ACTUARIAL STANDARDS BOARD

Actuarial Standard of Practice No. 20

Discounting of Property/Casualty Claim Estimates

Developed by the Task Force to Revise ASOP No. 20 of the Casualty Committee of the Actuarial Standards Board

Adopted by the Actuarial Standards Board June 2023

Doc. No. 209

TABLE OF CONTENTS

APPENDIXES

June 2023

TO: Members of Actuarial Organizations Governed by the Standards of the Actuarial Standards Board and Other Persons Interested in Discounting of Property/ Casualty Claim Estimates

FROM: Actuarial Standards Board (ASB)

SUBJ: Actuarial Standard of Practice (ASOP) No. 20

This document contains ASOP No. 20, *Discounting of Property/Casualty Claim Estimates*.

History of the Standard

ASOP No. 20, *Discounting of Property and Casualty Loss and Loss Adjustment Expense Reserves,* was originally adopted by the ASB in April 1992. In 2011, ASOP No. 20 was revised to reflect current terminology and practice and to provide more consistency with the language in ASOP No. 43, *Property/Casualty Unpaid Claim Estimates*. The 2011 revision removed guidance on risk margins.

This revision addresses potential scope gaps with other ASOPs, reflects the interaction between this standard and ASOP No. 53, *Estimating Future Costs for Prospective Property/Casualty Risk Transfer and Risk Retention*, and addresses changes in actuarial practice in the area of estimating the future costs of prospective risk transfer or risk retention for loss accrual determinations, premium setting, and ratemaking assignments.

This revision also addresses the issue of discount rates provided by others (e.g., requested by the principal or provided by investment managers or finance departments), because the discount rate is a material assumption in developing a discounted claim estimate. In some circumstances when providing actuarial services, the actuary did not comment on the reasonableness of the discount rate(s) but rather stated that the discount rate was outside the scope of the actuarial services.

Exposure Draft

The exposure draft was issued in June 2022 with a comment deadline of September 30, 2022. Five comment letters were received and considered in making changes that are reflected in this standard.

Notable Changes from the Exposure Draft

Notable changes from the exposure draft are summarized below. Notable changes do not include additional changes made to improve readability, clarity, or consistency.

1. Sections 1.2 and 2.1 were modified to allow the actuary to consider the loss and loss adjustment expense elements separately in a claim estimate.

2. Section 2.4 was revised to make the definition consistent with ASOP No. 30, *Treatment of Profit and Contingency Provisions and the Cost of Capital in Property/Casualty Insurance Ratemaking*.

3. Section 2.6 was revised to reflect that present value can be related to any future cash flow.

4. Section 2.8 was modified to clarify that a risk margin may apply to a claim estimate or discounted claim estimate.

5. Section 3.3.1 was modified to clarify that payment pattern assumptions should be unbiased prior to the application of risk margins.

6. In section 3.4.1.3, guidance was added related to the reasonableness of discount rates selected by another party. The related disclosure was modified in section 4.1(g).

Notable Changes from the Existing ASOP

A cumulative summary of notable changes from the existing standard is below. Notable changes do not include additional changes made to improve readability, clarity, or consistency.

1. In section 1.2, the scope of the standard was expanded to include the discounting of future claim estimates for prospective risk transfer or risk retention, as addressed by ASOP No. 53, *Estimating Future Costs for Prospective Property/Casualty Risk Transfer and Risk Retention*.

2. Sections 1.2 and 2.1 were modified to allow the actuary to consider the loss and loss adjustment expense elements separately in a claim estimate.

3. In section 2, definitions were added for the following terms: claim estimate, coverage, discounted claim estimate, insurance risk, risk retention, and risk transfer.

4. In section 2.8, the definition of risk margin was revised.

5. Section 3.3.1 was modified to clarify that payment pattern assumptions should be unbiased prior to the application of risk margins.

6. In section 3.4, guidance related to discount rate selection and appropriateness was added. Specifically, guidance was added related to the materiality and reasonableness of discount rates selected by another party in section 3.4.1.3, and the related disclosure was modified in section 4.1(g).

7. In section 3.5, guidance on risk margins has been reintroduced to the standard, revised, and expanded.

8. Guidance on reliance has been added in sections 3.8, 3.9, 3.10, and 3.11.

9. Guidance on documentation has been updated and expanded in section 3.12.

10. Disclosure requirements were added in section 4, mostly to address expanded guidance throughout section 3.

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

The ASB voted in June 2023 to adopt this standard.

