



ACTUARIAL STANDARDS BOARD

● SECOND EXPOSURE DRAFT ●

**Actuarial Standard
of Practice
No. 22**

**Statements of Actuarial Opinion Based on Asset Adequacy Analysis
for Life Insurance, Annuity, or Health Insurance Reserves and
Other Liabilities**

**Comment Deadline:
November 30, 2020**

**Developed by the
Task Force to Revise ASOP No. 22 of the
Life Committee of the
Actuarial Standards Board**

**Approved for Exposure by the
Actuarial Standards Board**

March 2020

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TO: Members of Actuarial Organizations Governed by the Standards of Practice of the Actuarial Standards Board and Other Persons Interested in Statements of Actuarial Opinion Based on Asset Adequacy Analysis for Life Insurance, Annuity, or Health Insurance Reserves and Other Liabilities

FROM: Actuarial Standards Board (ASB)

SUBJ: Proposed Revision of Actuarial Standard of Practice (ASOP) No. 22, *Statements of Actuarial Opinion Based on Asset Adequacy Analysis for Life Insurance, Annuity, or Health Insurance Reserves and Other Liabilities*

This document contains a second exposure draft of a proposed revision of ASOP No. 22, now titled *Statements of Actuarial Opinion Based on Asset Adequacy Analysis for Life Insurance, Annuity, or Health Insurance Reserves and Other Liabilities*.

Please review this exposure draft and give the ASB the benefit of your comments and suggestions. Each written comment letter or email received by the comment deadline will receive appropriate consideration by the drafting committee and the ASB.

The ASB requests comments be provided using the Comments Template that can be found [here](#) and submitted electronically to **comments@actuary.org**. Include the phrase “ASB COMMENTS” in the subject line of your message. Please note: Any message not containing this exact phrase in the subject line will be deleted by our system’s spam filter. Also, please indicate in the template and in the body of the email if your comments are being submitted on your own behalf or on behalf of a company or organization.

The ASB posts all signed comments received to its website to encourage transparency and dialogue. Comments received after the deadline may not be considered. Anonymous comments will not be considered by the ASB nor posted to the website. Comments will be posted in the order that they are received. The ASB disclaims any responsibility for the content of the comments, which are solely the responsibility of those who submit them.

For more information on the exposure process, please see the ASB Procedures Manual.

Deadline for receipt of comments in the ASB office: **November 30, 2020**

History of the Standard

In 1993, the ASB adopted ASOP No. 22, *Statutory Statements of Opinion Based on Asset Adequacy Analysis by Appointed Actuaries for Life or Health Insurers*, which replaced Financial Reporting Recommendation No. 7, *Statement of Actuarial Opinion for Life Insurance Company Statutory Annual Statements*, and No. 11, *Statement of Actuarial Opinion for Interest-Indexed*

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Universal Life Insurance Contracts, as guidance for opinions under section 8 of the model Actuarial Opinion Memorandum Regulation (1991).

Prior to the adoption, there had been discussions about whether ASOP No. 22 should cover opinions under both section 7 and section 8 of the model regulation. The ASB decided to limit ASOP No. 22 to cover opinions required under only section 8 and adopted Actuarial Compliance Guideline (ACG) No. 4, *Statutory Statements of Opinion Not Including an Asset Adequacy Analysis by Appointed Actuaries for Life and Health Insurers*, in October 1993 to provide guidance on opinions required under section 7. At the time of this revision to ASOP No. 22, ACG No. 4 continues to be relevant for actuaries working for companies that receive an exemption from asset adequacy analysis.

In the late 1990s and early 2000s, the ASB reviewed all standards of practice related to cash flow testing. Portions of ASOP No. 14, *When to Do Cash Flow Testing for Life and Health Insurance Companies*, were incorporated into ASOP No. 7, *Analysis of Life, Health, or Property/Casualty Insurer Cash Flows*, and ASOP No. 22. In 2001, the ASB adopted the revised ASOP No. 7 and ASOP No. 22 and repealed ASOP No. 14.

In December 2012, the National Association of Insurance Commissioners (NAIC) initially adopted the *Valuation Manual*, which sets forth the minimum reserve and related requirements for jurisdictions where the *Standard Valuation Law*, as amended by the NAIC in 2009, has been enacted. The *Valuation Manual* took effect on January 1, 2017, pursuant to section 11 of the *Standard Valuation Law*. Requirements for the annual actuarial opinion and memorandum pursuant to section 3 of the *Standard Valuation Law* are provided in “VM-30, Actuarial Opinion and Memorandum Requirements.” In December 2017, the NAIC also adopted Actuarial Guideline LI, *The Application of Asset Adequacy Testing to Long-Term Care Insurance Reserves*, which provides uniform guidance and clarification of requirements for asset adequacy testing for long-term care insurance. The NAIC plans to incorporate Actuarial Guideline LI into VM-30 at a future date.

In response to these NAIC activities, the ASB decided to revise this ASOP.

First Exposure Draft

The first exposure draft was approved by the ASB in December 2018 with a comment deadline of June 1, 2019. Fourteen comment letters were received and considered in making changes that are reflected in the second exposure draft.

For a summary of issues contained in these comment letters, please see appendix 2.

Notable Changes from the First Exposure Draft

Notable changes made to the exposure draft are summarized below. Additional changes were made to improve readability, clarity, or consistency.

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1. Clarified the scope in section 1.2, and modified the title and language throughout the ASOP accordingly.
2. Removed the defined term “investment yield risk” in section 2.8 and modified language throughout the ASOP accordingly.
3. Removed the defined term “moderately adverse deviation” in section 2.11 and modified language throughout the ASOP accordingly.
4. Combined all assumption-related content (trends, margins, sensitivity testing) into section 3.1.2.
5. Revised the discount rate guidance, now in section 3.1.2.3.
6. Added section 3.1.3 to provide guidance on reinsurance ceded.
7. Added section 3.1.6 to provide guidance on separate account assets.
8. Significantly revised the management action guidance in section 3.1.7.
9. Added section 3.1.10 to provide guidance on changes in methods, models, or assumptions.
10. Strengthened documentation requirements in section 3.4.
11. Updated disclosures in section 4.1.

