

# MEETING MATERIALS PACKET

LIFE ACTUARIAL (A) TASK FORCE

March 31, 2022

NAIC SPRING NATIONAL MEETING Virtual

March 31, 2022

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# NATIONAL MEETING SPRING 2022

Date: 3/21/22

*Virtual Meeting*

*(in lieu of meeting at the 2022 Spring National Meeting)*

## **LIFE ACTUARIAL (A) TASK FORCE**

Thursday, March 31, 2022

10:00 a.m. – 4:00 p.m. ET / 9:00 a.m. – 3:00 p.m. CT / 8:00 a.m. – 2:00 p.m. MT / 7:00 a.m. – 1:00 p.m. PT

## **ROLL CALL**

<b>Member</b>	<b>Representative</b>	<b>State</b>
Cassie Brown, Chair	Mike Boerner	Texas
Scott A. White, Vice Chair	Craig Chupp	Virginia
Jim L. Ridling	Jennifer Li	Alabama
Ricardo Lara	Ahmad Kamil	California
Michael Conway	Eric Unger	Colorado
Andrew N. Mais	Wanchin Chou	Connecticut
Trinidad Navarro	Charles Santana	Delaware
Dana Popish Severinghaus	Vincent Tsang	Illinois
Doug Ommen	Mike Yanacheak	Iowa
Vicki Schmidt	Nicole Boyd	Kansas
Grace Arnold	Fred Andersen	Minnesota
Chlora Lindley-Myers	William Leung	Missouri
Eric Dunning	Derek Wallman	Nebraska
Marlene Caride	Seong-min Eom	New Jersey
Adrienne A. Harris	Bill Carmello	New York
Judith L. French	Peter Weber	Ohio
Glen Mulready	Andrew Schallhorn	Oklahoma
Michael Humphreys	Steve Boston	Pennsylvania
Jon Pike	Tomasz Serbinowski	Utah
Allan L. McVey	Tim Sigman/Joylynn Fix	West Virginia

NAIC Support Staff: Reggie Mazyck/Scott O’Neal

## **AGENDA (Eastern Time)**

- |                    |   |
|--------------------|---|
| 10:00 – 10:05 a.m. | 1. Call to Order/Roll Call/Consider Adoption of its Minutes and Subgroup Reports— <i>Mike Boerner (TX)</i>    |
| 10:05 – 10:15 a.m. | 2. Consider Adoption of the Report of the Valuation Manual (VM)-22 (A) Subgroup— <i>Ben Slutsker (MN)</i>     |
| 10:15 – 10:25 a.m. | 3. Consider Adoption of the Report of the Index-Linked Variable Annuity (A) Subgroup— <i>Peter Weber (OH)</i> |

- |                         |  |
|-------------------------|--|
| 10:25 – 10:30 a.m.      | 4. Consider Adoption of the Report of the Indexed Universal Life (IUL) Illustration (A) Subgroup— <i>Fred Andersen (TX)</i>  |
| 10:30 – 11:30 a.m.      | 5. Consider Adoption of <i>Valuation Manual</i> Amendments— <i>Mike Boerner (TX)</i>   |
| 11:30 – 11:45 a.m.      | Break  |
| 11:45 a.m. – 12:45 p.m. | 6. Discuss the Asset Adequacy Testing Actuarial Guideline Exposure— <i>Fred Andersen (MN)</i>  |
| 12:45 – 1:45 p.m.       | Lunch  |
| 1:45 – 3:05 p.m.        | 7. Discuss the Economic Scenario Generator (ESG)— <i>Daniel Finn (Conning), Pat Allison (NAIC), and Scott O’Neal (NAIC)</i>  |
| 3:05 – 3:20 p.m.        | Break  |
| 3:20 – 3:35 p.m.        | 8. Hear an Update on Society of Actuaries (SOA) Research and Education— <i>Dall Hall (SOA)</i>   |
| 3:35 – 3:50 p.m.        | 9. Hear an Update from the American Academy of Actuaries (Academy) Life Practice Council and Council on Professionalism and Education— <i>Ben Slutsker (Academy Life Practice Council)</i> |
| 3:50 – 4:00 p.m.        | 10. Discuss Any Other Matters Brought Before the Task Force  |

SharePoint/NAIC Support Staff Hub/Meetings/Member Meetings/2022 NAIC Meetings/Spring National Meeting/Agenda/LATF Agenda\_Final.docx

