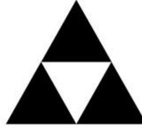

August 11, 2022

Mr. Ben Slutsker, Chair
Valuation Manual (VM)-22 (A) Subgroup of the Life Actuarial (A) Task Force (LATF)
National Association of Insurance Commissioners

Re: Comments on the recently exposed VM-22 Longevity Reinsurance Proposal

Dear Mr. Slutsker,

The American Academy of Actuaries[1] Annuity Reserves and Capital Work Group ("ARCWG") appreciates the opportunity to comment on the recently exposed VM-22 Longevity Reinsurance Proposal ("the Proposal") and is pleased to provide the following comments.

ARCWG has identified several concerns with the proposal as drafted and proposes modifications in this letter to address them. In summary, ARCWG notes that:

a.) Establishing a separate reserve category for Longevity Reinsurance is unnecessary and inconsistent with the principles outlined in the VM-22 PBR Framework as VM-22 principles allow for the aggregation of policies when utilized as part of an integrated risk management system.

b.) While any category-level flooring of reserves is inconsistent with the principles outlined in the VM-22 PBR Framework, flooring the final reserve at zero for the Longevity Reinsurance reserve category should be sufficient to achieve the outcomes stated in the Proposal without the need for a K-factor approach. ARCWG notes other concerns with a K-factor approach including:

   i. Using a locked-in K-factor may produce unexpected and unintended outcomes in the stochastic reserve calculation.
   ii. Performing a contract-by-contract K-factor calculation does not align the reserve calculation with how many companies monitor and manage the risk associated with these contracts in practice.
   iii. It is unclear how the K-factor approach would work for nonproportional/stop-loss longevity reinsurance coverages.

While ARCWG does not support application of a K-factor approach, it has also provided some technical considerations if the NAIC adopts this approach, including the addition of expenses in the calculation.

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[1] The American Academy of Actuaries is a 19,500-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.

In addition to these comments for the Longevity Reinsurance proposal specifically, ARCWG has recommendations regarding changes to the definitions and related elements of the VM-22 Framework to clarify points that were raised as part of recent NAIC discussions and as part of ARCWG discussions regarding the Longevity Reinsurance proposal. These recommendations are attached to this letter.

Review of Relevant PBR Principles and the VM-22 Framework
While acknowledging the view expressed at NAIC discussions regarding the implementation of multiple reserve categories, ARCWG notes that, in its view, the VM-22 PBR Framework guidance that the reserve should be determined in aggregate across various groups of contracts as a single model segment remains appropriate in situations where the company manages the risks for contracts included in the model segment on an integrated basis, taking into account factors including whether the contracts are part of the same portfolio, part of the same integrated risk management system, administered/managed together, etc.

ARCWG is deeply committed to the principles underlying the fixed annuity principle-based reserving (PBR) framework exposed on July 16, 2021 ("VM-22 PBR Framework"). Principle 2 of the VM-22 PBR Framework lays out several important points which are relevant for evaluating the Proposal, including the principle that the analysis should be performed "in aggregate (subject limitations related to contractual provisions) to allow the natural offset of risks within a given scenario" and that the calculation methodology should use "a projected total cash flow analysis by including all projected income, benefit, and expense items related to the business in the model…."

Further, Principle 3 of the VM-22 PBR Framework states that "conceptually, the choice of assumptions and the modeling decisions should be made so that the final result approximates what would be obtained for the stochastic reserve at the required CTE level if it were possible to calculate results over the joint distribution of all future outcomes." ARCWG notes that this principle implies the use of a probability model for future outcomes that reflects all relevant historical and current experience information, including post-inception experience to the extent such experience is available, credible, and meaningfully different than at-inception anticipated experience.

Projection of Accumulated Deficiencies and the K-Factor Approach
Based upon ARCWG's members reading of the Proposal, the approach used to determine the "K-factor" would be performed on a contract-by-contract basis for blocks of Longevity Reinsurance contracts that contain multiple individual reinsurance contracts and would produce net premium schedules that are locked-in from each reinsurance contract's inception. This effectively means that gross premiums in excess of the locked-in net premium schedule would be excluded from the reserve projections, even though such contractually guaranteed premiums would be available to the company to offset any unfavorable deviations in experience post-inception.

This restriction appears inconsistent with Principle 2 and with the aggregation concepts included in the VM-22 PBR Framework in that it would restrict reflection of a portion of the "projected income" related to the Longevity Reinsurance contracts in the model while fully reflecting the associated benefit and expense items. It would also restrict the natural offset of risks among multiple Longevity Reinsurance contracts within the same block of jointly managed Longevity Reinsurance contracts.

Locking-in assumptions used for any portion of the reserve calculation also appears inconsistent with Principle 3, since using locked-in assumptions or net premium factors would be unlikely to

result in a Conditional Tail Expectation ("CTE") calculation that achieves the target level of confidence based on current (as of the valuation date) expectations of future outcomes.

