Canadian Institute of Actuaries
Institut canadien des actuaires

EDUCATIONAL NOTE

Section 3500 of the Practice-Specific Standards for Pension Plans – Pension Commuted Values (Subsection 3570)

May 2023

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Ce document est disponible en français.

The actuary should be familiar with relevant educational notes. Educational notes are not binding; rather they are intended to illustrate the application of the standards of practice. A practice that an educational note describes for a situation is not necessarily the only accepted practice for that situation nor is it necessarily accepted practice for a different situation. Responsibility for ensuring that work is in accordance with accepted actuarial practice lies with the actuary. As accepted actuarial practice evolves, an educational note may no longer appropriately illustrate the application of standards. To assist the actuary, the CIA website contains a reference of pending changes to educational notes.

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Preamble

The purpose of this educational note is to provide guidance to actuaries for determining commuted values for pension plans that are covered under subsection 3570. A separate educational note has been prepared for the balance of Section 3500.

An educational note on the same subject was originally issued on August 13, 2020. This educational note is an update to the prior educational note to reflect the changes to Part 3000 effective December 1, 2022. It ensures that references within the note are aligned with the revised Section 3500 of the Practice Specific Standards for Pension Plans (subsection 3570).

Process

The creation of this cover letter and educational note has followed the Actuarial Guidance Council's (AGC's) protocol for the adoption of educational notes. In accordance with the CIA's *Policy on Due Process for the Approval of Guidance Material Other Than Standards of Practice and Research Documents*, this educational note has been prepared by the Committee on Pension Plan Financial Reporting (PPFRC) and has received final approval for distribution by the AGC on May 9, 2023.

Responsibility of the actuary

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Guidance to members on specific situations

CIA members may consult[1] in confidence with the chair and/or vice-chair on questions relating to the standards of practice (SOP) and educational notes. This dialogue is encouraged; however, such discussions do not constitute a formal opinion as to whether the work in question is in compliance with the CIA SOP.

Recent guidance

This educational note is in the format of a Q&A and addresses the following:

1. application of subsection 3570 – Target Pension Arrangements
2. going concern assumptions and methods
3. funded status adjustments
4. disclosure

Note that throughout this document, the phrase "official terms of the plan" means the terms of the plan, as described in official plan documents such as a plan text, benefits policy and/or collective agreement.

[1] Rule 13 (excerpt): "In order to foster education amongst members, thereby fulfilling the profession's responsibility to the public, a member who has a question about the spirit or intent of the standards of practice, or of generally accepted actuarial practice when no standards exist, may consult in confidence with the chair (or vice-chair) of a designated council… or of an appropriate practice committee."

Your feedback

Questions or comments regarding this educational note may be directed to the [chair of the PPFRC].

1. Application of subsection 3570 – Target Pension Arrangements

a) Do the standards in subsection 3570 apply to multi-employer plans that are required to be funded on a solvency basis? Do these standards apply where a plan may reduce benefits, but only if such reduction is approved by a regulator?

A target pension arrangement is defined in paragraph 3570.01 as:

> […] a pension plan for which applicable legislation contemplates the reduction to the accrued pensions of plan members and beneficiaries while the pension plan is ongoing as one of the available options for maintaining the funded status of the pension plan, and where the reduction in accrued pensions is not necessarily caused by the financial distress of the plan sponsor or sponsors.

Any pension plan that meets this definition, regardless of whether or not the plan is required to be funded on a solvency basis, and regardless of whether or not the contemplated reduction to accrued pensions is subject to any other conditions such as regulatory approval, is a target pension arrangement for purposes of Section 3500.

b) For a target pension arrangement, is the use of the going concern basis mandatory?

For a plan that meets the definition of a target pension arrangement, subsection 3570 applies. However, in accordance with paragraph 3520.12, the use of different commuted values may be required by the official terms of the plan, by applicable legislation, or by a plan administrator who is empowered to specify the commuted value basis. Paragraph 3550.05 outlines the disclosure requirements that apply in this case. The actuary would also consider any limitations on commuted values under the *Income Tax Act* (Canada).

c) For a target pension arrangement, does subsection 3570 apply to the hypothetical wind-up and solvency liabilities for those benefits assumed to be settled by means of a lump sum commuted value?

