

## Annuity Principles-Based Reserving (“PBR”) Update

September 1, 2020



# SOCIETY OF ACTUARIES

## Antitrust Compliance Guidelines

Active participation in the Society of Actuaries is an important aspect of membership. While the positive contributions of professional societies and associations are well-recognized and encouraged, association activities are vulnerable to close antitrust scrutiny. By their very nature, associations bring together industry competitors and other market participants.

The United States antitrust laws aim to protect consumers by preserving the free economy and prohibiting anti-competitive business practices; they promote competition. There are both state and federal antitrust laws, although state antitrust laws closely follow federal law. The Sherman Act, is the primary U.S. antitrust law pertaining to association activities. The Sherman Act prohibits every contract, combination or conspiracy that places an unreasonable restraint on trade. There are, however, some activities that are illegal under all circumstances, such as price fixing, market allocation and collusive bidding.

There is no safe harbor under the antitrust law for professional association activities. Therefore, association meeting participants should refrain from discussing any activity that could potentially be construed as having an anti-competitive effect. Discussions relating to product or service pricing, market allocations, membership restrictions, product standardization or other conditions on trade could arguably be perceived as a restraint on trade and may expose the SOA and its members to antitrust enforcement procedures.

While participating in all SOA in person meetings, webinars, teleconferences or side discussions, you should avoid discussing competitively sensitive information with competitors and follow these guidelines:

- **Do not** discuss prices for services or products or anything else that might affect prices
- **Do not** discuss what you or other entities plan to do in a particular geographic or product markets or with particular customers.
- **Do not** speak on behalf of the SOA or any of its committees unless specifically authorized to do so.
- **Do** leave a meeting where any anticompetitive pricing or market allocation discussion occurs.
- **Do** alert SOA staff and/or legal counsel to any concerning discussions
- **Do** consult with legal counsel before raising any matter or making a statement that may involve competitively sensitive information.

Adherence to these guidelines involves not only avoidance of antitrust violations, but avoidance of behavior which might be so construed. These guidelines only provide an overview of prohibited activities. SOA legal counsel reviews meeting agenda and materials as deemed appropriate and any discussion that departs from the formal agenda should be scrutinized carefully. Antitrust compliance is everyone's responsibility; however, please seek legal counsel if you have any questions or concerns.

# Presentation Disclaimer

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# Presenters

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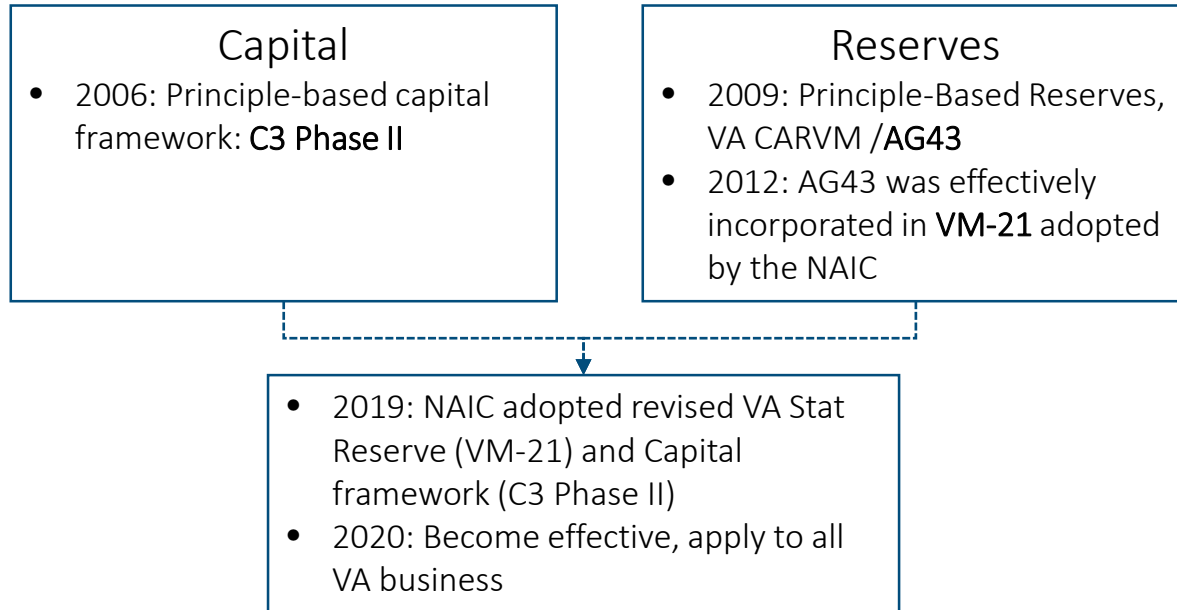
# Topics

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- History of PBR for VA
- Key Changes and Implications
- Implementation and Initial Feedback

# History of PBR for VA

- Why PBR?
- Principle-based approaches first applied to VA in 2006.



