



Invitation to Comment

Employment Benefits: Discount Rate Guidance in Section PS 3250

November 2017

COMMENTS TO PSAB MUST BE RECEIVED BY
MARCH 9, 2018

An online form has been posted with this document to assist you in submitting your comments to PSAB. Alternatively, you may send comments via email (in Word format), to:

info@psabcanada.ca

Please address your comments to:

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This Invitation to Comment is issued by the Public Sector Accounting Board (PSAB).

Individuals, governments and organizations are invited to send written comments on all aspects of the Invitation to Comment. Comments are requested from those who agree with the Invitation to Comment as well as from those who do not.

All comments received by PSAB will be available on the website shortly after the comment deadline, unless confidentiality is requested. The request for confidentiality must be stated explicitly within the response.

Highlights

This Invitation to Comment sets out the issues and considerations related to a review of the discount rate guidance in RETIREMENT BENEFITS, Section PS 3250, issued by the Public Sector Accounting Board (PSAB).

The objectives of this Invitation to Comment are to:

- explain why PSAB is considering whether the discount rate guidance in Section PS 3250 is sufficient;
- identify potential alternatives and related considerations; and
- seek stakeholder input prior to PSAB establishing its preliminary views on this issue.

The ultimate objective of this project is to issue a new employment benefits Section in the CPA Canada Public Sector Accounting Handbook, replacing Section PS 3250 and POST-EMPLOYMENT BENEFITS, COMPENSATED ABSENCES AND TERMINATION BENEFITS, Section PS 3255.

Main features

The main features of this Invitation to Comment are as follows:

- Section PS 3250 does not provide specific guidance on which discount rate should be used to estimate accrued benefit obligation.
- In practice, the expected return on plan assets is usually used to determine the present value of the accrued benefit obligation of benefit plans that are fully or partially funded. The entity's cost of borrowing is usually used to determine the present value of the accrued benefit obligation of benefit plans that are unfunded.
- PSAB needs to consider if the discount rate guidance in Section PS 3250 is sufficient and whether the two discount rate bases commonly used in the public sector are appropriate and provide useful information for accountability purposes.
- Benefit obligation is often incurred years before benefit payments are due. Reporting accrued benefit obligation at each reporting date requires applying a discount rate to the best estimate of future benefit payments to determine a single amount that represents its present value.
- Understanding the role of discount rate in present value measurement including the time value of money concept may help evaluate alternative discount rate approaches and develop appropriate discount rate guidance.
- Alternative discount rates may be based on the following, reflecting a current, an average or a projected rate:
 - expected return on plan assets;
 - expected return of an effective hedge portfolio;
 - market yields of high-quality debt instruments;
 - market yields of risk-free debt instruments;
 - the entity's cost of borrowing; or
 - the effective settlement rate.

- Determining the appropriate discount rate for accounting purpose should be based on the financial reporting concepts set out in the conceptual framework, including:
 - the objectives of financial statements;
 - benefit versus cost constraint; and
 - the qualitative characteristics of useful financial information such as relevance, reliability, comparability and understandability.

Background to the project

This is the second Invitation to Comment issued under this project. The Invitation to Comment, "[Employment Benefits: Deferral Provisions in Sections PS 3250 and PS 3255](#)," was issued in November 2016.

Given the complexity of the issues involved and the potential implications of any changes that may result from a review of Sections PS 3250 and PS 3255, PSAB decided to issue an Invitation to Comment on each key issue to seek input from stakeholders prior to establishing its positions.

Other issues that will be addressed in this project include:

- the accounting for plans with risk-sharing features different from the traditional defined benefit and defined contribution plans (which include, but are not limited to, shared risk or target benefit plans);
- the accounting for multi-employer defined benefit plans and sick leave benefits;
- other improvements to existing guidance; and
- issues that may arise or be identified by stakeholders throughout the development of the project.

PSAB encourages stakeholders to check the status and background information about this [project](#) online or to [subscribe](#) to email updates.

Comments requested

PSAB welcomes comments from individuals, governments and organizations on all aspects of the Invitation to Comment.

When comments have been prepared as a result of a consultative process within an organization, it is helpful to identify generically the source of the comment in the response. This will promote understanding of how the issues affect various aspects of an organization.

Comments are most helpful if they relate to a specific paragraph or group of paragraphs. Supporting reasons for your comments are most valuable when they demonstrate how they would:

- produce more relevant information for accountability and decision making by external users;
- improve the representation of the substance of the underlying transaction or event;
- contribute to improved measures and understanding of financial position and annual results;
- facilitate enhanced comparability; and
- provide sufficient information for external users to understand the financial statements.

Please respond to the following questions, considering how public interest would be best served:

Need for review of discount rates

1. Do you agree that PSAB needs to consider whether the discount rate guidance in RETIREMENT BENEFITS, Section PS 3250, is appropriate and sufficient?

Current accounting practice

2. What challenges do you have, if any, in applying the discount rate guidance in Section PS 3250?
3. What discount rate bases do you use in estimating accrued benefit obligation? If different discount rate bases are used for fully funded, partially funded and unfunded benefit plans, please identify them separately.
4. If you use the expected return on plan assets as the discount rate basis in estimating accrued benefit obligation, please answer the following:
 - (a) How do you determine the discount rate?
 - (b) Do you find the discount rate guidance in Section PS 3250 sufficient?
 - (c) What additional discount rate guidance would be helpful?
5. If you use the entity's cost of borrowing as the discount rate basis in estimating accrued benefit obligation, please answer the following:
 - (a) How do you determine the discount rate?
 - (b) Do you find the discount rate guidance in Section PS 3250 sufficient?
 - (c) What additional discount rate guidance would be helpful?

Alternative discount rate bases and views

6. Which of the discount rate bases identified in paragraphs .052-.092 is most appropriate for estimating the fulfillment value of the accrued benefit obligation? Please identify any guidance that may need to be considered.
7. Which of the discount rate views identified in paragraphs .093-.106 is most appropriate for estimating the fulfillment value of the accrued benefit obligation? Please identify any guidance that may need to be considered.
8. Are there any discount rate bases that may be used to estimate accrued benefit obligation that have not been identified in paragraphs .052-.092?
9. If you support a discount rate basis that includes adjustments for risks, which risks should be included in determining the discount rate (paragraphs .040-.046 and .080-.082)?
10. Are there any practical issues related to determining discount rates for which further guidance may need to be considered that have not been identified in the Invitation to Comment (specifically in paragraphs .065, .070, .076, .101, .105 and .107-.110)?

Alternative discount rate applications

11. Do you support using different discount rate bases/views for fully funded, partially funded and unfunded benefit plans? If yes, should it be based on:
 - (a) the entity's funding policy as described in paragraph .116; or
 - (b) the benefit plan's funding level as described in paragraph .121?
12. If you support using different discount rate bases/views for fully funded, partially funded and unfunded benefit plans, which of the discount rate basis/view (paragraphs .050-.106) is most appropriate for estimating the fulfillment value of the accrued benefit obligation of:
 - (a) a fully funded benefit plan;
 - (b) a partially funded benefit plan; and
 - (c) an unfunded benefit plan?

Other

13. Are there any reasons that a discount rate approach taken for estimating accrued pension benefit obligation would not be appropriate for estimating accrued non-pension benefit obligation?
14. As shown in Chart 2, market yields of high-quality debt instruments at the reporting date is a discount rate used in most other equivalent standards reviewed by PSAB. Are there any reasons that can justify that the public sector in Canada is different from the others?