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.

ASOP No. 20—Doc. No. 209

ACTUARIAL STANDARD OF PRACTICE NO. 20

DISCOUNTING OF PROPERTY/CASUALTY CLAIM ESTIMATES

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 actuarial services with respect to discounting **claim estimates** for property/casualty **coverages** to a **present value**.

1.2 Scope—This standard applies to actuaries when performing actuarial services that involve the discounting of **claim estimates** for property/casualty **coverages** to a **present value**. **Claim estimates** include unpaid **claim estimates** and future **claim estimates**. Unpaid **claim estimates** represent an estimate of the obligation for future loss and loss adjustment expense payments resulting from claims due to past events. Future **claim estimates** represent an estimate of loss and loss adjustment expenses associated with prospective property/casualty **risk transfer** or **risk retention**.

This standard applies to actuaries when estimating **discounted claim estimates** for all classes of entities, including self-insureds, insurance companies, reinsurers, and governmental entities. This standard applies to actuaries when estimating discounted gross amounts before recoverables (such as deductibles, ceded reinsurance, and salvage and subrogation), discounted amounts after such recoverables, and discounted amounts of such recoverables.

If the actuary's actuarial services involve reviewing **discounted claim estimates** developed by another party, the actuary should follow the guidance in section 3 to the extent practicable.

When determining the unpaid **claim estimates**, the actuary should refer to ASOP No. 43, *Property/Casualty Unpaid Claim Estimates*. When determining the future **claim estimates** associated with prospective **risk transfer** or **risk retention**, the actuary should refer to ASOP No. 53, *Estimating Future Costs for Prospective Property/Casualty Risk Transfer and Risk Retention*.

This standard does not address whether the actuary should use **discounted claim estimates** in a specific circumstance.

This standard does not address whether the actuary should include a **risk margin** in a specific circumstance.

This standard does not apply to actuaries when estimating items that may be a function of **discounted claim estimates** or claim outcomes, including but not limited to loss-based taxes, contingent commissions, and retrospectively rated premiums.

This standard applies to actuaries when providing actuarial services with respect to health benefits associated with state or federal workers' compensation statutes and liability policies. This standard does not apply to actuaries when performing actuarial services with respect to unpaid claims under a "health benefit plan" covered by ASOP No. 5, *Incurred Health and Disability Claims*, ASOP No. 6, *Measuring Retiree Group Benefits Obligations and Determining Retiree Group Benefits Program Periodic Costs or Actuarially Determined Contributions*, or included as "health and disability liabilities" under ASOP No. 42, *Health and Disability Actuarial Assets and Liabilities Other Than Liabilities for Incurred Claims*.

If the actuary determines that the guidance in this standard conflicts with ASOP No. 7, *Analysis of Life, Health, or Property/Casualty Insurer Cash Flows*, this ASOP governs.

If the actuary determines that the guidance in this ASOP conflicts with a cross-practice ASOP (applies to all practice areas), this ASOP governs.

If a conflict exists between this standard and applicable law (statutes, regulations, and other legally binding authority), the actuary should comply with applicable law. 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.

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 any actuarial work product covered by this standard's scope issued on or after December 1, 2023.

Section 2. Definitions

The terms below are defined for use in this actuarial standard of practice and appear in bold throughout the standard. The actuary should also refer to ASOP No. 1, *Introductory Actuarial Standard of Practice*, for definitions and discussions of common terms, which do not appear in bold in this standard.

2.1 Claim Estimate—An estimate on an undiscounted basis of the obligation for future loss and loss adjustment expenses resulting from claims due to past events or an estimate of loss and loss adjustment expenses associated with prospective property/casualty **risk transfer** or **risk retention**. **Claim estimates** may include elements, such as case reserves, developed by individuals other than actuaries.

2.2 Coverage—The terms and conditions of a plan or contract, or the requirements of applicable law, that create an obligation to pay benefits, expenses, or claims associated with contingent events.

2.3 Discounted Claim Estimate—The actuary's estimate of the **present value** of the **claim estimate**.

2.4 Insurance Risk—The extent to which the amount or timing of actual insurance cash flows is likely to differ from expected insurance cash flows.

2.5 Investment Risk—The extent to which the amount or timing of actual investment cash flows may differ from what is expected.

