Canadian Institute of Actuaries
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Educational Note

Guidance for the 2001 Valuation of Policy Liabilities of Life Insurers – Addendum

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MEMORANDUM

TO: All Life Insurance Practitioners

FROM: Simon Curtis, Chairperson
Committee on Life Insurance Financial Reporting

DATE: December 11, 2001

SUBJECT: **Guidance for the 2001 Valuation of Policy Liabilities of Life Insurers – Addendum**

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CLIFR has been monitoring membership feedback on the introduction of the Life SOP for the valuation of the 2001 year-end policy liabilities of life insurers. Four issues have been identified where the Committee on Life Insurance Financial Reporting (hereafter referred to as CLIFR in this note) would like to provide additional guidance to Appointed Actuaries.

Definition of Acquisition Expenses from Cash Flows Beyond Normal Term of Liabilities

In the CLIFR letter to Appointed Actuaries "Guidance for the 2001 Valuation of Policy Liabilities of Life Insurers," CLIFR provided guidance on what constitutes acquisition expenses for determining the initial policy liability adjustment for acquisition expenses to be recovered from cash flows beyond the normal term of liabilities.

In the letter, CLIFR stated that "Acquisition expenses are expenses incurred in the acquisition of new and renewal insurance policies and annuity contracts. They include only those expenses that vary with and are primarily related to the acquisition of the policies and contracts (e.g., commissions or commission equivalents, certain underwriting and policy issue expenses, medical fees)."

A number of actuaries have commented that the definition used is very similar to the US GAAP definition of acquisition expenses, and that it is not necessarily the generally accepted definition for Canadian GAAP at this time. In light of these comments, CLIFR believes it should modify the guidance in its letter as follows:

> *Acquisition expenses are expenses incurred in the acquisition of new and renewal insurance policies and annuity contracts. They are expenses that are both primarily related to the acquisition of policies and contracts, and consistently allocated to new business in product pricing and internal company expense allocations.*

The educational note that CLIFR is developing and expects to publish in 2002 on expenses in the life insurance valuation will address the issue of appropriate definition of acquisition expenses for valuation purposes.

Lapse Margin for Adverse Deviations

CLIFR continues to receive a large number of comments from actuaries on the impracticality of literal compliance with the requirement in Section 7.2.4 of the Life SOP that requires the direction of the MFAD to increase liabilities at each duration. The specific paragraph in the Life SOP that is causing concern reads as follows:

"The standard range for margins for adverse deviations on rates of lapse and partial withdrawal is 5% to 20% of the expected assumption. For each duration, the direction of the margin should result in an increase in the liability net of reinsurance. Any reasonable grouping of policies can be applied for this purpose (e.g., it would generally not be appropriate to group lapse-supported products with non-lapse-supported products). Sensitivity testing may be required to determine the proper application of the margin for adverse deviations. Moreover, the proper application of the margins may be different for different interest rate scenarios."

CLIFR acknowledges that the majority of software currently available and/or being used for the year-end 2001 valuation will not allow for rigorous application of this standard. In this context, CLIFR would like to offer the following guidance:

- It is important that the actuary comply with the spirit and intent of the standard - that the valuation result appropriately take into account the potential for the direction of lapse sensitivity to change by duration.
- While the standards describe the theoretical ideal, in practice the actuary's work is constrained by available time, resources and tools. Therefore, it is appropriate for the actuary to strike a reasonable balance between the theoretical ideal and the constraints, and use his or her judgement on the appropriateness and materiality of approximation used and in the resulting level of MFADs selected.
- In this context, the actuary should do sufficient testing to ensure that he or she understands the changes in exposure by duration and can defend the appropriateness and materiality of approximations used.

Term Structure of Interest Rates for Base Scenario and Prescribed Scenario Testing

Recent events, including the decision of the US Government to stop issuing 30-year treasury bonds, has created an environment in which the term structure of interest rates beyond 20 years does not reflect an equilibrium market. In these conditions, CLIFR believes it would be appropriate for actuaries to expect that the rate structure will move from the current term structure of rates to a more normal structure of rates over time for the base "expected" scenario and for prescribed scenario 7.

Therefore, should the term structure of interest rates in North America continue to reflect reducing yields as the term extends beyond 20 years, CLIFR believes the following modifications would be appropriate:

- For the base scenario (i.e., expected scenario), assume that the yields for fixed interest investments with a term greater than 20 years move over a period not less than three years to yields consistent with the current rates modified to assume flat forward rates beyond 20 years at the level of the one year implied forward rate for the final year of a 20-year term bond.
- For scenario 7, similarly modify the forward rates to use flat forward rates beyond 20 years at the level of the one year implied forward rate for the final year of a 20-year bond.

CLIFR does not believe that adjustments are required to the current rate component for prescribed scenarios 1 to 6.

Cost of Minimum Interest Guarantees and Embedded Options.

With the continuing trend to low interest rates, CLIFR would like to remind actuaries of the need to assess and make appropriate provision for the cost of any minimum interest guarantees or other options (e.g., guaranteed purchase options) embedded in these products. These costs may not be appropriately captured in the deterministic base and prescribed scenarios in Section 6, as these scenarios may continue to ascribe zero cost to these features when in reality near or in the money guarantees or options can have substantial value. Stochastic modelling or option pricing techniques (stochastic or mathematical) could therefore ascribe material value to these features in the current interest environment. While the actuary is not required to model these features stochastically, the actuary should review the exposure to minimum interest guarantees and other embedded options in the business being valued, and determine whether an increase in the actuarial liabilities is warranted.