Employment Benefits: Discount Rate Guidance in Section PS 3250

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PURPOSE AND SCOPE

- .001 This Invitation to Comment focuses on the discount rate guidance in Section PS 3250 for determining the accrued benefit obligation of employment benefits covered in Sections PS 3250 and PS 3255.
- .002 This Invitation to Comment does not address whether and when the effects of a change in the discount rate assumption should be recognized in the annual surplus/deficit. Recognition of changes in actuarial assumptions, including the discount rate assumption, was addressed in the Invitation to Comment, "[Employment Benefits: Deferral Provisions in Sections PS 3250 and PS 3255.](#)"
- .003 The objectives of this Invitation to Comment are to:
 - (a) explain why PSAB is considering whether the discount rate guidance in Section PS 3250 is sufficient;
 - (b) identify potential alternatives and related considerations; and
 - (c) seek stakeholder input prior to PSAB establishing its preliminary views on this issue.
- .004 PSAB has not yet deliberated on how actuarial gains and losses should be recognized. It has not determined whether unamortized actuarial gains and losses should remain a component of the net benefit liability/asset as currently defined in paragraph PS 3250.017. To support a more straightforward discussion, the unamortized actuarial gains and losses component is not included in the net benefit liability/asset referred to in this Invitation to Comment.

CURRENT DISCOUNT RATE GUIDANCE AND PRACTICE

- .005 Section PS 3250 does not provide specific guidance on which discount rate should be used to estimate accrued benefit obligation. It refers to two discount rate bases in the examples used to illustrate the principle that actuarial assumptions underlying the valuation of retirement benefit liability and expense should be internally consistent.
- .006 Paragraph PS 3250.044 states:

For example, when a government determines its discount rates by reference to its plan asset earnings, the assumptions used to determine the short-term forecast incorporated in the discount rates would be consistent with the short-term forecast of rates of return on assets currently held in the fund. When a government determines its discount rates by reference to its cost of borrowing, the assumptions used to determine the short-term forecast incorporated in the discount rates would be consistent with the specific rates of interest and the periods committed to by the government on amounts borrowed.
- .007 In practice, the expected return on plan assets is usually used to determine the present value of accrued benefit obligation of benefit plans that are fully funded or partially funded. The entity's cost of borrowing is usually used to determine the present value of accrued benefit obligation of benefit plans that are unfunded. How these discount rates are determined may vary in practice.

NEED FOR REVIEW OF DISCOUNT RATE GUIDANCE

- .008 For a long time, accounting has been influenced by actuarial concepts and calculations for funding purposes. Expected rate of return on plan assets is commonly used as the basis for estimating contribution requirements for funding purposes. As accounting evolved, some standard setters, in

updating their employee benefits standards, have considered but rejected this discount rate basis for accounting purposes for the following reasons:

- (a) “[T]he fact that a fund has chosen to invest in particular kinds of asset does not affect the nature or amount of the obligation.”¹
- (b) “[T]he measurement of the obligation should be independent of the measurement of any plan assets actually held by a plan.”²
- (c) “If two employers have made the same benefit promise, the service cost and the accrued benefit obligation should be the same even if one expected to earn an annual return of 15 percent on its plan assets and the other had an unfunded plan.”³
- (d) “[A]ssets with a higher expected return carry more risk and an entity should not recognize a smaller liability merely because the plan has chosen to invest in riskier assets with a higher expected return.”⁴

- .009 Except for the equivalent standard for the U.S. federal government, no other employee benefits standards reviewed by PSAB⁵ used the entity’s cost of borrowing as the discount rate basis for accrued benefit obligation.
- .010 Other publicly accountable enterprises in Canada are required to use market yields of high-quality corporate bonds at the reporting date to estimate their accrued benefit obligations. Public sector entities are allowed to use plan asset earning rates, which are at a higher rate in the current economic environment, to estimate their accrued benefit obligations. Some question if it would be in the public interest for public sector entities to report a more positive financial position.
- .011 As discussed in paragraph .005, Section PS 3250 does not provide specific guidance on which discount rate should be used to estimate accrued benefit obligation. PSAB needs to consider if the discount rate guidance in Section PS 3250 is sufficient, and whether the two discount rate bases commonly used in the public sector are appropriate and result in useful information for accountability purposes because some concerns have been raised about the current practice.
- .012 Concerns about using a discount rate that is based on plan asset earnings to determine accrued benefit obligation include:
 - (a) entities that invest in higher-risk plan assets would report a lower accrued benefit obligation based on a higher expected return on plan assets;
 - (b) entities would report a decrease in accrued benefit obligation when they change the investment portfolio/strategy of the benefit plan to hold higher-risk assets; and
 - (c) the subjectivity involved in estimating projected plan asset earnings may give room for entities to use more aggressive investment return assumptions to present lower accrued benefit obligation.
- .013 Concerns about using a discount rate that is based on the entity’s cost of borrowing to determine accrued benefit obligation include:
 - (a) entities that have a lower credit rating would report a lower accrued benefit obligation based on a higher cost of borrowing;

¹ IAS 19 *Employee Benefits* — Basis for Conclusions, paragraph BC130.

² IAS 19 *Employee Benefits* — Basis for Conclusions, paragraph BC130.

³ FAS 87 *Employers’ Accounting for Pensions* — Basis for Conclusions, paragraph 198.

⁴ IAS 19 *Employee Benefits* — Basis for Conclusions, paragraph BC130.

⁵ See Chart 2 on page 10.

- (b) entities would report a decrease in accrued benefit obligation when their credit rating deteriorates; and
 - (c) the challenges and diversity in practice for entities that do not borrow or are not allowed to borrow in determining a proxy of the cost of borrowing.
- .014 There are also concerns about using one discount rate basis to determine the accrued benefit obligation of plans that are fully funded and partially funded, and another discount rate basis to determine the accrued benefit obligation of plans that are unfunded. This approach could create a distinction between benefit obligations with identical characteristics. It would result in incomparable financial position of entities with different funding policies, making it difficult to compare the cost of providing funded benefits and unfunded benefits by the same entity.

Expected outcomes of the review

- .015 Any changes in discount rate guidance that result from this review may include the following:
- (a) updating the examples in paragraph PS 3250.44;
 - (b) identifying factors to consider in selecting discount rates;
 - (c) setting out principles and/or criteria for selecting discount rates; and/or
 - (d) prescribing an approach or approaches to determine discount rates.

THE ROLE OF DISCOUNT RATES

- .016 Employment benefit obligation arises in an exchange transaction between an entity and its employees. It represents a promise to provide deferred benefits to employees in exchange for their services. An accounting objective is to measure that exchange transaction; that is, to record a value for the services received as an expense and the liability incurred when the exchange occurs, and to record a value for the liability at each reporting date until it is fulfilled or settled.
- .017 Benefit obligation is often incurred years before benefit payments are due. Benefit payments can be made over a long period. Reporting accrued benefit obligation at each reporting date requires applying a discount rate to the best estimate of future benefit payments to determine a single amount that represents its present value.

The time value of money concept

- .018 The role of discount rate in present value measurement is primarily to reflect the time value of money. It is the concept that money available at the present time is worth more than the same amount in the future mainly due to its potential earning capacity.
- .019 While the concept of time value of money is widely accepted, how to determine the discount rate for present value measurement is a subject of debates. There is widespread disagreement about the appropriate rate for discounting future cash flows to reflect the time value of money.

Effects of discount rates

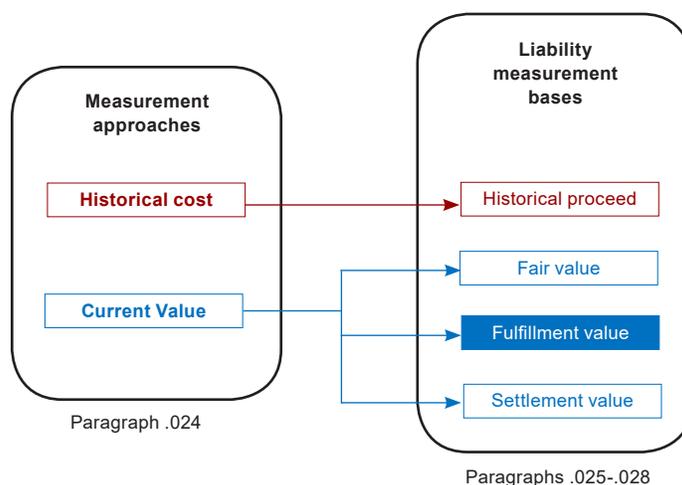
- .020 Discount rate is one of the actuarial assumptions used to estimate accrued benefit obligation. The discount rate assumption does not affect future benefit payments.
- .021 A change in the discount rate will affect accrued benefit obligation, current service cost, the interest cost on benefit obligation, and the actuarial gains and losses arising from a change in the discount rate assumption.

