



---

AMERICAN ACADEMY *of* ACTUARIES

---

*Objective. Independent. Effective.™*

February 3, 2017

Mike Yanacheak  
Member, Variable Annuities Issues (E) Working Group  
National Association of Insurance Commissioners

Re: Comments on Draft Specifications for Variable Annuity Quantitative Impact Study 2

Dear Mike:

On behalf of the AG43/C3P2 Work Group of the American Academy of Actuaries,<sup>1</sup> I appreciate the opportunity to provide comments on Version 1 of the draft specifications (dated Jan. 9, 2017) for the second Quantitative Impact Study (QIS2). Our work group has closely followed the Variable Annuities Issues (E) Working Group (VAIWG), and we welcome the opportunity to help shape the structure of QIS2. Our comments in this letter build upon (but don't supersede) our previous letters ([Nov. 14, 2016](#), and [Oct. 16, 2015](#)).

In light of the cost and effort involved, it is important that the specifications of QIS2 be designed carefully with an emphasis on the framework that will ultimately be adopted. QIS2 should be designed to identify a fallback solution in the event the tested specification does not produce the expected result. On page 8 of the draft QIS2 specifications, Oliver Wyman outlines quantitative metrics and thresholds that will be developed to evaluate QIS2 results after QIS2 has started. These metrics should be discussed in more detail before QIS2 specifications are finalized.

Specifically, all stakeholders, including interested parties and companies not directly participating in QIS2, should be part of robust discussion of the items being tested, including the reason for testing, the expected outcome, and how the results will be evaluated. QIS2 builds on the first Quantitative Impact Study (QIS) and is anticipated to be the final QIS before a new variable annuity reserve and capital framework is implemented. As such, having a full understanding among all stakeholders of what QIS2 will and will not show is essential to getting the most out of this QIS.

---

<sup>1</sup> The American Academy of Actuaries is a 19,000-member professional association whose mission is to serve the public and the U.S. actuarial profession. For more than 50 years, the Academy has assisted public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

We are cognizant of the VAIWG’s timeline for adopting a revised framework, and we suggest the QIS2 specifications prioritize those items whose impact will be the most effective in achieving the stated objectives for the new VA framework. We summarize our understanding of the objectives based on VAIWG discussions and documents as:

- Reducing and/or eliminating the need for captives;
- Reducing and/or eliminating the barriers to hedging;
- Reducing the accounting mismatch between statutory assets and liabilities (which has created some of the incentive to form captives);
- Simplifying calculations where possible, while maintaining a principle-based approach to valuation and capital requirements; and
- Developing a feedback loop to support future refinements to the VA framework and to facilitate the development of regulatory tools to review the consistency of assumptions and calculation approaches across the industry (described as “harmonization” by Oliver Wyman).

We note that achieving these objectives will require balancing some of the conflicting goals, especially balancing the use of company-specific assumptions with industry harmonization. In the VAIWG discussions, it is clear that there is need for all parties to agree on the purpose of certain elements in the framework, particularly the standard scenario.

In the following section, we highlight the most critical items to consider prior to finalizing the specifications for QIS2. We include additional comments in a later section.

#### 1. **Standard Scenario**

We reiterate our concerns that the standard scenario outlined in QIS2 is too complex. No single scenario can fully capture the impact of changing economic conditions on the VA business for each insurance company. Agreeing on the purpose and what regulators expect to achieve with the standard scenario requires more discussion to ensure that the QIS2 specs reflect realistic expectations.

The standard scenario has been discussed as a basis for a reserve floor, testing company specific assumptions, and the basis for tax reserve calculations. These are not necessarily compatible purposes.

#### 2. **Discount Rate**

The definition of the discount rate and how the rate interacts with the starting assets is an important element to test. It is not clear how the discount rate is being tested in QIS2. Clarification is needed regarding issues such as:

- a. How assets that are substituted for cash will be reflected in the discount rate;
- b. Whether the discount rate will be based on new asset purchases or an earned portfolio rate; and
- c. The relationship between the discount rate(s) and the rate(s) at which negative assets are accumulated in the stochastic model.

