



AMERICAN ACADEMY *of* ACTUARIES

December 2, 2004

Ms. Leslie Jones
Chairperson
National Association of Insurance Commissioners'
Life and Health Actuarial Task Force

Ms. Jones,

The Academy's Variable Annuity Reserve Work Group (VARWG) has conducted an analytical review of the single scenario Standard Scenario reserve approach proposed by the New York Department of Insurance for setting a minimum floor requirement under proposed Actuarial Guideline VACARVM (AG VACARVM). Our findings indicate that the proposed Standard Scenario will often produce reserve values far in excess of those produced by the stochastic projection approach proposed by AG VACARVM at the CTE 65 level. It is also apparent that under likely circumstances, the Standard Scenario will produce reserves that are even in excess of the Total Asset Requirement (based on the RBC C3-Phase II proposal, calculated at the CTE 90 level), an amount which is intended to represent the sum of reserves and required capital. This would imply that the minimum floor for reserves is set at a level that is higher than the CTE 65 level established by LHATF and that the resulting RBC for in-scope business could be negative. As discussed during prior meetings and conference calls, the key driver of this apparently unintended consequence is the requirement that the Standard Scenario for reserves be applied seriatim and therefore precludes the intended benefits of aggregation¹.

Based on this analysis, the VARWG has concluded that it cannot support the current proposal for Standard Scenario reserves.

The VARWG would like to offer the following additional findings, which support our position for objecting to the current Standard Scenario reserve proposal:

1. The usefulness and intent of the stochastic testing for both reserves and capital is undermined when the Standard Scenario reserve can serve as the de facto basis for the Total Asset Requirement (TAR). The proposed Standard Scenario reserve would interfere with the development of more refined modeling techniques because companies would have less motivation to commit resources to modeling their business whenever the Standard Scenario reserve consistently prevails over reserves and/or TAR developed by the CTE method applied to stochastic scenarios.

¹ That is, the Standard Scenario reserve is calculated as the greatest present value of the projected surplus deficits for each contract. For example, one contract may have this greatest present value occur at the 3rd projection duration where the next contract has it occur at the 5th projection duration after producing profits during the first 4 years. This violates a basic tenet on which the projection-based reserves have been developed, in that the profits on the second contract will in fact be available to help offset the losses in the first 3 years on the first contract and any profits on the first contract will be available to help offset the loss in the 5th year on the second contract. The aggregate approach proposed in AG VACARVM determines the projected surplus deficits in the aggregate and then determine the greatest present values based on those aggregate results.

2. The details comprising the methodology proposed in AG VACARVM and C-3 Phase II have received extensive review and analysis over the past three years. While we think this level of review and analysis has significantly exceeded that given to other reserve and RBC proposals, we believe it has been necessary and appropriate and has resulted in a carefully reasoned proposal. On the other hand, the Standard Scenario reserve proposal has not received anywhere near this level of review despite the rather arbitrary nature of the assumptions specified for its calculation.

We believe it is extremely difficult (if not impossible) to develop a single scenario and a set of standard assumptions that produces an appropriate level of reserves for the broad range of product design and guaranteed benefit combinations that currently exist in the VA marketplace or that could be developed in the future. We caution members of LHATF and other parties from putting too much credibility in the appropriateness of the reserves produced by the current Standard Scenario reserve proposal, especially in light of the minimal level of review and analysis it has received by the Task Force.

3. LHATF may also wish to consider the amount of time that will be needed to maintain the Standard Scenario reserve methodology under a situation where the Standard Scenario reserve prevails as the reserve amount held by companies more often than the model-based reserve. It will also put more pressure on LHATF to develop updated approaches and assumptions for new product designs.
4. Many of the assumptions in the proposal were chosen at somewhat arbitrary levels and as such cannot appropriately capture the risks inherent in the many combinations of products, benefits and company expense levels.

Some examples of the assumptions that appear arbitrary are:

- only 10 bps of margin (excluding explicit charges for guarantees) are allowed during the surrender charge period;
- only 50% of the excess of contract charges over the margin during the surrender charge period are allowed; and
- the surrender rate for in-the-money GMABs is 0%.

To our knowledge, there has not been any rationale offered for the choice of assumptions or any studies or analysis performed that demonstrates the appropriateness of these assumptions.

These and other assumptions in the Standard Scenario would be inadequate in some situations and overly conservative in others. The analysis summarized in the VARWG September 2004 report indicates that the proposal produces results that vary significantly from those produced by aggregate modeling for many of the sample products analyzed. As expected, predetermined assumptions that do not vary by product or company are unlikely to be appropriate in the many situations that will be encountered in practice.

5. The Standard Scenario reserve proposal is inconsistent with the integration of benefits principle, such as that used in AG 33 and AG 34. The proposal requires a company, for a given contract, to first calculate a reserve based on AG 33 (ignoring guarantees and partial withdrawals), and then to independently calculate a reserve based on the greatest present value of projected surplus deficits. The proposed Standard Scenario reserve for that contract is then the sum of the two components.

The reason we believe this may not be properly integrated can be illustrated by the example of a contract for which the AG 33 reserve calculation assumes that the contractholder surrenders the contract on the valuation date. The Standard Scenario “add-on”, however, is calculated using a greatest present value mechanism that is independent of the duration chosen under the AG 33 reserve calculation and thus may be based on the contract staying in force for five years. A contract cannot both surrender on the valuation date and stay in force (and pay guaranteed benefits) for five years. Thus the independence of the two calculations produces the contradictory situation just described, and is inconsistent with the integration of benefit principle.

6. For many companies, advanced hedging programs are expected to reduce the risk profile of these products and thereby reduce exposure to severe tail risk outcomes. As such, incorporating such hedging programs that meet the definition of a Clearly Defined Hedging Strategy into the reserve and TAR calculations, as provided by the current proposals, is expected to further reduce reserve and TAR levels. In contrast, the Standard Scenario reserve proposal deviates from this principle by requiring liquidation of any existing hedges (and then only those that meet certain criteria) after one year. We expect that the differences between the model-based approach and the Standard Scenario would become even more pronounced for companies that have Clearly Defined Hedging Strategies, because the Standard Scenario reserve proposal ignores the impact of such strategies.

The VARWG has discussed with LHATF on many occasions the rationale for developing a principle-based methodology and the problems associated with formulaic approaches for VA products and their accompanying guarantees. LHATF has shown broad support for the model-based approach in AG VACARVM ever since it requested that the Academy pursue such an approach in 2002. We also believe LHATF expressed that, while there is a need for a minimum reserve, such a minimum should only exceed model-based results if companies used overly aggressive assumptions. We believe that because of the lack of aggregation, the current Standard Scenario reserve proposal is inconsistent with all of these objectives.

The VARWG strongly recommends that LHATF consider modifications to the Standard Scenario reserve proposal to address the concerns expressed above. The VARWG is willing to contribute to such an effort (although VARWG resources are limited) and is willing to review any proposed changes.

Sincerely,



Thomas A. Campbell
Chairperson
American Academy of Actuaries'
Variable Annuity Reserve Work Group