing or reviewing a **capital adequacy assessment**, the actuary should review the selected **valuation bases** for assets and liabilities to determine whether they are consistent with and appropriate for the intended use of the **capital adequacy assessment**. When doing so, the actuary should consider the following:

- a. criteria used by management for making risk and other financial decisions;
- b. any differences between the selected **valuation bases** and any mandated (for

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example, by regulators, accountants, or others) **valuation bases**;

- c. the time horizon(s) considered by management in decision-making;
- d. the characteristics and implications of the selected **valuation bases**; and
- e. any restrictions on assets or **capital** that are not otherwise reflected in the **valuation bases**.

3.4 **Risk Capital Target or Risk Capital Threshold**—When the actuary assists in the design of or the review of the appropriateness or applicability of **risk capital target(s)** or **risk capital threshold(s)**, the actuary should take into account the following (on a historical, current, and prospective basis, as appropriate):

- a. the **valuation bases**;
- b. the principal’s objectives for **capital** (such as maintaining minimum ratios of regulatory or rating agency capital, insurer stability, acquisition plans, new business, or infrastructure investment) and reasons they could change;
- c. normal and adverse environments;
- d. the time horizon over which the **capital** is assessed;
- e. the methods used to aggregate results, including diversification benefits and the uncertainty of the interdependence among the risks; and
- f. alignment with any existing **risk appetite** and **risk tolerance**.

3.5 **Additional Considerations Regarding Risk Capital Target or Risk Capital Threshold**—When the actuary assists in the design of or the review of the appropriateness or applicability of **risk capital target(s)** or **risk capital threshold(s)**, the actuary should consider the following:

- a. the approach used to determine the “sufficient” level of **capital** (such as models based on factors, historical averages, and economic capital), as well as the uncertainty inherent in the approach;
- b. the relative merits of using a range for the **risk capital targets** versus a single number;
- c. whether the insurer will be able to access additional **capital** if and when needed, including the availability and sources of **capital** within the **group** when the insurer is part of a **group**;
- d. the **risk capital targets** or **risk capital thresholds** that are in use within the

group, if applicable; and

- e. the relationship of **risk capital targets** or **risk capital thresholds** established by management to the current **capital** and risks of the insurer.

3.6 **Scenario Tests and Stress Tests**—When scenario tests and stress tests are included in a **capital adequacy assessment**, the actuary should follow applicable guidance for scenario testing and stress testing in ASOP No. 46, *Risk Evaluation in Enterprise Risk Management*, and ASOP No. 47, *Risk Treatment in Enterprise Risk Management*. In addition, the actuary should consider the following:

3.6.1 **Types of Tests**—One or more forms of scenario tests or stress tests such as the following:

- a. **Deterministic**—Tests to challenge the insurer in specific ways based on its unique exposures. For example, emerging risks may be considered using deterministic stress tests;
- b. **Stochastic**—Tests chosen from one or more sets of stochastically generated scenarios;
- c. **Combination**—Tests where multiple events happen simultaneously or sequentially; and
- d. **Reverse**—Reverse-engineered tests that create an **adverse capital event**.

3.6.2 **Level of Adversity**—Different levels of adversity such as the following:

- a. periods of normal volatility;
- b. plausible adverse conditions; and
- c. tail events.

3.6.3 **Sensitivity Testing**—The actuary may use sensitivity testing as part of a **capital adequacy assessment**. For example, sensitivity testing can be used to determine the applicability of the results of the scenario tests and stress tests under changing conditions, including the passage of time, as well as testing the materiality or impact of different assumptions, including stochastic model assumptions.

3.7 **Incorporating Management Actions**—When management actions are incorporated into a **capital adequacy assessment**, the actuary should consider the following:

- a. effectiveness and applicability of prior management actions, given changes between when such actions were taken and the projection period, for example:

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1. the magnitude of the impact of the prior action compared with the impact needed in the projection;
 2. the differences in risk environment, including differences in the insurer’s business and operations, and the legal and regulatory environment;
 3. differences in the insurer’s enterprise risk management program and **risk profile**; and
 4. differences in the insurer’s financial strength;
- b. feedback from board members or management;
 - c. legal, regulatory, and execution timing requirements;
 - d. experience, if available, of other insurers and non-insurance entities who took similar actions; and
 - e. expected reactions of regulators and other stakeholders.

