Educational Note

Valuation of Segregated Fund Investment Guarantees

Document 205107

This document was replaced by document 205111

EDUCATIONAL NOTE

Educational notes do not constitute standards of practice. They are intended to assist actuaries in applying standards of practice in specific matters. Responsibility for the manner of application of standards in specific circumstances remains that of the practitioner.

VALUATION OF SEGREGATED FUND INVESTMENT GUARANTEES

COMMITTEE ON LIFE INSURANCE FINANCIAL REPORTING

Canadian Institute of Actuaries • **Institut Canadien des Actuaires**

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MEMORANDUM

TO: All Fellows, Associates and Correspondents of the Canadian Institute of Actuaries

DATE: December 2003

FROM: Jacques Tremblay, Chairperson
Committee on Life Insurance Financial Reporting (CLIFR)

SUBJECT: Educational Note on Valuation of Segregated Fund Investment Guarantees

The Committee on Life Insurance Financial reporting (CLIFR) has developed the attached educational note for valuation of the general account policy liability associated with segregated fund guarantees. CLIFR would like to point out that this educational note was derived from previous fall letters and that the substance of the text remains essentially unchanged.

In accordance with the Institute's policy for Due Process, this "Educational Note on Valuation of Segregated Fund Investment Guarantees" has been approved by the Committee on Life Insurance Financial Reporting, and has received final approval for distribution by the Practice Standards Council.

Section 1220 of the Consolidated Standards of Practice 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."

We would like to thank the members of the CIA Task Force on Segregated Fund Investment Guarantees who were primarily responsible for the development of this educational note.

Questions should be addressed to me at my *Yearbook* address.

JT

Valuation of Segregated Fund Investment Guarantees

For valuation of the general account policy liability associated with segregated fund guarantees, it is appropriate to establish the policy liability for the guarantee element using stochastic techniques.

The CIA (CLIFR) advises the actuary applying stochastic techniques to value segregated fund guarantees to review the papers on "*Use of Stochastic Techniques to Value Liabilities under Canadian GAAP*" (August 2001) and "*Report: CIA Task Force on Segregated Fund Investment Guarantees*" (March 2002). While these are research papers, and therefore do not represent standards of practice, or even illustrations or expansions of standards of practice (as with educational notes), these documents are a valuable guide to application of these techniques in a Canadian GAAP valuation environment.

The CIA (CLIFR) recognizes there may be situations where the exposure to this risk is immaterial, and a simpler approach is warranted. The recommended approach for determining the policy liability under such circumstances is to take percentages of the total balance sheet requirement (TBSR) resulting from the application of the TBSR requirements for MCCSR (i.e., policy liability = F x calculated TBSR requirement). The factor F varies as follows by type of Benefit and Fund Category, and, therefore, requires this split of the TBSR. The result is intended to correspond to approximately a CTE (80) result assuming conservative MV/GV ratios for each Fund Category.

Guaranteed Minimum Death Benefits   F = 0.55 (all fund types)

Guaranteed Minimum Maturity Benefits   F = 0.00 (Money market)

    F = 0.25 (bond)

    F = 0.30 (balanced)

    F = 0.50 (diversified equity)

    F = 0.55 (intermediate equity)

    F = 0.60 (aggressive equity)