2.6 Present Value—The value on a given date of a future payment or series of future payments, discounted to reflect the time value of money.

2.7 Risk-Free Interest Rate—The theoretical rate of return of an investment with zero risk with respect to payment timing and amount.

2.8 Risk Margin—A provision for uncertainty in a **claim estimate** or a **discounted claim estimate**. A **risk margin** may be implicit or explicit.

2.9 Risk Retention—A risk-management and risk-control strategy for the assessment, management, or financing of retained risk associated with the specific **coverage**. Examples of **risk retention** include individual and group self-insurance and large deductible programs.

2.10 Risk Transfer—A risk-management and risk-control strategy, involving legally binding agreements, that shifts responsibility from one party to another or indemnifies one party by another party for the financial obligations associated with the **coverage**. Examples of **risk transfer** include insurance, reinsurance, captive insurance, and loss portfolio transfers.

Section 3. Analysis of Issues and Recommended Practices

3.1 Intended Purpose—The actuary should identify the intended purpose of the **discounted claim estimate**, including the date to which the **claim estimate** will be discounted. The actuary should select methods and assumptions in the discounting process that are appropriate for the intended purpose.

3.2 Significance of Methods, Models, and Assumptions—When selecting methods, models, and assumptions to develop the **discounted claim estimate**, the actuary should take into account the relative impact of various methods, models, and assumptions on the **discounted claim estimate** versus the **claim estimate**. For example, a development factor at an advanced maturity (such as a “tail factor”) has less impact on a discounted estimate than on an undiscounted estimate. Conversely, a change in the timing of loss payments may have a greater impact on a discounted estimate than on an undiscounted estimate.

3.3 Payment Timing—The actuary should use reasonable assumptions regarding the timing of future payments to derive a **discounted claim estimate**. Assumptions may be implicit or explicit and may involve interpreting past data or projecting future trends.

The actuary should take into account the sensitivity of the **discounted claim estimate** to the timing of future payments and may use a range of payment pattern assumptions.

3.3.1 Unbiased Assumptions—The actuary should use payment pattern assumptions that the actuary expects to have no material bias to underestimation or overestimation of the discounted estimate, prior to consideration of any **risk margins**.

3.3.2 Consistency of Assumptions—The actuary should use assumptions in estimating the timing of payments that are consistent with the assumptions used in developing the **claim estimate**, when the assumptions are available.

3.3.3 Consistency of Estimates—The actuary should use cumulative payments for discounting that are consistent with the **claim estimate**, even if the **claim estimate** has not been derived by techniques based on payment data.

3.3.4 Consistency with Expected Future Conditions—The actuary should determine estimates of the timing of payments that are consistent with conditions expected to prevail during the future payment period. These estimates may reflect past data or projections of future trends in payment timing. If conditions are expected to be different from those prevailing during the historical evaluation period, the actuary should make appropriate adjustments to the payment patterns.

3.3.5 Data—The actuary should refer to ASOP No. 23, *Data Quality*, with respect to selection of data to be used in developing the payment pattern, relying on data supplied by others, reviewing data, and using data.

3.3.6 Recoverables—The actuary should take into account the timing and amount of expected recoverables (for example, deductibles, ceded reinsurance, and salvage and subrogation) to the extent appropriate.

3.3.7 Unpaid or Future Claim Components—The actuary should take into account components that may have a material effect on the timing and amount of future payments, such as **coverage**, accident period, and claim adjustment expense.

3.4 Discount Rates—The actuary should use reasonable discount rates to derive **discounted claim estimates**. A discount rate may be a single rate or a series of rates, such as a yield curve. A range of discount rates may be reasonable.

3.4.1 Selection of Discount Rates—The actuary should select discount rates that are appropriate for the intended purpose. When selecting discount rates, the actuary should consider using one or more of the following approaches:

3.4.1.1 Risk-Free Approach—This approach utilizes **risk-free interest rates**. **Risk-free interest rates** can be approximated by rates of investment return available on fixed-income assets having low **investment risk** and timing characteristics comparable to the selected payment timing pattern.

3.4.1.2 Portfolio Approach—The selected discount rates in this approach are based on the anticipated return from a selected portfolio of assets. The portfolio of assets may reflect the actual assets supporting the **claim estimates** to be discounted. Alternatively, the portfolio of assets may represent a notional portfolio that the actuary deems to be appropriate based on the characteristics of the notional assets in relation to the **claim estimates** to be discounted.

