# Section 3: Reserve Methodology

## A. Aggregate Reserve

The aggregate reserve for contracts falling within the scope of these requirements shall equal the stochastic reserve (following the requirements of Section 4) less any applicable PIMR for all contracts not valued under applicable requirements in VM-A and VM-C, plus the reserve for any contracts valued under applicable requirements in VM-A and VM-C.

All policies subject to these requirements shall be included in one of the Reserving Categories, defined in Section 3.A.1 and Section 3.A.2 below. The company may elect to exclude one or more groups of policies from the stochastic reserve calculation. When excluding a group of policies from a reserve calculation, the company must document that the applicable exclusion test defined in Section 3.E is passed for that group of policies. The stochastic reserve shall be calculated separately for each Reserving Category, and the total stochastic reserve shall be the sum of the stochastic reserves for each Reserving Category.

1. Accumulation Reserving Category

[Add the definitions needed]

1. Payout Reserving Category

[Add the definitions needed]

**Guidance Note**: Contracts valued under applicable requirements in VM-A and VM-C are ones that pass the exclusion test and elect to not model PBR stochastic reserves, per the requirements in Section 3.E.

## B. Impact of Reinsurance Ceded

All components in the aggregate reserve shall be determined post-reinsurance ceded, that is net of any reinsurance cash flows arising from treaties that meet the statutory requirements that allow the treaty to be accounted for as reinsurance. A pre-reinsurance ceded reserve also needs to be determined by ignoring all reinsurance cash flows (costs and benefits) in the reserve calculation.

## C. To Be Determined

## D. The Stochastic Reserve

1. The stochastic reserve shall be determined based on asset and liability projections for the contracts falling within the scope of these requirements, excluding those contracts valued using the methodology pursuant to applicable requirements in VM-A and VM-C, over a broad range of stochastically generated projection scenarios described in Section 8 and using prudent estimate assumptions as required in Section 3.F herein.
2. The stochastic reserve amount for any group of contracts shall be determined as CTE70 of the scenario reserves following the requirements of Section 4, with the exception of groups of contracts for which a company elects the Deterministic Certification Option in Section 7.E, which shall be determined as the scenario reserve following the requirements of Section 4.

1. The reserve may be determined in aggregate across various groups of contracts within each Reserving Category as a single model segment when determining the stochastic reserve if the business and risks are not managed separately or are part of the same integrated risk management program. Aggregation is permitted if a resulting group of contracts (or model segment) follows the listed principles:

a. Aggregate in a manner that is consistent with the company’s risk management strategy and reflects the likelihood of any change in risk offsets that could arise from shifts between product types, and

1. Using prudent actuarial judgement, consider the following elements when aggregating groups of contracts: whether groups of contracts are part of the same portfolio (or different portfolios that interact), same integrated risk management system, administered/managed together

4. Do not aggregate groups of contracts for which the company elects to use the Deterministic Certification Option in Section 7.E with any groups of contracts that do not use such option.

5. To the extent that these limits on aggregation result in more than one model segment within a Reserving Category, the stochastic reserve for that Reserving Category shall equal the sum of the stochastic reserve amounts computed for each model segment and scenario reserve amounts computed for each model segment for which the company elects to use the Deterministic Certification Option in Section 7.E.

## E. Exclusion Test

1. To the extent that certain groups of contracts pass one of the defined stochastic exclusion tests in Section 7.B, these groups of contracts may be valued using the methodology pursuant to applicable requirements in VM-A and VM-C, with the statutory maximum valuation rate for immediate annuities specified in Section 13.
	1. For dividend-paying contracts, a dividend liability shall be established upon following requirements in VM-A and VM-C, as described above, for the base contract.

**Guidance Note**: The intention of contracts that pass the stochastic exclusion test is to provide the option to value contracts under VM-A and VM-C. This may apply to pre-PBR CARVM requirements in accordance with Actuarial Guideline XXXIII (AG33) methodology with type A, B, C rates for SPIAs issued before 2018; AG33 methodology with pre-PBR VM-22 rates for SPIAs issued on/after 2018; Actuarial Guideline XXXV (AG35) pre-PBR methodology for Fixed Indexed Annuities; and AG33 methodology (with interest rate updates for modernization initiatives on new contracts) for non-SPIAs.

1. The approach for grouping contracts when performing the exclusion tests should follow the same principles that underlie the aggregation approach for model segments discussed for Stochastic Reserves in Section D above.

## F. Allocation of the Aggregate Reserve to Contracts

The aggregate reserve shall be allocated to the contracts falling within the scope of these requirements using the method outlined in Section 12.

## Prudent Estimate Assumptions:

1. With respect to the Stochastic Reserve in Section 3.C, the company shall establish the prudent estimate assumption for each risk factor in compliance with the requirements in Section 12 of Model #820 and must periodically review and update the assumptions as appropriate in accordance with these requirements.
2. The qualified actuary, to whom responsibility for this group of contracts is assigned, shall annually review relevant emerging experience for the purpose of assessing the appropriateness of the anticipated experience assumption. If the results of statistical testing or other testing indicate that previously anticipated experience for a given factor is inadequate, then the qualified actuary shall set a new, adequate, anticipated experience assumption for the factor.
3. To determine the prudent estimate assumptions, the stochastic reserve shall also follow the requirements in Sections 4 and 9 for asset assumptions, Section 10 for policyholder behavior assumptions, and Section 11 for mortality assumptions.