LRWG Report to LHATF

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Agenda for LRWG Presentation

1. Describe changes since the March draft
2. Discuss two simplified approaches that have been added as “placeholders” within the LRWG proposal
3. LRWG Priorities for 2007
4. Open discussion of LHATF concerns with the LRWG proposal
5. LHATF vote to expose for comment the updated draft of the LRWG proposal

Summary of Proposed Revisions to the LRWG Draft Exposed for Comment in March

1. Most of the revisions deal with format changes to reorganize and refine the material to make it more readable.

2. There were only a few substantive changes to the reserve proposal itself.

Summary of Non-Substantive Changes

1. Restructured the material describing the reserve methodology (subsection 4)
   - Moved the description of the reserve calculations (Reported Reserve, Deterministic Reserve and Stochastic Reserve) to the beginning of the subsection, before the description of such things as valuation assumptions, the cash flow model, and economic scenarios.
   - The prior version had the material in essentially the reverse order.
   - We believe that starting with a description of the "end result" before describing the details makes the information flow better and more understandable for the reader.

Summary of Non-Substantive Changes

2. All certification and documentation requirements have been removed and placed into a separate section of the Valuation Manual.

3. Material that is more in the nature of guidance, (e.g., "should be considered") has been removed and will be referred to the Actuarial Standards Board as possible material to include in the new ASOP(s) being developed for principles-based life reserves.

4. Where appropriate, wording was changed to the active voice from the passive voice.

Summary of Non-Substantive Changes

5. The term “Asset Segment” has been replaced with “Model Segment” to help reduce confusion with policies not subject to PBA requirements.

6. The wording and organization of the document has been revised to improve clarity, especially:

    - Description of reinsurance requirements
    - Description of the Stochastic Reserve calculation
    - Description of the stochastic modeling exclusion
    - Description of cash flow models

Summary of Substantive Changes

1. Assumption Margins:
   - The objective of achieving an appropriate aggregate margin across all assumptions was retained.
   - However, as a practical matter, due to the difficulties of determining an appropriate level for the aggregate margin, margins are required to be determined for each risk factor independently.
   - An exception is permitted to allow the determination of margins for 2 or more risk factors in the aggregate if an acceptable demonstration of the appropriateness of the approach is provided (for example, lapse margin and mortality margin).

Summary of Substantive Changes

2. The concept of a "Provision for Model Understatement" has been retained, but the term has been eliminated, and the adjustment is only made to the Stochastic Reserve.
3. The Margin Ratio is no longer a required disclosure item.
4. An approach to allocate aggregate reinsurance cash flows to each contract has been included.
5. "Actuary" was replaced by "Company" to clarify that the responsibility for determining reserves lies with the company, not the actuary.

Summary of Substantive Changes

6. The definition of the Reported Reserve has been changed from:

   "The greater of the Deterministic Reserve and the Stochastic Reserve" to:

   "The Stochastic Reserve but not less than the Deterministic Reserve, where the Reported Reserve is calculated as the Deterministic Reserve plus the excess, if any, of the Stochastic Reserve over the Deterministic Reserve."

   While the wording was changed, this has no impact on the level of the Reported Reserve.

Summary of Substantive Changes

7. Two possible simplifications added as "placeholders"

   a. Material tail risk test to demonstrate that stochastic modeling is not required

   b. A simplified approach to model non-guaranteed elements for policies without material tail risk.

Material Tail Risk Test

1. A straightforward “safe harbor” approach to demonstrate that stochastic modeling is not required.
2. Involves the use of a small number (10-12) of prescribed scenarios, similar in concept to the “NY 7”
3. A gross premium reserve using anticipated experience assumptions will be calculated for each scenario.
4. A measure of the degree of variability will be defined in order to “pass” the test.

Material Tail Risk Test

5. Example of a measure under consideration is the ratio:

$$\frac{\text{Largest GPV reserve – smallest GPV reserve}}{\text{PV of benefits using anticipated experience assumptions}}$$

6. Modeling examples will be developed to determine an appropriate benchmark to pass the test.

Note: The company can utilize other methods besides this “safe harbor” method to demonstrate that stochastic modeling is not necessary, but the company will have to justify.

Simplified Approach to Model Non-guaranteed elements

1. Only available for policies that are demonstrated not to have “material tail risk” at time of issue.

2. The idea is to value only the guaranteed benefits, using a conservative, deterministic GPV reserve
   - NGEs are reflected implicitly rather than explicitly through the use of extra margins for conservatism in the reserve assumptions.
   - The extra margins take the place of the NGEs, which are excluded from the projection for the GPV calculation.
   - Margins are set such that GPV reserve is zero at issue
   - The reserve assumptions are locked-in at issue

Simplified Approach to Model Non-guaranteed elements

3. This method automatically adjusts for changes in experience.
   – For example, if experience improves and the margins in the locked reserve basis therefore increase, the increase in margins represents the increase in NGEs that would be paid due to the improved experience.
4. The reserve would be periodically tested for adequacy using appropriate procedures.

LRWG Priorities for Year-End 2007

1. Finalize outstanding technical issues.
2. Develop recommendations on prescribed elements.
   - CTE level
   - interest rate and equity assumptions for Deterministic Reserve
   - net spreads on reinvestment assets
3. Perform additional product modeling and analysis.
4. Consider suggestions resulting from discussions with the U.S. Department of Treasury
5. Continue to address alternative, simplified PBA approaches.

Status of LRWG Proposal

- The LRWG believes the proposal is ready from an actuarial perspective to be included in the current draft of the Valuation Manual.
- Consideration will need to be given to the amount of desired "final readiness" that is needed in order for it to be placed in the Valuation Manual as part of its expected exposure in September.
- It is anticipated that further refinement may be needed to the proposal once the Valuation Manual is finalized. We may offer additional proposals or recommendations until that process is completed.

Status of LRWG Proposal

What areas of concern does LHATF have with the current draft of the proposal?

Action Item:

Vote to expose for comment the updated versions of the LRWG's Proposed Requirements for Principles-based Approach for Life Insurance Reserves