In accordance with the last bullet in paragraph 3510.03, Section 3500 does not apply to the determination of commuted values under a target pension arrangement in the case of a full or partial wind-up. As such, the standards under Section 3500 do not apply to the determination of commuted values for such plans for purposes of a hypothetical wind-up or solvency valuation. At present, there are no actuarial standards of practice that specify the assumptions and method to be used for such calculations. The actuary would rely on the official terms of the plan, applicable legislation or a plan administrator who is empowered to specify the commuted value basis, as applicable.

2. Going concern assumptions and methods

a) For jurisdictions where the going concern discount rate is mandated in some manner, how would the discount rate adjustment referenced in paragraph 3570.07 be applied?

While paragraph 3570.07 requires the exclusion of margins for adverse deviations for purposes of assumptions used for commuted values (unless another treatment is required by the official terms of the plan or applicable legislation), the application of paragraph 3570.07 may become unclear in circumstances where the going concern discount rate is mandated by applicable legislation in some manner, such as a cap on the permitted discount rate.

For the purpose of determining the appropriate discount rate for calculating the commuted value under subsection 3570, in accordance with paragraph 3570.07, the actuary would first consider the applicable legislation and the official terms of the plan. If the applicable legislation and the official terms of the plan do not specify how the mandated limit on the discount rate is to be treated for this purpose, the considerations below would apply.

In all three of the following examples, non-investment expenses are assumed to be funded through annual contributions.

In certain cases, as illustrated in Examples 1 and 2 below, the component of the discount rate development which is mandated is not clearly defined as relating to the margin for adverse deviations. For example, a limit may be applied to the best estimate rate of return before margin, or to the overall discount rate. In these cases, where the limit on the discount rate does not explicitly result in a higher margin for adverse deviations, the actuary would remove only the margin from the going concern discount rate, and not the impact of the mandated cap, in setting the discount rate for purposes of commuted values calculated under subsection 3570.

	Example 1 *Limit on best estimate rate of return*
Best estimate rate of return, net of investment expenses	6.00%
Legislated limit on best estimate rate of return, net of investment expenses	5.75%
Adjusted best estimate rate of return, net of investment expenses	5.75%
Margin for adverse deviations [A]	(0.50%)
Discount rate used for going concern valuation [B]	5.25%
Discount rate used for commuted values under subsection 3570	**5.75%** **[B] – [A]**

	Example 2 *Limit on discount rate, not specified to be additional margin*
Best estimate rate of return, net of investment expenses	6.00%
Margin for adverse deviations [A]	(0.50%)
Discount rate before legislated cap	5.50%
Legislated cap or limit on discount rate	5.25%
Discount rate used for going concern valuation [B]	5.25%
Discount rate used for commuted values under subsection 3570	**5.75%** **[B] – [A]**

There may be other cases, as illustrated in Example 3 below, where the mandated cap or limit on the going concern discount rate is explicitly considered by the applicable legislation to be an additional layer of margin for adverse deviations in the going concern discount rate. In these cases, the actuary would consider removing the margin as well as the effect of the cap from the going concern discount rate to determine the discount rate for purposes of commuted values calculated under subsection 3570.

	Example 3 *Limit on discount rate, specified to be additional margin*
Best estimate rate of return, net of investment expenses	6.00%
Margin for adverse deviations [A]	(0.50%)
Discount rate before legislated cap	5.50%
Legislated cap or limit on discount rate	5.25%
Additional margin imposed by cap [B]	(0.25%)
Discount rate used for going concern valuation [C]	5.25%
Discount rate used for commuted values under subsection 3570	**6.00%** **[C] – [B] – [A]**

b) Would non-investment-related expenses be reflected in the going concern discount rate used to determine commuted values under subsection 3570?

As indicated in paragraph 3570.08, the interest rate used to calculate the commuted value would be net of any adjustment for investment expenses. Only if required by applicable legislation or by the official terms of the plan would the discount rate used for purposes of the commuted value calculation be further adjusted for any non-investment expenses that are expected to be paid from the pension plan's assets.

Examples:

	Example 1 *Non-investment expenses are netted off the discount rate*	**Example 2** *Non-investment expenses are funded through annual contributions*
Best estimate gross rate of return	6.65%	6.65%
Investment expenses	(0.40%)	(0.40%)
Non-investment expenses [A]	(0.25%)	n/a
Best estimate rate of return net of expenses	6.00%	6.25%
Margin for adverse deviations [B]	(0.50%)	(0.50%)
Discount rate used for going concern valuation [C]	5.50%	5.75%
Discount rate used for commuted values under subsection 3570	**6.25%** **[C] – [B] – [A]**	**6.25%** **[C] – [B]**

In the above examples, provided the applicable legislation and the official terms of the plan are silent regarding any adjustment for non-investment expenses for purposes of calculating commuted values under subsection 3570, the discount rate to be used would be 6.25% in both cases. This discount rate can be arrived at through adjusting the discount rate used for the valuation by removing the margin for adverse deviations and the non-investment expenses (if they are currently implicit in the valuation discount rate).

