# 2/2/2022

# Actuarial Guideline AAT – DRAFT FOR LATF CONSIDERATION

**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 testing. Regulators have observed a lack of uniform practice in the implementation of asset adequacy testing. 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 testing performed by life insurers. In particular, this Guideline:

(1) Helps ensure 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 actuarial reserves or

# B. Over $500 million of actuarial reserves and over 5% of supporting assets in the category of Projected High Net Yield Assets, as defined in Section 3.B.

# 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

# Investment Grade Net Yield Benchmark. 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 9 and the weighted average life of the associated asset.

# iv. For assets such as equities or equity-like instruments without a clear weighted average life, apply judgment in establishing an appropriate weighted average life for this exercise and disclose the approach applied. If judgment is difficult to apply due to the circumstances, apply a weighted average life of 20 years.

# 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, including equities and equity-like instruments.

# i. Aggregation considerations

# (a) 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 testing model.

# (b) For companies that model assets for each Committee on Uniform Securities Identification Procedures (CUSIP) number, this exercise is intended to be performed for each individual CUSIP.

# (c) For companies that group similar assets for asset adequacy testing modeling purposes, the companies may provide results at such level, or alternatively, for each individual asset.

# ii. For assets that do not have an explicit weighted average life or term to maturity (such as equities or equity-like instruments), 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 for Analysis of Business Supported by Any Projected High Net Yield Assets

A. The actuarial memorandum should provide documentation on net return assumptions, including gross asset spreads, default costs, recovery rate assumptions. The memorandum should also identify and explain the types of risks present in the projected high net yield assets.

1. The actuarial memorandum shall detail the process to determine the assumed net yields on currently held assets and assets projected to be obtained in the future (reinvestments).
   1. This includes specifically identifying the assumed gross asset yield and all key components deducted to arrive at the assumed net asset yield, including but not limited to credit risk, liquidity risk, and investment expenses.
   2. Include considerations of the underlying assets (e.g., debt instruments, securitization structure) and timing of expected payments when modeling.
   3. An explanation shall also be provided for any future reinvestment strategy assumptions that differ from current practices and experience.

C. For projected high net yield assets, a detailed explanation shall be provided in the actuarial memorandum 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.

Provide commentary on factors that could impact whether the conditions that may have contributed to past high net yields for certain asset classes would continue or not continue into the future in a moderately adverse environment including the potential of increased demand for such assets leading to declining available yield.

D. The actuarial memorandum should provide commentary on how, related to projected high net yield assets, there is consistency with the standard valuation law concept that margins for uncertainty should be established such that the greater the uncertainty the larger the margin and resulting reserve. Asset-related factors identified as being volatile and impactful through sensitivity testing or other means should contain an appropriate margin to reflect this volatility and impact.

E. 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 testing results being less favorable.

ii. Note that a robust conditional tail expectation calculation considering all key risks specific to complex assets would likely show 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 testing 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.

F. In asset adequacy testing, 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 cannot be obtained. When the fair value of complex 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.

In addition, when the fair value of complex assets is determined internally, two sensitivity tests should be performed (and the impact on asset adequacy testing results presented):

i. Assume a haircut to the internally derived fair values of 5%;

ii. Assume a haircut to internally derived fair values that the company deems reasonable given the commensurate level of anticipated uncertainty.

G. 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, please 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.

# H. 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 and reflected in the net yield assumed in asset adequacy testing.

# I. In cases where fees are expected to be paid by the insurer, an appropriate amount of future expected fees should be modeled as part of the asset adequacy testing.

# J. 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.

# K. In cases where material amounts of reserves are ceded to an entity that does not submit a VM-30 actuarial memorandum or where reinsurance counterparty risk is material, the company shall perform asset adequacy testing on the business that includes the ceded reserves. Depending on the circumstances including risk exposure, simplified asset adequacy testing techniques may be appropriate, as noted in ASOP No. 22. Relevant aspects of ASOP No. 11 not in conflict with this section should be considered in the asset adequacy testing.

# L. Please identify if any borrowing is modeled beyond 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.

# *{Drafting note: comments would be appreciated on the inclusion of board of director and senior management responsibilities on the quality of complex asset-related assumptions similar to those stated in VM-G }*

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

# A. Constraint for year-end 2023 with early testing for year-end 2022

# i. For the year-end 2022 VM-30 actuarial memorandum, perform and disclose the asset adequacy testing results from the following sensitivity test. For the sensitivity test, assume individual asset (or asset group when there is asset compression) net yields for both current assets and projected reinvestment assets do not exceed net yields on public non-callable corporate bonds with gross asset spreads and asset default costs by projection year that are consistent with PBR Credit Rating 10, i.e., by using PBR Credit Rating 10 rather than PBR Credit Rating 9 and otherwise following the spread and default calculations for the Investment Grade Net Yield Benchmark.

# ii. For reserves reported in the December 31, 2023 and subsequent annual statutory financial statements, assumed individual asset (or asset group when there is asset compression) net yields for both current assets and projected reinvestment assets shall not exceed net yields on public non-callable corporate bonds with gross asset spreads and asset default costs by projection year that are consistent with PBR Credit Rating 10.

# *{Drafting note: comments would be appreciated on the pros and cons of an individual asset-specific versus aggregate (VM-20-type) constraint and/or sensitivity test}*

# iii. For the constraint and the early testing, any favorable impact to asset adequacy testing results due to borrowing at a rate lower than the rate at which positive cash flows are reinvested in the same time period, should be removed.

# B. 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. Please quantify 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)

ii. 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.

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

iv. Examples of Attribution Analysis:

Example 1:

Current collateralized loan obligation (CLO), attained in the year 2018

Assumed annual net return: 5.7%

Investment Grade Net Yield Benchmark (similar issue date and weighted average life): 4.5%

Assumed excess net return: 1.2%

Attribution:

(a) Excess credit risk (if not already reflected in default cost) 0.2%

(b) Illiquidity risk 0.4%

(c) Volatility and other risks [provide detailed description] 0.6%

Explanation of why each factor is not assumed to contribute to additional losses related to the risks:

[provide explanations]

Example 2:

Assumed reinvestment in an asset-backed security

Assumed annual net return: 5.2%

Investment Grade Net Yield Benchmark (similar issue date and weighted average life): 3.3%

Assumed excess net return: 1.9%

Attribution:

(a) Excess credit risk (if not already reflected in default cost) 0.4%

(b) Illiquidity risk 0.5%

(c) Volatility and other risks [provide detailed description] 1.0%

Explanation of why each factor is not assumed to contribute to additional losses related to the risks:

[provide explanations]