Note that the impact of these issues on discount rates may depend upon how the starting assets are determined.

### **3. Starting Asset Amount**

More information should be provided to help participants better understand the goals of the proposed two-part test for starting assets (i.e., the 98-102 percent range and the 0.5 percent of cash surrender value). Clarification also should be provided in Projection Set 4 on what to use for the “cash surrender value” in contracts without cash surrender values (e.g., payout annuities).

In addition, QIS2 tests the convergence of the starting assets toward metric-based values (e.g., “final reserve,” “CTE Amount,” and “CTE 99 of the GPVADs”). We suggest that QIS2 should also test convergence to the results for each scenario. To avoid any significant increase in workload, this testing could be done on a limited basis.

### **4. Reinvestment of Assets**

It is important that QIS2 investigate the required yield on reinvestment assets. The proposed version of AG43 limits the yield on assets purchased to a 50/50 blend of Aa2/A2 non-callable bonds. Insurers’ investment portfolios may assume more credit risk than included in the proposal. Using a 50/50 blend of Aa2/A2 non-callable bonds conflicts with the principle of reflecting the actual investment strategy. (It should be noted that VM-20 makes an adjustment for portfolios that have average spreads greater than Baa2.)

### **5. Calibration Criteria**

We reiterate our support for separating the discussion of economic scenario generators (parameters and calibration criteria) from this VA project. While we support additional guidance for the use of interest rate scenarios in calculating VA reserves and capital, any discussion of generators should not be tied to a specific product. The alternatives in the current specifications appear to test the results rather than the criteria, which does not further the objectives of QIS2 listed above. Any consideration of alternative parameters and/or calibration criteria (e.g., Projection Sets 5-7) should be removed from QIS2 and established as a separate NAIC project.

### **6. Contingent Tail Expectation Metric (CTE)**

We reiterate our comment that setting capital requirements based on CTE 98 needs further review. A CTE 98 level goes far into the tail of the distribution and could require more scenarios to be run in order to produce an accurate measure of the CTE 98 level. QIS2 should validate these metrics. For example, variance estimator techniques could be applied to distributions of results.

### **7. Sensitivity Testing**

Our interpretation of some of the QIS2 specifications is that the adopted VA framework will encompass reported reserves/RBC, along with the disclosure of certain sensitivity tests.

Some of the QIS2 specifications appear to take the form of sensitivity testing that might be contemplated in the final framework as disclosure items, rather than as alternative calculations. It is important to clarify the discussion around sensitivity testing and whether/how sensitivity testing might be incorporated into the final framework.

#### **8. Data Output**

It is essential that certain data be published along with the conclusions of QIS2. For example, it is important to compare results for the proposed C3P2 level with the current level for C3P2 (i.e., CTE 90).

#### **9. Tax Reserves**

As noted in our Nov. 14, 2016, letter, we view tax reserves as being an important part of the issues associated with changes to AG43. For example, differences between tax and AG43 reserves give rise to deferred tax assets and liabilities, which in turn impact statutory surplus. Therefore, the potential impact of the proposal on tax reserves should be evaluated as part of QIS2.

#### **10. QIS2 Governance**

The governance and decision-making process for the working groups (pp. 11-13) should be clearer. At this time, the draft QIS2 states, “OW will work with the participating companies to design a set of additional analyses to conduct outside, or *potentially in place, of those outlined in this document* in order to assess the efficacy and appropriateness of additional or alternative framework revisions.” (emphasis added) This appears to provide Oliver Wyman with discretion on a number of items (e.g., studying industry experience, setting credibility standards and methods, and full statutory balance sheet roll-forward projections.) Placing this work outside the QIS2 could result in a parallel track and create new alternative proposals that are not widely tested in QIS2. Given the emphasis on assumption governance, the assumptions work should reside with the entire VAIWG.

In the following section, we provide additional comments that may apply to QIS2 and on certain sections of the draft specifications for QIS2.