Agenda Item 1  
Consider Adoption of its Minutes

Draft: 3/18/22

Life Actuarial (A) Task Force and the  
Life Risk-Based Capital (E) Working Group  
Virtual Meeting  
March 17, 2022

The Life Actuarial (A) Task Force met Mar. 17, 2022, in joint session with the Life Risk-Based Capital (E) Working Group of the Capital Adequacy (E) Task Force. The following Task Force members participated: Cassie Brown, Chair, represented by Mike Boerner and Rachel Hemphill (TX); Scott A. White, Vice Chair, represented by Craig Chupp (VA); Jim L. Ridling represented by Jennifer Li (AL); Ricardo Lara represented by Ben Bock, Ted Chang, Ahmad Kamil, and Thomas Reedy (CA); Michael Conway represented by Eric Unger (CO); Andrew N. Mais represented by Wanchin Chou (CT); Dana Popish Severinghaus represented by Bruce Sartain and Vincent Tsang (IL); Vicki Schmidt represented by Nicole Boyd (KS); Grace Arnold represented by Fred Andersen (MN); Chlora Lindley-Myers represented by William Leung (MO); Eric Dunning represented by Derek Wallman (NE); Marlene Caride represented by Kevin Clarkson (NJ); Adrienne A. Harris represented by Bill Carmello and Amanda Fenwick (NY); Judith L. French represented by Peter Weber (OH); Glen Mulready represented by Andrew Schallhorn (OK); Michael Humphreys represented by Steve Boston (PA); and Jon Pike represented by Tomasz Serbinowski (UT). The following Working Group members participated: Philip Barlow, Chair (DC); Jennifer Li (AL); Thomas Reedy (CA); Wanchin Chou (CT); Vincent Tsang (IL); Fred Andersen (MN); William Leung (MO); Derek Wallman (NE); Seong-min Eom (NJ); Bill Carmello (NY); Mike Boerner and Rachel Hemphill (TX); and Tomasz Serbinowski (UT).

1. Exposed Recommended Models for ESG Field Testing

Pat Allison (NAIC) said over the last year a drafting group has been working to provide a recommendation for scenario sets to use in field testing a new prescribed economic scenario generator (ESG) to the Task Force and the Working Group. She said the Recommended Models for ESG field testing presentation (Attachment A) provides high level recommendations on the Treasury, Equity and Corporate models for the field test. She noted that the last page of the presentation deck includes links to documentation and additional information, and that further details (e.g., scenarios, scenario statistics, etc.) will be provided shortly.

Ms. Allison said the Equity model is linked to the Treasury model by the short Treasury rate. She said, due to changes in the Treasury model, the equity model calibration must also be updated. Additionally, she said that a Sharpe-ratio approach with a 5% corridor will be used to set the expected returns for the diversified international equity, aggressive international equity, and the US aggressive equity indices because the initially observed expected returns for those categories appeared to be low. She noted that the Corporate model needs a calibration update to maintain its risk/reward consistency with the Treasury returns. The remainder of the presentation comprised an overview of each of the three models.

The Task Force and the Working Group agreed, without objection, to expose the Recommended Models for ESG Field Testing for a 21-day public comment period ending April 7.

2. Heard an Update on the Academy Model Office

Jason Kehrberg (American Academy of Actuaries—Academy) said the Academy has developed separate model offices for universal life with secondary guarantees (ULSG) and variable annuities (VA). He said the Academy was asked to use the models to test the impact of selected economic scenario sets on statutory reserves and capital. The Task Force was presented with an overview of the model offices to the Task Force Mar. 3 call.

Mr. Kehrberg said the current presentation (Attachment B) focuses on the model office results for the selected economic scenario sets. He said the ULSG reserves were calculated based on the yield curve as of Dec. 2020. He

noted that the Academy chose to run the unfloored Conning calibration even though it was previously determined earlier that only the floored calibration would be considered in the final analysis. He said that the reserve based on the Academy Interest Rate Generator (AIRG) was expected to be low relative to the Conning calibrations because the AIRG generated higher rates. He pointed out that although the reserves for the Conning calibration with the generalized fractional floor and the American Council of Life Insurers (ACLI) reference model were similar in amount that doesn't imply that the underlying scenario sets are similar. He said one of the preliminary conclusions from the ULSG model office is that due primarily to the "low for long" requirements, the effect of any of the scenario sets on reserves is expected to be very large.