When determining the appropriateness of a portfolio rate of return as the basis for the selected discount rate, the actuary should refer to ASOP No. 7 for guidance on issues and considerations associated with asset characteristics. The actuary should take into account, to the extent appropriate, the relationships between the book value and market value of assets, between the anticipated portfolio rates of return and market rates of return, and between the maturities of the assets and the estimated timing of future payments.

Portfolio rates of return should be net of investment expenses.

3.4.1.3 Discount Rates Selected by Another Party—When using discount rates selected by another party, the actuary should assess the discount rates for reasonableness.

3.4.1.4 Other Approaches—Other approaches may be appropriate based on the purpose of the assignment or other circumstances.

3.4.2 Consideration of Economic Conditions—When selecting the discount rate assumption, the actuary should take into account economic factors over the expected payment period including, but not limited to, inflation, inflation risk, and macroeconomic conditions. The actuary should consider reflecting short-term versus long-term returns when selecting the discount rate, recognizing that long-term returns are generally more uncertain than short-term returns. The actuary should consider adjusting the discount rate(s) to reflect the uncertainty in future economic conditions.

3.5 Risk Margins—The actuary should consider including **risk margins** in a **discounted claim estimate**. Discounting a reasonable undiscounted estimate may result in an inadequate discounted estimate, unless appropriate **risk margins** are included.

3.5.1 Considerations in Determining the Amount of Risk Margin—When determining the amount of **risk margin**, the actuary should take into account the increase in uncertainty associated with the discounting calculation due to uncertainties in claim payment timing and discount rate selection. The actuary should also take into account the decrease in the implicit **risk margin** due to discounting.

3.5.2 Implicit and Explicit Risk Margins—The actuary may introduce implicit **risk margins** through the selection of the **claim estimate**, the payment pattern, or the discount rate. The actuary may include explicit **risk margins** as an absolute amount (for example, stated percentile of distribution, a fixed amount, or stated percentage load above expected) or through an explicit adjustment to the selected discount rate(s). The resulting adjusted discount rate may also include an implicit **risk margin** contemplating **investment risk** or **insurance risk**.

3.5.3 Applicable Law and Accounting Standards—The actuary should take into account whether applicable law and accounting standards impose constraints on the use of **risk margins**.

3.6 Significant Limitations—The actuary should identify any significant limitations that constrained the actuary's **discounted claim estimate** analysis if, in the actuary's professional judgment, there is a significant risk that a more in-depth analysis would produce a materially different result.

3.7 Changes in Methods, Models, and Assumptions—When the **discounted claim estimate** is an update of a previous estimate, the actuary should identify changes in methods, models, or assumptions that the actuary believes to have a material impact on the **discounted claim estimate** and the reasons for such changes to the extent known by the actuary. This standard does not require the actuary to measure or quantify the impact of such changes.

3.8 Reliance on Methods, Models, or Assumptions Selected by Another Party—When relying on methods, models, or assumptions selected by another party, the actuary should refer to ASOP Nos. 41 and 56, *Modeling*, for guidance.

3.9 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 Nos. 23 and 41.

3.10 Reliance on Another Actuary—The actuary may rely on another actuary who has developed the **claim estimate**, estimated payout pattern(s), the discount rate(s), or the **risk margin**(s). However, the relying actuary should be reasonably satisfied that the other actuary is qualified to perform the actuarial service(s), the actuarial service was performed in accordance with applicable ASOPs, and the actuarial service performed is appropriate for the project's objective.

3.11 Reliance on Expertise of Others—An actuary may rely on the expertise of others (including actuaries not performing actuarial services) in the fields of knowledge used in the development of the **claim estimate**, estimated payout pattern(s), discount rate(s), or the **risk margin**(s). In determining the appropriate level of such reliance, the actuary should take into account the following:

a. whether the individual or individuals upon whom the actuary is relying has expertise in the applicable field; and

b. the extent to which the development of the **claim estimate**, estimated payout pattern(s), discount rate(s), or the **risk margin**(s) has been reviewed or opined on by others with expertise in the applicable field, including commonly known significant differences of opinion among others with expertise concerning aspects of the development of the above items that could be material to the actuary's use of them.

3.12 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 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. 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, the actuary should take into account the intended purpose or use of the **discounted claim estimate** and refer to ASOP Nos. 7, 23, 41, and 56.

