



# AMERICAN ACADEMY *of* ACTUARIES

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## **Comments on State of New York Memo “Principles Based Reserves – Draft Regulation and Actuarial Guidelines” from the American Academy of Actuaries’ Life Reserves Work Group**

### **Presented to the National Association of Insurance Commissioners’ Life and Health Actuarial Task Force**

**Orlando, FL – March 2006**

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## DRAFT RESPONSES FROM LRWG

The comments provided below reflect the current thinking of the LRWG. We look forward to ongoing dialogue as we continue to refine and finalize the proposal.

### General Comments

#### 1. Discount Rates for Deterministic and Stochastic Reserves

If no change to asset valuation is on the table, to properly reflect investment expenses and investment risks, including credit risk and interest rate risk, the discount rates used for the deterministic reserve should be based on the set of Treasury rates that most closely matches the maturity structure and date of purchase of the supporting assets. For stochastic reserves, the Treasury-based discount rates should also be consistent with the economic scenario being projected. LHATF may want to consider specified spreads added to these Treasury-based discount rates to reflect the fact that full asset liquidity is not always needed to match insurance liabilities. This will help to ensure a level playing field and to preclude potential situations where investing in riskier assets produces lower reserves. **[This continues to be a major area of disagreement (as communicated to you previously in our letter dated 10/25/04). There is a need to continue dialogue. We welcome further discussion of the idea to add a specific spread to Treasury rates to determine the discount rates.]**

#### 2. Assumptions

We agree with the provisions in the LRWG documents that require assumptions to be based on company experience to the extent credible. Additional language is needed to require that to the extent company experience is only partially credible, a blend of the experience and an industry benchmark assumption should be used. For policyholder behavior, assumptions should grade toward optimal plausible behavior for later durations where experience is not yet available. **[The LRWG is willing to work with NY on this topic. But we feel the most important challenge will be defining the expectations for determining “optimal plausible behavior.”]**

#### 3. Data Filing Requirements

Requirements on data filing, which will lead to the expedited production of industry experience tables, should be included. These should be included in the new standard valuation law as well. **[Outside the scope of the LRWG.]**

#### 4. Other Products

We believe work needs to begin to develop similar standards for payout annuities and other blocks where formula reserve requirements are currently insufficient. To direct all attention just to lines that may have redundancies and ignore lines with deficiencies seems inappropriate. **[This is outside the scope of the LRWG. But the Academy has formed a group to address a similar standard for all annuities, and the SVL II Work Group has an aggressive agenda to expand the application of PBR to many products, and is not limiting their attention to just products with redundancies. For example, C3 Phase 2 was developed in response to a deficiency in the existing capital requirements. The project priorities of the Academy are set by LHATF, so we encourage New York to work with LHATF to identify priorities within the overall PBR initiative.]**

#### 5. Substantial Guidance should be within Laws, Regulations, and Actuarial Guidelines

All substantial guidance should be within laws, regulations, and actuarial guidelines. ASOP's and practice notes should not be depended on for this purpose. **[We agree, but believe that there is an important role that ASOPs can play for guidance that is not “substantial” from a regulatory perspective, such as ASOP #24 dealing with illustration requirements. We need more clarity on what is meant by “substantial.”]**

#### 6. Recommendations versus requirements

In several places in the documents, “shall” should replace “may”. For example, Section 8.B.3. of the model regulation says “the actuary may include a margin ... if the margin is necessary...”. **[We would need to look at each instance in the document where this occurs, but we generally agree.]**

**DRAFT RESPONSES FROM LRWG**  
**Draft PBR for Life Products Model Regulation**

**1. Section 6E - Qualifications**

This section should be amended to be consistent with the Actuarial Opinion and Memorandum Regulation. **[We agree.]**

**2. Section 7A - Establishment of Calibration Points**

Discussion is needed as to the process used to adopt the stochastic modeling calibration points. **[We agree that further discussion is needed to clarify that calibration points for a stochastic equity fund generator will be the same as those defined under VACARVM. However, the Academy is revisiting the issue of allowing a company to use their own stochastic interest rate generator if calibration criteria are met. If the NAIC concludes that a company must use a prescribed interest rate generator, then there will not be a need for stochastic interest rate calibration points.]**

**3. Section 7B - Margins in Prudent Best Estimate Assumptions**

We are uncomfortable with the last paragraph of Section 7B, which could be interpreted as negating the requirements set out in the section that margins be included in each assumption. **[We are open to revising the wording of this paragraph, but the intent of this paragraph is not to diminish or eliminate the need for appropriate margins on each assumption, but to establish margins on each assumption that result in an appropriate aggregate impact of all margins on the reported reserve. The LRWG is working on developing a tool to provide a quantitative comparison of the aggregate impact of all margins that will be discussed at the March LHATF meeting.]**