.022 The longer the benefit accrual and payment periods, the more sensitive the valuation of benefit obligation would be to the discount rate assumption. A small change in the discount rate assumption can result in a significant change in the accrued benefit obligation and the current service cost. For example, a 1 per cent change in the discount rate may result in a 12 to 18 per cent change in the value of accrued benefit obligation and a 15 to 25 per cent change in the current service cost.

Measurement basis of accrued benefit obligation

.023 Selection of a discount rate is a measurement issue because discount rate is one of the elements in the measurement of accrued benefit obligation. The latest thinking in measurement concepts, particularly in the measurement of liabilities and present value techniques, may inform consideration of the appropriate discount rate guidance in an employment benefits standard.

Chart 1: Measurement approaches and liability measurement bases



.024 Under the measurement concepts, an asset and a liability may be measured based on their values at the initial transaction date or at the reporting date; that is, its historical cost or its current value. Under the historical cost approach, assets are measured based on their initial transaction costs and liabilities are measured based on the initial proceeds received. Under the current value approach, assets and liabilities are measured based on the conditions at the reporting date.

.025 There are primarily three measurement bases for liabilities under the current value approach: fair value, fulfillment value and settlement value.

.026 Fair value is the price that an entity would pay to transfer a liability in an arm’s length transaction between knowledgeable and willing market participants who are under no compulsion to act at the reporting date.

.027 Fulfillment value is the amount that an entity expects to incur to fulfill a liability by making payments to the counterparty when due.

.028 Settlement value is the cost for an entity to be released from its obligation at the reporting date, either by settling the obligation with the counterparty or by transferring the obligation to a third party not in an active market (usually with an insurance company), whichever is the lower amount.

.029 Similar to equivalent standards issued by other standard setters, Section PS 3250 does not refer to the measurement basis for accrued benefit obligation. However, its measurement guidance most resembles the fulfillment value. This measurement basis, among others, may provide the most

relevant measure of accrued benefit obligation given that benefit obligation is usually fulfilled by making benefit payments to plan members when due.

- .030 No proceeds are received when benefit obligation is incurred that can be used to establish its historical transaction cost. The value of employee services received cannot be reliably measured. Any estimate of the historical cost of benefit obligation would be based on future benefit payments discounted at a rate that reflects the economic and market conditions when employee services are rendered. The resulting accrued benefit obligation would be the summation of benefit obligations accumulated over many years, measured at different discount rates reflecting conditions at different times of incurrence. It would not provide a meaningful measure of its economic burden to the entity at the reporting date.
- .031 There is no active market for trading benefit obligations. The fair value of benefit obligation, therefore, cannot be observed directly in the market. Though the fair value of benefit obligation may be estimated using valuation techniques, determining the market participants' perspectives can be challenging without an active market. Also, market participants' perspectives may not be relevant given that benefit obligation is not traded in the market.
- .032 In some situations, fulfilling the obligation when benefit payments are due may be the only way to discharge benefit obligation in the public sector. Legal and contractual restrictions may prevent the entity from transferring its benefit obligation to a third party. A mature market with sufficient capacity to buy out the entire benefit obligation of the entity may not exist. The transfer price quoted from insurance companies often include factors (such as profit margin, more conservative mortality assumption and other allowances) that may not be relevant to users of financial statements unless the entity intends to transfer the benefit obligation.
- .033 For benefits that are linked to final pay, market participants may not be willing to buy out the benefit obligation. Even if they do, they may demand a price that would not be economical for the entity to transfer, as opposed to fulfill, the benefit obligation. Settlement value may be relevant in limited situations, such as when there is a plan settlement or a partial plan settlement.

Discount rate in present value measurement

- .034 Any combination of cash flow estimates and a discount rate can be used to arrive at a present value. The present value techniques and the underlying concepts in the accounting literatures focus primarily on estimating the fair value of assets and liabilities. There is some recognition that these techniques may need to be customized when estimating the fulfillment value to be relevant to users.
- .035 When present value techniques are used to estimate fair value, they usually incorporate the market participants' perspectives of the following elements:
 - (a) estimates of future cash flows;
 - (b) possible variations in the estimated amount and timing of future cash flows caused by the uncertainty inherent in the cash flows;
 - (c) the time value of money;
 - (d) the price for bearing the uncertainty inherent in the cash flows (i.e., a risk premium);
 - (e) the possibility that the entity may fail to fulfill the liability (i.e., own credit risk or non-performance risk); and
 - (f) other factors, such as liquidity, that market participants would take into account in the circumstances.

- .036 In theory, the element described in paragraph .035(b) may be reflected in the cash flows estimates by reflecting the range of possible cash flows in a single amount (i.e., the expected cash flows), or incorporated in the discount rate used to calculate the fair value. The more recent accounting literatures usually refer to the use of expected cash flows in present value measurement. The elements described in paragraphs .035(c) to (f) are usually reflected in the discount rate used in the present value measurement of fair value.
- .037 For estimating the fulfillment value, not all elements would be included in the present value measurement. Also, they may be based on the entity's assumptions and circumstances, rather than the market participants' perspectives. Some recognized that it would be difficult to measure a risk margin, represented by elements described in paragraphs .035(d) to (f), for benefit obligation.
- .038 It can be difficult to conceptualize the logic of applying the risk adjustment principle in the present value measure of an asset to the measurement of a liability. It is because higher uncertainty in future cash flows, higher credit risk and illiquidity would increase the risk adjustments to the risk-free interest rate, resulting in a higher discount rate and a lower accrued benefit obligation. Some find this result counterintuitive. Others believe that the counterintuitive results are realistic reflections of the value of the benefit obligation to plan members, and provides useful information.

Future cash flows

- .039 The cash flows used in the present value measurement of accrued benefit obligation would be the entity's best estimate of future benefit payments, based on the entity's demographic and other economic assumptions. Section PS 3250 states that each key actuarial assumption would be based on the entity's best estimate of those future events that have an effect on the benefit obligation. Possible variations in the amount and timing of cash flows (the element described in paragraph .035(b)) would therefore not be captured in the measure of the accrued benefit obligation.

Discount rate

- .040 Emerging from the more recent accounting literatures is the view that the discount rate used in present value measurement would consist of a risk-free interest rate (represented by the element in paragraph .035(c)) and adjustments for risks that reflect the characteristics of the liability being measured (represented by elements in paragraphs .035 (d) to (f)).

Adjustment for risk of uncertain cash flows

- .041 Adjustment for the risk of uncertain cash flows is included in the discount rate used to estimate fair value because market participants would expect compensation for bearing the risk. Some may argue that this risk would not be relevant for estimating the fulfillment value of accrued benefit obligation because the entity would bear the risk of uncertain future benefit payments as they become due. The entity would not pay a premium to transfer the risk to market participants. Others argue that the fact that the entity bears the uncertainty risk represents value to plan members, and should be reflected in the estimate.

Adjustment for credit risk

- .042 Adjustment for the risk that the entity may default on its financial obligations is included in the discount rate used to estimate fair value. Other factors that might influence the likelihood that the obligation will not be fulfilled are often taken into account, sometimes referred to as non-performance risk.