Al Zlogar (Academy) discussed the VA model office update. He said the results are similar to the ULSG results in that the AIRG produced the lowest reserve and the Conning calibrations produced much higher reserve amounts mostly due to the low equity return scenarios. He encouraged participants to take the time to review the conclusions.

Having no further business, the Life Actuarial (A) Task Force and the Life Risk-Based Capital (E) Working Group adjourned.

<https://SharePoint/.../Life Actuarial Task Force/Mar 17, 2022 Minutes>

Draft: 3/17/22

Life Actuarial (A) Task Force  
Virtual Meeting  
March 10, 2022

The Life Actuarial (A) Task Force met on Mar. 10, 2022. The following Task Force members participated: Cassie Brown, Chair, represented by Mike Boerner and Rachel Hemphill (TX); Scott A. White, Vice Chair, represented by Craig Chupp (VA); Jim L. Ridling represented by Jennifer Li (AL); Ricardo Lara represented by Ben Bock, Ted Chang, Ahmad Kamil, and Thomas Reedy (CA); Michael Conway represented by Eric Unger (CO); Andrew N. Mais represented by Wanchin Chou (CT); Trinidad Navarro represented by Charles Santana (DE); Doug Ommen represented by Mike Yanacheak (IA); Dana Popish Severinghaus represented by Bruce Sartain and Vincent Tsang (IL); Vicki Schmidt represented by Nicole Boyd (KS); Grace Arnold represented by Fred Andersen (MN); Chlora Lindley-Myers represented by William Leung (MO); Eric Dunning represented by Derek Wallman (NE); Marlene Caride represented by Seong-min Eom (NJ); Adrienne A. Harris represented by Bill Carmello and Amanda Fenwick (NY); Judith L. French represented by Peter Weber (OH); Michael Humphreys represented by Steve Boston (PA); and Jon Pike represented by Tomasz Serbinowski (UT).

1. Exposed Amendment Proposal 2022-04

Alan Routhenstein (American Academy of Actuaries—Academy) gave a presentation (Attachment A) on the Academy proposal for replacing swap spreads based on the London Inter-Bank Offered Rate (LIBOR) with those based on the Secured Overnight Financing Rate (SOFR). The swap spreads are used for the modeled reserve asset and derivative calculations under VM-20, Requirements for Principle-Based Reserves for Life Products, VM-21, Requirements for Principle-Based Reserves for Variable Annuities, and VM-22, Statutory Maximum Valuation Interest Rates for Income Annuities.

Mr. Routhenstein said there are three questions for the Task Force and commenters to consider:

- 1) Should the NAIC start publishing SOFR swap spreads in 2022 (and if so, how should the APF address this)?
- 2) What is the practical number of Spread Adjustment parameters to use?
- 3) Should we consider Payment Frequency and Day Count enhancements to improve accuracy?

Pat Allison (NAIC) said the current *Valuation Manual* language allows for the transition from LIBOR to SOFR but does not seem to allow for publishing both sets of rates. She agreed to request the NAIC Legal Department offer an opinion on whether the NAIC has the authority to publish both sets of rates.

Mr. Leung made a motion, seconded by Mr. Chou, to expose amendment proposal 2022-04 (Attachment B), including the questions for commenter consideration and some minor reference clarifications, for a 44-day public comment period ending April 22. The motion passed unanimously.

2. Adopted Amendment Proposal 2022-01

Brian Bayerle (American Council of Life Insurers—ACLI) said the ACLI comment letter (Attachment C) supports the adoption of amendment proposal 2022-01. Sheldon Summers (Claire Thinking, Inc.) said his comment letter (Attachment D) points out that the retrocessionaire in a coinsurance agreement does not have the right to

increase premiums in the same way the initial yearly renewable term (YRT) reinsurer would. He recommends setting  $\frac{1}{2}$  cx as the reserve floor but requiring modeling for the deterministic and stochastic reserves if the coinsurance retrocessionaire believes the initial YRT reinsurer has less of an incentive to increase the YRT reinsurance premium rates on a timely basis due to the risk being transferred via the coinsurance treaty.

Ms. Hemphill said while she understands the comments, she believes that modeling the retrocession with the current VM-20 requirements would result in a reserve that is not materially different from the  $\frac{1}{2}$  cx treatment, and the intent was to clarify the current requirements. Mr. Slutsker concurred. He said the intent of the proposal was to clarify the process in place for retrocessions. He expressed an openness to considering a broader scope in the future.