3.8 Insurers That Operate under More Than One Regulatory Regime—When the actuary is designing, performing, or reviewing a **capital adequacy assessment** of an insurer that individually or as part of a **group** operates under more than one regulatory regime, the actuary should take into account the following factors:

- a. different regulatory regimes that might apply to different parts of the insurer or different entities (including non-insurance entities) of the **group**, including:
 1. cooperation and existence or non-existence of memorandums of understanding between regulators;
 2. differing requirements for **capital**, scenario and stress tests, and financial reporting structures;
 3. expected regulatory changes;
 4. differing amounts of regulatory oversight;
 5. impact of rules, restrictions, and time-lags on **capital** availability;
 6. differing definitions of “insurance company” and “regulated entity”; and
 7. differing **valuation bases**; and
- b. variations in taxation and approaches to litigation in various regulatory regimes.

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- 3.9 Additional Considerations Regarding Insurers That Are Part of a Group—When the actuary is designing, performing, or reviewing a **capital adequacy assessment** of an insurer that is part of a **group**, or the assessment is of a **group**, the actuary should consider the following, if applicable:
- a. level of complexity and extent of information available across all entities in the **group**;
 - b. levels of autonomy in selecting **capital** strategies for individual entities within the **group**; and
 - c. the impact of varying ownership interests, including the following:
 1. ownership splits, particularly between customers and shareholders;
 2. shares listed on multiple stock exchanges; and
 3. ownership concentrations.
- 3.10 Reliance on Data or Other Information Supplied by Others—When relying on data or other information supplied by others, the actuary should refer to the following ASOPs for guidance: ASOP No. 23, *Data Quality*; ASOP No. 41, *Actuarial Communications*; and, if applicable, ASOP No. 38, *Using Models Outside the Actuary’s Area of Expertise (Property and Casualty)*. When relying on projections or supporting analysis supplied by others, the actuary should disclose the fact and the extent of such reliance.
- 3.11 Documentation—The actuary should consider preparing and retaining documentation to support compliance with the requirements of section 3 and the disclosure requirements of section 4. When preparing such documentation, the actuary should prepare such documentation in a form such that another actuary qualified in the same practice area could assess the reasonableness of the actuary’s work or could assume the assignment if necessary. The degree of such documentation should be based on the professional judgment of the actuary and may vary with the complexity and purpose of the actuarial services. In addition, the actuary should refer to ASOP No. 41, section 3.8, for guidance related to the retention of file material other than that which is to be disclosed under section 4.

Section 4. Communications and Disclosures

- 4.1 Required Disclosures in an Actuarial Report—When issuing an actuarial report to which this standard applies, the actuary should refer to ASOP Nos. 23, 41, 46, 47, and, if applicable, 38. In addition, the actuary should disclose the following in such actuarial reports, if applicable:

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- a. the businesses (insurance or non-insurance) that are included or excluded (and reasons for exclusion) in the assessment;
- b. the key current and future business and risk drivers, including the legal, tax, regulatory, and economic environments in which the insurer operates (see section 3.1[b]);
- c. the key elements of business and risk management plans and strategies included in the **capital adequacy assessment** (see section 3.1[c]);
- d. how the timing and variability of projected liability-related and asset-related cash flows were taken into account (see section 3.1[d]);
- e. how future calls on **capital**, and the insurer's means and ability to replenish **capital** were taken into account (see section 3.1[e]);
- f. how correlation of risks and events, concentration of exposures, diversification benefits, and the uncertainty of the interdependence between risks were taken into account (see section 3.1[h]);
- g. the basis for projections of future economic conditions (see section 3.1[i]); and
- h. the selected valuation bases for assets and liabilities, and why they are appropriate (see section 3.3).

