# 4/4/2022

# Actuarial Guideline AAT – 2nd Exposure

**APPLICATION OF THE VALUATION MANUAL FOR TESTING THE ADEQUACY OF LIFE INSURER RESERVES**

**Background**

The *NAIC Valuation Manual (VM-30)* contains actuarial opinion and supporting actuarial memorandum requirements, including requirements for asset adequacy analysis. Regulators have observed a lack of uniform practice in the implementation of asset adequacy analysis. The variety of practice in incorporating the risk of complex assets into testing does not provide regulators comfort as to reserve adequacy. Examples of complex assets are structured securities, including asset-backed securities and collateralized loan obligations, as well as assets originated by the company or affiliated or contracted entity. An initial increase of this activity has been noted in support of general account annuity blocks; however, recent activity was noted in other life insurer blocks.

This Guideline is intended to provide uniform guidance and clarification of requirements for the appropriate support of certain assumptions for asset adequacy analysis performed by life insurers. In particular, this Guideline:

(1) Helps identify reserve adequacy and claims-paying ability in moderately adverse conditions, including conditions negatively impacting cash flows from complex assets;

(2) Clarifies how margins for uncertainty are established such that the greater the uncertainty the larger the margin and resulting reserve;

(3) Ensures recognition that higher expected gross returns from assets are, to some extent, associated with higher risk, and that assumptions fit reasonably within the risk-return spectrum;

(4) Requires sensitivity testing regarding complex assets currently supporting or assumed to provide future support for life insurer business;

# (5) Identifies expectations in practice regarding the valuation of complex assets;

# (6) Establishes a process for researching and monitoring the risks associated with complex assets;

# (7) Reflects that while complex assets tend to have higher uncertainty regarding timing and amount of cash flows than in more traditional investments, because complex assets are difficult to classify, and the regulatory concern is regarding the projected net yields and cash flows from those assets, the focus of the Guideline will be on assets deemed to be high-yield assets; and

(8) Requires additional documentation of investment fee income relationships with affiliated entities or entities close to the company.

Note: It is anticipated that the requirements contained in this Guideline will be incorporated into the *NAIC Valuation Manual*

(VM-30) at a future date, effective for a future valuation year. This Guideline will cease to apply to annual statutory financial statements at the time the corresponding VM-30 requirements become effective.

# Text

# Effective Date This Guideline shall be effective for reserves reported in the December 31, 2022 and subsequent annual statutory financial statements.

# Scope This Guideline shall apply to all life insurers with:

# A. Over $5 billion of general account actuarial reserves (from Exhibits 5, 6, 7, and 8 of the annual statement) or

# B. Over $500 million of general account actuarial reserves (from Exhibits 5, 6, 7, and 8 of the annual statement) and over 5% of supporting assets (selected for asset adequacy analysis) in the category of Projected High Net Yield Assets, as defined in Section 3.C.

# Actuarial reserve amounts are included in the amounts in A and B whether directly written or assumed through reinsurance and are determined before any reinsurance ceded credit.

# Definitions

# Equity-like Instrument. Any asset that, for purposes of risk-based capital C-1 reporting, is in the category of common stock, i.e., has a 30% or higher risk-based capital charge as of year-end 2021.

# Investment Grade Net Yield Benchmark. For assets that are not Equity-like Instruments, a net yield calculated as i + ii – iii:

# i. For current assets, the Treasury rate at the asset purchase date for the time to maturity associated with the asset; for reinvestment assets, the Treasury rate related to the projected interest rate scenario at the projected asset purchase date for the time to maturity associated with the asset.

# ii. The spread found in Table F for existing assets and Table H for reinvestment assets, found in the VM-20 / VM-21 / VM-22 Tables tab on the principle-based reserve page of the NAIC website (NAIC website), using PBR Credit Rating 9 and the weighted average life of the associated asset.

# iii. The default cost found in Table A on the NAIC website, using PBR Credit Rating 10 and the weighted average life of the associated asset.