Notable Changes from the Existing ASOP

A cumulative high-level summary of the notable changes from the existing ASOP are summarized below.

1. Changed the purpose, scope, and title from applying to actuaries when providing a statement of actuarial opinion for life and health insurers to applying to actuaries when providing a statement of actuarial opinion relating to asset adequacy analysis of life insurance, annuity, or health insurance reserves and other liabilities.
2. Added sections to provide guidance on the following:
 - trends in assumptions (section 3.1.2.1);
 - assumption margins (section 3.1.2.2);
 - discount rates (section 3.1.2.3);

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- sensitivity testing (section 3.1.2.4);
 - reinsurance ceded (section 3.1.3);
 - the use of cash flows from other financial calculations (section 3.1.5);
 - separate account assets (section 3.1.6); and
 - changes in methods, models, or assumptions section (3.1.10).
3. Significantly revised the management action section (section 3.1.7).
 4. Strengthened documentation requirements (section 3.4).
 5. Modified disclosure items (section 4).

The ASB decided not to repeal Actuarial Compliance Guideline (ACG) No. 4, *Statutory Statements of Opinion Not Including an Asset Adequacy Analysis by Appointed Actuaries for Life and Health Insurers*, to continue providing guidance to actuaries issuing opinions not including an asset adequacy analysis.

The ASB voted in March 2020 to approve this exposure draft.

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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. 22

**STATEMENTS OF ACTUARIAL OPINION BASED ON
ASSET ADEQUACY ANALYSIS OF LIFE INSURANCE, ANNUITY, OR
HEALTH INSURANCE RESERVES AND OTHER LIABILITIES**

STANDARD OF PRACTICE

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

- 1.1 Purpose—This actuarial standard of practice (ASOP) provides guidance to actuaries when performing actuarial services with respect to providing a statement of actuarial opinion relating to **asset adequacy analysis** of life insurance, annuity, or health insurance reserves and other **liabilities**, pursuant to applicable law (statutes, regulations, and other legally binding authority).
- 1.2 Scope—This standard applies to actuaries when performing actuarial services with respect to providing a statement of actuarial opinion based on **asset adequacy analysis** of life insurance, annuity, or health insurance reserves and other **liabilities**, under the following circumstances:
- a. the statement of actuarial opinion is prepared to comply with applicable law based on the model *Standard Valuation Law* and VM-30 of the NAIC *Valuation Manual*; or
 - b. the statement of actuarial opinion is prepared for an insurance company to comply with other applicable law.

If the statement of actuarial opinion encompasses health insurance **liabilities**, ASOP No. 28, *Statements of Actuarial Opinion Regarding Health Insurance Liabilities and Assets*, may also apply. If the statement of actuarial opinion includes reinsurance, ASOP No. 11, *Financial Statement Treatment of Reinsurance Transactions Involving Life or Health Insurance*, may also apply.

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

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- 1.4 Effective Date—This standard is effective for all statements of actuarial opinion covered by the scope of this ASOP issued on or after four months after adoption by the Actuarial Standards Board.

Section 2. Definitions

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

- 2.1 Asset—Any resource that can generate revenue **cash flows** or reduce disbursement **cash flows**.
- 2.2 Asset Adequacy Analysis—An analysis of the adequacy of reserves and other **liabilities** being tested, in light of the **assets** supporting such reserves and other **liabilities**, as specified in the statement of actuarial opinion.
- 2.3 Cash Flow—Any receipt, disbursement, or transfer of cash or other **assets**; includes policy **cash flows** and **cash flows** that are not policy related, such as **cash flows** from **assets**, corporate expenses, and litigation costs.
- 2.4 Cash Flow Risk—The risk that the amount or timing of **cash flows** will differ from expectations or assumptions.
- 2.5 Cash Flow Testing—The projection and comparison of the timing and amount of **cash flows** under one or more **scenarios** in order to evaluate **cash flow risks**.
- 2.6 Gross Premium Reserve—The actuarial present value of future benefits, expenses, and related amounts less the actuarial present value of future gross premiums and related amounts.
- 2.7 Gross Premium Reserve Test—The comparison of the **gross premium reserve** computed under one or more **scenarios** to the financial statement reserves and other **liabilities**.
- 2.8 Liability—Any commitment by, or requirement of, an insurer that can reduce revenue **cash flows** or generate disbursement **cash flows**.
- 2.9 Moderately Adverse Conditions—Conditions that include one or more unfavorable, but not extreme, events that have a reasonable probability of occurring during the testing period.
- 2.10 Scenario—A set of economic and other assumptions used in **asset adequacy analysis**.
- 2.11 Subsequent Events—Material events that occur after the valuation date and before the date the statement of actuarial opinion is filed.

Section 3. Analysis of Issues and Recommended Practices

- 3.1 **Asset Adequacy Analysis**—When performing an **asset adequacy analysis**, the actuary should choose a block of **assets** such that the statement value of those **assets** is no greater than the statement value of the reserves and other **liabilities** being tested. The actuary should determine whether additional **assets** are needed to support the reserves and other **liabilities** being tested under **moderately adverse conditions**. If the actuary determines that additional **assets** are needed, then the actuary should establish an additional reserve equal to the statement value of those additional **assets** and confirm that the total **assets**, including the additional **assets**, are adequate.

The actuary should use professional judgment in choosing **assets** that are appropriate for the analysis method and are not used to support reserves and other **liabilities** other than those being tested by the actuary. The actuary should consider the types and associated risks of the **assets** and **liabilities** in the **asset adequacy analysis**.

- 3.1.1 **Analysis Methods**—The actuary should use professional judgment in choosing an appropriate analysis method. The actuary may use a single method of analysis for all reserves and other **liabilities** or a number of different methods of analyses for each of several blocks of business.

The actuary should consider using **cash flow testing** (see ASOP No. 7, *Analysis of Life, Health, or Property/Casualty Insurer Cash Flows*). **Cash flow testing** may be used in a variety of circumstances and is generally appropriate where **cash flows** may vary, or where the present value of **cash flows** may vary, under different **scenarios**.