**4. Section 7C.4. - IMR**

More discussion is needed as to how the principles-based reserves will interact with IMR. **[We believe the Model Reg has enough detail on how the IMR is treated. Further details could be added to the Actuarial Guideline.]**

**5. Section 7C.5 - Projection Periods**

Limits should be placed on the projection periods in some cases where continuing a projection would result in significantly lower reserves inappropriately. For example, for level-premium term products, gains from periods after a large premium increase at the end of the level period should not be assumed to offset losses during the level premium period. **[We generally agree, but believe that it is ultimately up to the actuary to identify areas where the choice of the projection period could lower reserves (i.e., beyond those specifically identified). Regarding the concern over level-premium term products, the LRWG modeling subgroup will be providing LHATF with an analysis of the impact on a 20-year term product of using a projection period that extends beyond 20 years.]**

**6. Section 7D - Reflection of Treasury Rates and connection between Sections 7D, 7E, 7F, and 7H**

Clarification is needed on the interaction of these sections. **[We support any reasonable changes that would improve clarity, and would appreciate your suggestions in this regard.]**

**7. Section 7.E.4 - Hedging Credit in the Stochastic Calculation**

This section should be changed to be consistent with AG PBR, which permits the reflection of dynamic hedging in the stochastic calculation but not in the deterministic calculation. **[The LRWG is still discussing the appropriateness of using dynamic hedging in the calculation of the Deterministic Reserve, and has not reached a conclusion yet.]**

**8. Section 7E.5 - Requirements of a Clearly Defined Hedging Strategy**

An item should be added for discussion of imperfections of the hedging strategy, i.e., under what circumstances will it not work. **[We agree, and will provide suggested wording.]**

## DRAFT RESPONSES FROM LRWG

### 9. Section 7G.3.a.ii - Exclusion of Federal Income Taxes

LHATF should consider whether federal income taxes should be included in projections to the extent not included elsewhere in the annual statement (similar to how dividends are handled), when doing so would increase reserves. **[The treatment of FIT was extensively researched within the VACARVM project, and the LRWG approach is consistent with the VACARVM approach of excluding FIT. We believe that this is the appropriate conclusion for reserves, but support the concept of including the impact of FIT when determining capital requirements.]**

### 10. Section 7H.5 - Calculation of the Scenario Reserve

LHATF should consider a VACARVM-type approach, where the greatest present value of the shortfall is held. We would like to see the results of the impact of such approach versus the currently proposed approach. **[The LRWG spent time modeling and studying this approach when we began the project in late 2004. We firmly believe the current approach of using the PV of net cash flows is more appropriate for Life Products than a VACARVM-type approach since it is consistent with the long-standing statutory practice of taking the PV of future benefits less the PV of future premiums. We plan to share with you modeling results that compare the results under both approaches in the near future.]**

### 11. Section 7H.6 – Aggregation of Stochastic Reserve

- a. LHATF should consider whether certain blocks of business should be tested on a stand-alone basis, i.e., not aggregated. This would add conservatism and avoid problems with combining vastly different products for reserve setting purposes. For example, is it appropriate to aggregate the results of variable universal life with one year renewable term? **[We strongly disagree. A fundamental principle of the PBR is that Reported Reserve must reflect the actual risks associated with the contracts. Permitting offsets for covariant risks is consistent with this principle.]**
- b. LHATF needs to also consider the appropriateness of situation where surrenders of more profitable business cause a loss, i.e., reserves released are less than reserves held for such business. **[We understand the concern, but acknowledge that for any assumption, there is always the risk that actual experience may turn out different than assumed. So to lessen that risk we support development of appropriate margins in the assumptions, including policyholder behavior assumptions such as surrender rates. The impact of surrenders of profitable business would be reflected in a revised reserve level that reflects the higher risk profile of the company, consistent with the principles of the PB approach. Unexpected high lapse rates on profitable business beyond what a “moderately adverse” margin is designed to cover would be an example of the type of situation capital requirements are designed to cover.]**
- c. It should be made clear that when determining the stochastic reserve, any scenario reserve that is negative should be set to zero. **[We agree.]**

### 12. Section 7H.7 - Disclosure of Impact of Aggregation

This disclosure, mentioned in a drafting note, should be required. **[We agree.]**