Mr. Slutsker made a motion, seconded by Mr. Chupp, to adopt amendment proposal 2022-01 (Attachment E). The motion passed unanimously.

Having no further business, the Life Actuarial (A) Task Force adjourned.

<https://SharePoint/.../Life Actuarial Task Force/Mar 10, 2022 Minutes>

Draft: 3/16/22

Life Actuarial (A) Task Force  
Virtual Meeting  
March 3, 2022

The Life Actuarial (A) Task Force met on Mar. 3, 2022. The following members participated: Cassie Brown, Chair, represented by Mike Boerner and Rachel Hemphill (TX); Scott A. White, Vice Chair, represented by Craig Chupp (VA); Jim L. Ridling represented by Jennifer Li (AL); Ricardo Lara represented by Ben Bock, Ted Chang, Ahmad Kamil, and Thomas Reedy (CA); Michael Conway represented by Eric Unger (CO); Andrew N. Mais represented by Wanchin Chou (CT); Trinidad Navarro represented by Charles Santana (DE); Doug Ommen represented by Mike Yanacheak (IA); Dana Popish Severinghaus represented by Bruce Sartain and Vincent Tsang (IL); Vicki Schmidt represented by Nicole Boyd (KS); Grace Arnold represented by Fred Andersen (MN); Chlora Lindley-Myers represented by William Leung (MO); Eric Dunning represented by Derek Wallman (NE); Marlene Caride represented by Seong-min Eom (NJ); Adrienne A. Harris represented by Bill Carmello and Amanda Fenwick (NY); Judith L. French represented by Peter Weber (OH); Glen Mulready represented by Andrew Schallhorn (OK); Jessica K. Altman represented by Steve Boston (PA); and Jon Pike represented by Tomasz Serbinowski (UT).

1. Agreed to Forward Blanks Proposal for Changes to the VM-20 Reserves Supplement

Jennifer Frasier (NAIC) said Mr. Leung submitted a comment on the proposal for modifying the Life, Accident and Health/Fraternal annual statement blanks and instructions for the VM-20 Supplement. Mr. Leung suggested changing the term “not rejected” to “allowed” for consistency throughout the document. Ms. Frasier said the phrase “and the Supplemental Exhibits and Schedules Interrogatories (Quarterly Statement)” should be added to the sentence in the “Items to be Changed” section on page 1.

The Task Force agreed, without objection, to forward the proposal (Attachment A) to the Blanks (E) Working Group, after making the changes suggested by Mr. Leung and Ms. Frasier.

2. Exposed Amendment Proposal 2022-02

Ms. Hemphill said amendment proposal 2022-02 clarifies the language in Section 3.F.9.h.ii of VM-31, PBR Actuarial Report Requirements for Business Subject to a Principle-Based Valuation. She said the revised language parallels the language in VM-21, Requirements for Principle-Based Reserves for Variable Annuities, that the VM-31 language is intended to verify.

Mr. Chupp made a motion, seconded by Mr. Weber, to expose amendment proposal 2022-02 (Attachment B) for a 21-day public comment period ending March 23. The motion passed unanimously.

3. Exposed Amendment Proposal 2022-03

Ms. Hemphill said amendment proposal 2022-03 provides cleanup, updates cross-references and improves the consistency between VM-20, Requirements for Principle-Based Reserves for Life Products, and VM-21.

Mr. Chupp made a motion, seconded by Mr. Weber, to expose amendment proposal 2022-03 (Attachment C) for a 21-day public comment period ending March 23. The motion passed unanimously.

4. Heard an Academy Update on Model Office Testing

Jason Kehrberg (Academy) provided an overview (Attachment D) of the economic scenario generator (ESG) model office testing. Al Zlogar (Academy) presented the model office specifications for a variable annuity product with a guaranteed lifetime withdrawal benefit and a guaranteed minimum death benefit. He said the model office testing will show the reserve, the risk-based capital (RBC) and the total asset requirement (TAR) calculated per VM-21. Mr. Kehrberg presented the model office specifications for VM-20 reserves. He said the Academy plans to share model office results on the Mar. 17 Task Force call.

Having no further business, the Life Actuarial (A) Task Force adjourned.