If applicable legislation and the official terms of the plan are not silent regarding an adjustment for the non-investment expenses for purposes of calculating commuted values under subsection 3570, adjustments as required would be applied.

c) Would the pension commencement assumption used to calculate a commuted value under subsection 3570 be the same as the pension commencement (or retirement) assumption used in the most recent going concern actuarial valuation?

When valuing deferred pensions, including deferred pensions for a plan member who may also be entitled to an immediate pension, the actuary would consider the pension commencement (or retirement) assumption used for deferred vested members in the most recent funding actuarial valuation report or cost certificate filed with the applicable pension regulator. In accordance with paragraph 3570.09, the actuary would then consider whether this assumption would still be appropriate if the plan is made up only of deferred members such as the member for whom the commuted value is being calculated. In accordance with paragraph 3570.07, the actuary would also consider whether this assumption includes margins for adverse deviations, and if so, revise the assumption to remove the margin unless it is required by applicable legislation or by the official terms of the plan. Any simplifying approach appropriate for the purpose of the most recent going concern valuation may or may not be appropriate for the commuted value.

For example, deferred members may be entitled to an early retirement subsidy in accordance with the official terms of the plan. However, in the most recent going concern actuarial valuation, a simplifying assumption that deferred members would commence their pension at normal retirement age was used because the deferred members are a non-material portion of the plan's overall liabilities. For purposes of the commuted value under subsection 3570, the actuary would instead consider a best estimate pension commencement assumption as to the actions that would be expected by deferred members. This assumption would be chosen to be appropriate for a valuation of the plan if deferred members had been a material portion of the plan's liabilities.

If appropriate, the actuary may make reasonable simplifications for administrative purposes, such as assuming the pension commences at a single pension commencement age versus a complex scale, in calculating commuted values.

The actuary would also consider any requirements regarding the pension commencement assumption addressed in applicable legislation for the purposes of calculating commuted values.

For greater clarity, in certain circumstances, a commuted value may be calculated in respect of a member who has reached eligibility for an immediate pension. In these circumstances, for purposes of the commuted value, the actuary would use the pension commencement assumption used in the most recent funding report for deferred vested members who are eligible for immediate retirement, modified if appropriate as described above. This assumption may, or may not, be that the pension commences immediately.

50% excess cost sharing rule for a member who has elected an immediate pension

When calculating the commuted value for a member who has elected an immediate pension, such as for purposes of determining excess contributions payable on retirement, the immediate pension would be valued. In other words, in these circumstances, a pension commencement assumption would not be used and the actual retirement age would be reflected.

When calculating the commuted value for a member who is eligible for an immediate pension, but has not yet made such an election and is considering a commuted value or deferred pension option, then for purposes of the calculation of the commuted value, and for purposes of determining any excess contributions payable with the commuted value or deferred pension, a pension commencement assumption would continue to be used as described earlier in this section.

For additional clarity, if a member is provided with both immediate pension payment options as well as commuted value and/or deferred pension options, the excess contributions payable under the immediate pension option may differ from the excess contributions payable under the commuted value and deferred pension options.

d) Are there other going concern assumptions or methods besides the discount rate and the pension commencement assumption that need to be considered or revised when calculating a commuted value under subsection 3570 for a member under a target pension arrangement?

In accordance with paragraph 3520.05, the commuted value should reflect the plan member's full benefit entitlement as a deferred or immediate pensioner, as may be applicable, determined under the official terms of the plan.

Benefit entitlement

For purposes of determining the deferred or immediate benefit entitlement, the actuary would consider applicable legislation and the official terms of the plan.

In accordance with paragraph 3570.09, when calculating the commuted value of a deferred pension, the actuary would use assumptions and methods consistent with those used for deferred members in the most recent funding actuarial valuation report or cost certificate filed with the applicable pension regulator. The actuary would then consider whether these methods and assumptions would still be appropriate if the plan is made up only of deferred members such as the member for whom the commuted value is being calculated. In particular, any simplifying approach appropriate for the purpose of the most recent going concern valuation may or may not be appropriate for the commuted value.

