



AMERICAN ACADEMY *of* ACTUARIES

Comments of the American Academy of Actuaries' Variable Annuity Reserve Work Group

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

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Variable Annuity Reserve Work Group

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The following are Variable Annuity Reserve Work Group (“VARWG”) comments on the changes made to AG VACARVM, which was exposed on January 25, 2006 (“1/25/06 Document”). Page numbers correspond to the version shown on the NAIC website.

I. CTE 75 (and associated changes throughout the Guideline) – pg. 2

The following comments were part of the VARWG December 2005 Report and have been updated to apply to CTE 75:

1. Background on this issue

- The decision to use CTE (65) was made by LHATF. The VARWG has never recommended a specific CTE level to use for reserves.
- AG VACARVM notes that “*for losses that approximate a normal distribution, CTE (65) will approximate the 82.5th percentile*” (subsequent comments from the VARWG indicated that it should be 85.5th). Similarly, the 1/25/06 Document notes that “*for losses that approximate a normal distribution, CTE (75) will approximate the 90th percentile*”.
 - Since loss distributions for these products tend to have fatter tails than the normal distribution, it is expected that the results of a given CTE level would generally exceed these percentiles.

2. In considering this proposal, LHATF should **consider the following factors:**

- a. The rational allocation of the quantification of tail events between reserves and RBC (i.e., the role of RBC vs. reserves in this context) needs to be considered.
 - CTE (75) reserves could likely exceed the CTE (90) Total Asset Requirement (TAR) for some companies. This is because reserves are calculated on a pre-tax basis and TAR is calculated on an after-tax basis.
 - This would result in a C-3 RBC component of zero for these products, which could raise questions about whether the reserves are excessive or the capital requirement is inadequate, or cast aspersions on the underlying methods even though the principles-based calculation is theoretically sound.
- b. The level of the risk measure (i.e., the CTE level) must be understood in the context of the underlying loss distribution.
 - A CTE (65) measure applied to a distribution of “greatest present value of accumulated deficiencies” is a stronger requirement than a CTE (65) measure applied to a distribution of “present value of cash flows”.
 - AG VACARVM uses a greatest present value of accumulated deficiencies calculation under which later gains are not permitted to offset earlier losses. This adds a considerable level of conservatism.
 - By including the amortization of surrender charges as an expense, the reserve calculation includes a provision for the availability of cash value to all contractholders (rather than only those that are projected to surrender). This provides additional conservatism.
- c. How does the level at which statutory reserves for variable annuities is set under AG VACARVM compare to reserves for other products?

Additional initial VARWG comments on this issue:

Increasing the CTE level from 65 to 75 adds a significant amount to the modeled reserve. This is not a small change.

Using the hypothetical population and the modeling specifications outlined in previous VARWG reports (see for example the June 2005 Report), the impact of a change from CTE 65 to CTE 75 had the following impact:

Table 1

Analysis Subgroup Model				
Amounts in Excess of Cash Values				
		Initial Shock		
Row	Measurement	Up 20%	None	Down 20%
1	CTE 65	\$ 3.08	\$ 11.88	\$ 36.15
2	CTE 75	\$ 4.32	\$ 16.29	\$ 42.95
3	% Increase	40%	37%	19%
4	90 th Percentile	\$ 0.00	\$ 13.96	\$ 42.30
5	CTE 90 (AAR)	\$ 8.70	\$ 23.31	\$ 45.16
6	Non-zero scenarios**	71	358	995
7	Account Value	\$898.72	\$748.93	\$ 599.14

* Amounts are in millions of dollars and do not include the impact of a standard scenario.

** Out of 1,000 scenarios.

1. The increase in the reserve in excess of cash surrender value ranged from 19% to 40% (see row 3 in Table 1).
2. All three of the CTE 75 results exceed the corresponding results for the 90th percentile, as can be seen from comparing rows 2 and 4 in Table 1.
3. When a scenario produces an amount to add to the cash value that is zero, it means that the cash value is sufficient to fund the liabilities arising under that scenario – it should not be regarded as an improper result. The “Up 20%” Initial Shock produces a zero add-on to the cash value on 929 of 1,000 scenarios (so 71 of the scenarios are non-zero) because the benefits are “out of the money”. For “No Initial Shock” and “Down 20%” cases, however, the number of scenarios producing a zero add-on are 642 and 5, respectively. Thus, when the benefits are more in-the-money in this example CTE 65 has no zero values at all, since fewer than 650 scenarios have a zero add-on. See row 6 in Table 1.