### 13. Section 7I – Business not subject to stochastic testing

For business not subject to stochastic testing, it appears that the stochastic reserve should be set equal to the deterministic reserve to avoid undercounting. **[We agree.]**

### 14. Section 8B - Reserve calculation ignoring Reinsurance

This calculation, mentioned in the middle paragraph of the drafting note, should be made. **[We agree.]**

## Draft Actuarial Guideline PBR

### 1. Section III.C.1 – Mortality Experience Data

## **DRAFT RESPONSES FROM LRWG**

This section states that the Experience data should be updated within reasonable timeframes. We would like the timeframe to be specifically set, e.g., annually. **[We agree that the frequency of updating experience data needs to be specified, but the LRWG is still discussing the pros and cons of various alternatives, and under what circumstances it would be acceptable to have the frequency differ by product and/or company.]**

### **2. Section III.C.3 – Mortality Curve Adjustment**

It should be clarified that “period of time” refers to “duration.” **[We agree.]**

### **3. Section III.C.4.a – Experience by policy duration**

The period of time for the grade into the industry table should be specified, such as 5 years. Also, it should be emphasized that the company grade into the “appropriate” industry mortality table in several places. **[We agree that the period of time needs to be specified, but the LRWG is still discussing what the appropriate time period should be, and has not yet reached a conclusion.]**

### **4. Section III.C.4.b – Modification and Relevance of data**

This section should be more specific as to the “age” of the experience data allowed to be used. **[We agree.]**

### **5. Section III.F - Determination of Appropriate Mortality Table**

It should be made clear that the Reported Reserve using the Commissioner’s Standard mortality table should be calculated keeping all other assumptions the same as in the Reported Reserve using the Prudent Best Estimate mortality assumption. **[We agree.]**

### **6. Section IV.A.1 - Policyholder Behavior Assumptions in the absence of data**

“conservative end of the plausible spectrum” should read “as plausible optimal.” **[As mentioned earlier, we have concerns over the term “plausible optimal.”]**

### **7. Section IV.B.1 – General Considerations**

Section h should state that the reserve has to be at least as great as it would be if the item was not ignored. **[We generally agree, but recognize the practical difficulty of determining this definitively for each element.]**

Section j should be replaced with the following language from draft AG VACARVM: “For durations for which there is no relevant data, the actuary should assume substantial policyholder efficiency. At any duration for which relevant and fully credible experience does not exist, the actuary should adjust behavior assumptions in the direction of the most optimal plausible behavior of the contractholder. When relevant and credible data is available for early durations but not for later durations, the assumptions shall be graded from the best estimate with margin at the latest duration where the relevant and credible data is available to the assumption reflecting plausible policyholder efficiency five durations beyond where that relevant and credible data is available. The assumption shall be further blended between experience-based and policyholder efficiency-based where the data is partially credible at a given duration.” **[We agree that further guidance on this point would be beneficial. We have concerns with the terms “plausible optimal” and “policyholder efficiency-based.” The Policyholder Behavior subgroup has been discussing possible alternatives to addressing the issue. A recommendation will be provided subsequent to the March NAIC meeting.]**

Section k should be deleted. **[We disagree for reasons stated earlier.]**

Section l: see our comments re: Section 7B of the Reg. (our item 3 above) **[Similarly, see our response above to your comments to Section 7B.]**

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### 8. Section IV.B.2 - Dynamic Behavior Assumptions

Should be changed to state that dynamic assumptions are required where there would be a material impact from using dynamic assumptions. **[We generally agree with your concept, but recognize the practical difficulties of modeling assumptions dynamically for some assumptions.]**

### 9. Section IV.B.3 - Consistency of Prudent Best Estimate and CTE level

Some concerns, same as with Section 7B of the Reg. - see our item 3 above. **[See our prior comments.]**

### 10. Section IV.C (sentence at the end of the section) - Premium Assumption

More guidance is needed regarding what the actuary is supposed to do with the sensitivity test results. Should the reserves reflect these results or not? **[We will clarify the wording to make it clear that the actuary needs to consider the results of the sensitivity tests when establishing the prudent best estimate premium pattern assumption, but is not required to use one of the four “boundary” assumptions as the prudent best estimate assumption.]**

### 11. Section IV.D.1 - Withdrawal Assumption Considerations

Dynamic assumptions should be required where they would cause a material impact in results. Also, see comments above (AG PBR item # 7) **[See our prior comment.]**