- .043 Whether the risk of an entity defaulting on its obligations should be reflected in the measurement of the liability is a complex and contentious issue. Some argue that, under the going concern assumption, an entity would be expected to fulfill its obligations when due. Reflecting the entity's credit risk in its liabilities may mislead users that it has an option to default on its obligations. Others argue that the entity's ability to fulfill its obligations is a practical matter, not a legal one. Default risk is as appropriate in valuing benefit obligations as it is in valuing any other obligations of an entity.
- .044 The concept of including credit risk in the measurement of liabilities incurred in exchange for cash may be logical. It is because two borrowers with different credit ratings that agree to repay the same amount at a future date would receive different amounts when the liability is incurred. Whether credit risk would affect the amount of liabilities incurred in exchange for services may be debatable, depending on the nature of the exchange. Some argue that, in the case of employment benefits, employees often do not have the ability to demand compensation for bearing the credit risk of the employer/sponsor.
- .045 Reflecting credit risk in measuring the fulfillment value of accrued benefit obligation is complicated, particularly when plan assets are set aside to fund future benefit payments. A portion of the accrued benefit obligation would be similar to a liability with collateral and is free from credit risk. Some point out that it is the credit risk of the liability, not the entity, that would be relevant. They suggest that it may not be appropriate to reflect credit risk in measuring the expected funded portion of accrued benefit obligation. Others argue that accrued benefit obligations are not affected by whether they are backed by assets or how well those assets match the credit quality and payment schedules of the benefit obligations.

Adjustment for liquidity risk

- .046 Adjustment for liquidity risk is included in the discount rate used to estimate fair value because market participants would expect compensation for holding illiquid assets. Some argue that liquidity risk would be less relevant for estimating the fulfillment value of accrued benefit obligation given that most benefit obligations would be fulfilled over a long period.

ALTERNATIVE DISCOUNT RATE BASES AND VIEWS

- .047 One of the purposes of this Invitation to Comment is to identify alternative discount rate bases.

Discount rate bases in other equivalent standards

- .048 The discount rate bases used in other equivalent standards can be classified into the following categories:
- (a) market yields of high-quality debt instruments (including corporate and government bonds) that have a deep and liquid market at the reporting date;
 - (b) effective settlement rate at the reporting date;
 - (c) average historical rate for marketable treasury securities; and
 - (d) expected return on plan investments.

Chart 2: Discount rate bases in equivalent standards

| | IASB ⁶ | IPSASB ⁷ | S.A. ASB ⁸ | U.K. ASB ⁹ | U.S. FASB ¹⁰ | Part II ¹¹ | U.S. FASAB ¹² | U.S. GASB ¹³ |
|--|-------------------|---------------------|-----------------------|-----------------------|-------------------------|-----------------------|--------------------------|-------------------------|
| Market yields of high-quality debt instruments at the reporting date | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Effective settlement rate at the reporting date | | | | | ✓ | ✓ | | |
| Average historical rate for marketable treasury securities | | | | | | | ✓ | |
| Expected return on plan investments | | | | | | ✓ | | ✓ |

.049 Another discount rate basis considered by some standard setters but not adopted in any equivalent standard is the expected return of an effective hedge portfolio.

Alternative discount rate bases and views

.050 An alternative discount rate approach can be any of the six discount rate bases identified in Chart 3 reflecting a current, an average or a projected view.

⁶ International Accounting Standards Board

⁷ International Public Sector Accounting Standards Board

⁸ South Africa Accounting Standards Board (standards for public sector entities)

⁹ U.K. Accounting Standards Board

¹⁰ U.S. Financial Accounting Standards Board

¹¹ Part II of CPA Canada Handbook — Accounting, accounting standards issued by the Canadian Accounting Standards Board for private enterprises. EMPLOYEE FUTURE BENEFITS, Section 3462, allows entities, under certain conditions, to measure the defined benefit obligation using an actuarial valuation for funding purposes other than those prepared on a solvency, wind-up or similar valuation basis. Discount rate assumptions permitted in such funding valuation include the expected return on plan assets and market yields of high-quality debt instruments (Standards of Practice 3000, paragraph 3230.02). This alternative measurement approach was permitted primarily for cost reasons.

¹² U.S. Financial Accounting Standards Advisory Board (standards for the U.S. federal government) uses average historical rate for marketable treasury securities, which can be considered a risk-free rate, as well as the federal government’s cost of borrowing.

¹³ U.S. Governmental Accounting Standards Board (standards for U.S. state and local governments) uses a composite rate that is composed of applying the expected return on plan investments for the expected funded portion of benefit obligation and high-quality municipal bond yields for the expected unfunded portion of benefit obligation.

Chart 3: Alternative discount rate bases and views

| Alternative Discount Rate Bases | Possible Views | | |
|---|----------------|---------|-----------|
| | Current | Average | Projected |
| Expected return on plan assets | | | ✓ |
| Expected return of an effective hedge portfolio | | | ✓ |
| Market yield of high-quality debt instruments | ✓ | ✓ | ✓ |
| Market yield of risk-free debt instruments | ✓ | ✓ | ✓ |
| Entity's cost of borrowing | ✓ | ✓ | ✓ |
| Effective settlement rate | ✓ | ✓ | ✓ |

.051 Depending on how prescriptive the discount rate guidance would result from this review, related practical issues may need to be considered for the bases and views chosen.

Alternative discount rate bases

- .052 The six discount rate bases identified in Chart 3 generally represent the different objectives of estimating accrued benefit obligation at the reporting date.
- .053 Using any of the first four discount rate bases listed in Chart 3 would provide an estimate at the reporting date of how much the entity would need to invest in a given portfolio of assets to meet the benefit obligation when due.
- .054 Using the entity's cost of borrowing as the discount rate basis would provide an estimate at the reporting date of how much the entity would borrow to meet its benefit obligation.
- .055 Using the effective settlement rate as the discount rate basis would provide an estimate at the reporting date of how much the entity would need to pay to settle its benefit obligation.

Expected return on plan assets

- .056 The expected return on plan assets reflects the entity's best estimate assumption about the investment return, either of the plan assets currently held in the benefit plan, or expected from the investment strategy of the plan.

Analysis

- .057 This discount rate basis is commonly used for funding purposes to provide an estimate of the contribution required to meet future benefit payments. Some argue that using the same discount rate for funding and accounting purposes would be easy for users to understand. (See Appendix A for background about actuarial valuations for funding and accounting purposes.) Others noted that even a funding target determined on this discount rate basis may include a provision for adverse deviations to reduce the likelihood that a plan would be underfunded in establishing contribution requirements.
- .058 Those who support this discount rate basis reason that when plan assets have been segregated and legally restricted for funding future benefit payments, the economic burden of the entity is the net benefit liability, no longer the accrued benefit obligation. Plan assets are expected to accumulate over time through contributions and investment returns to meet some or all of the entity's benefit

obligations. They believe that using the expected return on plan assets to discount accrued benefit obligation would result in a net benefit liability that faithfully represents the entity's outstanding obligation at the reporting date.

