

Final

**Revised Standards of Practice for
Pension Commuted Values
(Section 3800)**

Actuarial Standards Board

December 2008

Document 208083

Ce document est disponible en français
© 2008 Canadian Institute of Actuaries

3800 PENSION COMMUTED VALUES

3810 SCOPE

- .01 The standards in this section 3800 apply to an actuary's advice on the computation of commuted values, including commuted values to be paid from a pension plan that is registered under an Act when the method of settlement is a lump sum payment in lieu of an immediate or deferred pension resulting from death or individual termination of plan membership except for the specific circumstances that are described below in paragraph 3810.03. In particular, the standards in this section 3800 apply,
- in a jurisdiction whether or not there is legislation in that jurisdiction that specifically provides for portability of pension benefit credits,
 - regardless of limits imposed by the Income Tax Act (Canada) on amounts that may be transferred to other tax-sheltered retirement plans, and
 - under a reciprocal pension agreement between plan sponsors where the result of the reciprocal agreement is either to establish a pension amount determined on a defined contribution basis or to establish an account balance under a defined contribution provision of a plan, whether the account balance is to be converted immediately or subsequently into a pension.
- .02 The standards in this section 3800 also apply to the determination of a lump sum payment from the pension plan in lieu of an immediate or deferred pension to which a plan member's former spouse is entitled after a division of the member's pension on marital breakdown.
- .03 The standards in this section 3800 do not apply,
- under a reciprocal pension agreement between plan sponsors where the result of the reciprocal agreement is to provide defined pension benefits for the plan member,
 - to the determination of commuted values of pensions and deferred pensions payable from pension arrangements that are not registered under an Act,
 - to the conversion of defined pension benefits to a defined contribution arrangement where there is no termination of active employment,
 - to the determination of commuted values of pensions that have commenced payment and where commutation is at the discretion of the member, except as explicitly required under paragraphs 3810.02 or 3860.01, or
 - when calculating the capitalized value of pension benefits for actuarial evidence purposes, pursuant to part 4000, where such value does not relate to a commuted value payable from a registered pension plan.

Act

.04 For the purposes of this section 3800, “Act” means a pension benefits standards act of a province or the federal government of Canada or the Income Tax Act (Canada).

Retirement Compensation Arrangements

.05 Since Retirement Compensation Arrangements (RCAs) are not required to be registered under the Income Tax Act (Canada), this section 3800 applies to commuted values payable from an RCA only if the RCA is registered under a pension benefits standards act of a province or the federal government of Canada.

3820 METHOD

.01 *The commuted value should be independent of the financial position of the pension plan at the valuation date.*

.02 *The actuary should establish the period for which the commuted value applies before recomputation is required, taking into account the requirements of applicable legislation and the plan rules. Commuted values paid after the end of such period should be recomputed on the basis of a new valuation date.*

.03 *The commuted value should be adjusted for a reasonable rate of interest, taking into account the requirements of applicable legislation, between the valuation date and the first of the month in which the payment is made.*

.04 *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 terms of the pension plan. In the case of a deferred pensioner, the commuted value should include the value of the death benefit that would have applied before commencement of the deferred pension.*

.05 *The actuary should not calculate a commuted value using methods or assumptions that produce a commuted value smaller than the value computed in accordance with this section 3800. [Effective April 1, 2009]*

Valuation date

.06 The valuation date means the date as of which a value is being computed. Generally, this would be the date upon which the plan member becomes entitled to an immediate or deferred pension resulting from death or individual termination of plan membership, or as of such other date as may be determined either by legislation, by the plan rules, or by a plan administrator who is empowered to do so, on which the right to receive a commuted value becomes effective.

.07 In the event that recomputation is required in accordance with this standard, the actuary would establish a new valuation date. The actuary would make calculations at the new valuation date in accordance with the standard in effect on the new valuation date.

Conditions attached to payment

.08 Applicable legislation or the plan provisions may attach conditions to the payment of a portion of the commuted value when the plan is less than fully funded on a plan termination basis.

Benefit entitlement

.09 Where, at the valuation date, a plan member has the right as a deferred or immediate pensioner, as may be applicable, to optional forms of pension or optional commencement dates, and where such right is contingent on an action that is within the member's control and where it is reasonable to assume that the member will act so as to maximize the value of the benefit, the option that has the greatest value would be used in the determination of the commuted value. For example, where a member has terminated employment and, upon application, is eligible for a particular benefit that has a value, it is reasonable to assume that, upon acquiring expert advice, the member will apply for the benefit.

