



Canadian  
Institute  
of Actuaries

Institut  
canadien  
des actuaires

## Educational Note

# Expenses in Funding Valuations for Pension Plans

Document 207010

This document was replaced by document 214101

**This document was archived June 12, 2023**

## *Educational Note*

# Expenses in Funding Valuations for Pension Plans

Committee on Pension Plan Financial Reporting

January 2007

Document 207010

*Ce document est disponible en français*  
© 2007 Canadian Institute of Actuaries

*Educational Notes do not constitute standards of practice. They are intended to assist actuaries in applying standards of practice in respect of specific matters. Responsibility for the manner of application of standards in specific circumstances remains that of the Member in the Pension Area.*

## Memorandum

**To:** All Members in the Pension practice area  
**From:** Stephen Butterfield, Chairperson  
Committee on Pension Plan Financial Reporting  
**Date:** January 18, 2007  
**Subject:** Educational Note – Expenses in Funding Valuations for Pension Plans

The Committee on Pension Plan Financial Reporting (CPPFC) has developed the attached guidance for expenses in funding valuations for pension plans.

In accordance with the Policy on Due Process for Approval of Practice-Related Material other than Standards of Practice, this educational note has been approved by the Committee on Pension Plan Financial Reporting, and has received final approval for distribution by the Practice Council on January 17, 2007.

Educational notes are covered under subsection 1220 of the Standards of Practice. Section 1220 prescribes that “The actuary should be familiar with relevant educational notes and other designated educational material.” It further explains that a “practice which the notes describe for a situation is not necessarily the only accepted practice for that situation and is not necessarily accepted actuarial practice for a different situation.” As well, “educational notes are intended to illustrate the application (but not necessarily the only application) of the standards, so there should be no conflict between them.”

SB

In providing advice on the financial position of a pension plan for funding purposes, the Standards of Practice (SOP) require the actuary to make assumptions regarding the payment of expenses. This educational note is intended to assist actuaries in making appropriate assumptions.

This educational note is divided into two major sections. The first section addresses the selection of appropriate expense assumptions for going concern valuations and the second section addresses the selection of appropriate expense assumptions for wind-up, hypothetical wind-up, and solvency valuations.

## GOING CONCERN

For going concern valuations, the Standards of Practice contain the following two references to expenses:

- Paragraph 3300.04: *The actuary should make provision for any expenses that are expected to be paid from the plan's assets.*
- Paragraph 3200.07: *No provision is needed for expenses to be paid by the employer. In case of doubt, it would be prudent to assume that expenses are paid from the plan's assets.*

It is not the role of the actuary to determine whether it is appropriate to pay expenses from the plan's assets. Instead, the actuary would select an assumption that adequately provides for all expenses that are expected to be paid from the plan's assets. In selecting the assumption, the actuary is permitted to rely on guidance provided by the plan sponsor in determining what expenses may be charged against the plan's assets and what expenses may be paid directly by the plan sponsor (or from other sources). Any such reliance would be documented.

In general, there are two types of expenses that are typically charged to pension funds – investment-related expenses and administration-related expenses. The actuary would consider these two types of expenses, determine what entity will be paying the expenses, and include appropriate allowances and disclosures in the valuation report. The actuary would take reasonable steps to determine if other expenses are expected to be charged to the pension fund and address such other expenses accordingly.

Once the actuary has determined the expenses expected to be paid from the pension fund, the actuary would determine how to make appropriate provision in the going concern valuation for such expenses. The actuary may be guided by the following basic actuarial funding equation:

$$\text{PV(Future Benefits and Expenses)} = \text{Accrued Actuarial Liability} + \text{PV(Future Normal Actuarial Costs)}$$

In order to maintain the integrity of the above equation, the actuary would then include provision for expected future expenses through an increase in the Accrued Actuarial Liability, an increase in the PV(Future Normal Actuarial Costs), or as a combination of the two.

The actual implementation of the actuarial funding equation can be accomplished by various means. The remainder of this section addresses two of the most common:

- A reduction in the discount rate, and
- The inclusion of an explicit allowance in the normal actuarial cost.

These approaches can be applied independently or in combination with one another.

### **Reduction in Discount Rate**

A reduction in the discount rate results in an increase in both the Accrued Actuarial Liability and the PV(Future Normal Actuarial Costs). The increase in the Accrued Actuarial Liability implicitly results in a provision for future expenses associated with accrued benefits. The increase in the Future Normal Actuarial Costs implicitly results in a provision for future expenses associated with benefits expected to accrue in future periods.