# Key Changes and Implications



# Reflect Benefits of Hedging

- **E-factor:** weighting to calculate the final Stat Reserve and Total Asset Requirement (TAR).
  - $\text{CTE (best efforts)} + E \times \max [0, \text{CTE (adjusted)} - \text{CTE (best efforts)}]$
  - Allow the E-factor to reach as low as 5%, but with formal back-testing to justify the decision.
  - Implications:
    - Allowing more credit from Clearly Defined Hedging Strategy (CDHS).
    - Better alignment between reserves and capital.
- **Removal of Working Reserve (WR)**
  - Previously, in tail scenarios, WR release was not sufficient to offset early hedge losses, which could cause large deficiency and drive reserves.
  - With the WR removal, effectively pushing the timing of the GPVAD toward later in the projection, taking higher credit from hedging for liability projections with modeled CDHS.
  - Align more closely with CFT and other statutory reserving calculation such as VM-20.



# Standard Projection

- Used to determine floor reserves, and intended to be a guardrail against potential assumption outliers.
- Methodology aligned with company CTE(adjusted), based on GPVAD, determined by:
  - Company Specific Market Path Approach (“CSMP”) method uses standard market paths
  - Prescribed Assumptions Approach (“CTEPA”) uses the same stochastic scenarios as the CTE 70 adjusted run;
- Both methods use prescribed policyholder behavior assumptions that are calibrated to industry experience.
  - Guarantee Actuarial Present Value (GAPV) and In the money (ITM)
  - Cohort method for GMWBs/Hybrid GMIBs.
- Implication:
  - Clearer interpretation of the Standard Projection result and CTE amount.
  - Easier to measure the margin relative to the industry.

# Scenario Generation and Assets

- Use prescribed VM-20 ESG for interest and separate account returns.
- Allow proprietary ESGs only if TAR is not materially reduced.
- General account assets assumptions (spreads, defaults) follow VM-20.
  
- Implication:
  - Consistent with VM-20.
  - Consistency within the industry and comparability across the companies.
  - Fund mapping process need to meet calibration requirements (Market Price of Risk, Correlation).

# RBC C3 Charge

- Previously: Risk Based Capital (RBC) “C3 – Market and Interest rate risk charge” was defined as:  $\max(\text{CTE90, SSA}) - \text{Stat Res.}$ 
  - Capital and Stat Res based on different distribution, hedging, tax, etc.
  - Voluntary Reserves could reduce or eliminate C3 charges.
  - VA Captive is used to reduce non-economic volatility
- Current:  $C3 = 25\% \times (\text{TAR} - \text{Stat Res})$ , two methods to reflect tax reserves:
  - **Macro Tax Adjustment**  
 $25\% \times [(\text{CTE98}_{\text{pre-tax}} + \text{Addn. Std. Proj. Amt} - \text{Stat Res}) \times (1 - \text{FIT}) - (\text{Stat Res} - \text{Tax Res}) \times \text{FIT}]$ 
    - $\text{CTE98}_{\text{pre-tax}}$  is calculated on the same distribution as stat reserves.
    - Second term is capped at the portion of the company’s non-admitted VA deferred tax assets
  - **Specific Tax Recognition**  
 $25\% \times (\text{CTE98}_{\text{post-tax}} + \text{Addn. Std. Proj. Amt} - \text{Stat Res})$ 
    - $\text{CTE98}_{\text{post-tax}}$  reflects the effect of FIT in the accumulated deficiencies.
- Implication
  - Better alignment of TAR and stat reserves, lead to more stability.
  - The motivation and benefit of using voluntary reserves to lower C3 charges is reduced.
  - Impact to VA captive usage

# Implementation and Feedback



# Implementation and Initial Feedback

|  | Benefit  | Challenge  |
|--|--|--|
| Standard Projection  | <ul style="list-style-type: none"><li>• Principle-based</li><li>• Provide a reference to measure company's assumption relative to Standard Projection.</li></ul> | <ul style="list-style-type: none"><li>• Implementation (development, testing, maintenance, analysis, documentation, governance).</li><li>• Prepare for periodic refresh of prescribed behavioral assumptions.</li><li>• Account for on-going regulatory changes (e.g. SECURE Act).</li></ul> |
| Operation  | <ul style="list-style-type: none"><li>• Model consolidation given TAR and reserves can come from the same distribution.</li></ul>                                | <ul style="list-style-type: none"><li>• Added run time to calculate standard projection amount.</li></ul>  |
| Disclosure and reporting requirement based on VM-31 & VM-G | <ul style="list-style-type: none"><li>• Standard PBR Actuarial Report layout promotes transparency.</li></ul>  | <ul style="list-style-type: none"><li>• Justification of the methods (Tax, Hedging, Standard Projection, etc.)</li><li>• Additional disclosure requirement, need time and resource to prepare.</li></ul>   |

Questions?





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