Canadian Institute of Actuaries
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EDUCATIONAL NOTE

Expenses in Funding Valuations for Pension Plans

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Expenses in Funding Valuations for Pension Plans

Committee on Pension Plan Financial Reporting

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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

This educational note is intended to assist actuaries in the selection of appropriate assumptions regarding expenses in funding valuations of pension plans.

An educational note on this subject was originally published in January 2007 and updated in September 2014 to conform to the pension-specific Standards of Practice effective February 1, 2014. This educational note has been updated in 2023 to reflect changes in actuarial practice and to conform to the Standards of Practice effective December 1, 2022.

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 approval for distribution by the AGC on May 9, 2023.

Responsibility of the actuary

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Your feedback

Questions or comments regarding this educational note may be directed to the Chair of the PPFRC.

1. Introduction

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

It is divided into two major sections: the first addresses the selection of appropriate expense assumptions for going concern valuations, and the second addresses the selection of appropriate expense assumptions for wind-up, hypothetical wind-up and solvency valuations.

Section 3200 of the standards (which applies to advice that an actuary provides regarding the funded status or funding of a pension plan, except where such advice is with respect to the wind-up, in full or in part, of a pension plan, or the financial reporting of a pension plan's costs and obligations in the employer's or the pension plan's financial statements) contains the following reference to expenses:

> 3210.05 The actuary's advice on the funded status or funding of a pension plan should take account of expenses if they are expected to be paid from the pension 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, he or she 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 administrator 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).

2. Going concern

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, specify what entity will be paying the expenses and include appropriate allowances and disclosures in the valuation report. He or she 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 expenses expected to be paid from the pension fund have been determined, 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:

PV(Future Benefits and Expenses) = Accrued Actuarial Liability + 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 three of the most common:

- A reduction in the discount rate;
- The inclusion of an explicit allowance in the normal actuarial cost; and
- The inclusion of an explicit provision for future expenses in the accrued actuarial liabilities.

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.

The 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.
- For all expenses, the actuary should take into account the evolution of future expenses in relation to the size of assets and liabilities. For example, as a closed plan is maturing, the assets and liabilities may eventually start to decrease. Over time, expected fees may increase as a percentage of remaining assets as the administrator may no longer benefit from economies of

scale from a larger asset base. Also, non-asset related expenses may have a fixed-dollar component and not reduce as quickly as the rate of reduction in plan liabilities.

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.

Inclusion of an explicit provision for future expenses in the accrued actuarial liabilities

There are several acceptable approaches to include future expenses in the accrued actuarial liabilities.

One such method may be to determine the present value of estimated fees over the expected lifetime of the plan, starting from the current level of fees and adjusting for inflation, expected evolution of plan membership and other considerations. In considering the pattern of future expenses in relation to the evolution of plan membership, the actuary would also be aware that there is a minimum level of administrative and investment expenses required to maintain a pension plan, regardless of the size of the membership (e.g., it is unreasonable to assume that administration fees currently $200 per year per member would be at that level when only one member remains in the plan).

Another approach would be to compute the difference in the present value of future benefits at the valuation date computed using a going concern discount rate that is gross of fees and using a going concern discount rate that is net of fees. For simplification purposes, it would be acceptable for an actuary to convert this result as an explicit load on liabilities. If so, the actuary may need to recalibrate the explicit load as the going concern discount rate changes.

Other approaches

In addition to the methods outlined, the actuary may employ any other approach that he or she 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 approaches outlined, for example where 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 administrator and the funding agent, if available. The actuary would also give consideration to the impact on plan expenses of any other funds held by the plan administrator – for example, other funds within the same master trust or other funds invested with the same investment manager(s). 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.

3. Hypothetical wind-up, solvency and actual wind-up valuations

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

3240.03 In determining the benefit entitlements, the actuary should postulate a scenario upon which the hypothetical wind-up valuation is based, taking account of the circumstances affecting the work. The postulated scenario should assume that no further contributions will be made to the pension plan (e.g., where the plan sponsor is bankrupt) and all future expenses must be paid from the pension plan, unless otherwise stipulated by the terms of an appropriate engagement.

3240.08 For a hypothetical wind-up valuation, the actuary should select an explicit assumption for expenses expected to be payable from the pension plan's assets to wind-up the pension plan.

3240.13 Since the actuary would assume that the pension plan has neither a surplus nor a deficit, wind-up expenses related to the resolution of surplus or deficit issues need not be considered.

3240.14: In developing the assumption for expenses expected to be payable from the pension plan's assets to wind up the pension plan, the actuary would also make an assumption as to the solvency of the employer. The assumption with respect to the payment of expenses and the assumption with respect to the solvency of the employer would be consistent.

For actual wind-up valuations, the standards contain the following references to expenses:

3320.02 Unless it is expected that expenses will not be paid from the pension plan's assets, the actuary should select an explicit assumption regarding the expenses of wind-up and either offset the resulting expense provision against the pension plan's assets or add the resulting expense provision to the pension plan's liabilities.

3330.20 Wind-up expenses usually include, but are not limited to,

- fees related to the actuarial wind-up report(s),
- fees imposed by a regulator,
- legal fees,

- administration expenses, and
- custodial and investment management expenses.

3330.21 The actuary would either net wind-up expenses against the pension plan's assets or add the assumed wind-up expenses to the pension plan's liabilities in calculating the ratio of assets to liabilities as a measure of financial security of the benefit entitlements, unless the expectation is that expenses will not be paid from the pension plan's assets. 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.

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 3330.20 of the standards for an alternative approach); and
- Fees linked to the appointment of an administrator in the case of a bankrupt sponsor.

Consistent with paragraph 3240.13 of the standards, 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 are 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 may not be 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 he or she can justify the expectation that the expenses will not be paid from plan assets. (For additional details on the treatment of expenses in these situations, please refer to the educational note Alternative Settlement Methods for Hypothetical Wind-Up and Solvency Valuations).

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 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. They 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 3330.21, 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 they are aware of or have 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, they 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 is expected, the actuary would consider the expected fees associated with such an application.

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. They 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 3330.23 states:

> To decide those aspects, the actuary may rely upon 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.

4. 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.

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