Table 2

Effect on Risk Based Capital of Reserve Change				
Row	Initial Shock	Up 20%	None	Down 20%
1	AAR = CTE 90	\$ 8.70	\$ 23.31	\$ 45.16
2	RBC with Reserve = CTE 65	\$ 5.62	\$ 11.43	\$ 9.00
3	RBC with Reserve = CTE 75	\$ 4.38	\$ 7.02	\$ 2.20
4	% Decrease	22%	39%	76%
5	Account Value	\$898.72	\$748.93	\$599.14
6	RBC with Reserve = CTE 65	0.63%	1.53%	1.50%
7	RBC with Reserve = CTE 75	0.49%	0.94%	0.37%

* Amounts are in millions of dollars

4. Since the Additional Asset Requirement (on which RBC is based) is set at CTE 90, the increase to CTE 75 for reserves reduces the RBC amount. For the modeling results, the RBC amount was reduced between 22% and 76% (see row 4 in Table 2). For the “Shock Down 20%” case, RBC was reduced from \$9.0 million to \$2.2 million (see row 2 and 3 in Table 2). Expressed as a percentage of account value, the RBC was reduced from 1.50% to 0.37% (see rows 6 and 7 in Table 2).

II. Changes to Principles wording – pg. 3

Principle 2 - We believe the original wording (“deemed adequate to cover moderately adverse conditions.”) is more appropriate, since it is consistent with language in Actuarial Standard of Practice No. 22 - *Statements of Opinion Based on Asset Adequacy Analysis by Actuaries for Life or Health Insurers*, section 3.4.2:

- 3.4.2 Adequacy of Reserves and Other Liabilities - When forming an opinion, the actuary should consider whether the reserves and other liabilities being tested are adequate under moderately adverse conditions, in light of the assets supporting such reserves and other liabilities. To hold reserves or other liabilities so great as to withstand any conceivable circumstances, no matter how adverse, would usually imply an excessive level of reserves or liabilities.

The language in the 1/25/2006 Document, “deemed adequate to substantially cover the risk associated with the tail” implies a reserve level that is at or beyond the Total Asset Requirement level required for RBC. If LHATF believes “deemed adequate to cover moderately adverse conditions” is inappropriate, the VARWG suggests the following language for the last sentence of Principle 2:

The methodology utilizes a projected total statutory balance sheet approach by including all projected income, benefit and expense items related to the business in the model and sets the Conditional Tail Expectation Amount at a degree of confidence using the conditional tail expectation measure applied to the set of scenario-specific greatest present values of accumulated statutory deficiencies that is deemed adequate to substantially cover all the risks associated with the business, with recognition of benefits that concentrate risk in the tail.

Principle 4 – The term “Additional margin” implies that something needs to be added to the margin required in section IV. The VARWG suggests the last sentence of this principle be modified to: “Any disconnect between the model and reality should be reflected in setting Prudent Best Estimate assumptions to the extent not addressed by other means.”

III. Minor edits – pg. 4 – The VARWG agrees.

IV. Clarify that CTE does not include negative values (either plusses or zeroes) – pg. 6

New York indicated on the LHATF 1/25/06 conference call that this change is not needed. The VARWG agrees that it is not needed.

V. Margin for adverse deviation included as part of Prudent Best Estimate – pg 6

The Consistency Subgroup of the Academy SVLII Work Group would like to review this proposed change. The VARWG would like to point out that the phrase “over the span of economic cycles and over a plausible range of expected experience” is confusing.

Also, the addition of the phrase “in the direction of financial efficiency of the contractholder at each duration” is confusing and unnecessary. It is not clear how financial efficiency is measured. It appears that the intent of the proposed addition is to clarify the direction in which margins should be added. The VARWG believes this is covered by the last sentence of the prior paragraph: “Each margin should serve to increase the Aggregate Reserve that would otherwise be held in its absence (i.e., using only the best estimate assumption).”

See additional comments on this language in the Appendix 9 discussion below.

VI. Minor edit – pg. 7 – The VARWG agrees.

VII. Effective Date and minor edits – pg. 8 – The VARWG agrees.

VIII. Show modeling without continued dynamic hedging for informational purposes – pg. 9

Clearly Defined Hedging Strategies typically involve the selling and buying of assets over the long-term in order to meet certain objectives (e.g., matching greeks). It is not clear how a Clearly Defined Hedging Strategy would be applied if the assets used in the strategy are limited to those held on the valuation date.