- .059 Others question whether a net benefit liability estimated using this discount rate basis would faithfully represent its economic burden to the entity at the reporting date given that the expected return on plan assets has not been realized. The actual return may be more or less than expected and the entity's outstanding obligation may be more or less than the reported net benefit liability. A typical investment portfolio may be exposed to risks related to changes in interest rates, defaults of counterparty and equity price movements.
- .060 One may counter-argue that the expected return on plan assets, like other actuarial assumptions used to estimate future benefit payments, represents the entity's best estimate at the reporting date. It is generally accepted that the actual experience is likely different from expected and could give rise to actuarial gains and losses. The fact that the actual return may be different from the best estimate of expected return would not affect the reliability of the accrued benefit obligation estimate. However, given the subjectivity involved in estimating projected plan asset earnings, some question whether entities may use more aggressive investment return assumptions to present lower accrued benefit obligation.
- .061 Some point out that even if the expected return on plan assets is actually realized, a net benefit liability estimated with the expected return on plan assets as the discount rate may understate its economic burden to the entity. It is because the unfunded benefit obligation would be funded from the entity's other resources or borrowing. The expected return on the plan assets would be irrelevant to the entity's outstanding unfunded benefit obligation. Others argue that this discount rate basis would be appropriate to estimate the accrued benefit obligation for funded plans and the portion of the obligation that is funded in a partially funded plan.
- .062 Some also question the concept of linking the measurement of benefit obligation to the expected return of plan assets set aside for its ultimate settlement in pension accounting. They noted that there is no link between the investment return on sinking funds (i.e., money set aside for future repayment of debts or other liabilities) and the measurement of the related liabilities. They argue that the measurement of benefit obligation should reflect the characteristics of the obligation. Otherwise, plans with identical benefits would report different obligations because of different plan investment strategy.
- .063 Others reason that the fact that plan assets have been segregated and legally restricted for funding future benefit payments would support the use of a risk-free rate as the discount rate basis. It is because the legally restricted assets are effectively the collateral, making the accrued benefit obligation essentially risk-free.

Expected return of an effective hedge portfolio

- .064 This discount rate basis is the expected return of a hypothetical portfolio with assets that match the economic risk factors of the benefit obligation. The investments actually held in the plan need not be an effective hedge portfolio. An effective hedge portfolio (sometimes called matching/replicating assets), may include:
 - (a) fixed interest investments for benefit obligation that does not depend on inflation or salary increases (e.g., non-indexed benefits based on career average salary);
 - (b) real-return bonds, real estate and infrastructure investments for benefit obligation that depends on inflation (e.g., benefits subject to cost-of-living adjustments); and
 - (c) equities or index-linked bonds for benefit obligation that is linked to final pay.

.065 The assets in the effective hedge portfolio are expected to react to changing economic conditions over the long term in the same way as the cash outflows of the benefit obligation. One view is that the long-term performance of equities is correlated to general salary progression in the economy and, therefore, with the final pay element of benefit obligation. An alternative view is that final salary liabilities are better matched by index-linked bonds. Further guidance on the types of asset that would be considered effective hedge of the different types of benefits may need to be considered.

Analysis

.066 Those who support this discount rate basis consider it a refinement or an improvement to the expected return on plan assets because:

- (a) it can be applied to benefit plans that have no plan asset set aside for future benefit payments;
- (b) it is independent of the plan assets held or the investment strategy of the plan and would not provide incentive for entities to invest in higher-risk assets; and
- (c) it takes into account the nature of the benefits and captures the risks associated with the benefit obligation, consistent with an emerging principle that discount rate should reflect the characteristics of the liability being measured.

.067 Others argue that some of the concerns about the expected return on plan assets may also apply to the expected return of an effective hedge portfolio. The obligation to pay benefits does not vary depending on the asset that backs it. It would not be appropriate to use a discount rate that is based on the expected return of assets that may potentially be used to back the obligation to estimate the accrued benefit obligation.

.068 Some noted that identifying an effective hedge portfolio and estimating the related return that matches the risk and time horizon of the benefit obligation can be complex and difficult. The potential judgment that may be involved in determining the replicating portfolio may lead to less comparable benefit obligation information between entities. Also, evidence supporting an effective hedge relationship between certain investments and benefits is limited to certain types of benefits and plans.

Market yields of high-quality debt instruments

.069 This discount rate basis is the yield of marketable debt instruments that received among the highest credit ratings. This is one of the acceptable discount rate bases in a number of equivalent standards issued by other standard setters. They often require the existence of a deep and liquid market for the reference debt instruments. Though not often used in practice, the yields of low-risk debt instruments are an acceptable discount rate basis in going concern funding valuation.¹⁴

.070 Many may consider debt instruments that received one of the two highest credit ratings from a recognized ratings agency would be high quality. Guidance on what high quality means and criteria for identifying high-quality debt instruments may need to be considered.

Analysis

.071 A current or an average market yield of high-quality debt instruments can be observed directly in the market and thus removes the subjectivity in the selection of a discount rate. These rates would not be affected by an entity's credit rating and can result in more comparable benefit obligation

¹⁴ Standards of Practice 3000, Pension Plans, paragraph 3230.02; and Revised Educational Note, "Determination of Best Estimate Discount Rates for Going Concern Funding Valuations," December 2015.

information between entities. However, some may argue that a market rate may not be relevant to users as benefit obligation is usually not traded in the market.

- .072 This discount rate basis can be applied to all benefit plans regardless of whether:
 - (a) plan assets have been set aside for future benefit payments; and
 - (b) the entity is allowed to borrow.
- .073 Those who support this discount rate basis reason that using the market yields of only high-quality debt instruments as the discount rate reduces the risk that the resulting net benefit liability would be understated. Compared to a risk-free rate basis, this incorporates some risk premium that better reflects that the benefit obligation of most public sector entities is not risk-free.
- .074 Others argue that there is no conceptual basis to support the use of this discount rate basis because it reflects the irrelevant credit and other risks of the issuer of the debt instruments. It is not consistent with how other obligations of an entity are measured.

Market yields of risk-free debt instruments

- .075 This discount rate basis is the yield of marketable debt instruments that pose no risk of default to the holder. They are usually issued by a financially sound government.
- .076 Under the current economic and fiscal environment, many may consider the market yields of Government of Canada bonds a reasonable representation of risk-free rates. Guidance on what risk-free means and criteria for identifying risk-free rates that would be relevant throughout the changing economic conditions and fiscal environments may need to be considered.

Analysis

- .077 A current or an average market yield of risk-free debt instruments can be observed directly in the market and thus removes the subjectivity in selecting a discount rate. These rates would not be affected by an entity's credit rating and can result in more comparable benefit obligation information between entities. However, some may argue that a market rate may not be relevant to users as benefit obligation is usually not traded in the market. It is also not consistent with how other obligations of an entity are measured.
- .078 This discount rate basis can be applied to all benefit plans regardless of whether:
 - (a) plan assets have been set aside for future benefit payments; and
 - (b) the entity is allowed to borrow.
- .079 Some argue that using this discount rate basis in the public sector can result in public sector entities reporting a more conservative financial position. Those who support this discount rate basis reason that it reflects the risk-free nature of many benefits in the public sector. They observed that pension benefits that have been earned often have high seniority of payment among the entity's other obligations, with negligible possibility of default.
- .080 Others argue that though the risk of non-payment of benefits in the public sector is generally low, the liability for benefits cannot be considered free of risk. Using a risk-free discount rate to estimate accrued benefit obligation can result in overstatement of the net benefit liability.
- .081 Some point out that assessing an appropriate risk premium or adjustment in the discount rate used in present value measurement would be difficult and can be subjective. Any risk adjustment in the discount rate would contain an arbitrary element. A risk-free rate can be observed directly in the market and would therefore be objective.

.082 They observed that a common theme emerging from the more recent accounting literatures refers to the current market risk-free rate to represent the time value of money element in present value measurement (paragraph .035(c)). Based on discussions in paragraphs .040-.046, they question whether adjustment for other risks should be made to the risk-free interest rate in determining the discount rate for estimating the fulfillment value of accrued benefit obligation.

Entity's cost of borrowing

.083 This is the borrowing rate the entity can obtain for its debts or other borrowings. The entity's average borrowing rate is considered an appropriate discount rate for the present value measurement of other financial statement items in some Public Sector Accounting standards.¹⁵

Analysis

.084 Those who support this discount rate basis think that benefit obligation is no different from the entity's other debts or borrowings. Unlike the alternative discount rate bases discussed above that are related to the investment return of different types of assets, they argue that using a "liability-based" rate to estimate accrued benefit obligation, which is a liability, would be conceptually consistent. They believe that this discount rate basis would be appropriate to estimate the accrued benefit obligation for unfunded plans and the portion of obligation that is unfunded in a partially funded plan.