Finally, it is unclear how well the K-factor approach would work for nonproportional or stop-loss longevity reinsurance contracts, since the risk of future claim payments at contract inception is often purposefully designed to be remote but may grow significantly over the life of the agreement.

If the NAIC applies a K-factor approach, ARCWG notes several unintuitive technical consequences that may emerge, including:

a.) For a newly issued contract, the K-factor approach would be designed to produce zero initial reserve on a deterministic basis, but the proposal would be unlikely to produce this outcome for at least two reasons:
    i. Maintenance expenses are not included in the K-factor calculation but are included in the scenario projections used to determine the stochastic reserve.
    ii. Under a stochastic projection framework using a conditional tail expectation-based reserve calculation, initial reserves may be non-zero due to the differing asset assumptions within each scenario.

b.) The K-factor would not be adjusted over time to reflect deviation of current prudent estimate assumptions vs. at-inception prudent estimate assumptions or for changes in economic conditions. This situation could produce unintuitive outcomes for at least three reasons:
    i. If credible contract experience post-issue is favorable to the assuming company (e.g., supports higher future prudent estimate mortality than the at-inception prudent estimate assumptions), then locking-in the K-factor at inception may cause reserves to be quite low or potentially negative, which appears inconsistent with the intent of using a K-factor approach
    ii. If credible contract experience post-issue is unfavorable to the assuming company (e.g., supports lower future prudent estimate mortality than the at-inception prudent estimate assumptions), then locking-in the K-factor at inception at a value less than 100% may cause reserves to be overstated since the net premiums would be arbitrarily reduced from the actual gross premium received in future periods, which are available to offset unfavorable experience.
    iii. The initial interest rates used in the stochastic projection will fluctuate over time, yet the present value calculation used to determine the K-factor uses a locked-in rate. This could produce reserves either higher or lower than if the K-factor were periodically reset, which would better reflect the investment risk to which the company is actually exposed.

Reserve Categories

Regarding the creation of a separate reserving category and contract-by-contract reserve calculation for Longevity Reinsurance, ARCWG notes that no allowance is made for considering how the company manages the risks associated with Longevity Reinsurance contracts. While this may be consistent with the VM-22 PBR Framework for certain companies who manage their Longevity Reinsurance contracts on a standalone basis, ARCWG notes it would be more appropriate for companies to define their model segments for performing the projections used to determine reserves in a manner that reflects how the contracts are actually managed in practice, in alignment with Principle 2.

For certain companies who jointly manage the risks and support investments for their Longevity Reinsurance contracts with other fixed annuity business, this may imply that Longevity Reinsurance should be aggregated with other Payout contracts in-scope for the VM-22 PBR Framework when performing these projections. For companies who manage reinsurance contracts on a standalone basis, it may instead imply that Longevity Reinsurance should be modeled on a standalone basis or potentially even on a standalone contract-by-contract basis. Separating groups of policies that are jointly managed in practice strictly for reserving purposes may lead to counterintuitive, noneconomic outcomes and may reduce the incentives for companies to pursue well-balanced books of business with natural risk offsets.

Suggested Modifications

In summary, ARCWG suggests the following modifications to the Proposal:

a.) Remove the K-factor concept and instead include all contractual premium, benefit, and expenses cashflows outlined in the existing VM-22 PBR Framework, consistent with all other in-scope products. Using current (as of the valuation date) prudent estimate assumptions should produce reserves for companies where future premium cash flows are not sufficient to fund future expected benefits at a level of conservatism consistent with the overall CTE70 reserve objective outlined in the VM-22 PBR Framework.

b.) While ARCWG notes that any category-level flooring of reserves is inconsistent with the principles outlined in the VM-22 PBR Framework, if the NAIC applies a floor to Longevity Reinsurance contracts as a standalone category, then flooring the final reserve at zero for this reserve category should be sufficient to address concerns regarding the total reserves held for products with ongoing premiums without the need for a K-factor or scenario-by-scenario flooring of reserves.

c.) While ARCWG supports aggregation of all contracts according to the risk management, investment, and management/administration practices of the company, if the NAIC includes Longevity Reinsurance contracts as a separate reserve category, then sub-segmentation of the Longevity Reinsurance category should be subject only to the general guidance provided in the VM-22 PBR Framework. ARCWG does not support contract-level sub-segmentation or reserve flooring at the contract level, except for those companies who follow a contract-by-contract approach to risk management, investment management, contract administration, etc. If concerns remain regarding the impact of contract-level dynamics within the Longevity Reinsurance reserving category, then contract-level disclosures could be considered as an alternative.