The actuary may consider using analysis methods other than **cash flow testing** to evaluate the adequacy of the **assets** to support the reserves and other **liabilities** being tested. The following are examples of other analysis methods:

- a. **Gross Premium Reserve Test**—A **gross premium reserve test** may be appropriate where the testing would emphasize the sensitivity of results under **moderately adverse conditions**. For example, this type of method may be appropriate for term insurance backed by noncallable bonds.
- b. **Demonstration of Conservatism**—A demonstration of conservatism may be appropriate when the degree of conservatism in the reserves and other **liabilities** is so great that the **cash flows** are covered under **moderately adverse conditions**. For example, this type of method may be appropriate for a block of accidental death and dismemberment insurance if that block is reserved using conservative interest rates and mortality/morbidity tables.

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- c. Demonstration of Immaterial Variation—A demonstration that the risks are not subject to material variation may be appropriate when the **cash flow risks** have been limited by product design and the investment strategy. For example, this type of method may be appropriate for a non-life contingent payout annuity.
 - d. Risk Theory Techniques— Analysis using risk theory techniques may be appropriate when the risks inherent in products with short-duration **liabilities** are supported by short-duration **assets**. Such techniques can be used to measure **liability cash flows** for risks that are subject to large fluctuations that arise infrequently since the **liability cash flows** can rarely be matched to **asset cash flows** under **moderately adverse conditions**. For example, this method may be appropriate for risks involving a small number of large individual claims over a short period, such as catastrophe or stop loss coverage.
 - e. Loss Ratio Methods—Loss ratio methods may be appropriate when the **cash flows** are of short duration. Under this method, morbidity or mortality costs may be tested under **moderately adverse conditions**. For example, this method may be appropriate for certain short-term disability coverages.
- 3.1.2 Assumptions—The actuary should choose assumptions that are appropriate for the analysis.
- 3.1.2.1 Trends—The actuary should consider reflecting anticipated trends in the assumptions. When determining the level of trend to apply, if any, the actuary should consider the following:
 - a. whether different trends should be used for different types of business; for example, mortality improvement may be different between life and annuity products;
 - b. the source and credibility of the assumptions; for example, different trends may be appropriate when using company experience vs. industry studies; and
 - c. the impact of trends on **asset adequacy analysis** results; for example, the effect of future economic conditions on policyholder elections.
 - 3.1.2.2 Margins—The actuary should consider including margins in assumptions to reflect adverse deviation. When determining the level of assumption margins, if any, the actuary should consider the following:
 - a. the level of uncertainty for the assumption, including sparsity of data;

- b. the degree of adverse deviation covered;
 - c. whether the margins vary over time;
 - d. whether individual margins or aggregate margins are used in the analysis;
 - e. the interaction between assumptions;
 - f. the possibility that more than one adverse condition could occur at one time; and
 - g. the impact of any prescribed margin on the overall analysis.
- 3.1.2.3 Discount Rates—When using an analysis method that requires the use of discount rates, the actuary should choose discount rates that are consistent with the **assets** used in the analysis.
- 3.1.2.4 Sensitivity Testing of Assumptions—In setting assumptions and assumption margins, the actuary should consider performing sensitivity testing of how variations in an assumption or combinations of assumptions affect the **asset adequacy analysis** results.
- 3.1.3 Reinsurance Ceded—The actuary should consider reflecting reinsurance ceded **cash flows** in the **asset adequacy analysis** regardless of whether the analysis is performed for a direct writing company or a reinsurer. In deciding whether and how to reflect the reinsurance ceded **cash flows**, the actuary should solicit information from management regarding the extent of reinsurance, the associated **cash flows**, their collectability, any disputes with reinsurers, and practices regarding provisions for reinsurance ceded. The actuary’s consideration of reinsurance ceded does not imply an opinion on the financial condition of any reinsurer.
- 3.1.4 Aggregation During Testing— When performing an **asset adequacy analysis**, the actuary may aggregate reserves and other **liabilities** for multiple blocks of business if the **assets** or **cash flows** from the blocks are available to support the reserves and other **liabilities** of the aggregated blocks of business. When performing this aggregation, the actuary should not use **assets** or **cash flows** from one block of business to discharge the reserves and other **liabilities** of another block of business if those **assets** or **cash flows** cannot be used for that purpose.
- 3.1.5 Use of Cash Flows from Other Financial Calculations—If the actuary uses **cash flows** from other financial calculations (for example, principle-based reserve or capital models) in the **asset adequacy analysis**, the actuary should consider any differences between the **cash flows** in the financial calculations and the **asset adequacy analysis** due to items such as the following:

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- a. starting **assets**;
- b. assumptions, including margins;
- c. sensitivities;
- d. interim shortfalls in accumulated **cash flows**;
- e. any requirements for the aggregation of results that are specified by applicable law;
- f. distribution of surplus; and
- g. taxes.

If the actuary uses **cash flows** from other financial calculations, the actuary should confirm that the assumptions underlying these **cash flows** are appropriate for an **asset adequacy analysis** under **moderately adverse conditions**.

- 3.1.6 Separate Account Assets—When separate account business is included in the analysis, the actuary may include separate account **assets** in excess of separate account reserves and other **liabilities**. This treatment would result in fewer general account **assets** being used in the analysis than if the separate account business had been excluded.

The actuary should consider whether it is appropriate to use **cash flows** from separate account **assets** to support reserves and other **liabilities** that are not associated with the separate account. When doing so, the actuary should take into account any legal restrictions, such as separate account **assets** that are legally insulated by state law.

- 3.1.7 Management Action—When reflecting in-force management actions in the **asset adequacy analysis**, the actuary should consider the following:

- a. the insurer's capacity and intent to take such actions;
- b. the insurer's documented procedures and historical practice;
- c. the policy provisions;
- d. whether other assumptions, such as policyholder behavior assumptions, are reasonable in light of the actions; and
- e. whether the actions are reasonable and comply with applicable law.

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The actuary should consider quantifying the impacts of these changes as part of the analysis.

- 3.1.8 Use of Data or Analyses Predating the Valuation Date—If appropriate, the actuary may use data or analyses predating the valuation date. When using data or analyses prior to the valuation date, the actuary should take into account the reasonableness of such prior period data, studies, analyses, or methods; whether key assumptions are still appropriate; and whether any material events have occurred prior to the valuation date that would invalidate the **asset adequacy analysis** on which the actuary’s opinion is based.