.085 Some disagree that the nature of benefit obligation is the same as an entity's borrowing. Benefit obligation arises from an exchange of services of employees for deferred compensation. An entity's borrowing is a financing transaction in which an entity's obligation arises from an exchange of cash consideration. The terms of benefit obligation are not the same as those that the entity could obtain in a borrowing.

.086 Some point out that using the entity's cost of borrowing as the discount rate basis would result in counterintuitive information that would not promote accountability or support comparability. An entity with a lower credit rating would recognize a lower benefit obligation than an entity with a higher credit rating. Others argue that the counterintuitive results are realistic reflections of the value of the benefit obligation to plan members, and have information value.

.087 Given that an entity's cost of borrowing reflects its credit risk, some noted that the controversy over reflecting an entity's credit risk in the discount rate discussed in paragraphs .043-.045 may also apply to the consideration of this discount rate basis.

Effective settlement rate

.088 This is the rate implicit in the total costs involved in releasing the entity from its accrued benefit obligation. This is one of the acceptable discount rate bases in some equivalent standards.

.089 Depending on the applicable law, regulatory policy or guideline in the jurisdiction, different settlement methods may be permitted or available to different plan members. For example, benefit obligation related to retirees may be settled through the purchase of annuity contracts. Other plan members may receive or be given the option to receive a lump-sum payment. As described in paragraphs A14-A16, different discount rate bases may be used in different settlement methods. The effective settlement rate of the benefit obligation of an entity would reflect its circumstances, such as the size of the plan, the mix of active and retired members, and the availability of the settlement options legally and in the market.

¹⁵ PORTFOLIO INVESTMENTS, Section PS 3041; LOANS RECEIVABLE, Section PS 3050; SOLID WASTE LANDFILL CLOSURE AND POST-CLOSURE LIABILITY, Section PS 3270; and LOAN GUARANTEES, Section PS 3310.

Analysis

- .090 This discount rate basis can be applied to all benefit plans regardless of whether:
- (a) plan assets have been set aside for future benefit payments; and
 - (b) the entity is allowed to borrow.
- .091 Some question the relevancy of an effective settlement rate in estimating the fulfillment value of benefit obligation when the plan is not settled. They observed that, in estimating the cost related to annuity contracts, quotes from insurance company often include factors (such as profit margin, more conservative mortality assumption and other allowances) that may not be relevant to users of financial statements. They argue that, except when the entity has decided to settle the benefit obligation, this discount rate basis would not represent the economic reality. Others assume that using this discount rate basis would provide an estimate of how much the entity would need to pay to fulfill its benefit obligation at the reporting date.
- .092 Some argue that determining an effective settlement rate can be difficult, subjective and costly. For example, though an implicit rate in annuity contracts can be estimated with adjustments to some proxy rates published by the actuarial profession from time to time, it would be difficult to determine objectively a reasonable adjustment for many benefit obligations in the public sector. A mature market with sufficient capacity to settle the entire benefit obligation of some public sector entities may not exist.

Alternative discount rate views

- .093 Other than the first two discount rate bases listed in Chart 3 that reflect a projected view, the last four discount rate bases listed in Chart 3 may reflect a current, an average or a projected view.
- .094 While the discount rate guidance in most equivalent standards reflects a current view, Section PS 3250 reflects a projected view in establishing actuarial assumptions. Some Sections in the CPA Canada Public Sector Accounting Handbook¹⁶ consider an average rate appropriate for present value measurement of some financial statement items.

Current rate view

- .095 A current rate reflects the economic conditions and market expectations at the reporting date. Using a current rate does not mean that short-term discount rates would be used to discount long-term obligations. Rather, a current rate reflects the current expectations about the periods over which the benefit payments are expected to be made.

Analysis

- .096 Some believe that a current rate would be logical because fulfillment value is a current value measure that, by definition, is expected to be updated to reflect conditions at each reporting date. They assume that using a non-current rate to estimate a current value measure could result in an internally inconsistent measure that may not be meaningful or useful.
- .097 As the discount rate used to estimate accrued benefit obligation would also be used to estimate the current period service costs, they believe that using a current rate would result in a more faithful representation of the cost of benefits attributed to services rendered during the current period.

¹⁶ PORTFOLIO INVESTMENTS, Section PS 3041; LOANS RECEIVABLE, Section PS 3050; SOLID WASTE LANDFILL CLOSURE AND POST-CLOSURE LIABILITY, Section PS 3270; and LOAN GUARANTEES, Section PS 3310.

- .098 They further support that if plan assets are measured at current value (i.e., fair value), accrued benefit obligation should be discounted at a current rate to avoid irrelevant volatility in the net benefit liability/asset.
- .099 Some question whether a point-in-time estimate like a current rate that aims at a level of precision can be attainable in practice. Using a current rate could result in more volatility in the accrued benefit obligation reported from year to year. They do not believe that the volatility in benefit obligation is a faithful representation of the time value of money given the long-term nature of many benefit obligations. In their views, volatility in the resulting net benefit liability and expense can be confusing and difficult to explain when there is no substantial change in benefit provisions or actual experience of the plan.
- .100 Others believe that volatility in accrued benefit obligation has information value because it reflects the economic reality—the risks the entity is exposed to resulted from the nature of benefits promised.

Average rate view

- .101 This is an average of the applicable rate as of a number of dates (often including the reporting date) over a period. The length of the period should be consistent from period to period. Depending on how prescriptive the discount rate guidance is after this review, guidance on the length of the period may need to be considered.

Analysis

- .102 Those who support an average rate think that past experience could be the basis for expectations about future trends. They suggest that an average rate would reduce the volatility resulting from a current rate that focuses on a point-in-time estimate. An average rate may provide a reasonable proxy of a projected rate without the subjectivity and efforts involved. Others consider an average rate simply a smoothing mechanism that cannot be supported conceptually.
- .103 Some point out that for discount rates based on market yields of debt instruments, there is no rational basis for expecting efficient market to drift toward any assumed average. Market expectations would have incorporated all publicly available information, including historical rates. Market yields as at the reporting date would be more relevant and reliable than an average market rate. They do not believe that historical experience is a reliable predictor of the future.

Projected rate view

- .104 In contrast to the current rate that focuses on the reporting date and the average rate that focuses on the recent or distant history, a projected rate focuses on the expected future related to the periods over which the benefit payments are expected to be made.
- .105 Depending on how prescriptive the discount rate guidance would be resulting from this review, further guidance on the extent current market information and historical experience should be incorporated in estimating the projected rate may need to be considered.

Analysis

- .106 Those who support a projected rate reason that a forward-looking rate may better represent the entity's best estimates. It would reflect long-term forecasts that would not be influenced by short-term fluctuation. Others find a projected rate by nature would require judgment and, therefore, may be difficult, costly and subjective to determine.

Other practical issues

Acceptable extrapolation techniques

- .107 The use of extrapolation techniques may be needed to determine the current rate and average rate when the relevant instrument with durations that match the estimated future benefit payment periods do not exist. Guidance on acceptable practice may need to be considered.

Acceptable proxy rates

- .108 Some alternative discount rate bases identified above may be difficult to apply to all entities, for example:
- (a) the expected return on plan assets for benefit plans that do not have assets segregated to fund future benefit payments; and
 - (b) the cost of borrowing for entities that do not or are not allowed to borrow.
- .109 Whether proxy rates should be used in these cases may need to be considered. This may include considering whether reasonable and workable criteria can be developed for identifying the relevant proxy rates. For example, possible proxies may include using:
- (a) the expected return of an effective hedge portfolio for benefit plans that do not have segregated assets; and
 - (b) the cost of borrowing of other relevant entities for entities that do not or are not allowed to borrow.

