ACTUARIAL STANDARDS BOARD

● **EXPOSURE DRAFT** ●

Proposed Revision of
Actuarial Standard
of Practice
No. 20

Discounting of Property/Casualty Claim Estimates

Comment Deadline:
September 30, 2022

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

Approved for Exposure by the
Actuarial Standards Board
May 2022

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EXPOSURE DRAFT—MAY 2022

May 2022

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: Proposed revision of Actuarial Standard of Practice (ASOP) No. 20

This document contains the exposure draft a proposed revision of ASOP No. 20, *Discounting of Property/Casualty Claim Estimates*. 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 consideration by the drafting committee and the ASB.

The ASB appreciates comments and suggestions on all areas of this proposed standard. 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 ["ASOP No. 20 COMMENTS"] in the subject line of your message. Also, please indicate in the template whether your comments are being submitted on your own behalf or on behalf of a company or organization.

The ASB posts all signed comments received on 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 on 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: September 30, 2022

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 is being prepared to address potential scope gaps with other ASOPs, reflect the interaction between this standard and ASOP No. 53, *Estimating Future Costs for Prospective Property/Casualty Risk Transfer and Risk Retention*, and address changes in actuarial practice in the area of estimating the future costs of prospective risk transfer or risk retention developed for ratemaking or premium or loss accrual purposes.

Notable Changes from the Existing ASOP

Notable changes from the existing ASOP are summarized 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 has been 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. In section 2, definitions were added for the following terms: claim estimate, coverage, discounted claim estimate, insurance risk, risk retention, and risk transfer.

3. Guidance related to discount rate selection and appropriateness has been added in section 3.4.

4. Guidance on risk margins has been reintroduced to the standard and expanded in section 3.5.

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

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

7. In section 4, disclosure requirements were added, mostly to address expanded guidance throughout section 3.

Request for Comments

The ASB appreciates comments and suggestions on all areas of this proposed standard submitted through the Comments Template. Rationale and recommended wording for any suggested changes would be helpful.

The ASB thanks the following members of the 2021 ASB Casualty Committee, who reviewed this exposure draft: Mary Frances Miller, Chair; Benjamin W. Clark, Heather D. Lake, Alan K. Putney, and Robert J. Walling.

The ASB voted in May 2022 to approve this exposure draft.

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.

EXPOSURE DRAFT—MAY 2022

PROPOSED REVISION OF 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 actuary's estimate of the obligation for future loss and loss adjustment expense payments resulting from claims due to past events. Future **claim estimates** represent an actuary's 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), estimates of discounted amounts after such recoverables, and estimates of discounted amounts of such recoverables.

If the actuary's actuarial services involve reviewing **discounted claim estimates** developed by another party, the actuary should use 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 four months after adoption by the Actuarial Standards Board.

Section 2. Definitions

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

2.1 Claim Estimate—An actuary's estimate on an undiscounted basis of the obligation for future loss and loss adjustment expense payments resulting from claims due to past events or an actuary's estimate of loss and loss adjustment expenses associated with prospective property/casualty **risk transfer** or **risk retention**.

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 level or timing of actual insurance cash flows may differ from what is expected. Insurance cash flows are funds from premiums and other non-investment income from insurance operations, and payments for losses, expenses, policyholder dividends and, when the analysis is on a post-tax basis, associated income taxes.

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

2.6 Present Value—The value at a given date of a future claim payment or series of future claim 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**. 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, the actuary should take into account the relative impact of various methods, models, and assumptions on the **claim estimate** versus the **discounted 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 implicit or explicit assumptions regarding the timing of future payments to derive a **discounted claim estimate**.

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.

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

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:

a. 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.

b. 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.

In 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.

c. Discount Rates Selected by Another Party—When using discount rates selected by another party, the actuary should review the rates for reasonableness. If, in the actuary's judgment, the discount rate selected by the party is not reasonable or the actuary cannot determine whether it is reasonable, the actuary should refer to ASOP No. 41, *Actuarial Communications*.

d. 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 various economic conditions including, but not limited to, inflation, inflation risk, and macroeconomic conditions. The actuary should consider taking into account the impact of short-term versus long-term returns on the **discounted claim estimate**, recognizing that long-term returns are generally more uncertain than short-term returns. If appropriate, the actuary should consider adjusting the discount rate(s) in order 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.

The actuary should take into account the following regarding the inclusion of **risk margins** consistent with applicable law and accounting standards:

a. 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, as well as the decrease in the implicit **risk margin** in the **discounted claim estimate**. Discounting a **claim estimate** reduces the implicit **risk margin** by the difference between the undiscounted value and the discounted value. The discounting process itself also introduces additional uncertainties, such as those associated with claim payment timing and discount rate selection.

b. Implicit and Explicit Risk Margins—The actuary may introduce implicit **risk margins** in 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**.

3.6 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—In the case 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 consider 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. whether the discount rate was requested by another party and if, in the actuary's professional judgment, the discount rate is not reasonable (see section 3.4.1[c]);

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);

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

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

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

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

4.2 Additional Disclosures in an Actuarial Report—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 (statutes, regulations, and other legally binding authority) 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

Background and Current Practices

Note: This appendix is provided for informational purposes, but 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.* This standard provides guidance for actuaries engaged in loss accrual determinations, premium setting, and ratemaking assignments. The introduction of this standard highlighted the need to extend the guidance of ASOP No. 20 to these types of actuarial work products in a manner similar to the ties to ASOP Nos. 36 and 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.

The discounting of unpaid claim estimates and risk margins are both important elements in estimating the fair value of unpaid claim estimates, yet neither is explicitly included in most current financial reporting for U.S. property and casualty insurers. Much of the rationale for unpaid claim estimate discounting is related to the issue of fair value; however, some believe that discounted unpaid claim estimates without risk margin may be a poorer estimate of fair value than undiscounted unpaid claim estimates.

Unpaid claim estimate discounting calculations are commonly performed in conjunction with valuations of insurance companies for purposes such as acquisition or merger, or with transfers of portfolios of unpaid claims. 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 currently guided by the existing ASOP No. 20. 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 guidance to practicing actuaries, they are not actuarial standards and are not binding.