4.2 **Additional Disclosures in an Actuarial Report**—The actuary should include the following disclosures, when applicable, in an actuarial report:

- a. the extent to which information regarding prior sources of **capital** was reflected in the **capital adequacy assessment**, including any reasons for deviations from past trends in such sources and uses, if such information was available;
- b. how the insurer's risk management practices or processes, or the insurer's **risk profile, risk appetite, or risk tolerance** were reflected in the assumptions or methodology underlying the **capital adequacy assessment**, if they were material to the **capital adequacy assessment** (see sections 3.2[a] and 3.2[b]);
- c. any material differences between a prior **capital adequacy assessment** or relevant publicly available or internal reports and analyses and the assumptions underlying the **capital adequacy assessment**, if the actuary had access to such assessment or reports and analyses (see sections 3.2[c] and 3.2[d]);
- d. whether the actuary has considered any **capital adequacy assessments** performed at the **group** level and how that information has been used, and describe how being part of the **group** is reflected in the **capital adequacy assessment**, if the insurer is a part of a **group** (see sections 3.2[e] and 3.9);

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- e. a description of specific management actions, their impact on the **capital adequacy assessment**, and whether the actions could be effectively implemented in a timely manner, if the **capital adequacy assessment** reflects such actions (see sections 3.2[f] and 3.7);
- f. the actuary's role and the rationale underlying the design or the results of the actuary's review, if the actuary had a role in the design of or reviewed the **risk capital targets** or **risk capital thresholds** (see sections 3.4 and 3.5);
- g. a summary of the tests, including the type and levels of adversity, and the results of the tests, if scenario or stress tests are part of the **capital adequacy assessment** (see section 3.6);
- h. a description of how operating under more than one regulatory regime is reflected in the **capital adequacy assessment**, if the insurer operates, either individually or as part of a **group**, under more than one regulatory regime (see section 3.8);
- i. the disclosure in ASOP No. 41, section 4.2, if any material assumption or method was prescribed by applicable law;
- j. the disclosure in ASOP No. 41, section 4.3, if the actuary states reliance on other sources and thereby disclaims responsibility for any material assumption or method selected by a party other than the actuary; and
- k. the disclosure in ASOP No. 41, section 4.4, if, in the actuary's professional judgment, the actuary has otherwise deviated materially from the guidance of this ASOP.

Appendix 1

Background and Current Practices

Note: This appendix is provided for informational purposes and is not part of the standard of practice.

Background

Enterprise risk management (ERM) has been the focus of the insurance industry, including insurers, regulators, and rating agencies, for some time. In response to this increased attention to ERM, the Actuarial Standards Board (ASB) created the ERM Task Force (now Committee), which developed ASOP No. 46, *Risk Evaluation in Enterprise Risk Management*, and ASOP No. 47, *Risk Treatment in Enterprise Risk Management*. These two ASOPs provide guidance to the actuary for overall ERM work.

Historically, most insurers did not undertake formal assessments of capital adequacy. Instead, they tended to use rules of thumb (for example, premium to surplus ratios) or relied on regulatory rules (for example, risk-based capital ratios) or rating agencies (for example, A. M. Best's Capital Adequacy Ratio). Many companies also relied on stress tests or what-if analyses to assess capital levels. Insurance regulators designed deterministic stress tests that reflected potential experience beyond the range of an insurer's normal operations. Over time, deterministic stress tests were developed for a wide variety of assumptions.

Starting in 2012, insurance regulators began implementing the own risk and solvency assessment (ORSA) process throughout the world. Specifically, the ORSA process is required by the NAIC accreditation standards and is a part of the Insurance Core Principles (ICP 16) set out by the International Association of Insurance Supervisors (IAIS). A key feature of ORSA is that it requires a formal assessment of capital adequacy to be a part of an insurer's ERM program.