Examples of data or analyses an actuary may use include:

- a. data taken from a time that predates the valuation date, such as data from September 30 to support a December 31 valuation;
 - b. an **asset adequacy analysis** performed prior to the valuation date;
 - c. an analysis performed at the time of policy issue; and
 - d. prior analysis of a closed block of business.
- 3.1.9 Testing Horizon—The actuary should perform an **asset adequacy analysis** over a period that extends to a point at which, in the actuary’s professional judgment, the use of a longer period would not materially affect the results of the analysis.
- 3.1.10 Changes in Methods, Models, or Assumptions—If the methods, models, or assumptions differ from those in the prior opinion, the actuary should consider quantifying the impacts of these changes.

The use of new methods, models, or assumptions for new **liability** segments (for example, a new line of business or product) or new **asset** amounts is not a change within the meaning of this section. Similarly, when the analysis is based on the periodic updating of experience data, factors, or weights, such periodic updating is not a change within the meaning of this section.

- 3.1.11 Completeness—When performing the **asset adequacy analysis**, the actuary should take into account anticipated material **cash flows** such as renewal premiums, guaranteed and nonguaranteed benefits and charges, expenses, and taxes. In determining the **assets** supporting the tested reserves and other **liabilities**, the actuary should consider any **asset** segmentation system used by the company.

The actuary should confirm that the total amount of any reserves and other **liabilities** reported as “not analyzed” is immaterial.

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- 3.1.12 Reliance on Others for Data, Projections, and Supporting Analysis—The actuary may rely on data, projections, and supporting analysis supplied by others. When practicable, the actuary should review the data, projections, and supporting analysis for reasonableness and consistency. For further guidance, the actuary should refer to ASOP No. 23, *Data Quality*, and ASOP No. 41, *Actuarial Communications*. The actuary should disclose the extent of any such reliance.
- 3.1.13 Subsequent Events—The actuary should make a reasonable effort to be informed about **subsequent events**.
- 3.2 Forming an Opinion with Respect to Asset Adequacy Analysis—When forming an opinion with respect to **asset adequacy analysis**, the actuary should follow the guidance below.
- 3.2.1 Reasonableness of Results—The actuary should review the modeled future economic and experience conditions and test results for reasonableness.
- 3.2.2 Adequacy of Reserves and Other Liabilities—The actuary should determine whether the reserves and other **liabilities** being tested are adequate under **moderately adverse conditions**, in light of the **assets** supporting such reserves and other **liabilities**. The actuary should recognize that holding reserves or other **liabilities** so great as to withstand any conceivable circumstance, no matter how adverse, may imply an excessive level of reserves or other **liabilities**.
- 3.2.3 Analysis of Scenario Results—If the supporting **assets** are insufficient to meet the reserves and other **liabilities** under a **scenario**, the actuary should consider whether further analysis is required. However, this situation does not necessarily mandate additional reserves or other **liabilities**. Further analysis may indicate that current reserves and other **liabilities** are adequate. For example, if a large number of **scenarios** were run, the failure of a small percentage of them may not indicate the need for additional reserves or other **liabilities**.
- 3.2.4 Aggregation of Results—If business segments are modeled separately, the actuary may consider offsetting deficiencies in one business segment with sufficiencies in another business segment for the purposes of reporting and documenting the results of testing. The actuary should consider the type and timing of **cash flows** and the related **cash flow risks**. When choosing to aggregate results of different business segments, the actuary should consider the comparability of elements of the analysis such as analysis methods, **scenarios**, discount rates, and sensitivity of assumptions.
- 3.2.5 Results from Prior Years—The actuary should consider analyzing the results over time and reconciling the results from prior years.
- 3.2.6 Opinions of Other Actuaries—When more than one actuary contributes to the **asset adequacy analysis**, the opining actuary should form an overall opinion without claiming reliance on the opinions of other actuaries.

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- 3.2.7 Deficiencies—The actuary should be aware of any deficiencies or limitations in the data, analyses, assumptions, or related information used in the **asset adequacy analysis**.
- 3.3 Statement of Actuarial Opinion Based on Asset Adequacy Analysis—The actuary should follow the form, content, and recommended language of the statement of actuarial opinion, as specified by applicable law. The actuary should identify the intended purpose of the statement of actuarial opinion. The actuary should include a statement on the adequacy of reserves and other **liabilities** based on an **asset adequacy analysis**, the details of which are contained in the supporting memorandum.
- 3.4 Documentation—The actuary should prepare and retain documentation to support compliance with the requirements of section 3 and the disclosure requirements of section 4. The documentation should be 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 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, including statements of actuarial opinion, regulatory **asset** adequacy issues summaries (RAAISs), and supporting memoranda, the actuary should refer to ASOP Nos. 7, 11, 23, 28, and 41. In addition, the actuary should disclose the following in such actuarial reports, whether or not required by applicable law:
- a. the intended purpose of the statement of actuarial opinion and a statement on the adequacy of reserves and other **liabilities** based on an **asset adequacy analysis** (see section 3.3);
 - b. whether additional reserves have been established due to the **asset adequacy analysis** (see section 3.1);
 - c. the **assets** chosen, the methodology used for their selection, and their appropriateness for the analysis method (see section 3.1);
 - d. the **asset adequacy analysis** methods chosen, and the information and analysis used to support the determination that the method is appropriate for the reserves and other **liabilities** being tested (see section 3.1.1);
 - e. the material risks analyzed, any sensitivity tests performed on those risks, and the results of those tests, when relevant (see sections 3.1 and 3.1.2.4);