.10 However, where such right is contingent upon an action that is within the member's control and where it is not reasonable to assume that the member will act so as to maximize the value of the benefit, an appropriate allowance would be made for the likelihood and timing of such action. For example, where a member is continuing in employment and is entitled to an unreduced pension that commences upon termination of employment, it may not be reasonable to assume that the member will immediately terminate employment in order to maximize the value of the benefit. In determining the likelihood and timing of such action, the actuary may use group data, and the actuary would be prepared to justify the allowance that has been made.

.11 The commuted value determined by the actuary using these assumptions made in accordance with the preceding paragraphs 3820.09 and 3820.10 may prove to have recognized certain potential entitlements that are never realized, or may prove to have disregarded certain entitlements that ultimately provide value.

Alternative methods and assumptions

.12 The actuary may calculate a commuted value on methods and assumptions that differ from those prescribed in this standard only if

the resulting value is larger, and

such value is required by the plan terms or applicable legislation, or by a plan administrator who is empowered to specify the basis on which commuted values are to be determined.

3830 DEMOGRAPHIC ASSUMPTIONS

- .01 *Except for situations specifically noted below, the actuary should assume,*
separate mortality rates for male and female members, and
if the valuation date is on or before January 31, 2011, mortality rates equal to the
UP-94 Table projected forward to the year 2020 using mortality projection Scale
AA¹ (UP-94@2020), or
if the valuation date is on or after February 1, 2011, mortality rates equal to the
UP-94 Table with generational projection using mortality projection scale AA.
- .02 *No adjustment should be made to reflect the health or smoker status of the member.*
- .03 *The current age of the plan member should be used when valuing an immediate pension.*
- .04 *If the plan provides a contingent benefit only to the person who is the plan member's spouse at*
the date of termination of membership, the actual age of the spouse, if any, should be used in the
computation. If this information cannot be obtained, an appropriate proportion married and age
difference between the plan member and spouse should be assumed.
- .05 *Where the plan provides a contingent benefit to a plan member's spouse and a change in the*
member's marital status after the valuation date is relevant to the determination of the commuted
value, the actuary should make an appropriate assumption concerning the likelihood of there
being an eligible spouse, and the age of that spouse, at the time of death.
- .06 *When valuing deferred pensions, including deferred pensions for a plan member who may also*
be entitled to an immediate pension, the normal retirement age should be used, except in the
situation where the terminated plan member has the right to elect an earlier commencement date
and the consequent early retirement pension exceeds the amount that is of actuarial equivalent
value to the pension payable at normal retirement age. The retirement age should be determined
in a manner consistent with paragraph 3820.09. [Effective April 1, 2009]
- .07 *The demographic assumptions would be the same for all types of immediate and deferred*
pensions.

¹ The UP-94 Table and Projection Scale AA were published in the Transactions of the Society of Actuaries, Volume XLVII (1995).

Mortality

- .08 The actuary would calculate commuted values that do not vary according to the sex of the plan member where the actuary is required to do so by applicable legislation or by the provisions of the plan or by the plan administrator if the administrator is so empowered by the provisions of the plan. In this case, the actuary would adopt a blended mortality approach by either developing a mortality table based on a combination of male and female mortality rates, or computing the commuted value as a weighted average of the commuted value based on male mortality rates and that based on female mortality rates. The relative proportions of males versus females would be appropriate for the particular plan.
- .09 If the requirement that commuted values do not vary according to the sex of the plan member is legislated and applies only to benefits earned after a particular date or only to a subgroup of plan members, the actuary may extend the use of a blended mortality approach to commuted values of benefits earned prior to such date or to commuted values of benefits of all members.

3840 ECONOMIC ASSUMPTIONS

- .01 *The actuary should select economic assumptions that vary depending on whether the pension is fully indexed, partially indexed or non-indexed.*
- .02 *If the valuation date is on or before January 31, 2011, the actuary should select economic assumptions that depend on the reported rates for the applicable CANSIM series for the second calendar month preceding the month in which the valuation date falls. If the valuation date is on or after February 1, 2011, the actuary should select economic assumptions that depend on the reported rates for the applicable CANSIM series for the calendar month immediately preceding the month in which the valuation date falls.*
- .03 *The actuary should calculate two interest rates, one applicable to the first ten years after the valuation date and the second applicable to all years thereafter.*
- .04 *The commuted value of a fully or partially indexed pension should be at least equal to the commuted value applicable to a non-indexed pension in the same amount and having similar characteristics.*

.05 *The actuary should determine from the CANSIM series the following three factors.*

CANSIM Series	Description	Factor
V122542	7-year Government of Canada benchmark bond yield, annualized (final Wednesday of month)	i_7
V122544	Long-term Government of Canada benchmark bond yield, annualized (final Wednesday of month)	i_L
V122553	Long-term real-return Government of Canada bond yield, annualized (final Wednesday of month)	r_L

Note that the factors determined above are not the reported CANSIM series, but the annualized value of the reported figure.