Current Practices

Given the new ORSA requirements and the increasing demands from regulators, rating agencies, and other external stakeholders, insurers are under pressure to perform formal, more sophisticated capital adequacy assessments. These formal capital adequacy assessments typically involve considerations of complex contingencies in determining the impact of adverse experience on the insurer and its capital adequacy, usually involving actuaries in some or all of the assessment process.

Company practice in making these assessments varies significantly. Some companies have created their own stochastic models (or use commercially available software) that simulate underwriting results across all lines of business and geographies, as well as economic conditions and investment results. These models typically incorporate the insurer's strategic plan and may include complicated feedback loops that reflect management's responses, if any, to specific situations (for example, underwriting results, a recession, multiple catastrophic events, a

pandemic). They may also include predictions of how regulators and rating agencies may react to changes in the financial condition of the insurer. Other models may analyze capital adequacy at very high levels of aggregation and have limited or no feedback loops (i.e., they analyze specific management actions one at a time).

Larger insurers may have whole departments focused on analyzing the global economy. For smaller insurers, this work may be tasked to a specific individual or may be outsourced to consultants. In many of these insurers, actuaries and non-actuaries are involved in these analyses and the building of the models.

Rating agencies and regulators are concerned with individual company and group-wide capital adequacy. Many insurers are part of complex, multinational organizations (including insurers and non-insurers) that span many different accounting, financial, and regulatory regimes. The relationships among the members of a group and the differences among these regimes can have a significant impact on capital adequacy and the group's ability to fulfill its promises to its customers. In most countries, ORSA requires groups operating in multiple countries to perform a group-wide assessment of their capital adequacy across all jurisdictions.

Appendix 2

Comments on the Third Exposure Draft and Responses

The third exposure draft of this ASOP, *Capital Adequacy Assessment*, was issued in November 2018 with a comment deadline of March 1, 2019. Four comment letters were received. The Enterprise Risk Management Committee carefully considered all comments received, reviewed the third exposure draft, and proposed changes. The ASB reviewed the proposed changes and made modifications where appropriate.

Summarized below are the significant issues and questions contained in the comment letters and responses. Minor wording or punctuation changes that were suggested but not significant are not reflected in the appendix, although they may have been adopted.

The term “reviewers” in appendix 2 includes the Enterprise Risk Management Committee and the ASB. Also, unless otherwise noted, the section numbers and titles used in appendix 2 refer to those in the third exposure draft.

GENERAL COMMENTS	
Comment	One commentator wanted to clarify that the insurer’s actual capital is not part of the assessment but is just compared to the needed capital.
Response	The reviewers believe that the standard is appropriate and therefore made no change.
SECTION 2. DEFINITIONS	
Section 2.5, Risk Appetite	
Comment	One commentator said that the definitions of “risk tolerance” and “risk appetite” were unclear and wanted examples added to clarify these terms.
Response	The reviewers note that the definitions are consistent with the definitions in ASOP No. 46, <i>Risk Evaluation in Enterprise Risk Management</i> , and ASOP No. 47, <i>Risk Treatment in Enterprise Risk Management</i> , and are appropriate for this ASOP, and therefore made no change.
Sections 2.6 and 2.7, Risk Capital Target and Risk Capital Threshold	
Comment	One commentator didn’t understand how “risk capital threshold” and “risk capital targets” were functions of “risk tolerance.” In addition, the same commentator didn’t see the need for both “risk capital targets” and “risk capital thresholds.”
Response	The reviewers agree the definitions need to be clarified regarding risk tolerance and made changes. The reviewers believe that using both “risk capital targets” and “risk capital thresholds” is appropriate and made no changes in this regard.
Section 2.7, Risk Capital Threshold	
Comment	One commentator said that a “risk capital threshold” was not always a function of “risk tolerance.”
Response	The reviewers agree the definition needs to be clarified regarding risk tolerance and made changes.
Section 2.9, Risk Tolerance	
Comment	One commentator said defining “risk tolerance” in terms of “capacity” was inappropriate and suggested an alternative definition.