<https://SharePoint/.../Life Actuarial Task Force/Mar 3, 2022 Minutes>

Draft: 3/17/22

Life Actuarial (A) Task Force  
Virtual Meeting  
February 24, 2022

The Life Actuarial (A) Task Force met Feb. 24, 2022. The following Task Force members participated: Cassie Brown, Chair, represented by Mike Boerner and Rachel Hemphill (TX); Scott A. White, Vice Chair, represented by Craig Chupp (VA); Jim L. Ridling represented by Jennifer Li (AL); Ricardo Lara represented by Ben Bock, Ted Chang, Ahmad Kamil, and Thomas Reedy (CA); Michael Conway represented by Eric Unger (CO); Andrew N. Mais represented by Wanchin Chou (CT); Trinidad Navarro represented by Charles Santana (DE); Doug Ommen represented by Mike Yanacheak (IA); Dana Popish Severinghaus represented by Bruce Sartain and Vincent Tsang (IL); Vicki Schmidt represented by Nicole Boyd (KS); Grace Arnold represented by Fred Andersen (MN); Chlora Lindley-Myers represented by William Leung (MO); Eric Dunning represented by Derek Wallman (NE); Marlene Caride represented by Seong-min Eom (NJ); Adrienne A. Harris represented by Bill Carmello and Amanda Fenwick (NY); Judith L. French represented by Peter Weber (OH); Glen Mulready represented by Andrew Schallhorn (OK); Jessica K. Altman represented by Steve Boston (PA); and Jon Pike represented by Tomasz Serbinowski (UT).

1. Exposed a Blanks Proposal for Changes to the VM-20 Reserves Supplement

Jennifer Frasier (NAIC) presented a proposal (Attachment A) for modifying the VM-20, Requirements for Principle-Based Reserves for Life Products, Supplement in the Life, Accident and Health/Fraternal annual statement blank and instructions to reflect that the Life Principle-Based Reserving (PBR) Exemption is revised to allow an ongoing statement of exemption. The proposed changes will be effective for the 2022 annual statement blanks.

Mr. Leung made a motion, seconded by Mr. Chou, to expose the proposal for a seven-day public comment period ending March 2. The motion passed unanimously.

2. Discussed Comments on the IUL Exposure

Mr. Andersen said a survey of state insurance regulators reported that *Actuarial Guideline XLIX-A—The Application of the Life Illustrations Model Regulation to Policies with Index-Based Interest to Policies Sold On or After December 14, 2020* (AG 49-A) has effectively addressed the indexed universal life (IUL) product features, including multipliers and buy-up accounts that were previously concerning. He said state insurance regulators have discovered new IUL Illustration problems caused by combining volatility-controlled funds and fixed bonuses to produce illustrations more favorable than those produced using the traditional capped Standard & Poor's 500 index (S&P 500). He said the IUL exposure (Attachment B) is designed as a step to potentially address that issue. He asked Task Force members to consider three categories of options for how to address the issue: 1) changes that entail a small amount of work and might require a slight tweak to AG 49-A; 2) changes that restrict IUL illustrations such that they illustrate similar to traditional universal life (UL); and 3) changes requiring an extensive amount of work and that have a greater impact than the first category but still allow IUL illustrations that are more favorable than UL illustrations.

Seth Detert (Securian Life) said the Securian comment letter (Attachment C) agrees that the multiplier and buy-up illustration issues have been largely resolved. He said Securian believes the current practice of illustrating volatility-controlled indices does not meet the intent of AG 49-A and should be quickly addressed. He said Securian specifically supports regulatory changes that would extend the 145-basis point (bp) limit, which AG 49-A applies to benchmark index accounts, to illustrations of option profits in excess of the 145-bp for non-benchmark index accounts.

Mr. Andersen said the Valmark comment letter (Attachment D) expresses the need for a more robust solution for the IUL illustration problem. Valmark provided a paper (Attachment E) on the complexity of IUL marketing materials and an example (Attachment F) of the methodology for a particular product.

Alicia Carter (American Academy of Actuaries—Academy) said the Academy comment letter (Attachment G) notes that AG 49-A has had the intended effect for products with multipliers and other index enhancements. She said if the Task Force decides to update AG 49-A, the Academy recommends that either an additional limit be applied to the illustrated option profit or the benchmark index account limit be aligned with the option spend by allowing multiple benchmark index accounts.

Brian Lessing (Equitable) said Equitable’s comment letter (Attachment H) is a reminder of the proposal it submitted in 2020 and indicates how that proposal might be applicable to the volatility-controlled funds issue. He asked that the proposal be considered if the Task Force decides to revise AG 49-A.