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- f. the assumptions chosen and any trends reflected in the assumptions (see section 3.1.2);
- g. the margins chosen, even if the actuary concludes that a margin is not necessary (see section 3.1.2.2);
- h. whether and how reinsurance ceded **cash flows** were reflected in the **asset adequacy analysis** (see section 3.1.3);
- i. whether any aggregation was done, either during testing or during analysis of results (see sections 3.1.4 and 3.2.4);
- j. the use of **cash flows** from other financial calculations in the **asset adequacy analysis** (see section 3.1.5);
- k. the use of **assets**, reserves and other **liabilities**, and **cash flows** from the separate account in the **asset adequacy analysis** (see section 3.1.6);
- l. the assumed results of management actions considered in forming an opinion (see section 3.1.7);
- m. the use of any prior period data, studies, financial analyses, and methods; whether such use is still appropriate; and whether any material events have occurred prior to the valuation date that would invalidate the **asset adequacy analysis** on which the actuary’s opinion is based (see section 3.1.8);
- n. the testing horizon used in the **asset adequacy analysis** (see section 3.1.9);
- o. any material changes in the methods, models, or assumptions from those used in the prior opinion or if the models, assumptions, or methods used in the prior opinion are unknown (see section 3.1.10);
- p. the basis of any judgment that the total amount of any reserves and other **liabilities** reported as “not analyzed” is immaterial (see section 3.1.11);
- q. extent of any reliance on the work product of others (see section 3.1.12);
- r. any **subsequent events** of which the actuary is aware (see section 3.1.13);
- s. the criteria used to form an opinion about the adequacy of reserves or other **liabilities** (see section 3.2.2); and
- t. any deficiencies or limitations in the data, analyses, assumptions, or related information used in the **asset adequacy analysis** (see section 3.2.7).

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

- a. the disclosure in ASOP No. 41, section 4.2, if any material assumption or method was prescribed by applicable law; and
- b. 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;
- c. the disclosure in ASOP No. 41, section 4.4, if, in the actuary's professional judgment, the actuary has 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

In 1975, the National Association of Insurance Commissioners (NAIC) began requiring that a statement of actuarial opinion on reserves and related actuarial items be included in the annual statement filed by life and health insurance companies. In response to this requirement, the American Academy of Actuaries promulgated Financial Reporting Recommendation No. 7, *Statement of Actuarial Opinion for Life Insurance Company Statutory Annual Statements*, setting forth the actuary's professional responsibilities in providing such an opinion.

The form and content of this actuarial opinion, as specified in the instructions to the annual statement, dealt specifically with reserves and did not explicitly address the adequacy of the assets supporting these reserves and other liabilities to meet the obligations of the company. Although not explicitly required to do so by the opinion or by existing professional standards, some actuaries began to analyze the adequacy of assets in forming their opinions. In addition, when the state of New York adopted the 1980 amendments to the *Standard Valuation Law*, it established an optional valuation basis for annuities, permitting lower reserves provided that an asset adequacy analysis supported the actuarial opinion with respect to such reserves.

The type of asset adequacy analysis most widely used by actuaries is multi-scenario cash flow testing. To guide actuaries choosing to use this technique, the Actuarial Standards Board (ASB) adopted ASOP No. 7, then titled *Performing Cash Flow Testing for Insurers*, in October 1988. In addition, in July 1990, the ASB adopted ASOP No. 14, *When to Do Cash Flow Testing for Life and Health Insurance Companies*, to provide guidance in determining whether to do cash flow testing in forming a professional opinion or recommendation.

In December 1990, the NAIC amended the *Standard Valuation Law*, and, in June 1991, the NAIC adopted the *Actuarial Opinion and Memorandum Regulation (AOMR)*. These actions had the effect of moving the requirement for the statement of actuarial opinion from the annual statement instructions into the model law itself and provided detailed instructions for the form and content of the opinion and the newly required supporting memorandum. The most significant changes made by the NAIC in the 1991 *AOMR* were that companies were required to name an appointed actuary, and, for companies subject to section 8 of the *AOMR*, statements of actuarial opinion on reserve and other liability adequacy were required to be based on an asset adequacy analysis described in the supporting memorandum. The asset adequacy analysis required by the regulation must conform to the standards of practice promulgated by the ASB.

For companies subject to section 7, the 1991 *AOMR* required an actuarial opinion that the reserves and related actuarial items have been calculated in accordance with the *Standard*

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Valuation Law and supporting regulations. Section 7 of the 1991 AOMR did not require an opinion on reserve adequacy.

The ASB adopted Actuarial Compliance Guideline (ACG) No. 4, *Statutory Statements of Opinion Not Including an Asset Adequacy Analysis by Appointed Actuaries for Life and Health Insurers*, in 1993 to provide guidance for section 7 opinions.

In 1993, the ASB also adopted ASOP No. 22, *Statutory Statements of Opinion Based on Asset Adequacy Analysis by Appointed Actuaries for Life or Health Insurers*, which replaced Financial Reporting Recommendation No. 7 and No. 11 as guidance for section 8 opinions.

In the late 1990s and early 2000s, the ASB reviewed all standards of practice related to cash flow testing. Portions of ASOP No. 14 were incorporated into ASOP Nos. 7 and 22. In 2001, the ASB adopted the revised ASOP Nos. 7 and 22 and repealed ASOP No. 14.

Starting in 2001, the model AOMR adopted by the NAIC required all actuarial opinions to be based on asset adequacy analysis.

In addition to the AOMR, actuarial opinions are required under the NAIC's *Synthetic Guaranteed Investment Contracts Model Regulation* and under the NAIC's *Separate Accounts Funding Guaranteed Minimum Benefits under Group Contracts Model Regulation*.

In 2012, the NAIC initially adopted the *Valuation Manual*, which sets forth the minimum reserve and related requirements for jurisdictions where the *Standard Valuation Law*, as amended by the NAIC in 2009, has been enacted. The *Valuation Manual* took effect on January 1, 2017, pursuant to section 11 of the *Standard Valuation Law*. Requirements for the annual actuarial opinion and memorandum pursuant to section 3 of the *Standard Valuation Law* are provided in "VM-30: Actuarial Opinion and Memorandum Requirements." In December 2017, the NAIC adopted Actuarial Guideline LI, *The Application of Asset Adequacy Testing to Long-Term Care Insurance Reserves*, which provides uniform guidance and clarification of requirements for asset adequacy testing for long-term care insurance. The NAIC plans to incorporate Actuarial Guideline LI into VM-30 at a future date.

In response to these NAIC activities, the ASB decided to revise this ASOP.