In addition, it is not clear what is meant by “designated” as a hedge. Is this a statutory accounting requirement or simply a documentation requirement?

The VARWG suggests the following language for this paragraph:

For information purposes, to show the effect of including future hedge positions in the projections, the company shall show the results of performing an additional set of projections reflecting only hedges that are held on the valuation date, that are used as a hedge supporting the contracts falling under the scope of this Guideline, and that comply with any statutes, laws, or regulations (including applicable documentation requirements) of the domiciliary state or jurisdiction related to the use of derivative instruments.

IX. Revenue Sharing – pg. 10

As this proposal appears to be comparable to the earlier NY Insurance Department proposal, we believe the following comments, made earlier as part of the VARWG December 2005 Report, also apply to this proposal.

1. The VARWG **opposes** this proposal that is **contrary to our earlier recommendation on this topic**.
 - Earlier this year, the VARWG updated the provision dealing with revenue sharing based on comments from LHATF and other interested parties.
 - Our recommendation was presented to LHATF on several occasions and is included in the 4/29 version of AG VACARVM.
 - Since LHATF subsequently exposed our recommendation, it would indicate that LHATF was in agreement with this approach.
2. LHATF may wish to consider whether the currently exposure results in a **mismatch** of expenses and associated revenue.
 - That is, if expenses for contract services reimbursed by Revenue Sharing are to be projected to occur past the period that Revenue Sharing is projected, then a mismatch will occur.
3. If LHATF wishes, we can provide you with a summary of past VARWG reports on this issue.

In addition, it is not clear how one would apply the “guaranteed to the insurer and any successor” language. More details would be needed if LHATF wishes to include this language.

X. Minor edit – pg. 12 – The VARWG agrees.

XI. Minor edit – pg. 16 – The VARWG agrees.

XII. Changes to the Standard Scenario – pgs. 18-25

See Attachment 1 to this report for comments made in the VARWG December 2005 Report. Many of these comments (though not all) are applicable to the 1/25/06 Document.

In this report, we expressed our belief that:

1. the Standard Scenario would provide benefits if it were a simple calculation set at a minimal floor level (i.e., one that is usually less than an aggregate CTE calculation prepared on a proper basis); and
2. resolving the issues surrounding the Standard Scenario would be more readily achieved by focusing on the intent of this component and getting more direction and feedback from LHATF.

The VARWG cannot support the Standard Scenario in the 1/25/06 Document for the following reasons:

1. Given the similarity of assumptions between the Standard Scenario in the 1/25/06 Document and those in the version exposed in April 2005, along with the addition of the option-value floor, it appears as if this version will not produce the targeted minimal floor level;

2. It appears that the option-value will add complexity to the Standard Scenario reserve calculation (see the comments below); and
3. LHATF has not communicated anything other than its intent to have the Standard Scenario produce reserves that are lower than those calculated using the CTE approach unless the company used aggressive assumptions (this was communicated in a March 2004 letter).

Additional comments on the proposed option-value calculation:

1. If LHATF wishes to pursue this approach, the calculation will need to be described in more detail to properly assess the impact of this proposal. For example, it is not clear how a “lattice-type approach” would be applied in this context.
2. Using an option-value approach as a component of a floor reserve that also incorporates two other very different reserve calculations is likely to create mismatches. This would occur when the reserve on one valuation date is based on one basis (such as the option-value calculation) and then another basis (such as the CTE calculation) on a subsequent valuation date. These types of changes would very likely occur with three very different reserve bases and the resulting reserves could interact with assets (including hedge assets) in unanticipated ways from period to period.
3. An option-value calculation might need to be validated to the market value of financial options. During times of economic stress, however, option markets have shown some tendency toward material daily volatility and large bid-to-asked spreads, which could create “illogical” short term reserving volatility relative to the underlying risk.
4. The description in the 1/25/06 Document appears to require a seriatim (contract-by contract) calculation, which would make it more computationally difficult than the CTE calculation, and further stress company and regulatory resources (people and systems) dedicated to variable annuity reserves and risk-based capital. Resources spent on the option-value calculation will likely diminish efforts to improve upon the stochastic CTE process for some companies.
5. The option-value calculation ignores a significant portion of the revenue produced by the underlying VA contract above that needed to support the Basic Adjusted Reserve.¹
6. While an option-value calculation could theoretically be an appropriate basis for reserves for VA contracts, it may be premature to incorporate such an approach into AG VACARVM at this point in time.