### 12. Section VI.B - Defaults and Reinvestment Spreads

Spread and default assumptions should be made on a consistent basis. For example, it is inappropriate to use historic default costs and current spreads when current spreads are very wide compared to historic spreads. **[To address this concern, we support the use of an aggregate cap on reinvestment spreads.]** Also, a margin for interest rate risk should be included in the deterministic calculations. **[A margin for interest rate risk is already in the deterministic calculation. It is provided by grading the deterministic Treasury curve over future periods to an ultimate Treasury curve that is lower than the best estimate Treasury curve. We have proposed using an ultimate Treasury curve that is based on the 65 CTE level (i.e., average of 35% lowest Treasury curves) using historical data.]**

### 13. Section VI.C - Hedging

References to variable annuities should be removed. **[We agree.]**

### 14. Section VI.D - Revenue Sharing

The use of revenue sharing income should be ignored or restricted to only those amounts that are contractually guaranteed to the insurer and any successor. **[We disagree, and support the concept of reflecting the likelihood of collection when these amounts are not contractually guaranteed, rather than ignoring them.]**

## Draft Actuarial Guideline MAR

The Guideline needs to be better assimilated to the draft regulation. For example, it should require (1) a margin on each assumption, (2) that the margins need to be in the direction of adding conservatism, and (3) that the margins need to reflect the level of uncertainty, volatility, and the potential for anti-selection. In addition, we think both AG MAR and AG DIS should be incorporated into AG PBR.

### 1. General wording

The wording “Assumption Margins” should be changed to “Assumptions.” **[AG MAR is only dealing with determining assumption margins, not best estimate assumptions. So we believe the choice of “Assumption Margins” rather than “Assumptions” is appropriate.]**

### 2. Section VII – Requirements for Setting Assumptions

The CTE Level of 65 should be changed to 80 or 75 CTE, depending on how scenario reserves are determined. **[We believe it is premature to make final decisions on the CTE level until the impact of various CTE levels on the Reported Reserve is modeled. We plan to provide you with this**

## DRAFT RESPONSES FROM LRWG

information in the near future. Also, we believe the CTE level for reserves should be established to adequately provide for “moderately adverse conditions,” consistent with current statutory practice, and not at a level beyond “moderately adverse” which is what capital requirements are designed to cover.]

### Draft Actuarial Guideline DIS

#### 1. General frequency of demonstrations and disclosures

The wording “at least once every three years’ should be changed to “every year.” [We believe the frequency of demonstrations and disclosures may differ between each element being disclosed, depending on such things as materiality, the thoroughness of prior demonstrations/disclosures, and the nature of the associated risk. So we believe at least once every three years is more appropriate, recognizing that the frequency for some items may need to be annually, but for other items every three years is acceptable, and for still others, somewhere in between is appropriate.]

#### 2. Section III.C – Impact of Aggregation / Examples of Subgroups

We would prefer a stand-alone seriatim calculation to compare to the aggregate. [We are not sure what is meant by a “stand-alone seriatim” calculation in the context of a stochastic calculation that involves modeling reserves under a large number of scenarios. Further clarification is needed.]

#### 3. Section IV.A.1.d. - Minus segments for Mortality

The overall margins should not be reduced. [We disagree. But as a practical matter, the impact of negative segments should be very minimal, if not zero.]

#### 4. Section IV.B.4 - Valuation Mortality Table Documentation

Included in the documentation should be a comparison of the mortality rates of the Prudent Best Estimate mortality assumption with the selected Commissioner’s Standard mortality table. [We agree.]

#### 5. Section V.B.6

This Section appears to include more than documentation. This may need to be addressed in either AG PBR, AG MAR or the Model Regulation. [We agree.]

#### 6. Section V.B. - Policyholder Behavior Assumption Documentation

Item 11 in this section should be removed, as it repeats what is in item 7. [We agree.] An item should be added that requires discussion on the setting of later-duration assumptions, beyond the point where credible, relevant experience was available. [We agree.]

#### 7. Section VI.A.2

This may not be okay with the State of filing. We may need to add more details here. [We agree.]

#### 8. Section VI.B – Validation of Expense Assumptions to Actual Data

Why not model all expenses? How close will modeled be to total. [The portion of total expenses associated with the contracts subject to PBR is being modeled.]

#### 9. Section VII.B.3 – Starting Assets

The AG allows starting assets to be materially different than reported reserves. Starting assets should not be permitted to exceed starting reserves. [We did sensitivity testing to quantify the impact of using starting assets that differ from the resulting Reported Reserve. We determined that for rather significant difference (either too high or too low), the impact on the Reported Reserve was immaterial. So we don’t think this requirement is necessary.]