Other issues

- .110 In recent years, some plan sponsors that report under IFRS[®] Standards or U.S. GAAP have adopted more granular approaches to setting discount rates. For example, a different discount rate (on the same basis) for current service cost, reflecting the benefit payment period related to active members may be used. Using these approaches would not affect the estimate of accrued benefit obligation. As stated in paragraph .001, this Invitation to Comment focuses on the discount rate guidance for determining the accrued benefit obligation. Consideration of these approaches is not in scope of this Invitation to Comment.

ALTERNATIVE DISCOUNT RATE APPLICATIONS

- .111 Any chosen discount rate bases and views discussed in paragraphs .050-.106 can potentially be applied in one of the following ways:
- (a) Apply the same discount rate bases/views to the entire benefit obligation of a benefit plan regardless of its funding level, similar to the guidance in most equivalent standards.
 - (b) Apply different discount rate bases/views based on a benefit plan's funding policy, similar to the Canadian public sector practice.
 - (c) Apply different discount rate bases/views based on a benefit plan's funding level, similar to the U.S. Governmental Accounting Standards Board (GASB) guidance.
- .112 The discount rate guidance in most equivalent standards applies one or more prescribed/acceptable bases of discount rate to estimate the entire benefit obligation of all benefit plans regardless of their funding policy or funding level.

- .113 The common practice in the Canadian public sector (described in paragraph .007) applies two different bases of discount rate to funded (fully or partially) and unfunded benefit plans. Underlying this practice is an implicit view that funding policy matters to the measurement of the economic burden of accrued benefit obligation to the entity.
- .114 The discount rate guidance prescribed by GASB applies two different bases of discount rate to the funded and unfunded portions of benefit obligation. Underlying this discount rate approach is the view that a benefit plan’s funding level matters to measuring the economic burden of accrued benefit obligation to the entity. The application described in paragraph .111(c) can be considered an add-on or a refinement to the application described in paragraph .111(b).

Chart 4: Alternative discount rate applications

| Alternative applications | Current guidance/ practice | Fully funded plans | Partially funded plans | Unfunded plans |
|---|---|---------------------------------------|--|----------------------------|
| Same rate (paragraph .111(a)) (a) | IASB, IPSASB, FASB, Part II, FASAB, U.K. ASB & South Africa ASB | One or more discount rate bases/views | | |
| Different rates based on funding policy (paragraph .111(b)) | Canadian public sector practice | Discount rate basis/view A | | Discount rate basis/view B |
| Different rates based on funding level (paragraph .111(c)) | GASB | Discount rate basis/view A | Composite rate = A x funded obligation + B x unfunded obligation | Discount rate basis/view B |

Application of different discount rate bases/views based on funding policy

- .115 One of the key issues to consider in determining the appropriate discount rate guidance is whether the entity’s funding policy should affect the measurement of the fulfillment value of accrued benefit obligation for financial reporting purposes.
- .116 Under a funding-policy-driven approach:
 - (a) a discount rate basis/view would apply to benefit plans with assets segregated to pay for the future benefit payments (i.e., plans that are fully or partially funded); and
 - (b) a different discount rate basis/view would apply to benefit plans that are unfunded.
- .117 Some reason that when the entity has segregated plan assets to pay for future benefit payments, its economic burden is the net benefit liability, no longer the accrued benefit obligation. They believe that this fact should be reflected in the measurement of the accrued benefit obligation of such plans. In their view, the economic burden of plans with segregated plan assets is different from the accrued benefit obligation of unfunded plans, as the latter would be similar to the entity’s other unsecured long-term liabilities.
- .118 Others argue that a funding-policy-driven discount rate approach is inconsistent with the reality. The ultimate benefit payments due to plan members would not be affected by whether assets have

been segregated to fund future payments. The benefit plan's funding policy is irrelevant to the measurement of the fulfillment value of accrued benefit obligation.

- .119 They argue that the accrued benefit obligation and cost information resulting from a funding-policy-driven discount rate approach would not be useful for decision-making, accountability or comparability purposes. It would be difficult to compare:
 - (a) the financial position of entities that have different funding policy (e.g., the cost of providing similar pension benefits by two entities can be significantly different if one plan is partially funded and the other is unfunded); and
 - (b) the cost of providing different benefits by the same entity (e.g., the cost of retiree medical and health benefits, often unfunded, may appear to be more expensive than the cost of pension benefits if the pension plan is fully or partially funded).

Application of different discount rate bases/views based on funding level

- .120 Another key issue to consider in determining the appropriate discount rate guidance is whether a benefit plan's funding level should affect the measurement of the fulfillment value of accrued benefit obligation for financial reporting purposes.
- .121 Under a funding-level-driven approach:
 - (a) a discount rate basis/view would apply to the funded portion of the benefit obligation; and
 - (b) a different discount rate basis/view would apply to the unfunded portion of the benefit obligation.
- .122 Those who support this approach believe that the fact that plan assets have been segregated to pay for future benefit payments should be reflected more precisely in the measurement of the benefit obligation that is expected to be funded by the plan assets. It is because the unfunded portion of the benefit obligation would be funded by the entity either through its own resources or borrowing. In their view, applying different rate bases to the funded and unfunded portions of the benefit obligation would result in a more faithful representation of the economic burden of the accrued benefit obligation to the entity.
- .123 Similar to those who oppose a funding-policy-driven discount rate approach, others argue that a funding-level-driven discount rate approach is inconsistent with the reality. The ultimate benefit payments due to plan members would not be affected by the benefit plan's funding level. The funding level is irrelevant to the measurement of the fulfillment value of accrued benefit obligation.
- .124 Though the GASB has prescribed this approach, determining which portion of the benefit obligation is expected to be funded by plan assets can be complicated and practically challenging. Further guidance may need to be considered if this application approach is chosen.

PRINCIPLES TO CONSIDER IN DEVELOPING DISCOUNT RATE GUIDANCE

- .125 Determining an appropriate discount rate for accounting purpose should be based on the financial reporting concepts set out in the conceptual framework, including the objectives of financial statements, benefit versus cost constraint and the qualitative characteristics of useful financial information.

Financial statement objectives

- .126 An objective of financial statements is to provide evidence of accountability; that is, information that help users make assessment and judgments concerning the entity's financial position and performance.

.127 The financial statement objective of reporting the financial position of an entity is to present information that would be useful in evaluating the entity's ability to:

- (a) finance activities and to meet liabilities and contractual obligations; and
- (b) provide future services.

Benefit versus cost constraint

.128 In addition to considering the conceptual merits of the alternative discount rate bases, views and applications discussed in this Invitation to Comment, their related costs and benefits should also be considered.

.129 The benefits to users of financial statements expected to arise from applying a discount rate basis and view on a continuous basis should exceed the costs for entities. The same consideration also applies in determining whether the same or different discount rate bases should be applied to different portions of benefit obligation based on their funding level, and/or to different benefit plans based on their funding policy.

Qualitative characteristics

.130 The merit of any discount rate basis, view and application should be assessed based on the usefulness of the resulting financial information in meeting the needs of financial statements users.

.131 Information that is useful for financial statements users must be relevant, reliable, comparable and understandable. There are often trade-offs among these qualitative characteristics of useful information. The aim is to achieve an appropriate balance among them to meet the accountability objective of financial statements.

Relevance

.132 For the information provided in financial statements to be useful, it must be relevant to the decisions made by users and for assessing accountability of an entity for its administration of public resources and financial affairs.

.133 Information that is relevant has predictive, feedback and accountability value. Information that helps users predict an entity's future cash flows has predictive value. Information that confirms or corrects previous predictions has feedback value. Information that helps users assess an entity's stewardship of the resources entrusted to it has accountability value.