The actuary would consider plan terms such as the following, where applicable:

- Pension commencement age and early retirement provisions.
- Family composition and form of pension (see also paragraph 3530.05 which requires the actuary to consider possible changes to marital status after the valuation date if relevant to the determination of the benefit).
- Cost of living and bridge pension provisions.
- Pre-retirement benefits applicable to deferred members, such as pre-retirement death benefits.
- Any applicable projections of service, salary, or benefit rate increases as would be applicable to deferred members of the plan who have terminated from active service and are not expected to resume working.

As noted above, each of these assumptions would be adjusted where appropriate, in accordance with paragraph 3570.09, where a simplifying approach used in the valuation may not be appropriate for purposes of a valuation of the plan if it were to consist of only deferred members.

If appropriate, the actuary may make reasonable simplifications for administrative purposes in calculating commuted values.

Mortality assumption

The mortality assumption used in the calculation of a commuted value under subsection 3570 would normally be the mortality assumption used in the most recent funding actuarial valuation report or cost certificate.

In accordance with paragraph 3570.10, if the mortality assumption used in the valuation varies for different subsets of the plan population, the actuary would instead use an assumption that would be appropriate for the overall plan membership. This means that the mortality assumption used to calculate commuted values would not vary between individual members, different membership types (active members, deferred members, retirees, etc.) or any other subset of the overall plan, with the exception of variations by sex (unless not permitted under applicable legislation) and variations by age.

Margins for adverse deviations in the assumptions or provisions for adverse deviations

In accordance with paragraph 3570.07, the commuted value would not include any margin for adverse deviations in the assumptions or provisions for adverse deviations that are reflected in the going concern valuation, unless their inclusion in the commuted value is required by applicable legislation or by the official terms of the plan. Examples may include margins embedded in the inflation or mortality assumptions.

3. Funded status adjustments

a) Where the member's benefit entitlement is required to be adjusted by the funded status of the plan as per applicable legislation or by the official terms of the plan, how recent must the funded status calculation be to adjust the actuarial present value of the member's benefit entitlement for administration purposes under subsection 3570?

The funded ratio used to determine the adjustment to actuarial present value of the member's benefit entitlement should not be any earlier than the most recent actuarial valuation report for funding purposes or actuarial cost certificate filed with the applicable pension regulator. This could include any report or certification required to be filed with the pension regulator for purposes of reporting an updated funded ratio. The use of a more recent funded status would be as required by applicable legislation or by the official terms of the plan.

b) How is the funded ratio of the plan determined under paragraph 3570.05?

The funded ratio for purposes of adjusting the actuarial present value of the member's benefit entitlement may not necessarily be the same as the pension plan's funded ratio determined by comparing the plan's assets and going concern liabilities disclosed in the most recent valuation report or cost certificate. As per paragraph 3570.05, the assumptions used to determine the funded ratio used for this purpose would be consistent with the assumptions used to calculate the actuarial present value of the member's benefit entitlement.

Asset valuation method

The applicable legislation or the official terms of the plan would describe the asset valuation method for purposes of the funded ratio adjustment. For the purpose of a funded ratio adjustment, it is expected that the asset valuation method would either be consistent with the asset valuation method used in the most recent funding actuarial valuation report or cost certificate or be an asset valuation method that would have been appropriate, under accepted actuarial practice, to be used in the most recent funding actuarial valuation report or cost certificate.

Liabilities

With respect to the liabilities, the actuary would first look to the assumptions and methods used to determine the actuarial present value of the member's benefit entitlement. These assumptions are the same going concern assumptions used in the most recent funding valuation report or cost certificate filed with the pension regulator but adjusted for this purpose by considering the adjustments to the discount rate and other assumptions, in accordance with paragraphs 3570.07–.10.

In addition, the cost method to be used for the purpose of a funded ratio adjustment would be described in the applicable legislation or the official terms of the plan. For the purpose of a funded ratio adjustment, it is expected that the cost method would either be consistent with the cost method used in the most recent funding actuarial valuation report or cost certificate or be a cost method that would have been appropriate, under accepted actuarial practice, to be used in the most recent funding actuarial valuation report or cost certificate.