.06 *The actuary should also determine a fourth factor, calculated as:*

$$r_7 = r_L * (i_7 / i_L)$$

.07 *The actuary should determine the interest rates from the following.*

	Non-Indexed	Indexed
First 10 Years	$i_{1-10} = i_7 + 0.90\%$	$r_{1-10} = r_7 + 0.90\%$
After 10 Years	$i_{10+} = i_L + 0.5 * (i_L - i_7) + 0.90\%$	$r_{10+} = r_L + 0.5 * (r_L - r_7) + 0.90\%$

.08 *The actuary should calculate the commuted value of a non-indexed pension using a two-tier interest rate of*

i_{1-10} for the first ten years and i_{10+} thereafter.

.09 *The actuary should calculate the commuted value of a pension that is fully indexed to increases in the Consumer Price Index using a two tier-interest rate of*

r_{1-10} for the first ten years and r_{10+} thereafter.

.10 *For pensions that are partially indexed to increases in the Consumer Price Index, the actuary should determine the implied rates of increase in the Consumer Price Index in the first 10 years and thereafter that make the above assumptions for non-indexed and fully indexed pensions internally consistent. The actuary should then determine the rates of pension escalation that are produced by applying to those implied rates of increase in the Consumer Price Index the partial indexing formula of the plan. The actuary should determine the adjusted interest rates applicable to partially indexed pensions by appropriately reducing on a geometric basis the non-indexed rates of interest to reflect the rates of pension escalation.*

- .11 *Where increases in pensions are related to increases in the average wage index, the actuary should assume that the average wage index will increase at rates that are one percentage point higher than the implied rates of increase in the Consumer Price Index.*
- .12 *A pension that is indexed according to an excess interest approach involves increases that are linked to the excess of formula A over formula B, where A is some proportion of the rate of return on the pension fund or on a particular class of assets, and B is a base rate or some proportion of the rate of return on another asset class. In determining the interest rates under formula A and formula B, the actuary should use the interest rate applicable to a non-indexed pension as a proxy for the rate of return on the pension fund or on any particular asset class for which the rate of return is expected to be equal to or greater than the non-indexed interest rates determined in accordance with paragraph 3840.07.*
- .13 *Prior to calculating the commuted value, the actuary should round the rates of interest determined in accordance with this subsection 3840 to the nearest multiple of 0.10%. The actuary should round only the interest rates to be used in the calculation of the commuted value. The actuary should not round any rates of interest, increase or escalation used in calculations prior to the final step of the determination. [Effective April 1, 2009]*

Pension index frequency

- .14 For an indexed pension, the actuary would apply the indexed interest rates as determined above without adjustment only if the frequency of indexing is equal to the payment frequency. Reasonable approximations may be used to calculate an adjustment that takes into account the specific circumstances of the situation regarding payment frequency, indexing frequency, and time and amount of the first increase.

Pension indexed on an excess interest formula

- .15 If the pension is indexed on an excess interest formula and the particular asset class is one for which the rate of return is expected to be less than the non-indexed interest rates determined in accordance with paragraph 3840.07, the actuary would appropriately reduce the rate of interest to reflect the actuary's expectation of the difference between the non-indexed interest rates determined in accordance with paragraph 3840.07 and the rate of return on the particular asset class. In determining the expected rate of return on a particular asset class for this purpose, the actuary would be guided by the current economic environment as well as long-term historical experience.

Other modifications

- .16 Where benefit adjustments are based on one of the above approaches but are either modified by applying a maximum or minimum annual increase, with or without carry forward of excesses or deficiencies to later years, or modified by prohibiting a decrease in a year where the application of the formula would otherwise cause a decrease in pension, the actuary would adjust the interest rates otherwise applicable, based on the likelihood of the modification causing a material change in the pension payable in any year. In determining such likelihood, the actuary would be guided by the current economic environment as well as long-term historical experience. The actuary would be prepared to justify any such adjustment or lack of adjustment to the interest rates.
- .17 Where increases in benefits are not determined by reference to increases in the Consumer Price Index, the actuary would ensure that the commuted value is not inconsistent with the values of non-indexed pensions and fully indexed pensions.

Alternative calculation method

- .18 For pensions that are either fully or partially indexed, rather than using the implicit approach described above, the commuted value may be determined explicitly by indexing each expected payment based on the indexing rate that makes the assumptions for non-indexed and fully indexed pensions, prior to rounding under paragraph 3840.13, internally consistent.