Reliability

.134 For the information provided in financial statements to be useful, it must be reliable to support users' decision making and assessment of the accountability of an entity for its administration of public resources and financial affairs.

.135 Information that is reliable faithfully represents the substance of the underlying transactions and events. It is complete, neutral and verifiable. Information is complete when all information necessary for faithful representation is not lacking, considering the related benefits and costs, materiality and practicality. Information is neutral when it is free from bias; for example, a measure is biased if it consistently overstates or understates the items being measured. When uncertainty exists, estimates of liabilities are not understated nor deliberately overstated. Information is verifiable if knowledgeable and independent observers agree that the item represents a transaction or event with reasonable degree of precision.

- .136 To be reliable, information about a liability must represent its economic burden to the entity faithfully and neutrally. It reflects the liability's characteristics; that is, the amount and timing of future cash flows and the related uncertainty.
- .137 Assets and liabilities that are related should have the same measurement basis to avoid accounting mismatch. Measurement consistency affects the faithful representation of an entity's financial position.

Comparability

- .138 Information that is comparable enables users to identify similarities in and differences between the information provided by two sets of financial statements.

Understandability

- .139 For information provided in financial statements to be useful, it must be presented clearly and simply, and in an understandable manner.

APPENDIX A: BACKGROUND ON ACTUARIAL VALUATIONS FOR FUNDING AND ACCOUNTING PURPOSES

- A01 The financial results reported in different financial and actuarial reports of the same benefit plan can be quite different. Many entities find it difficult to explain the different sets of numbers and users find this confusing. Some wondered if this problem might be resolved if accounting used the same discount rate assumption as that used for funding purposes.
- A02 The main reason for the different sets of numbers is the fact that a benefit plan's financial position can be assessed from different perspectives. Accrual accounting provides one of the measures. Different types of funding valuations also provide different measures of the financial position.
- A03 Since each type of actuarial valuation (accounting and funding) serves a different purpose, it is not uncommon for different financial and actuarial reports of the same benefit plan to show different results. In fact, depending on the nature of the benefits and the specific circumstances of a benefit plan, it is quite possible that a plan is considered to be fully funded on one type of funding valuation while significantly unfunded on another type of funding valuation.

Actuarial valuations for funding purposes

A04 Common types of funding valuations include the following:

- (a) going concern valuation;
- (b) hypothetical wind-up valuation; and
- (c) solvency valuation.

Going concern valuation

- A05 A plan is assumed to remain indefinitely in a going concern valuation. This valuation is used to determine a plan's contribution requirements and may indicate the need for special contributions to reduce funding deficit.
- A06 The basis for determining the funding status in a going concern valuation depends on the funding method. Often a plan's funding status is based on whether the plan's assets plus assumed future investment income would be sufficient to cover benefit payments resulting from services rendered up to the valuation date. However, depending on the applicable law, regulatory policy or guideline, the funding status of some plans is based on whether the plan's assets plus future contributions and assumed investment income will be sufficient to cover benefit payments resulted from all future and past services when due.
- A07 For the discount rate used in a going concern valuation, the actuary would select either best estimate assumptions or best estimate assumptions modified to incorporate margins for adverse deviations. According to the actuarial standard,¹⁷ the best estimate assumption for the discount rate may be based on:
- (a) the expected investment return on plan assets; or
 - (b) the yields of investment-grade debt securities which would reasonably match projected benefit cash flows, with an appropriately low-risk level, regardless of the plans' assets.

¹⁷ Standards of Practice 3000, Pension Plans, paragraph 3230.02; and Revised Educational Note, "Determination of Best Estimate Discount Rates for Going Concern Funding Valuations," December 2015.

- A08 Most plans, in practice, would select a discount rate that is based on the expected investment return on plan assets. A margin for adverse deviations may be added to the best estimate expected investment return on plan assets in the determination of a funding target to reduce the likelihood that a plan will become underfunded.
- A09 Assets are usually valued at market value in a going concern valuation. Some regulatory standards permit plan investments to be measured at an actuarial value (i.e., asset smoothing) to reduce fluctuations in contributions.

Hypothetical wind-up valuation

- A10 A plan is assumed to be wound up immediately in a hypothetical wind-up valuation. Unless the plan is in an actual wind-up situation, this valuation is for illustration purposes and would not affect contributions to the plan.
- A11 A plan is considered to be fully funded under a wind-up basis if the plan assets are sufficient to settle the benefit obligation for services rendered up to the valuation date.
- A12 Assets are valued at market value in a hypothetical wind-up valuation. Liability is the cost of settling vested benefits, which may include settling with:
- (a) a group annuity purchase;
 - (b) a lump-sum payment of commuted value; and
 - (c) establishing a replicating portfolio in trust to provide for the payment of benefits.

Solvency valuation

- A13 Solvency valuation is a form of a hypothetical wind-up valuation, reflecting the settlement methods required or permitted by law, regulatory policy or guideline. Compared to hypothetical wind-up valuations, regulatory standards may allow asset smoothing and/or excluding certain benefits in solvency valuations. This valuation may affect contributions to the plan if a funding deficit is present.

Settlement methods for hypothetical wind-up and solvency valuations

Group annuity purchase

- A14 The Canadian Institute of Actuaries provides quarterly guidance on the cost of group annuities, expressed as spread over long-term Government of Canada bond yield, based on a survey of insurance companies. The guidance serves as a proxy for, but not actual, annuity quotations for the purpose of hypothetical wind-up and solvency valuations. The proxy is often based on more conservative mortality table, and includes allowances for administration expenses and risks by means other than a simple adjustment to the discount rate. Insurers typically set group annuity quotations according to their capacity and investment opportunities at the time of the quotation.

Lump-sum payment of commuted value

- A15 When the method of benefit settlement is a lump-sum payment, a commuted value is calculated. The commuted value is determined independent of the funded status of the plan at the valuation date, unless a different ratio is allowed by legislation. The economic assumption used for discount rate would depend on whether the benefit is fully indexed, partially indexed or non-indexed to consumer price index. Long-term Government of Canada bond yield, and long-term real-return Government of Canada bond yield for indexed plans, would be the basis for determining the discount rate.

Replicating portfolio

A16 Valuations may be performed assuming that benefits would be settled through a replicating portfolio when there is insufficient capacity in the market for large plans to settle their benefits with the purchase of group annuity contracts. In this case, actuaries would generally assume that the primary asset class in the replicating portfolio is investment-grade fixed-income investments, including a substantial allocation to high-quality fixed-income investments. They would often include a margin for adverse deviations to ensure a high probability that the benefit promise will ultimately be met.

Actuarial valuations for accounting purposes

A17 PSAB provides guidance for the measurement of defined benefit obligation to be reported by the employer and sponsor of benefit plans in Section PS 3250. Benefit plans follow the guidance provided by the Accounting Standards Board in Part IV of the CPA Canada Handbook — Accounting in PENSION PLANS, Section 4600.

A18 Accrued benefit obligation determined for accounting purpose is based on the going concern assumption, reflecting the entity's obligation related to services rendered by former and active employees up to the reporting date.

A19 Similar to Section PS 3250, Section 4600 requires the use of best estimate assumptions in estimating defined benefit obligation. The best estimate assumption used by the employer and/or sponsor under Section PS 3250 is not necessarily the same as the best estimate assumption determined by the plan administrator who is responsible for preparing the financial statements of the benefit plan under Section 4600.

A20 However, Section 4600 states that a benefit plan may measure the defined benefit obligation determined by the plan sponsor, which is Section PS 3250 for entities that follow public sector accounting standards. Section 4600 refers to guidance in Part I and Part II of the CPA Canada Handbook — Accounting, that is IAS 19, *Employee Benefits*, and EMPLOYEE FUTURE BENEFITS, Section 3462, which are applicable to plan sponsors that follow the private sector accounting standards.

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