Although there are some similarities to the CTE calculation required by AG VACARVM, adding an option-value calculation would move AG VACARVM in a completely different direction than we have worked toward over the last three years.

If an option-value approach is desired, we believe one could be developed, but it would involve a significant amount of time and effort to develop and refine such an approach.

XIII. Hedging Strategy tied into Board approval – pg. 47 – The VARWG agrees.

XIV. Contractholder Behavior – pgs. 56-57

As noted in the VARWG December 2005 Report, the VARWG believes there is an appropriate level of guidance in AG VACARVM for setting contractholder behavior assumptions. We also discussed several alternatives to prescribed assumptions in that report and urge LHATF to consider and implement one of those alternatives rather than adopting the changes proposed in the 1/25/06 Document.

The VARWG spent a lot of time putting together this guidance and we incorporated comments from many interested parties, including LHATF members. We are concerned that the proposed additions to this section, however, may produce unanticipated results, as we have noted in the more detailed comments below. If LHATF believes more guidance is needed, the VARWG is willing to work with LHATF to draft additional guidance either now or in the future.

¹ In some situations, not all of the M&E charges are needed to fund the increase in the Basic Adjusted Reserve during the surrender charge period and most of the M&E charges are available after the surrender charge period.

Initial VARWG comments on the specific proposal:

Addition of attributes – pg. 56 - Two new items (increasing sophistication and external influences such as viatical and life settlement companies) were added to the list of attributes that will cause assumptions to differ **by contract**. Although these should be considered in setting assumptions, they are global factors rather than factors that would cause the behavior assumption to vary by contract.

Deletion of “reasonable future expectations” – pg. 56 - The VARWG believes the deleted language in the paragraph after the list of attributes that requires behavior to be consistent with reasonable future expectations should be restored. We would point out that removing this language directly contradicts the reference to considering “[i]ncreased rationality of contractholder and sale representatives **over time**” and the “**emergence** of viatical / life settlement companies” (emphasis added). We believe reasonable future expectations should be considered. Ignoring it may result in unintended consequences.

Addition of “financial efficiency” language – pg. 56 - The VARWG believes the addition of language involving the movement of assumptions (at any duration for which there is not relevant credible empirical data) toward the most optimal plausible financial efficiency is not necessary. We believe the current language in the Guideline addresses this issue. For example, the definition of Prudent Best Estimate in section III(B)8), includes the following:

Recognizing that assumptions are simply assertions of future unknown experience, the margin for error should be directly related to uncertainty in the underlying risk factor. The greater the uncertainty, the larger the margin. Each margin should serve to increase the Aggregate Reserve that would otherwise be held in its absence (i.e., using only the best estimate assumption).

The language at the beginning of Appendix 9 also addresses this issue. The first paragraph of this appendix states:

In the absence of relevant and fully credible empirical data, the actuary should set behavior assumptions on the conservative end of the plausible spectrum (consistent with the definition of Prudent Best Estimate).

A further concern with the proposed language is that it is unclear how one determines the most optimal plausible financial efficiency in all situations. If LHATF wishes to pursue this language, more clarification would be needed to avoid situations where the proposed language would result in a less conservative result. For example, since a customer has no foreknowledge of future experience, their optimal behavior may be to lapse a contract that is far out-of-the-money even though the contract contains a benefit that could generate considerable future claim costs in many scenarios.

Addition of grade-in to financial efficiency language – pg. 56 - The VARWG believes the proposal to grade-in assumptions to financial efficiency on page 56 is overly focused on each duration rather than allowing a broader concept such as duration segments. This is illustrated in the first full paragraph on page 56: “At any duration for which relevant and fully credible empirical data does not exist, the actuary should adjust...”. It is common to use experience for durations a few years past the end of the surrender charge period for all future durations (e.g., years 10 and on). This practice would not seem to be permitted under the proposed changes.

The VARWG also believes the proposed language on page 56 is too rigid because it limits the actuary’s ability to apply judgment to certain situations. It therefore moves the calculation of reserves under AG VACARVM away from a principles-based approach. LHATF should consider there could be situations where this approach is inappropriate. One simple example is where a significant surrender charge schedule ends during the grade-in period.

Further, the example used in this section appears to be an extreme scenario. Even though the 1% lapse rate is described as reflecting optimal plausible behavior, some actuaries would argue that a 1% lapse rate is not within a plausible range. The example leaves the impression that this level of conservatism is what is required by this appendix.

