



January 5, 2025

Philip Barlow
Chair, Life Risk-Based Capital (E) Working Group
National Association of Insurance Commissioners

Peter Weber
Chair, Variable Annuities Capital and Reserve (E/A) Subgroup
National Association of Insurance Commissioners

Re: C-3 Phase I and Phase II Updates

Dear Chair Barlow and Weber:

On behalf of the Variable Annuity Reserves and Capital Subcommittee and the C-3 Subcommittee (the Subcommittees) of the American Academy of Actuaries,¹ we appreciate the opportunity to provide comments to the Life Risk-Based Capital (E) Working Group and Variable Annuities Capital and Reserve (E/A) Subgroup regarding the LRBCWG/VACRSG exposures.²

We appreciate the NAIC's continued leadership in implementing the generator of economic scenarios (GOES) and the corresponding review of the impacts to current capital frameworks.

In this letter, we provide our consolidated observations and comments, based on feedback from Academy volunteers. Unless otherwise specified, our comments apply to both C-3 Phase I and C3 Phase II.

CONSIDERATIONS REGARDING CTE LEVELS AND SCALAR APPROACHES FOR C-3 PHASE II

Exposure Question: Include considerations and languages for the CTE (95) level with a 25% scalar as well as the CTE (98) level with a 25% scalar

CTE 95 with a 25% Scalar

The Subcommittees noted the following considerations regarding use of CTE 95 metric with a 25% scalar:

¹ The American Academy of Actuaries is a 20,000-member professional association whose mission is to serve the public and the U.S. actuarial profession. For 60 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

² [C-3 Phase I Instructions 20251023 v2](#), [C3P2 Updates](#), [Cover questions](#)

- The GOES scenario calibration appears to address some of the left-tail deficiencies of the Academy Interest Rate Generator (AIRG); therefore, a high CTE level may no longer be as necessary to achieve regulatory sufficiency.
- CTE 95 includes more scenarios than CTE 98 and therefore may produce greater stability, reducing year-over-year volatility driven by scenario migration, assumption changes, and model updates.
- While the 25% scalar implicitly assumes companies target 400% RBC ratios, this may not align with all companies' target capitalization levels. A formula without a scalar is better suited to differentiate at the level of weakly capitalized companies (near 100%). Reflection of a scalar makes RBC better suited to differentiate between more well-capitalized companies (near 400%).
- CTE 95 remains deep enough in the tail to continue supporting hedging incentives.

CTE 98 with a 25% Scalar

For a CTE 98 metric with a 25% scalar, the Subcommittees noted the following:

- The metric would maintain continuity with the current framework, therefore isolating the impact of the GOES implementation and improving comparability to historical C-3 Phase II results.
- However, maintaining CTE 98 may lead to higher capital requirements relative to those produced with the AIRG, given that GOES already strengthened tail calibration.
- The CTE 98 metric is based on only 2% of scenarios, increasing the likelihood of volatility from scenario-level changes.
- As with CTE 95, the assumed 400% RBC target embedded in the scalar may warrant reconsideration.

Additionally, it was suggested that disclosures highlight the fact that assumption and modeling updates have magnified effects in deeper-tail CTE metrics.

CTE 90 Without a Scalar

The Subcommittees also noted the following considerations for a CTE 90 metric with no scalar:

- CTE 90 with 100% of no scalar may be more conceptually aligned with a Company Action Level (CAL) framework, avoiding assumptions about target capital levels.
- CTE 90 provides the greatest scenario stability due to the larger number of contributing scenarios.
- Hedging implications may be more complex under a lower CTE level, particularly if hedging the CTE 90-based standard does not reduce Total Asset Requirement (TAR) under the new GOES.
- Cash Surrender Value (CSV) floors come into play more often at CTE 90 vs CTE 98 and therefore may lead to non-economic and non-intuitive results.

RECOMMENDATIONS ON DISCLOSURE ITEMS

Exposure Question: Provide disclosures for the sensitivity of the remaining two metrics that are not going to be selected for the C3 Phase II out of the three, i.e. CTE (90) without a scalar, CTE (95) with a 25% scalar and CTE (98) with a 25% scalar.

We generally support providing disclosure information to assist regulators' evaluation, but the views of the Subcommittees varied regarding its scope and implementation.

- Summary disclosures may help regulators develop a more data-driven methodology, particularly given the limited testing conducted on prior GOES calibrations.
- Disclosure should ideally include unsmoothed and unfloored results for each metric (CTE 90, CTE 95 with scalar, CTE 98 with scalar) to avoid complexity from applying smoothing across multiple measures.
- Additional helpful elements may include:
 - Number of scenarios floored at CSV in the tail metric;
 - Block of business characteristics consistent with model office summaries, that would explain the drivers of CTE changes;
 - Qualitative statements on whether hedging strategies would change under alternate CTE measures. We suggest including quantitative impacts if available. For example, indicate whether the company's hedging approach is primarily driven by GAAP results or by statutory accounting metrics.