Following are some observations that the actuary would consider in employing this method for including provision for expenses:

- As this type of allowance applies to all future years, it will increase or decrease over time in conjunction with the growth or decline in the plan's liabilities. For pension plans that are expected to be approximately fully funded at any given time, this approach lends itself very well to asset-related expenses such as investment management fees, brokerages fees, and certain custodial, trustee and consultant fees that naturally move up or down in relation to the size of the underlying assets.
- For other expenses where the relationship between the size of the fund and the expense levels is less robust, the actuary would be cognizant of the bias potentially being introduced where the size of the fund is expected to increase or decrease considerably over time. For this reason, care would be exercised if using this approach for non-asset-related expenses.

Best practices would suggest that the actuary disclose both the gross and net discount rates explicitly in the valuation report, as well as the implied accrued and annual expense allowances.

### **Explicit Allowance in Normal Actuarial Cost**

This type of allowance represents a short-term assumption that is assumed to apply until the completion of the next actuarial valuation. Where expenses are expected to be non-uniform over the period until the next valuation is filed, the annual allowance may be based on the average expected expense over the period. Explicit allowances are commonly included for administration-related expenses. If this approach is adopted for asset-related expenses, the actuary would ensure that proper consideration is given to the impact of potential or anticipated changes in the underlying asset base. The actuary would also consider that this approach requires ongoing funding for expenses even where no further benefit accruals are being provided.

Best practices would suggest that the benefit-related and expense-related components of the normal actuarial cost each be disclosed explicitly.

The adoption of this approach has no impact on the plan's liabilities or funded ratio.

### Other Approaches

In addition to the two methods outlined, the actuary may employ any other approach that the actuary deems to be appropriate for a given set of circumstances. As with all other assumptions, the actuary would be prepared to justify any assumption or approach adopted.

A common alternative approach is a combination of the two approaches outlined, whereby investment-related expenses are addressed through the adoption of a net discount rate and all other expenses are provided for through an addition to the normal actuarial cost.

### Other Considerations

It is preferable to separately identify and clearly explain the allowance included for administration expenses. This is particularly important for small pension plans where the relative magnitude of these expenses tends to be much higher in relation to the asset size. For such small pension plans, additional hidden brokerage fees may apply and would be considered.

Differences in approach can arise between plans with segregated investment accounts and those utilizing pooled funds. Where pooled funds are being used, the actuary would ensure that the expense assumption reflects the expense levels for the particular pooled funds in use. Likewise, differences can also arise between funds that are either actively or passively managed since these approaches will incur different levels of expenses. The actuary would consult the fee schedule outlined in the insurance contract or the investment contract between the sponsor and the funding agent, if available. Best practices suggest that the investment approach be explicitly disclosed.

If material, the actuary would include a gain and loss analysis of actual expenses versus those assumed over the valuation period.

### WIND-UP, HYPOTHETICAL WIND-UP, AND SOLVENCY

For wind-up, hypothetical wind-up, and solvency valuations, the Standards of Practice contain the following references to expenses:

- Paragraph 3720.02: *The actuary should either select and report an explicit assumption regarding the expenses of wind-up and offset the resulting expense provision against the plan's assets, or justify the expectation that expenses will not be paid from the plan's assets.*
- Paragraph 3720.28: *Wind-up expenses usually include fees related to the actuarial wind-up report, fees imposed by a pension supervisory authority, legal fees, administration expenses, and custodial and investment management expenses.*
- Paragraph 3720.29: *The actuary would net wind-up expenses against the plan's assets in calculating the ratio of assets to liabilities as a measure of financial security of the benefit entitlements. However, an exception may be made for future custodial*

*and investment management expenses, which may be netted against future investment return in the treatment of subsequent events.*

- Paragraph 3740.06: *The actuary should report any explicit assumption of expenses payable from the plan's assets required to wind-up the plan, including any assumptions with respect to the solvency of the employer in deriving the expense assumption.*
- Paragraph 3740.13: *Since the actuary would assume that the plan has neither a surplus nor a deficit, wind-up expenses related to the resolution of surplus or deficit issues need not be considered.*

### **Hypothetical Wind-ups and Solvency Valuations**

In cases of hypothetical wind-ups and solvency valuations, the actuary would make an explicit provision for all expected expenses associated with an uncontested wind-up.