Current Practices

Statements of actuarial opinion on reserves and related items have been provided since 1975, and practice regarding the basic elements of the opinion is well established. With respect to opinions based on asset adequacy analysis, current practice continues to evolve.

Actuaries who perform asset adequacy analysis use professional judgment in choosing the appropriate methods, testing periods, modeling techniques, levels of aggregation, etc. The actuary forms an opinion based on the results of the asset adequacy analysis results and any additional analyses needed to render that opinion. The actuarial memorandum discloses the details of the asset adequacy analysis and the basis for the actuary's opinion. Additional

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documentation may be prepared by the actuary as appropriate to support the actuarial memorandum.

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Appendix 2

Comments on the First Exposure Draft and Responses

The first exposure draft of this ASOP, *Statements of Actuarial Opinion Based on Asset Adequacy Analysis for Life or Health Liabilities*, was issued in December 2018 with a comment deadline of June 1, 2019. Fourteen comment letters were received, some of which were submitted on behalf of multiple commentators, such as by firms or committees. For purposes of this appendix, the term “commentator” may refer to more than one person associated with a particular comment letter. The ASOP No. 22 Task Force carefully considered all comments received, reviewed the exposure draft, and proposed changes. The ASB Life Committee and 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 ASOP No. 22 Task Force, the ASB Life Committee, and the ASB. Also, unless otherwise noted, the section numbers and titles used in appendix 2 refer to those in the first exposure draft.

GENERAL COMMENTS	
Comment	Two commentators requested guidance for the analysis of ceded risks.
Response	The reviewers created a new section 3.1.3, Reinsurance Ceded.
Comment	Two commentators suggested alternatives to the phrase “adequacy of reserves and other liabilities.”
Response	The phrase “adequacy of reserves and other liabilities” is used in VM-30. Therefore, the reviewers made no change.
Comment	One commentator noted that Actuarial Compliance Guideline (ACG) No. 4, <i>Statutory Statements of Opinion Not Including an Asset Adequacy Analysis by Appointed Actuaries for Life or Health Insurers</i> , continues to be relevant for companies who receive an exemption from asset adequacy analysis.
Response	The ASB is considering how to address ACG No. 4.
Comment	One commentator suggested adding references to ASOP No. 11, <i>Financial Statement Treatment of Reinsurance Transactions Involving Life or Health Insurance</i> , in sections 1.2 and 4.1.
Response	The reviewers agree and added references to ASOP No. 11 in sections 1.2 and 4.1.
Comment	One commentator suggested adding language similar to that in ASOP No. 28, <i>Statements of Actuarial Opinion Regarding Health Insurance Liabilities and Assets</i> , section 3.1, Legal, Regulatory, and Contractual Requirements.
Response	The reviewers believe that the general guidance in section 3.1 appropriately addresses this issue. Therefore, the reviewers made no change.
Comment	One commentator suggested adding language similar to that in ASOP No. 28, section 3.2.
Response	The reviewers agree and modified the language in section 3.3, now Statement of Actuarial Opinion Based on Asset Adequacy Analysis, accordingly.

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Comment	One commentator suggested adding language similar to that of sections 3.3 and 3.4 of ASOP No. 28.
Response	The reviewers note that applicable law states what items are to be included and therefore made no change.
Comment	One commentator recommended conducting a comparison of the ASOP to both VM-30 and the September 2014 Academy's Asset Adequacy Analysis Practice Note to minimize any inconsistencies with those documents.
Response	The reviewers reviewed VM-30 for inconsistencies between the ASOP and VM-30 and note that the practice note is the responsibility of the Academy's Life Practice Council.
Comment	One commentator suggested adding an explicit requirement to disclose the mortality improvement assumption, consistent with ASOP No. 35, <i>Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations</i> .
Response	The reviewers believe that the general guidance in section 3.1.3 (now section 3.1.2.1) and 4.1(f) appropriately addresses this situation and that it is not necessary to specifically describe this practice. Therefore, the reviewers made no change.
SECTION 1. PURPOSE, SCOPE, CROSS REFERENCES, AND EFFECTIVE DATE	
Section 1.1, Purpose	
Comment	One commentator suggested adding the term "applicable law" to the definitions section and noted inconsistent use of the parenthetical "(statutes, regulations, and other legally binding authority)."
Response	The reviewers note that "applicable law" is defined in the Code of Professional Conduct. In addition, following ASB style, the parenthetical follows only the first reference to "applicable law."
Section 1.2, Scope	
Comment	One commentator suggested clarification that ASOP No. 28 may "also" apply.
Response	The reviewers agree and made the change.
Comment	One commentator suggested clarifying that the ASOP applies to annuities.
Response	The reviewers agree and made the change to the title, purpose, and scope sections of the ASOP.
SECTION 2. DEFINITIONS	
Comment	One commentator asked whether the definitions were consistent with VM-30.
Response	The reviewers believe that the definitions are compatible with the definitions in VM-30 and that the differences are appropriate for the scope of the ASOP. Therefore, the reviewers made no change.
Comment	One commentator suggested adding guidance for setting best estimate assumptions and proposed making "best estimate assumptions" a defined term.
Response	The reviewers believe the guidance in this ASOP is appropriate and therefore made no change.
Section 2.2, Asset Adequacy Analysis	
Comment	One commentator suggested an alternate definition for "asset adequacy analysis."
Response	The reviewers disagree and therefore made no change.
Sections 2.3, Cash Flow	
Comment	One commentator said that "other cash flows required by applicable law" is unclear.
Response	The reviewers agree and removed "other cash flows required by applicable law."
Section 2.5, Cash Flow Testing	