CONSIDERATIONS REGARDING ALTERNATE METHODOLOGIES FOR VOLUNTARY RESERVES (VR) AND MINIMUM REQUIRED CAPITAL

Exposure Question: Consider alternative methodologies to reflect voluntary reserves as well as additional suggestions to get the minimum required capital calibrated while addressing the target capital

Comments on Voluntary Reserves

Our feedback is aligned with prior comments³ that VR can be included if they are established using sound and rigorous actuarial analysis and prefund expected policyholder obligations under statutory accounting methods and assumptions.

We emphasize that justification for VR should be included in capital calculations. Where VR truly exceeds CTE 70 reserves for non-capital reasons, 100% credit may be conceptually appropriate, but not for reserves posted solely to influence capital.

Alternative Scalar Framework

A potential improvement in clarity would be to re-express the capital calculation as:

$$\text{Scalar}_1 \times (\text{TAR} - \text{CTE Vx}) - \text{Scalar}_2 \times \text{VR}$$

³ [Joint Meeting Agenda: Life RBC \(E\) Working Group And The Variable Annuities Capital And Reserve \(E/A\) Subgroup](#), pages 2-6.

Where:

- TAR is defined as a CTE level (95 or 98, as examples) which is greater than CTE Vx
- Vx is the reserve amount at a given CTE level
- $Scalar_1$ reflects the multiple above the underlying CTE standard (e.g., RBC target multiple)
- $Scalar_2$ reflects the degree of credit granted for VR (where the scalar could range from 0% or 100%)

The above change would allow regulators to understand the impact of voluntary reserves and enhance transparency for regulator reviews.

Threshold for Using Voluntary Reserves

Our groups considered potential thresholds for VR credit. We note that the VR scalar is dependent on regulators' objectives.

Note that the comments below leverage the example laid out below and assume that the scalar applied to CTE level is different from the scalar applied to voluntary reserves:

- If regulators would like to maintain the TAR level when voluntary reserves are included vs. excluded, they would need to determine at which level they would like to maintain parity.
- If regulators would like to maintain the current scalar of 25%, that is applied to both CTE and voluntary reserves, the parity of TAR (which is reserves plus capital) only occurs at 400% CAL.
 - For example, the TAR is always higher at lower target RBC multiples if VR are included; however, the 400% TAR would be the same at \$2,100.
- If regulators would like to maintain parity at the CTE 90 level with and without voluntary reserves, the VR scalar would be 1/(Target TAR %).
 - For example, if parity is to be maintained at 200% CAL in the example below, 50% scalar would be applied to VR to get the same TAR of \$1,450.

	Current			Change Metric and Scalar				
	25% * CTE98			100% * CTE90				
CTE70	800	800	800	800	800	800	800	800
CTExx	2100	2100	2100	1125	1125	1125	1125	1125
Scalar 1	25%	25%	25%	100%	100%	100%	100%	100%
VR	100	100	0	100	100	100	100	0
VR Scalar	100%	33%	100%	100%	50%	33%	25%	100%
Reserves	900.0	900.0	800.0	900.0	900.0	900.0	900.0	800.0
Capital	300.0	316.7	325.0	225.0	275.0	291.7	325.0	325.0
TAR*	1,200	1,217	1,125	1,125	1,175	1,192	1,225	1,125
TAR at 200%	1,500	1,533	1,450	1,350	1,450	1,483	1,550	1,450
TAR at 300%	1,800	1,850	1,775	1,575	1,725	1,775	1,875	1,775
TAR at 400%	2,100	2,167	2,100	1,800	2,000	2,067	2,200	2,100
TAC	975	975	1,075	975	975	975	975	1,075
RBC Ratio	325%	308%	331%	433%	355%	334%	300%	331%

*TAR at xx% = reserves + capital at the target RBC multiple.

An alternative approach that does not try to maintain parity as shown in the examples above is to introduce a threshold, such as 300% ACL, where a defined percentage of VR is allowed. This approach would have alignment with other RBC admittance thresholds (e.g., disallowed IMR or DTA limits).

BROADER CONSIDERATIONS ON CAPITAL CONSISTENCY AND PURPOSE OF RBC

Several other considerations were raised by Subcommittee members that may guide calibration:

- Consistency across RBC components is important; future frameworks may benefit from moving toward a more uniform CTE-based approach across C-3 measures and away from percentile-based metrics.
- GOES-based volatility will remain a challenge under any CTE level; NAIC model office results will be important to inform directional decisions.
- Hedging responsiveness should be considered: deeper-tail metrics provide greater incentive for CDHS programs, whereas shallower-tail metrics may reduce economic justification for hedging.
- When a CTE metric is selected, it would be prudent to ensure that this is set at the same or at a similar level of conservatism as other capital metrics within RBC.

If you have any questions or would like to discuss these comments further, please contact [Amanda Barry-Moilanen](mailto:barrymoilanen@actuary.org) (barrymoilanen@actuary.org) the Academy's life policy project manager.

Sincerely,

Rick Hayes
Chairperson, C-3 Subcommittee
American Academy of Actuaries

Maambo Mujala
Chairperson, Variable Annuity Reserves and Capital Subcommittee
American Academy of Actuaries