1. In our Oct. 16, 2015, and Nov. 14, 2016, letters, we suggest eliminating the Clearly Defined Hedging Strategy (CDHS) as a condition to including hedges in the stochastic calculations. We recommend replacing CDHS with a provision that requires hedging strategies to be modeled, supported by a combination of actuarial judgment, disclosure, margins, guidance, and company governance that provides checks and balances (this provision would remove the need to determine the “E” factor and to calculate a CTE (adjusted)). One way to test the impact of removing the “E” factor calculation would be to include asking companies that don’t meet the CDHS criteria to model their hedging strategy in QIS2. However, this modeling request might further complicate QIS2 as the request will require companies to build modeling capabilities that might not currently be in place.
2. In our Nov. 14, 2016, letter, we suggested providing more guidance on how to treat “E” when CTE (best efforts) exceeds CTE (adjusted), if the CDHS concept continues to be used. QIS2 could capture information regarding how often and under what circumstances

CTE (best efforts) exceeds CTE (adjusted). Such information could inform any additional guidance.

3. Our Nov. 14, 2016, letter raises concerns with the proposal to unwind the contract grouping used by companies in the stochastic CTE calculation for purposes of the standard scenario calculation. The proposed unwinding conflicts with the stated rationale to minimize implementation complexity. Because the QIS2 allows companies to develop the standard scenario using contract groupings (for simplicity), QIS2 won't test this concept. Assuming future QIS2 cycles will continue to allow contract groupings, it's not clear that anything could be added to QIS2 to test this concept; this limitation on QIS2 testing should be noted when efforts move from evaluating QIS2 to developing final modifications to AG43.
4. Our Nov. 14, 2016, letter suggests that it may make sense to alternatively consider applying the CSV floor at the stochastic component level (e.g., after CTE 70 is determined). This alternative basis for the CSV floor should be tested as part of QIS2.
5. In the opening remarks of this letter, we state the importance of designing the specifications of QIS2 with an emphasis on the framework that will ultimately be adopted, and the need to identify fallback solutions in the event the tested specifications do not produce the expected result. The provisions below are examples of areas where more specificity is needed:
  - a. The definition of "stagnant market conditions" in the Roll-Forward Portfolio Approach 1 (e.g., does this mean markets remain flat?). Can relevant information be obtained from just a series of shocks instead of a more complex roll-forward analysis?
  - b. For the rate stress (p. 21), how much of the prescribed swap curve stress is assumed to be related to Treasury rates vs. swap rates? Hedging may depend on swap rates, but many other projections use Treasury rates. Does the rate stress only affect one time point in the MRP (Mean Reversion Parameter) calculation (last point in the 36- and 120-month averages) or not at all?
  - c. What's the purpose of the full contract market value calculation in Projection Set 3? There are many possible approaches to calibrating "market consistent" scenarios. There should be more information on the scenario calibration if these projections are included.
  - d. Projection Sets 5-7 (pp. 29-31): What will be the basis for selecting the 5 percent and 6 percent parameters in sets 5-6 and the calibration points in set 7 (assuming what is currently in the specifications are placeholders)? The basis should include a justifiable methodology that's suitable for the final framework for reserves and RBC rather than the need to assess sensitivities.
  - e. Projection Set 8 (p. 31): What will be the basis for the prescribed revenue sharing percentages (assuming what is currently in the specifications are placeholders)? The basis should include an approach to assess the difference between the AG43 limits and the C3P2 approach.

\*\*\*\*\*

We look forward to working with the VAIWG in the design and testing of these changes to the requirements affecting variable annuities. Given the number of outstanding issues, a conference call may be necessary. If you have any questions or would like to discuss our comments further, please contact Amanda Darlington, the Academy's life policy analyst, at 202-223-8196 or [darlington@actuary.org](mailto:darlington@actuary.org).

Sincerely,

Thomas A. Campbell, MAAA, FSA, CERA  
Chairperson, AG 43/C-3 Phase II Work Group  
American Academy of Actuaries

cc: Kai Talerak, Oliver Wyman  
Aaron Sarfatti, Oliver Wyman  
Dan Daveline, NAIC