3850 DISCLOSURE

- .01 *When communicating the amount of the commuted value of a member's pension, the actuary should provide*
- a description of the benefit entitlements involved,*
 - a description of the actuarial assumptions used in determining the commuted value and the rate of interest to be credited between the valuation date and the date of payment,*
 - a statement of the period for which the commuted value applies before recomputation is required,*
 - when the payment of a portion of the commuted value is subject to a condition based on the financial position of the plan, the additional contribution required for the payment of the full commuted value to be made or the recommended schedule for payment of the balance of the commuted value, if applicable, and*
 - a statement as to whether the commuted value has been computed in accordance with this standard of practice.*

.02 *Where the commuted value has not been determined in accordance with this standard of practice, the actuary should clearly state that the calculation is not in compliance with this standard and disclose all areas of noncompliance and the reasons for the noncompliance.*

.03 *When communicating to the plan administrator an actuarial basis to be used in determining commuted values, the actuary should provide a statement that the actuarial basis is in accordance with this standard of practice.*

Disclosure of plan values which differ from this standard

.04 *In a situation where the use of commuted values (called plan values in this subsection 3850) that are different from those computed in accordance with this section 3800, is required by the plan terms or applicable legislation, or by a plan administrator who is empowered to specify the basis on which commuted values are to be determined, the following disclosure requirements are applicable:*

if the plan values are lower, the actuary should disclose that the commuted values so calculated are in accordance with the plan or the applicable legislation but not in accordance with the standard, or

if the plan values are higher, the actuary should disclose that the commuted values so calculated are in accordance with the plan or the applicable legislation and the standard.

.05 *Where the actuary is required to calculate commuted values that do not vary according to the sex of the plan member, and where that requirement applies only to benefits earned after a particular date or only to a subgroup of plan members, the actuary should describe the extent to which the actuary's blended mortality approach has been extended to benefits earned before the particular date or to benefits of all members.*

.06 *Where the actuary uses assumptions or methods described in this standard to calculate a commuted value in a situation where this standard does not apply, the actuary should not state or imply that the commuted value has been computed in accordance with this standard.
[Effective April 1, 2009]*

3860 REDUCED LIFE EXPECTANCY

.01 *The standard in this subsection 3860 applies to an actuary's advice on the computation of commuted values, from a registered pension plan, where the right to receive the lump sum is based on subsection 51.1 of the regulations to the *Ontario Pension Benefits Act*. This standard may also be applicable in other directly comparable situations.*

.02 *This standard does not apply where the right to receive a lump sum is not conditional upon medical certification, under legislation or plan provisions, even if the former member is known to be terminally ill.*

- .03 All standards set out in preceding subsections of section 3800 apply, except as superseded by the following recommendations.
- .04 *The commuted value should be calculated as of the date of the medical certificate specifying that the former member has life expectancy less than two years , even if other conditions for payment of the benefit (such as spousal consent) are not met until a later date.*
- .05 *The commuted value should be adjusted for interest and benefits paid to the date of payment.*
- .06 *The computation should not be adjusted to reflect the actual death or change in health of the former member after the valuation date. However, if a former pension plan member becomes eligible for immediate commencement of a pension after the date of the medical certificate and prior to payment of the benefit, this eligibility should be reflected in the calculation.*
- .07 *If the former member is entitled to a commuted value transfer based on plan provisions or legislation that is not conditional on reduced life expectancy, the amount payable should be the greater of the amount calculated in accordance with this subsection 3860 and the amount computed in accordance with subsections 3820 through 3840 without regard to shortened life expectancy. [Effective April 1, 2009]*

Benefit Entitlement

- .08 The commuted value would reflect the plan member's full benefit entitlement as a deferred or immediate pensioner, as may be applicable, determined under the terms of the pension plan.

There are three possible cases:

- (a) a former member with deferred pension entitlement, not eligible for immediate commencement of pension.

In this case, the commuted value would reflect the present value of the death benefits that would be payable in respect of the former member. For this purpose, the value of the death benefit would be calculated as of the valuation date, assuming the former member died as of the valuation date.

- (b) a former member with deferred pension entitlement, eligible for immediate commencement of pension.

In this case, the lump sum value would be the greater of the amount determined as in (a) above and a value determined as if the individual had retired at the date of valuation and elected the most favourable combination of the highest surviving spouse pension permitted by the plan (if there is an eligible spouse) and the longest guaranteed period available under the plan. This value should be determined as for pensioners in (c) below.

- (c) a former member in receipt of pension.

In this case, the commuted value would reflect the present value of pension payments for a period certain of four months from the valuation date, any additional guaranteed payments and any survivor benefits potentially payable.

Disclosure

- .09 When communicating the amount of the commuted value of a member's pension, the actuary would also provide a description of the survival period assumption.