Finally, LHATF should consider how this language interacts with Principle 3 (pg. 3), which states:

The choice of a conservative estimate for each assumption may result in a distorted measure of the total risk. Conceptually, the choice of assumptions and the modeling decisions should be made so that the final result approximates what would be obtained for the Conditional Tail Expectation Amount at the required CTE level if it were possible to calculate results over the joint distribution of all future outcomes.

Deletion of non-financially motivated behavior language – pg. 56 – The VARWG believes this language should be restored. It is not clear to the VARWG why it is not reasonable to assume a certain level of non-financially motivated behavior. We would note there are many examples where this type of behavior has occurred. In some situations, such behavior would result in assumptions that can increase reserves. One example would be “buy high and sell low” behavior involving the transfer of funds.

Addition of Contractholder Behavior Assumption Setting language – pg. 57 – The VARWG provided the following language for this section during the January 25 LHATF conference call:

In determining contractholder behavior assumptions, the company shall use actual experience data directly applicable to the business segment (i.e., direct data) if it is available. In the absence of direct data, the company should then look to use data from a segment that is similar to the business segment (i.e., other than direct experience), whether or not the segment is directly written by the company. If data from a similar business segment is used, the assumption shall be adjusted to reflect differences between the two segments. Margins should be applied to reflect the data uncertainty associated with using data from a similar but not identical business segment. The actuary shall document any significant similarities or differences between the two business segments, the data quality of the similar business segment and the adjustments and the margins applied.

We believe this language is more appropriate and more consistent with the language in the Guideline (in particular, it is consistent with the language in Appendix 10).

Specific comments on the proposed language in the 1/25/06 Document regarding contractholder behavior assumption setting:

The first bullet states that any data that is not reflective of a full range of market conditions has limited credibility. When blending this data with other studies, more weight should be given to the study leading to more conservative results. The VARWG believes this guidance assumes that any study (regardless of sample size or direct applicability) outweighs professional judgment as long as it is conservative. It could result in the actuary rejecting a more relevant study because it is less conservative than a less relevant study.

The fourth bullet states that experience for annuities without living benefits is not relevant in setting behavior assumptions for contracts with a living benefit. The VARWG believes this language could be too restrictive. Consider a contract in the early durations with a living benefit that has a long waiting period. Lapse experience on contracts without a living benefit may have relevance to the early durations of this contract. The language should allow for reasonable situations and/or reasonable explanations for using studies involving contracts without living benefits.

In addition, there is an incomplete sentence in the first bullet: “When blending direct...” and it is not clear why the bullet starts with direct data and finishes with discussion of external information.

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Standard Scenario Comments in the VARWG December 2005 Report

III. Comments on Proposals that Impact the Standard Scenario

General comments on the Standard Scenario:

A. The Standard Scenario is not part of the VARWG recommendation.

1. The VARWG has followed the development of the Standard Scenario for reserves and has performed some analysis of the impact of the Standard Scenario (using the August 2004 specifications).

B. Observations about the Standard Scenario:

1. There is extensive documentation of the calculation rules for the Standard Scenario. **No justification**, however, has been presented to understand how the Standard Scenario was constructed to meet the stated goal of being a reasonable floor.
2. The VARWG notes that the exposed 4/29 version of the Standard Scenario requires a **significant number** of runs in addition to the CTE calculation.
 - The 4/29 version requires several separate seriatim calculations:
 - Basic Adjusted Reserve (before & after reinsurance)
 - GPV at DR of Accumulated Net Revenue (before & after reinsurance)
 - GPV at AFIR of Accumulated Net Revenue (before & after reinsurance), and
 - One additional illustrative run.
 - Calculation of in-the-money within the Standard Scenario contains a forward “projection within a projection” loop that needlessly adds to the work and assumes the contractholder has knowledge of future returns.
3. The Standard Scenario attempts to capture the multifaceted risks associated with variable annuity products and benefit features using a **single scenario**.
 - Past experience with the development Actuarial Guideline MMMM highlights the difficulty of creating a “one size fits all” calculation for these products.
4. It has been stated that effective **hedging** of the risk should be encouraged. It is unclear whether the Standard Scenario would encourage hedging.
5. The VARWG believes that a **simple calculation** set at a minimal floor level (i.e., one that is clearly less than a CTE calculation) could provide some benefits, including fulfilling tax reserve requirements.