The following is a non-exhaustive list of expenses that the actuary would consider:

- Actuarial and consulting fees including the wind-up report(s);
- Fees imposed by a regulatory authority;
- Legal fees;
- Costs related to the settlement of benefits (e.g., commissions or fees to buy annuities);
- Administration fees (e.g., preparing and sending option forms to members, answering queries, processing requests from members);
- Custodial and investment management fees (see paragraph 3720.29 of the SOP for an alternative approach); and
- Fees linked to the appointment of an Administrator in the case of a bankrupt sponsor.

Consistent with paragraph 3740.13 of the SOP, the actuary need not consider legal and other expenses related to the resolution of surplus or deficit issues.

In arriving at the assumption for the level of expenses, the actuary may rely on such historical data of other plan terminations as is most readily available, making allowance for the different size and complexity of the plans.

There are some situations that give rise to significant uncertainty regarding expenses associated with hypothetical plan wind-ups. For example, for very large pension plans, the Canadian annuity market is not deep enough to cope with a wind-up where all annuities are purchased within a short period of time (so the costs of settling the basic obligations may not be straightforward). Similarly, for some public sector pension plans, benefit entitlements on wind-up are not defined. In these situations the actuary would postulate and disclose a reasonable scenario under which the wind-up could occur, and

accordingly make appropriate allowance for expenses under this scenario unless the actuary can justify the expectation that the expenses will not be paid from plan assets.

Wind-up expenses would be applied against the plan's assets, to arrive at a net asset value available for benefits. Where required by legislation, expenses can be recorded as a liability.

### **Actual Wind-up**

Most of the considerations applicable for hypothetical wind-ups and solvency valuations also apply for actual wind-ups. However, because expenses incurred during the course of a plan wind-up will in some cases impact upon the final benefit entitlements of plan members, the actuary would be more meticulous in making expense assumptions for the purposes of an actual wind-up report. The actuary would make an explicit provision for all expenses associated with the full wind-up of the plan that are expected to be paid from the plan. However, as noted in paragraph 3720.29 of the SOP, the actuary may net future custodial and investment management expenses against future investment returns.

In some situations, significant additional expenses may be incurred in the wind-up process if one or more parties to the wind-up are contesting one or more facets of the wind-up, or if surplus issues would be addressed. The actuary would take reasonable steps to ascertain if such additional expenses are likely to be incurred over the course of the plan wind-up. Unless the actuary is aware of or has an expectation that such additional expenses will be incurred, the actuary is not required to include a provision for these potential additional expenses. In such situations, the actuary would disclose that the valuation includes no allowance for such additional expenses and provide justification for the exclusion. In situations where an application to the Ontario Pension Benefits Guarantee Fund (PBGF) is expected, the actuary would consider the expected fees associated with such an application.

Wind-up expenses would be applied against the plan's assets, to arrive at a net asset value available for benefits. Where required by legislation, expenses can be recorded as a liability. In situations where surplus allocation issues are required to be addressed, the actuary can report the net expected surplus position in the absence of any expenses related to this process and disclose these expenses as an allocation of surplus.

Where a significant contingent expense has not been reflected because the event triggering the expense is not expected to occur, the actuary would disclose both the nil assumption and the expected impact of the assumption if it were incorrect.

Some of the expenses associated with a plan wind-up will fall outside the realm of the actuary's experience and expertise. The actuary may rely on another person's work in determining the quantum of an expense as well as whether or not expenses are to be from the pension fund or not. Paragraph 3720.20 of the SOP states: *To decide those aspects, the actuary may rely upon written direction from another person with the necessary knowledge, such as legal counsel or the employer, or the necessary authority, such as a regulator or the plan administrator. The actuary would consider any issues of confidentiality or privilege that may arise.*

For actual wind-ups, it will often be necessary to prepare an initial preliminary wind-up report, updated reports as the wind-up progresses, and a final wind-up report once all



entitlements have been settled. For any of these reports, a common subsequent event that would be reflected is the payment of expenses from the pension fund. For any successive report, the actuary would disclose any changes to the expense assumption from the prior report.

**SPECIAL REPORTS**

Where reports are provided for plan conversions, mergers, or other non routine purposes, the actuary would apply the principles noted in this educational note as appropriate.

**ARCHIVED**