In addition, the actuary should disclose the following in such actuarial reports, if applicable:

a. the **claim estimate**, the associated **discounted claim estimate**, and the intended purpose of the **discounted claim estimate**, including the date to which the **claim estimate** is discounted (see section 3.1);

b. material differences, if any, between the methods, models, and assumptions underlying the **claim estimate** and the **discounted claim estimate** (see section 3.2);

c. the payment timing assumptions and the basis for those assumptions (see section 3.3);

d. specific significant risks and uncertainties, if any, with regard to actual timing of future payments (see section 3.3);

e. the discount rate assumptions and the basis for those assumptions (see section 3.4);

f. the basis of the range of estimates, if the actuary provides a range (see section 3.4);

g. when the discount rate was selected by another party, the party that provided the discount rate, the reasonableness of the discount rate, and the basis for the determination of reasonableness (see section 3.4.1.3);

h. whether the **discounted claim estimate** includes a **risk margin**, and the basis for any explicit **risk margin** (see section 3.5);

i. any significant limitations that constrained the actuary's **discounted claim estimate** analysis (see section 3.6);

j. changes in methods, models, or assumptions that the actuary believes to have a material impact on the **discounted claim estimate** and the reasons for such changes to the extent known by the actuary, if the **discounted claim estimate** is an update of a previous estimate (see section 3.7);

k. the extent of any reliance on assumptions or methods selected by another party (see section 3.8);

l. the extent of any reliance on others for data, projections, and supporting analysis (see section 3.9);

m. the extent of any reliance on another actuary (see section 3.10); and

n. the extent of any reliance on expertise of others (see section 3.11).

4.2 <u>Additional Disclosures in an Actuarial Report</u>—The actuary also should include disclosures in accordance with ASOP No. 41 in an actuarial report for the following circumstances:

a. if any material assumption or method was prescribed by applicable law or accounting standards;

b. 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

c. if in the actuary's professional judgment, the actuary has deviated materially from the guidance of this standard.

4.3 Confidential Information—Nothing in this standard is intended to require the actuary to disclose confidential information.

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 1992, the Actuarial Standards Board (ASB) issued ASOP No. 20, *Discounting of Property and Casualty Loss and Loss Adjustment Expense Reserves*. Prior to that, there was no standard of practice concerning discounting of property and casualty loss and loss adjustment expense reserves. Since the issuance of ASOP No. 20, the ASB has issued ASOP No. 36, *Statements of Actuarial Opinion Regarding Property/Casualty Loss and Loss Adjustment Expense Reserves,* and ASOP No. 43, *Property/Casualty Unpaid Claim Estimates*. The 2012 revision of ASOP No. 20 provided more consistency with the language in these two ASOPs and updated guidance for the increased use of discounting related to fair value calculations.

In 2017, the ASB issued ASOP No. 53, *Estimating Future Costs for Prospective Property/ Casualty Risk Transfer and Risk Retention.* ASOP No. 53 provides guidance for actuaries engaged in loss accrual determinations, premium setting, and ratemaking assignments. The introduction of ASOP No. 53 highlighted the need to extend the guidance of ASOP No. 20 to these types of actuarial work products in a manner similar to the relationship between ASOP No. 20 and ASOP No. 43. In practice, a wide variety of loss reserving and loss funding or ratemaking assignments are performed concurrently using the same data and similar methods and assumptions. In the context of ratemaking, this standard may provide guidance on the discounting of the loss and loss adjustment expense components.

One challenge related to discounting is that the appropriateness of discounting varies greatly depending on the line(s) of insurance coverage, the type of risk financing or risk retention mechanism, the applicable financial reporting and accounting standards, and even the intended use of the work product (for example, insurance company valuation versus statutory loss reserving). As a result, the use of discounting is inexorably tied to the context of the assignment. Traditionally, for admitted U.S. property and casualty insurance companies, unpaid claim estimates have not been discounted except in certain narrowly defined circumstances. However, in a wide and growing variety of other circumstances discounting is commonplace. In 1986, the U.S. Congress passed legislation prescribing discounting procedures for income-tax purposes. In the past, most state insurance departments prohibited discounting; some departments have permitted discounting for some lines of business. While the National Association of Insurance Commissioners (NAIC) has consistently been opposed to discounting except in certain specific circumstances, other regulators have moved to requiring discounting. The various applicable accounting standards organizations have taken a similarly divergent set of positions in their standards.