C. Analysis of the Standard Scenario

1. The analysis focused on the relationship between the reserve established by the Standard Scenario and the reserve established by a CTE (65) calculation for a sample book of business and assumptions that could realistically be used by a company².
2. Based on this analysis, the VARWG raised concerns to LHATF on several occasions that the April 29 version Standard Scenario (and prior versions) could result in reserves that exceed the CTE (65) reserves under many plausible circumstances.
 - The analysis was based on a prior version of the Standard Scenario that contained less conservative drops and returns.

² It is important to note that the assumptions used may not be suitable for all companies and were not intended to be a recommendation for assumptions.

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3. The biggest contributor to this concern appears to be the seriatim nature of the Standard Scenario calculation (i.e., the lack of aggregation).
 - The Standard Scenario for reserves requires the greatest present value to be applied on a contract-by-contract basis.
 - It is not clear that these concerns will be addressed if the CTE level for reserves is increased to CTE (80).

D. The rationale for the Standard Scenario was outlined in a memo to CADTF and LHATF dated March 5, 2004.

1. Included in this discussion was the principle that the “[s]tandard scenario assumptions are not meant to produce requirements that would be adequate most of the time, but rather to ensure requirements are not unreasonably low.”
2. The VARWG interprets this comment to mean that the intent of the Standard Scenario is to produce reserves that are lower than those calculated using the CTE approach unless the company used aggressive assumptions (i.e., when reserves resulting from the CTE approach are unreasonably low).
3. The analysis performed on the Standard Scenario for reserves indicates that the current proposal **will not meet** this principle.

E. Modifications to the Standard Scenario

1. The VARWG identified several possible alternatives for the Standard Scenario, including full and limited aggregation models.
 - This is consistent with the observation that lack of aggregation is the biggest contributor to the difference between the Standard Scenario and the CTE reserve.
2. During the September 28 conference call, LHATF’s Standard Scenario Subgroup recommended that the merits of the limited aggregation and other alternative be discussed in LHATF.

Comments on the Proposals in the 8/19 Document regarding the Standard Scenario:

- A. The Standard Scenario proposed in the 8/19 Document **will be higher** than that contained in the 4/29 version of AG VACARVM.
 1. Therefore, the proposal not only doesn’t address the concerns about the level of the Standard Scenario in AG VACARVM, it also increases the potential excess of the Standard Scenario over the CTE reserve.
- B. The Standard Scenario proposed in the 8/19 Document will require **substantially more work** than that contained in the 4/29 version of the AG VACARVM.
 1. This version has the equivalent of five separate seriatim calculations.
 - The option value calculation will likely require multiple embedded scenarios run on each contract.
 2. The VARWG is very concerned that the **quality of the CTE reserve calculation** will be reduced because of the additional work involved in performing these calculations.
 - The additional work required for the Standard Scenario will inevitably decrease the attention to detail needed to produce a quality CTE reserve calculation. This could make the CTE approach irrelevant in the eyes of senior management and rating agencies, especially in those situations where the Standard Scenario always produces results in excess of the CTE calculation.
- C. There are many specific comments that could be offered on the various components of the Standard Scenario proposed in the 8/19 Document (in particular because we believe there are serious flaws). We believe, however, that the issue of the Standard Scenario would be better served by **focusing on the principles** and getting more direction and feedback from LHATF.

IV. Direction and Feedback from LHATF

We suggest attention should be focused on key issues such as:

1. Is the goal to move to a principles-based approach or merely to revise the current formulaic approach of AG 34 and 39?

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- ⇒ Is the intent of the Standard Scenario to establish a reasonable reserve floor or to prevail as the reserve in most instances?
- ⇒ It appears to the VARWG that the current exposure and the additional proposals are moving toward a combination of a principles-based approach and a more complicated formulaic approach.
- 2. Should the measurement of risk for purposes of statutory reserves be at the scenario level (i.e., full aggregation), at the contract level (i.e., seriatim), or somewhere in between?
- 3. Are there specific concerns not addressed by the existing guidance in the exposed version of AG VACARVM and/or in the Actuarial Standards of Practice?
- 4. What objective criteria can be articulated to test whether any Standard Scenario is really functioning as a reasonable floor?
 - ⇒ It appears to the VARWG that the Standard Scenario is a calculation with ever-increasing complication without a stated theoretical or empirical basis.
 - ⇒ It also appears that there is some disagreement with the model used by the VARWG to analyze the impact of the Standard Scenario.