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Response	The reviewers note that the definitions are consistent with the definitions in ASOP Nos. 46 and 47 and are appropriate for this ASOP, and therefore made no change.
SECTION 3. ANALYSIS OF ISSUES AND RECOMMENDED PRACTICES	
Section 3.1(f), General Considerations	
Comment	One commentator said that the list of “resources” in this section was too broad and the disclosure requirements might force an actuary to reveal confidential insurer information.
Response	The reviewers believe the guidance is appropriate but clarified the language to indicate that the list provides examples of resources.
Comment	One commentator said that availability of capital within a group did not necessarily mean the insurer could get the capital when needed.
Response	The reviewers agree and changed “available resources” to “accessible resources.”
Comment	One commentator said that the actuary needed to evaluate fungibility and frictional costs of transferring assets when doing a group capital assessment.
Response	The reviewers made a change from “available” to “accessible” to address the issue of fungibility but believe that the current guidance is otherwise sufficient.
Section 3.2(e)(1), Additional General Considerations	
Comment	One commentator suggested reviewing this section in light of any changes made in section 3.1(f) regarding the availability of capital.
Response	The reviewers believe the guidance in this section is sufficient and made no change.
Section 3.5(e), Additional Considerations Regarding Risk Capital Target or Risk Capital Threshold	
Comment	One commentator said that “regulators” in the parenthetical remark was redundant, as “regulators” were referenced explicitly later in the sentence.
Response	The reviewers modified the language.
Section 3.6.1(b), Stochastic	
Comment	One commentator said that contexts or sources should be provided for the types of stress tests used by the actuary.
Response	The reviewers believe that this concern is appropriately covered by the disclosure requirement in section 4.2(g) and made no change.
Section 3.6.2(c), Combination	
Comment	One commentator said that the requirement to consider “extremely unlikely catastrophic events” is too open-ended and may require the actuary to consider unreasonably severe events.
Response	The reviewers modified the language to “tail events.”
Section 3.7, Incorporating Management Actions	
Comment	One commentator was concerned that the requirement to consider past management actions had no time limit.
Response	The reviewers believe the current guidance is appropriate and therefore made no change.

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Comment	One commentator said that management actions should include an insurer’s internal allocation of capital.
Response	The reviewers believe the internal allocation of capital is beyond the scope of this standard and therefore made no change.
Section 3.8, Insurers That Operate in Multiple Jurisdictions (now Insurers That Operate under More Than One Regulatory Regime)	
Comment	One commentator questioned whether considering “variations in taxation” might require the actuary to assess capital on both a pre- and post-tax basis.
Response	The reviewers believe the guidance is appropriate and therefore made no change.
Comment	One commentator said that “multiple jurisdictions” should be changed to “multiple regulatory regimes” because there may be multiple regulatory regimes within the same jurisdiction.
Response	The reviewers agree and made the change.
SECTION 4. COMMUNICATIONS AND DISCLOSURES	
Section 4.1, Actuarial Communication (now Required Disclosures in an Actuarial Report)	
Comment	One commentator said the requirement to “disclose ... a discussion” was unclear and awkward.
Response	The reviewers agree and made changes to sections 4.1 (d), (e), and (h).
Section 4.2(a), Additional Disclosures in an Actuarial Report	
Comment	One commentator thought the standard required disclosure of all information whenever available, whether relevant to the current capital assessment or not, and recommended adding “and relevant” to 4.2 so it says, “as applicable and relevant.”
Response	The reviewers believe the current guidance is appropriate and made no change.
Section 4.2(c), Additional Disclosures in an Actuarial Report	
Comment	One commentator thought there was a conflict between the introductory paragraph that says, “as applicable” and section 4.2 (c) that requires disclosure if the actuary had access to prior assessments.
Response	The reviewers believe the current wording is clear and therefore made no change.
Section 4.2(d), Additional Disclosures in an Actuarial Report	
Comment	One commentator said that requiring the actuary to disclose whether he or she had considered a group capital assessment might raise red flags about the group when the actuary does not consider the group assessment.
Response	The reviewers believe the current language is appropriate and made no change.