Historically, the issue of reserve discounting has been closely related to the issue of risk margins. Undiscounted reserves are often considered to contain a needed implicit risk margin in the difference between undiscounted reserves and discounted reserves. If discounted reserves were incorporated into financial statements, many would argue that an explicit risk margin would become necessary. Suggestions for the treatment of that risk margin include treatment as a liability item, a segregated surplus item, or an off-balance-sheet item.

Unpaid claim estimate discounting calculations are commonly performed in conjunction with valuations of insurance companies for purposes such as acquisitions or mergers, commutations, transfers of portfolios of unpaid claims, or other reinsurance transactions. In these instances and for other reasons, actuaries are being asked to determine or evaluate discounted unpaid claim estimates more frequently.

Current Practices

Actuaries are guided by ASOP No. 20, *Discounting of Property/Casualty Claim Estimates*. Other ASOPs issued by the ASB pertaining to discounting of unpaid loss and loss adjustment expense estimates include ASOP No. 7, *Analysis of Life, Health, or Property/Casualty Insurer Cash Flows*; ASOP No. 23, *Data Quality*; ASOP No. 36; ASOP No. 41, *Actuarial Communications*; ASOP No. 43; and ASOP No. 53. In addition, disclosures related to discounting are required by the NAIC, and guidance may be forthcoming as part of new International Financial Reporting Standards that are currently under development.

Numerous educational papers relevant to the topic of discounting and risk loads, including those published by the Casualty Actuarial Society, are in the public domain. While these may provide useful educational information to practicing actuaries, they are not actuarial standards of practice and are not binding.

Appendix 2

Comments on the Exposure Draft and Responses

The exposure draft of the proposed revision of ASOP No. 20, *Discounting of Property/Casualty Claim Estimates*, was issued in June 2022 with a comment deadline of September 30, 2022. Five 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. 20 Task Force and the Casualty Committee of the Actuarial Standards Board (ASB) carefully considered all comments received, and the ASB reviewed (and modified, where appropriate) the changes proposed by the ASOP No. 20 Task Force and the Casualty Committee.

Summarized below are the significant issues and questions contained in the comment letters and the responses. Minor wording or punctuation changes that are 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. 20 Task Force, the Casualty Committee, and the ASB. The section numbers and titles used in appendix 2 refer to those in the exposure draft, which are then cross referenced with those in the final standard.

GENERAL COMMENTS	
Comment	One commentator proposed an alternative way of discounting using specific asset cash flows.
Response	The reviewers note that section 3.4.1.4 allows for the use of alternative reasonable methods for selecting the discount rate and made no change.
Comment	One commentator suggested being careful about not implying actuarial authority to add risk margins where that authority does not exist.
Response	The reviewers agree and note that section 1.2 states, "This standard does not address whether the actuary should include a risk margin in a specific circumstance." The reviewers added section 3.5.3 to clarify this issue.
SECTION 1. PURPOSE, SCOPE, CROSS REFERENCES, AND EFFECTIVE DATE	
Section 1.2, Scope	
Comment	Two commentators suggested clarifying that the proposed ASOP would also apply when an actuary is discounting figures that are not claim estimates or expanding the definition of "claim estimates" to include other loss estimates.
Response	The reviewers modified sections 1.2 and 2.1 to clarify this issue.