# Projected High Net Yield Assets. Assets where assumed, future net yields (net of default risk and other risk impacting timing and amount of cash flows) are higher than the Investment Grade Net Yield Benchmark. Included are currently held assets and reinvestment assets, excluding Equity-like Instruments.

# i. Aggregation of the comparison between assumed net yields from each asset and the Investment Grade Net Yield Benchmark shall be done at a level of granularity that is consistent with or more granular than how the assets are grouped, i.e., compressed, in the asset adequacy analysis model.

# ii. For applicable assets that do not have an explicit weighted average life or term to maturity, the company shall disclose the method used to determine the appropriate weighted average life used for comparing to the Investment Grade Net Yield Benchmark.

# iii. For purposes of the comparison between assumed net yields from each asset and the Investment Grade Net Yield Benchmark, investment expenses shall be excluded.

# 4. Asset Adequacy Considerations and Documentation Expectations

A. **Net return and risk documentation.** For Projected High Net Yield Assets, either currently held or in assumed reinvestments, provide:

1. A detailed explanation describing the extent to which higher expected gross returns from these assets are associated with higher risk. It shall also include, for the aspect of any higher expected gross returns not assumed to be associated with higher risk, an explanation of how overperforming assets with expected returns lying outside the risk-return spectrum can be assumed to persist and be available for reinvestments throughout the projection period in moderately adverse conditions.
2. Commentary on how there is consistency with the Standard Valuation Law concept which dictates margins for uncertainty should be established such that the greater the uncertainty, the larger the margin and resulting reserve, including explanation of how asset-related factors identified as being volatile and impactful through sensitivity testing or other means contain an appropriate margin to reflect this volatility and impact.
3. Identification of the assumed gross asset yield and the key components (for example, default and investment expenses) deducted to arrive at the assumed net asset yield.
4. Explanation of any future reinvestment strategy assumptions that differ from current practices and experience.

B. **Model rigor.** Where significant risks associated with a complex asset are not adequately captured with traditional modeling techniques associated with simple assets like corporate bonds, more rigorous modeling of those risks should occur.

i. Where necessary to adequately reflect the risk, multi-scenario testing of those risks specific to complex assets should be performed.

(a) For example, investments that may provide a higher expected return in part due to limited information, niche skill sets, or other factors may require unique scenarios (for instance to adequately capture credit or liquidity risk) to fully encompass potential sources of loss.

(b) Asset cash flows should be appropriately projected to reflect anticipated liquidity in a stressed market. If current models do not support analysis of this type of risk, then new model aspects should be developed; otherwise, if such model aspects are not developed, sufficient additional conservatism to reflect this risk shall be applied.

(c) To the extent that the process for modeling or otherwise evaluating the risks is complex, and the potential for disconnect between reality and modeling increases, an additional margin to assumption(s) should be applied. Any such margin shall be applied in the direction of asset adequacy analysis results being less favorable.

ii. Note that a robust conditional tail expectation calculation considering all key risks specific to complex assets would likely show that tail losses (from low probability, high impact events) affect asset adequacy results.

iii. A company may use simplifications, approximations, and modeling efficiency techniques if the company can demonstrate that the use of such techniques does not make asset adequacy analysis results more favorable. These techniques may be less appropriate if the amount of complex, high-yielding assets becomes a higher percentage of total assets.

iv. Actuarial Standards of Practice (ASOPs), including ASOP No. 7 and No. 56 contain additional guidance on the use of models in the analysis of cash flows.

C. **Fair value determination.** In asset adequacy analysis, when an asset is projected to be available for sale, a fair value of that asset is established. Per fair value methodology, fair value should represent the price at which the security could be sold, based on market information. Fair value should only be determined internally (by the insurance or investment management company) when the market-based value of the asset or similar asset cannot be obtained.

i. When the fair value of a material portion of supporting assets is determined internally, the company shall provide a step-by-step description of the approach used to calculate the fair value of such assets.

ii. Provide the total value of assets that have values determined internally.

iii. When the fair value of a material portion of assets is determined internally, a sensitivity test should be performed (and the impact on asset adequacy analysis results presented) assuming a haircut to internally derived fair values that the company deems reasonable given the commensurate level of anticipated uncertainty.