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Comment	One commentator questioned whether the reference to “resulting from economic and other assumptions” was appropriate.
Response	The reviewers modified the language to improve clarity.
Section 2.8, Investment Yield Risk (now deleted)	
Comment	Several commentators asked whether the definition of “investment yield risk” was necessary, and other commentators asked for clarification.
Response	The reviewers agree that the definition of “investment yield risk” is not needed, removed the definition, and revised the language in section 3.1 where this term appeared.
Section 2.11, Moderately Adverse Deviation (now deleted)	
Comment	One commentator noted that the definition of “moderately adverse deviation” is unclear and asked for clarification.
Response	The reviewers decided to delete the definition and modified sections 3.1.1(a), (b), (c), and (e) accordingly.
Section 2.12, Scenario (now section 2.10)	
Comment	One commentator suggested that “economic and other assumptions” is too all-inclusive.
Response	The reviewers believe the guidance is appropriate and made no change.
Section 2.13, Subsequent Events (now section 2.11)	
Comment	Two commentators suggested that the definition of “subsequent events” should include an end date.
Response	The reviewers agree and modified the language.
Comment	One commentator suggested defining “valuation date” and discussing the valuation date vs. the date the opinion is filed.
Response	The reviewers believe the use of the phrase “valuation date” is clear and made no change.
SECTION 3. ANALYSIS OF ISSUES AND RECOMMENDED PRACTICES	
Section 3.1, Asset Adequacy Analysis	
Comment	Two commentators suggested clarifying that the assets used in the analysis are not used to support liabilities other than those being tested by the actuary.
Response	The reviewers agree and modified the language accordingly.
Comment	One commentator asked whether additional language is needed in section 3.1 to suggest that the actuary consider the appropriateness of the assets used in analyses other than cash flow testing.
Response	The reviewers agree and modified the language accordingly.
Comment	One commentator suggested that any additional assets and reserves set up should be tested by rerunning the models.
Response	The reviewers agree and added language to section 3.1.

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Section 3.1.1, Analysis Methods	
Comment	One commentator noted that the language effectively mandates cash flow testing for short-term health care liabilities because claim costs are economic assumptions but said that was presumably not the intent.
Response	The reviewers agree and modified the language accordingly.
Comment	One commentator suggested clarifying that the actuary should evaluate the adequacy of the assets to support the liabilities regardless of the analysis method chosen.
Response	The reviewers agree and modified the language accordingly.
Comment	One commentator noted that it would be sufficient to refer to “scenarios” rather than “economic or interest rate scenarios.”
Response	The reviewers agree and made the change in sections 3.1.1 and 3.2.4.
Comment	One commentator noted that it would be sufficient to refer to “economic assumptions” rather than “economic and interest rate assumptions.”
Response	The reviewers agree and made the change.
Comment	One commentator suggested the language be clarified to state that “Examples of acceptable analysis methods include but are not limited to the following.”
Response	The reviewers believe the language is clear and made no change.
Comment	One commentator suggested eliminating the examples of when an analysis method would be used.
Response	The reviewers believe the examples improve the clarity of the standard and made no change.
Section 3.1.1(b), Demonstration of Conservatism	
Comment	One commentator suggested adding a principle-based reserve as an example.
Response	The reviewers disagree and made no change.
Comment	One commentator suggested specifying that any method, including cash flow testing, may be inappropriate if the scenarios and/or assumptions considered do not appropriately address the characteristics of the business being analyzed.
Response	The reviewers believe that the language covers these issues at the appropriate level of detail and therefore made no change.
Comment	One commentator suggested including a statement directing the actuary to consider the appropriateness of the method used for the analysis, with respect to both the business being tested and the intent and purpose of the analysis.
Response	The reviewers believe that the language covers these issues at the appropriate level of detail and therefore made no change.
Comment	Two commentators requested additional guidance on how to demonstrate conservatism.
Response	The reviewers believe that the language covers these issues at the appropriate level of detail and therefore made no change.
Section 3.1.1(c), Demonstration of Immaterial Variation	
Comment	One commentator suggested explicitly mentioning liabilities with a life of less than one year where there is no or minimal interest rate sensitivity.
Response	The reviewers believe that the language covers these issues at the appropriate level of detail and

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	therefore made no change.
Comment	Two commentators raised concerns with the reference to variable annuities in the example.
Response	The reviewers agree and used a different example.
Section 3.1.2, Discount Rates (now section 3.1.2.3)	
Comment	Many commentators suggested clarifications or additional considerations for this section.
Response	The reviewers modified the language to use a level of detail that they believe is appropriate.
Section 3.1.3, Trends in Assumptions (now section 3.1.2.1, Trends)	
Comment	One commentator suggested specifying different treatment for favorable and unfavorable trends.
Response	The reviewers believe that the language covers these issues at the appropriate level of detail and made no change.
Comment	One commentator asked whether section 3.1.3 was intended for both unfavorable and favorable trends.
Response	The reviewers believe the language is appropriate and therefore made no change.
Comment	One commentator suggested adding a reference to ASOP No. 25, <i>Credibility Procedures</i> .
Response	The reviewers believe that the language is appropriate and therefore made no change.
Comment	One commentator noted that the example in section 3.1.3(c) was unclear.
Response	The reviewers believe the example is clear and made no change.
Comment	One commentator suggested additional description related to trends in assumptions.
Response	The reviewers believe that the language covers these issues at the appropriate level of detail and therefore made no change.
Comment	One commentator suggested that correlations between trends needed to be considered.
Response	The reviewers believe that the language appropriately addresses this issue and therefore made no change.
Comment	One commentator suggested retaining section 3.3.3, Assumptions, of the current ASOP and moving sections 3.1.3, Trends in Assumptions, 3.1.4, Assumption Margins, and 3.1.9, Sensitivity Testing, of the exposure draft into sub-sections of that section.
Response	The reviewers agree and modified the language accordingly.
Section 3.1.4, Assumption Margins (now section 3.1.2.2, Margins)	
Comment	One commentator said the reference to “correlation” was oblique.
Response	The reviewers agree and deleted the term.
Comment	One commentator suggested clarifying whether the assumptions discussed in this section were best-estimate assumptions.
Response	The reviewers revised the language in section 3.1.2 to read “the actuary should choose assumptions that are appropriate for the analysis” in response to other comments and therefore made no further changes.
Comment	Two commentators suggested adding that margins may vary over time.
Response	The reviewers agree and modified the language accordingly.

