AMERICAN ACADEMY of ACTUARIES

Report on Areas Where Further Guidance is Needed When Actuarial Judgment is Required from the American Academy of Actuaries' Life Reserves Work Group

Presented to the National Association of Insurance Commissioners' Life and Health Actuarial Task Force

Washington, DC - June 2006

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Areas Where Further Guidance is Needed When Actuarial Judgment is Required

Under a principles-based reserving approach, there are several places where the valuation actuary is called upon to exercise his/her actuarial judgment to determine the proper reserve level, including such things as analyzing experience to determine best estimate assumptions, selecting appropriate methodologies and approaches when not prescribed, and determining how to group data for modeling (to name a few).

In order to assist both the valuation actuary, and the reviewing actuary who will be conducting an independent review, it is important that adequate guidance be given whenever actuarial judgment is required. This guidance is not to be viewed as prescriptive, because it is not intended to define hard and fast rules that must be followed. Rather, the guidance would describe considerations and principles that may be taken into account when exercising actuarial judgment.

The draft documents exposed for comment by LHATF in December of 2005 attempted to incorporate these guidelines where appropriate. However, we believe there are a number of places where further guidance is needed. To address this need, the LRWG concluded that a three-step process should be followed:

1. Identify all the places in the 4 documents (Model Regulation and 3 Actuarial Guidelines) where additional guidance is needed;
2. Decide where to best place this new guidance (e.g. in the model reg/AG itself, or an ASOP, or in a practice note); and
3. Develop the specific wording that provides the actual guidance, which will depend in part on where it will be located.

We have begun step 1 of identifying places where actuarial judgment is required. Below is a preliminary list:

Model Regulation:

1) Section 3.2 - Applying the methodology to products not specifically identified in the regulation
2) Section 7.A.3. – Calculating the reserve on a date that precedes the valuation date
3) Section 7.C.3. - Consistency with company's asset investment strategy
4) Section 7.C.7. - Defining length of projection period
5) Section 7.D.3. - Choice of number of scenarios
6) Section 7.E.1. - Estimate of beginning asset amount
7) Section 7.E.5. - Grouping of equity investments in the General Account
8) Section 7.E.5. - Grouping of variable funds and subaccounts.
9) Section 7.F.2.f. - Reasonable approximations for value of hedge instruments
10) Section 7.H.2. - Election to exclude products from Stochastic Reserve calculation
11) Section 8.B.3. - Assumptions and Margins for reinsurance ceded.
12) Section 8.C.3 and 8.C.4. - Assumptions and considerations for reinsurance assumed.

Actuarial Guideline PBR – Mortality Assumptions

1) Section III.C.1 – Selection of experience data
2) Section III.C.2. - Margins for data uncertainty

3) Section III.C.3. – Adjustments for risk selection and underwriting practices
4) Section III.C.4. - Smoothing experience data
5) Section III.D.1. – Selection of industry basic table to blend with company's experience table.
6) Section III.D.4. – Adjusting credibility-adjusted table for mortality improvement
7) Section III.E. - Selection of valuation margin (to the extent not prescribed)
8) Section III.F. – Selection of NAIC valuation table that bests maps to Prudent Best Estimate assumption

<u>Actuarial Guideline PBR – Policyholder Behavior Assumptions</u>

1) Section IV.A.2. - Level of granularity
2) Section IV.B.1.h. - Items ignored in modeling
3) Section IV.B.1.j. - Determining optimal plausible behavior
4) Section IV.B.1.k. – Determining level of non-financially motivated behavior
5) Section IV.B.1.l. – Interdependence of assumptions
6) Section IV.B.2. – Dynamically modeling risk factors
7) Section IV.B.3. – Consistency of prudent best estimate and CTE measure
8) Section IV.C.4. – Derivation of future premium pattern assumption when historical data is lacking
9) Section IV.C.5. – Incorporating results of sensitivity testing in premium pattern assumption
10) Section IV.D.1. – Development and use of dynamic models for withdrawal assumption
11) Section IV.D.1. – Establishing prudent best estimate withdrawal assumption
12) Section IV.D.5.c. – Adjustments to external withdrawal studies
13) Section IV.D.7. – Establishing margin on withdrawal assumption

<u>Actuarial Guideline PBR – Expense Assumptions</u>

1) Section V.B.1 - Determination of direct, indirect and overhead expenses applicable to the modeled business (allocation methods used)
2) Section V.B.3 - Determination of what constitutes a 'significant non-recurring' expense
3) Section V.B.4 – Number of years to spread IT development costs
4) Section V.B.6 - Choice of an appropriate expense basis
5) Section V.B.7 - Inflation assumption chosen
6) Section V.B.10 - Determination of margins; when is a higher margin needed
7) Section V.C.2 - When is a company's experience considered credible

Actuarial Guideline PBR – Asset Assumptions

1) Section VI.C.3. – Determining the "error factor" in the calculation of the CTE Amount

2) Section VI.C.4. – Adjustments for effectiveness of future hedging strategy

3) Section VI.C.4. – Adjustments for impact of discontinuous hedging strategy

Actuarial Guideline PBR – Non-guaranteed Elements

1) Section VII.B.2. – Determining NGE re-determination margins

2) Section VII.B.3. - Determining valuation margins