D. **Privately-originated assets.** With respect to privately-originated assets, such as assets originated by the company, within the company’s group, or within an entity closely tied to a company’s group (inclusive of the company's investment manager), practices to help ensure accurate valuation of those assets should be documented in the actuarial memorandum. Also, assumed net cash flows from assets should be net of all explicit or implicit fees or expenses, such as origination fees, as well as reflective of other asset-related risks including credit risk, illiquidity risk, and other market risks.

In particular, related to privately-originated assets, provide the total value of such assets and disclose and detail how the following are appropriately reflected in the net cash flows:

# i. Contractual agreements in place between such entities.

# ii. Any measures related to the valuation of such privately-originated assets resulting from practices to ensure that the valuation is appropriate and accurate.

# iii. Revenue sharing, e.g., performance fees, between the entity responsible for providing investment or other types of services and the insurer, if applicable.

# E. Investments expenses (fees). Assumed investment expenses, whether paid to an external asset manager or to internal investment management staff, as well as additional expenses that are directly attributable to the specific investments, should be commensurate with the complexity of the assets.

# F. Trends. The actuarial memorandum should contain a detailed description of research and monitoring conducted related to trends impacting risks associated with the insurer’s complex assets or industry-wide or market-wide assets of similar type.

# G. Reinsurance modeling. Related to reinsurance, relevant communications and disclosures from ASOP No. 11, for instance commentary on collectability and counterparty risk, should be presented in the memorandum.

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# H. Borrowing. Please identify if any borrowing is modeled besides to address very short-term liquidity needs. Also, please verify borrowing and reinvestment rates to ensure that projections are not materially benefiting from arbitrage advantages.

# 5. Sensitivity Tests and Attribution Analysis related to Assumptions on Projected High Net Yield Assets

# A. Sensitivity testing

# i. For the year-end 2022 and subsequent VM-30 actuarial memoranda, perform and disclose the asset adequacy analysis results from the following sensitivity test.

# (a) For the sensitivity test for assets other than Equity-like Instruments (as defined in Section 3), assume individual asset (or asset group when there is asset compression) net yields for projected reinvestment assets do not exceed the Investment Grade Net Yield Benchmark. For Equity-like Instruments, the sensitivity test should assume an initial drop in value of 10%, followed by 5.5% annual returns.

# ii. Strict technical compliance for each asset may not be practical for reasons including model limitations. Professional judgment should be applied to produce sensitivity testing results that are consistent with the spirit of the test. A variety of alternative methods may be acceptable. Appropriate explanation and justification should be provided for the method that was employed.

# iii. The NAIC Valuation Analysis (E) Working Group (VAWG) shall serve as a resource in the targeted review of asset adequacy analysis related to modeling of business supported with Projected High Net Yield Assets. VAWG shall provide periodic reports identifying outliers and concerns regarding the analysis to help inform regulators on the effectiveness of the Guideline in meeting the eight objectives stated in the Background section.

# B. For assets other than Equity-like Instruments (as defined in Section 3), perform an attribution analysis for any current assets or projected reinvestment assets assumed to produce net returns in excess of the Investment Grade Net Yield Benchmark, as follows:

# i. State the assumed excess net return, e.g., 1.2% if the assumed annual net return is 5.7% and the Investment Grade Net Yield Benchmark is 4.5%.

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# ii. Please estimate the proportion of the assumed excess net returns attributable to the following factors:

(a) Credit risk (in excess of credit risk on corporate bonds with PBR Credit Rating 9, if not already reflected in the default assumption)

(b) Illiquidity risk

(c) Volatility and other risks (please identify and describe these risks in detail)

iii. For each of the factors contributing to assumed net returns in excess of the Investment Grade Net Yield Benchmark, please explain why the factor is not assumed to contribute to additional losses (tail or otherwise) related to the risks.

iv. Where appropriate, apply judgment and provide commentary on the supporting rationale of how the expected excess return is estimated across the various risk components.