The following is an example of the assumptions and methods that could be applied for purposes of the commuted value and funded ratio adjustment calculations, given the assumptions and methods used in the most recent funding valuation report or cost certificate filed with the pension regulator:

	Example – Assumptions and methods used to determine:		
Assumption	*Going concern liabilities in the most recent funding actuarial valuation report or cost certificate (“GC report”)*	*Member's commuted value (“CV”)*	*Liabilities to calculate the funded ratio for commuted value adjustment*
Cost method	Projected unit credit	n/a	As per GC report
Discount rate[2]	5.50% per year	6.25% per year	6.25% per year
Inflation rate	2.50% per year, which is composed of best estimate of 2.00% per year and margin of 0.50% per year	2.00% per year	2.00% per year
Actives	Active going concern assumption set	n/a	Still value as an active, but with discount rate and inflation rate above, including adjustments to inflation-related assumptions
Retirees	Retiree going concern assumption set	n/a	Still value as a retiree, but with discount rate and inflation rate above, including adjustments to inflation-related assumptions
Deferreds			

[2] The same adjustments being made to determine the discount rate for purposes of the commuted value (see Q&A 2a and 2b) would apply to the funded ratio adjustment.

Assumption	Example – Assumptions and methods used to determine:		
	Going concern liabilities in the most recent funding actuarial valuation report or cost certificate ("GC report")	*Member's commuted value ("CV")*	*Liabilities to calculate the funded ratio for commuted value adjustment*
• Mortality			
○ Base table	CPM2014Publ	As per GC report, unless another assumption is more appropriate (see Q&A 2d)	As per GC report
○ Improvement table	MI-2017	As per GC report, unless another assumption is more appropriate (see Q&A 2d)	As per GC report
○ Unisex	Sex distinct	Sex distinct, unless legislation requires otherwise	As per GC report
• Indexation	Pre-retirement: None Post-retirement: 60% of Consumer Price Index (1.5% per year)	Pre-retirement: None Post-retirement: 60% of Consumer Price Index (1.2% per year)	As per CV
• Salary increase	n/a	n/a	n/a
• Pension commencement	100% at normal retirement age	As per GC report, unless another assumption is more appropriate (see Q&A 2c)	As per CV, unless not material (i.e., GC report assumptions are appropriate as a simplification)
• Family composition	80% with an eligible spouse, where spouse is assumed to be the same age as member	As per GC report, unless another assumption is more appropriate (see Q&A 2d)	As per CV, unless not material (i.e., GC report assumptions are appropriate as a simplification)

When determining the funded ratio adjustment, the actuary would prepare appropriate documentation and comply with Section 1700 (Reporting).

c) Can the funded ratio for purposes of adjusting the actuarial present value of the member's benefit entitlement include a floor or a cap?

The applicable legislation or the official terms of the plan may apply a cap and/or a floor to the funded ratio, where the cap would be no less than 100%, and the floor would be no more than 100%.

For example, if applicable legislation or the official terms of the plan apply a cap of 100% and a floor of 90%, then:

Funded ratio for commuted value adjustment	
Prior to application of cap and floor	*After application of cap and floor*
110%	**100%**
95%	**95%**
85%	**90%**

d) What about the "share of the assets" for TPA CVs, how is this to be determined?

The share of assets is a special case of the funded ratio adjustment without a cap and without a floor. As per paragraph 3570.05, consistent with the guidance provided elsewhere in this educational note, the assumptions used to determine the funded ratio used for this purpose would be consistent with the assumptions used to calculate the actuarial present value of the member's benefit entitlement. The asset and liability methods for the share of assets would be described in applicable legislation or the official terms of the plan.

e) How would an actuary determine whether consistency between the assumptions used to calculate funded ratio adjustment and the assumptions used to calculate the actuarial present value of the member's benefit entitlement is appropriate?

An actuary may determine that an unusual or unforeseen situation exists in accordance with subsection 1230 (Unusual and unforeseen situations), and consistency is not appropriate when considering the assumptions used to determine the funded ratio adjustment and the assumptions used to determine the actuarial present value of the member's benefit entitlement. In making this determination the actuary would be prepared to describe and justify such a deviation from paragraph 3570.05.

4. Disclosure

a) What additional disclosures are required when communicating the commuted values of pensions and deferred pensions payable from target pension arrangements?

The actuary would follow the disclosure requirements outlined in subsection 3550 and paragraph 3560.09. If a funded ratio adjustment under paragraph 3570.05 was made to the commuted value, then the funded ratio adjustment is required to be disclosed.

The actuary may consider disclosing whether the funded ratio adjustment is required by applicable legislation or the official terms of the plan. In addition, the actuary may disclose a reference to the documentation where the funded ratio adjustment was determined.

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