SECTION 2. DEFINITIONS	
Section 2.4, Insurance Risk	
Comment Response	One commentator was concerned that the current language excluded reinsurance premiums paid to others, unless one treats such premiums as an expense. The reviewers modified the language.
Comment Response	One commentator recommended changing “level” to “amount.” The reviewers agree and made the change in sections 2.4 and 2.5.
Section 2.6, Present Value	
Comment Response	One commentator suggested removing the word “claim.” The reviewers agree and deleted “claim.”
Section 2.8, Risk Margin	
Comment Response	Two commentators suggested adding “or a discounted claim estimate” at the end of the first sentence. The reviewers agree and made the change.
Comment Response	One commentator said this definition conflicts with section 3.5. The reviewers added “or a discounted claim estimate” to incorporate risk margins in all contexts.
Section 2.10, Risk Transfer	
Comment Response	One commentator suggested using a word other than “strategy.” The reviewers believe the language is appropriate, note that the language is consistent with ASOP No. 53, *Estimating Future Costs for Prospective Property/ Casualty Risk Transfer and Risk Retention*, and made no change.
SECTION 3. ANALYSIS OF ISSUES AND RECOMMENDED PRACTICES	
Section 3.2, Significance of Methods, Models, and Assumptions	
Comment Response	Two commentators expressed concern regarding situations where the claim estimate was developed by someone other than the actuary. The reviewers modified the language in section 2.1 and 3.2 to clarify.
Section 3.3, Payment Timing	
Comment Response	One commentator proposed expanded language based on section 3.6.2 of ASOP No. 43, *Property/Casualty Unpaid Claim Estimates*. The reviewers agree, believe the language improves consistency with ASOP Nos. 43 and 53, and made the change.
Section 3.3.1, Unbiased Assumptions	
Comment Response	One commentator expressed concern about implicit risk margins in the payment pattern resulting in biased assumptions. The reviewers clarified the language to address this concern.

Comment Response	One commentator asked whether the section should be limited to unbiased estimators. The reviewers believe the guidance is appropriate and made no change.
Section 3.3.2, Consistency of Assumptions	
Comment Response	One commentator suggested adding language to address situations when documentation for the undiscounted value is not available. The reviewers modified the language.
Section 3.3.3, Consistency of Estimates	
Comment Response	One commentator said "cumulative payments" was unclear. The reviewers believe the language is clear and made no change.
Section 3.4.1, Selection of Discount Rates	
Comment Response	One commentator suggested adding "to the extent consistent with the intended purpose and use" to the first sentence. The reviewers believe sections 3.1 and 3.4.1 sufficiently address the commentator's concern and made no change in response to this comment.
Comment Response	One commentator suggested clarifying that the actuary needs to first know what is allowed and appropriate for the intended use and the context (e.g., the accounting standards, the nature of the assignment) and to then select the discount rate within those parameters. The reviewers believe section (d) (now section 3.4.1.4) allows for other approaches and made no change in response to this comment.
Section 3.4.2, Consideration of Economic Conditions	
Comment Response	One commentator suggested adding language to clarify that the whole payment period should be considered. The reviewers agree and made the change.
Comment Response	One commentator suggested adding more guidance on adjusting discount rates. The reviewers believe the guidance is sufficient and made no change.
Section 3.5, Risk Margins	
Comment Response	One commentator suggested reconciling the description and use of risk margins in this ASOP with the description and use of risk margins in ASOP No. 43. The reviewers note that section 2.8 defines risk margin as "A provision for uncertainty in a claim estimate or a discounted claim estimate. A risk margin may be implicit or explicit" and reconciles with the references to risk margins in ASOP No. 43.
Comment Response	Several commentators expressed concern about when discounting would be appropriate within the context of applicable law and accounting standards. The reviewers note that section 1.2 makes it clear that the standard does not require discounting or the introduction of a risk margin. The reviewers moved applicable law and accounting standards to section 3.5.3 for clarity.

Comment Response	One commentator suggested adding the language "to reduce the risk that the discounted estimate will become inadequate." The reviewers note that section 3.5 states, "Discounting a reasonable undiscounted estimate may result in an inadequate discounted estimate, unless appropriate risk margins are included." As a result, the reviewers made no change.
Comment Response	One commentator suggested more detail in the discussion of considerations for risk margins. The reviewers believe the level of detail is appropriate and made no change.
Section 3.5(b), Implicit and Explicit Risk Margins (now section 3.5.2)	
Comment Response	One commentator suggested avoiding the use of "may" in this section. The reviewers believe the language is appropriate and made no change.
Comment Response	One commentator proposed alternative language related to implicit and explicit risk margins. The reviewers believe the language is clear and made no change.
Section 3.7, Changes in Methods, Models, and Assumptions	
Comment Response	One commentator suggested clarifying that the intent is for the actuary to disclose changes in methods, models, or assumptions that the actuary believes to have a material impact on the discounted claim estimate, when comparing one discounted claim estimate to another (which may reflect different evaluation dates, valuation dates, present value dates, and so on). The reviewers believe the language is clear, aligns with other standards including ASOP No. 43, and made no change.
APPENDIX 1, BACKGROUND AND CURRENT PRACTICES	
Comment Response	One commentator requested the addition of "commutations" in the background section. The reviewers agree and made the change.