While ARCWG does not support the application of a contract-by-contract reserve flooring approach for the reasons outlined above, ARCWG notes that certain complications could arise in the event of the insolvency of an assuming reinsurer to the extent that reserves are floored at zero only at the category level (e.g., if a contract-by-contract allocation of reserves were required as part of the insolvency proceedings). We recommend that regulators review any potential implications of reserve flooring, in the event of the insolvency of an assuming reinsurer, in evaluating this recommendation.

Thank you for your consideration of these comments. Please contact Amanda Barry-Moilanen (barrymoilanen@actuary.org), the Academy's life policy analyst, with any questions on this comment letter.

Sincerely,

Chris Conrad, MAAA, FSA
Chairperson
Annuity Reserves and Capital Work Group
American Academy of Actuaries

Recommended Clarifications on Definitions and Other Framework Elements

Section 1.D.

- ***Longevity Insurance/Reinsurance***
  An agreement~~, typically a reinsurance arrangement~~ covering benefits provided under one or more group or individual annuity contracts or covering benefits provided under one or more retirement plans, under which an insurance company assumes the longevity risk associated with periodic payments made to specified annuitants or retirement plan participants~~ under one or more immediate or deferred payout annuity contracts~~. ~~A common example is participants in one or more underlying retirement plans.~~ The coverage provided under these agreements may be either proportional or non-proportional and may take a variety of structural forms. The key defining characteristic for this group of contracts is that longevity risk is the primary risk transferred through the agreement, with any other transferred risks being ancillary or incidental.

- *~~Typically~~In the case of reinsurance, a common structure is that~~,~~ the reinsurer pays a portion of the actual benefits due to the underlying annuitants (or, in some cases, ~~a pre-agreed amount per annuitant~~the benefit payment amount per annuitant may be limited to a pre-agreed amount), while the ceding insurance company retains the assets supporting the reinsured annuity payments and pays periodic, ongoing premiums to the reinsurer over the expected lifetime of benefits paid to the specified annuitants. Such agreements may contain net settlement provisions such that only one party makes ongoing cash payments in a particular period. Under these agreements, longevity risk may be transferred on either a permanent basis or for a pre-specified period of time, and these agreements may or may not permit early termination.*

- *Reinsurance ~~Agreements~~ agreements which are not treated as reinsurance under Statement of Statutory Accounting Principles (SSAP) No. 61R are not included in this definition.*

- *~~In particular, contracts~~Agreements under which payments are made based on the aggregate mortality experience of a population of lives which are not covered by an underlying group or individual annuity contract (e.g., mortality index-based longevity swaps) are not included in this definition.*

- ***Pension Risk Transfer (PRT) Annuity***
  ~~An annuity, typically a~~ A group annuity, issued by an insurance company or assumed by an insurance company under a reinsurance agreement that transfers all significant risks ,~~contract or reinsurance agreement, issued by an insurance company~~ providing periodic payments to annuitants receiving immediate or deferred benefits from one or more retirement plans. ~~Typically~~For these contracts, the insurance company holds the assets supporting the benefits, which may be held in the general or separate account, and retains not only longevity risk but also ~~asset risks~~all other significant risks, including significant asset risks (e.g., credit risk and reinvestment risk). In the case of reinsurance,

if only the longevity risk associated with the underlying Pension Risk Transfer Annuity is transferred, such an agreement would instead be considered Longevity Insurance/Reinsurance as defined above.

- ***Single Premium Immediate Annuity (SPIA)***
  An annuity purchased with a single premium amount which guarantees a periodic payme nt for the life of the annuitant or a term certain and payments begin within 13 months from the issue date. Such annuities may be purchased by individuals directly or as a settlement option under certain group annuity contracts that permit individual purchases (e.g., contracts funding benefits provided under defined contribution retirement plans). In the case of reinsurance, only those agreements where the underlying direct contract is a Single Premium Immediate Annuity and all significant risks, including significant asset risks (e.g., credit risk and reinvestment risk), are transferred to the assuming company through the agreement would meet this definition. In the case of reinsurance, if only the longevity risk associated with the underlying Single Premium Immediate Annuity is transferred, such an agreement would instead be considered Longevity Insurance/Reinsurance as defined above.

Section 2.A. *Subject to the requirements of Sections 1 to 13 of VM-22 are annuity contracts, certificates and contract features issued on or after 1/1/2024, whether group or individual, including both life contingent and term-certain-only, directly written or assumed through reinsurance ~~issued on or after 1/1/2024~~, with the exception of contracts or benefits listed below.*

Section 5.A.2.c. *An assuming company shall use assumptions to project cash flows to and from ceding companies that reflect the assuming company's experience for the business segment to which the reinsured policies belong and reflect the terms of the reinsurance agreement. To the extent that credible, contract or treaty-specific experience is available (e.g., for reinsurance assumed on a Pension Risk Transfer Annuity where the underlying pension plan has provided credible, plan-specific data to the ceding and assuming insurers), the assuming company may use such data in addition to or in place of the assuming company's experience for the business segment generally.*