



# AMERICAN ACADEMY *of* ACTUARIES

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## **Update to Section VIII of AG PBR-VAL from the American Academy of Actuaries' Life Reserves Work Group**

### **Presented to the National Association of Insurance Commissioners' Life and Health Actuarial Task Force**

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## VIII. Guidance and Requirements for Setting Asset Assumptions

### A. Overview

The guidance and requirements in this section apply for setting Prudent Best Estimate assumptions related to the projection of asset cash flows and net investment earnings for starting assets and reinvestment assets when determining the Stochastic Reserve and the Deterministic Reserve. Modeling of both general account and separate account assets are addressed, as well as modeling of hedge instruments.

### B. ~~Income, Default Costs and Other Uncertainty in Timing and Amounts of Cash Flows, Reinvestment Spreads and Other Assumptions~~

For both the Stochastic Reserve and Deterministic Reserve calculations:

- 1) Default cost assumptions for the various fixed income asset classes should reflect Prudent Best Estimates of ~~long-term~~ losses over the lifetime of the assets and consistent with the type of asset and quality rating. They are subject to the following required considerations:
  - a. ~~The Best Estimate Prudent Best Estimate~~ default cost assumption for a particular asset class should take into consideration the company's own experience, to the extent credible and appropriate, and available insurance industry and broad financial market experience.
  - b. As default cost experience is generally observed to be cyclical in nature, Best Estimate assumptions should be related to historical experience over a period of time long enough to cover both favorable and unfavorable experience years, such that the average historical experience reasonably constitutes an unbiased long-term historical average. The actuary shall generally use a consistent method from one reserve valuation to the next in developing the supporting historical experience.
  - c. If the actuary consolidates quality rating categories for purposes of setting the default cost assumptions, the resulting default costs should be consistent with those that would have resulted had the more refined recognition of rating categories been used.
  - d. The actuary may use level default cost assumptions over time that are equivalent to the expected default costs over the projected lives of the corresponding assets.
  - e. Default cost assumptions should be consistent for similar asset classes within both the starting assets and reinvestment assets. Inconsistencies may be maintained that arise from adjustments made to comply with any additional requirements herein.
  - f. A Margin shall be added to the Best Estimate assumption applied to each asset class. The actuary shall apply higher Margins (when expressed as a percentage of the credit exposure on the corresponding assets, commonly known as a "basis points charge") in situations of greater uncertainty including but not limited to the following:
    1. Greater historical variability in the default rates, recovery rates, or both. Generally, the expectation is that lower quality assets will have higher Margins than higher quality assets with similar maturities.
    2. Material exposures to newer asset structures that have limited historical experience;
  - g. ~~An explicit Margin shall be added to the expected default costs.~~

~~The default cost assumptions for the various asset classes should be consistent for starting assets and reinvestment assets.~~
- 2) ~~Spreads over Treasuries reflected in the purchase yields of reinvestment assets are to be Prudent Best Estimates. The types, quality and maturities of such reinvestment assets should be consistent with the company's current investment strategy for the block of business being valued.~~
- 3) ~~2) Any uncertainty in the timing and amounts of asset cash flows related to movements in interest rates (e.g., prepayment risk) should be reflected directly in the projection of asset cash flows under the various scenarios within the Stochastic Reserve calculation model and under the Deterministic Scenario within the Deterministic Reserve calculation model. For example, the impact on cash flows of embedded prepayment, extension, call and put options features should be specifically modeled in a manner consistent with current asset adequacy analysis practice.~~

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*[Drafting Note: Guidance on equity-type assets, such as common stock, equity real estate, and Schedule BA assets must be determined. Additional guidance for establishing Margins for default costs and investment expenses is also needed.]*

### C. ~~Cap on Aggregate Spread on~~ Prescribed Spread Paths on Reinvestment Assets. (To be determined.)

The Model Regulation requires that the spread over Treasuries on the fixed-income portion of the reinvestment assets for each Projection Interval be subject to a prescribed cap. The aggregate cap could be determined as follows:

- 1) ~~After applying the Prudent Best Estimate assumption for asset defaults and investment expense to the gross earned rate for each reinvestment asset, the resulting net asset earned rate for each reinvestment asset can then be expressed as a Treasury Rate plus a spread.~~
- 2) ~~The weighted average spread over Treasuries for all assets for each Projection Interval cannot exceed a prescribed level of X bps. If this occurs, the spread over the Treasury rate for each reinvestment asset would be proportionally reduced for each Projection Interval to produce a weighted average aggregate cap equal to X bps, and the Prudent Best Estimate assumption for asset defaults and investment expenses would be adjusted accordingly.~~

*[Drafting Note: other approaches to define the aggregate cap may be acceptable.]*