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Comment	One commentator suggested adding whether the assumption reflects relationships between behaviors or financial performance and the modeled behavior.
Response	The reviewers believe that the language addresses this consideration at the appropriate level of detail and therefore made no change.
Comment	One commentator said the example was not clear. Another commentator suggested a new example.
Response	The reviewers believe that specific examples are not necessary and deleted the example.
Section 3.1.5, Aggregation During Testing (now section 3.1.4)	
Comment	One commentator suggested expressing the example in positive terms.
Response	The reviewers agree and modified the language accordingly.
Comment	One commentator requested guidance for aggregating separate account and general account assets and cash flows.
Response	The reviewers agree and added a new section 3.1.6, Separate Account Assets.
Section 3.1.6, Use of Cash Flows from Other Financial Calculations (now section 3.1.5)	
Comment	One commentator suggested clarifying that the actuary should consider whether the use of cash flows from other financial calculations is appropriate.
Response	The reviewers agree and modified the language to address this concern.
Comment	One commentator noted that the reference to “rules” in section 3.1.6(e) was unclear.
Response	The reviewers agree and clarified the language.
Comment	One commentator suggested adding reinsurance to the list of considerations.
Response	The reviewers disagree and therefore made no change.
Comment	One commentator suggested adding distribution of surplus to the list of considerations.
Response	The reviewers agree and made the change.
Section 3.1.8, Testing Horizon (now section 3.1.9)	
Comment	One commentator suggested clarifying that the use of a longer period would not materially affect the “results of” the analysis.
Response	The reviewers agree and made the change.
Section 3.1.10, Completeness (now section 3.1.11)	
Comment	Two commentators suggested that the actuary should define “immaterial” in the actuarial opinion.
Response	The reviewers do not believe “immaterial” needs to be defined in this ASOP. The term “materiality” is defined in ASOP No. 1, <i>Introductory Actuarial Standard of Practice</i> . However, the reviewers added a disclosure requirement in section 4.1(p).
Section 3.2.2, Adequacy of Reserves and Other Liabilities	
Comment	One commentator suggested removing “usually” from the second sentence.
Response	The reviewers modified the language.
Section 3.2.3, Analysis of Scenario Results	

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Comment	One commentator suggested that the actuary should predetermine a risk threshold prior to the analysis that is consistent with the company’s risk limit or risk tolerance level.
Response	The reviewers believe that this section provides an appropriate level of detail and made no change.
Section 3.2.4, Aggregation of Results	
Comment	One commentator asked whether it was appropriate to aggregate results from two lines with different testing methods.
Response	The reviewers believe the guidance is appropriate and made no change.
Comment	One commentator suggested replacing “after testing is done” with “if business segments are modeled separately.”
Response	The reviewers agree and made the change.
Section 3.2.5, Results from Prior Years	
Comment	One commentator suggested that the actuary should evaluate the impact of assumption changes from the prior year and consider disclosing the impact of those changes.
Response	The reviewers modified the language in response to the comment.
Comment	One commentator suggested adding language similar to that in section 3.8 of ASOP No. 28.
Response	The reviewers agree and added new section 3.1.10, Changes in Methods, Models, or Assumptions, in response to this comment.
Section 3.2.6, Management Action (now section 3.1.7)	
Comment	One commentator requested clarification of the example, while another commentator suggested removing the example.
Response	The reviewers agree the language was unclear and removed the example.
Comment	One commentator suggested adding that the actuary should consider actual historical practice and documented policies.
Response	The reviewers agree and modified the language accordingly.
Section 3.2.7, Opinions of Other Actuaries (now section 3.2.6)	
Comment	One commentator suggested that this language should be more closely tied with section 3.1.11, Reliance on Others for Data, Projections, and Supporting Analysis.
Response	The reviewers believe these sections address different situations and therefore made no change to tie with 3.1.11 (now section 3.1.12).
Comment	One commentator suggested that the language was unclear.
Response	The reviewers agree and modified the language accordingly.
Comment	One commentator suggested adding language similar to that in section 3.7.2 of ASOP No. 28.
Response	The reviewers believe that the language appropriately addresses this issue and therefore made no change.
Section 3.4, Documentation	
Comment	One commentator suggested changing the two occurrences of “should consider” to “should.”
Response	The reviewers agree and modified the language accordingly.

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Comment	One commentator said that it was too strict to require documentation in a form such that another actuary could assume the assignment if necessary.
Response	The reviewers disagree and therefore made no change.
SECTION 4. COMMUNICATIONS AND DISCLOSURES	
4.1, Actuarial Report Disclosures (now section 4.1, Required Disclosures in an Actuarial Report)	
Comment	One commentator suggested adding an explicit reference to VM-30 and removing the disclosure items that are already required in VM-30.
Response	The reviewers note that VM-30 may not be the only source for disclosures and believe that it is appropriate to list disclosure requirements in the ASOP. Therefore, the reviewers made no change.
Comment	One commentator suggested tying the disclosure in 4.1(c) to section 3.2.5.
Response	The reviewers agree and made the change (now section 4.1[o] tied to section 3.1.10).
Comment	One commentator suggested that disclosure should be required where a margin is not used.
Response	The reviewers note that the standard states that the actuary should disclose “the margins chosen, even if the actuary concludes that a margin is not necessary” and therefore made no change.
Comment	One commentator suggested adding “material” to the description of the deficiencies in data, etc., that must be disclosed.
Response	The reviewers note that the guidance in ASOPs “need not be applied to immaterial items” under section 2.6 of ASOP No. 1, and therefore made no change.
Comment	One commentator suggested removing the phrase “whether or not required by applicable law.”
Response	The reviewers believe the phrase adds clarity and made no change.
Comment	One commentator suggested clarifying that disclosure of subsequent events should be limited to those of which the actuary is aware.
Response	The reviewers agree and made the change.
Comment	One commentator suggested combining 4.1(c) and 4.1(e) because both items refer to assumptions.
Response	The reviewers believe the concepts in 4.1(c) and 4.1(e) (now 4.1[o] and 4.1[f]) are different and therefore made no change.
Comment	One commentator suggested a combined disclosure requirement for the assumptions chosen, anticipated trends, embedded margins, and sensitivity tests performed.
Response	The reviewers believe that the language is appropriate and therefore made no change.
Appendix 1, Background and Current Practices	
Comment	One commentator asked whether a reference to “reserve adequacy” should instead be “asset adequacy.”
Response	The reviewers believe reserve adequacy is correct because the opinion is for the adequacy of reserves (based on an asset adequacy analysis).