Mr. Andersen said the Allianz comment letter (Attachment I) provides the company’s perspective on the consumer value of volatility-controlled indices.

Brian Bayerle (American Council of Life Insurers—ACLI) said the ACLI comment letter (Attachment J) provides commentary on the use of volatility-controlled funds with fixed bonuses. He said the ACLI is seeking clarity from the Task Force on how state insurance regulators would prefer to proceed. He said a potential path could be to require additional disclosures.

Mr. Andersen read the comment letter (Attachment K) from an anonymous source. The commenter expressed agreement with the findings in the IUL exposure. The letter detailed the commenter’s list of existing AG 49-A issues.

Jerry Vanderzanden (Coalition of Concerned Insurance Professionals—Coalition) said the Coalition comment letter (Attachment L) articulates their view of the current IUL illustration challenges. He highlighted some specific points they consider important: 1) the use of account specific fixed interest bonuses can produce illustrated gains as large as the multiplier strategies that led to the development of AG 49-A; 2) volatility-controlled indices used in conjunction with fixed bonuses to augment performance is the easiest way to work the strategy, but it is not the only way; and 3) the Task Force is encouraged to develop a holistic solution that addresses the lookback methodology.

Birny Birnbaum (Center for Economic Justice—CEJ) said if the purpose of the illustration is to help consumers understand the product, whether an IUL illustrates better than a UL is irrelevant. He said while the Task Force is focusing on addressing the current IUL practices that are inconsistent with the purpose of illustrations, the CEJ asks that the Life Insurance and Annuities (A) Committee take broader actions like reengineering illustrations to help consumers better understand how a product operates, addressing the conflict of interest with the index provider also providing the hedging product, and stopping the use of back testing as a basis for future performance.

Mr. Andersen said the IUL Illustration (A) Subgroup will consider the comments and appropriately revise the exposure.

### 3. Disbanded the GI Life Valuation (A) Subgroup

Reggie Mazyck (NAIC) announced that the Task Force agreed via e-vote to disband the Guaranteed Issue (GI) Life Valuation (A) Subgroup. The Subgroup charges have been absorbed by the Task Force.

Having no further business, the Life Actuarial (A) Task Force adjourned.

[https://naiconline.sharepoint.com/:w:/r/sites/NAICSupportStaffHub/Member Meetings/2022 NAIC Meetings/Spring National Meeting/Committee Meetings/LIFE INS and ANNUITIES \(A\) COMMITTEE/Life Actuarial \(A\) TF/National Meeting/Spring National Meeting/1.LATF Minutes/Feb 24 Minutes \(3\).docx](https://naiconline.sharepoint.com/:w:/r/sites/NAICSupportStaffHub/Member%20Meetings/2022%20NAIC%20Meetings/Spring%20National%20Meeting/Committee%20Meetings/LIFE%20INS%20and%20ANNUITIES%20(A)%20COMMITTEE/Life%20Actuarial%20(A)%20TF/National%20Meeting/Spring%20National%20Meeting/1.LATF%20Minutes/Feb%2024%20Minutes%20(3).docx)

Draft: 3/17/22

Life Actuarial (A) Task Force and the  
Life Risk-Based Capital (E) Working Group  
Virtual Meeting  
February 17, 2022

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1. Discussed the ESG

Scott O’Neal (NAIC) provided an update (Attachment **A**) on the economic scenario generator (ESG). He said the ESG Drafting Group is considering two candidates for the Treasury Model. The candidates are the Conning calibration with a generalized fractional floor and an alternative calibration with a shadow rate floor, which introduces a floor rate believed to preserve the arbitrage-free property of the scenarios. He said the field test will help determine which floor to use for the ESG. He noted that the Conning calibration met all the acceptance criteria prioritized by the drafting group for use in the field test.

Mr. O’Neal said the drafting group discussed key recommendations for the setup of the equity and corporate models. The recommendations include: 1) retaining the ESG equity-treasury linkage (supported primarily by the state insurance regulators on the drafting group); 2) using a Sharpe ratio approach with a 5% corridor to represent international equities; 3) capturing initial market conditions by allowing the recent market volatility to affect equity scenarios; and 4) including both the simplified and the complex Conning GEMS corporate model in the field testing. Mr. O’Neal said the drafting group is working to address questions on the structure of the field test and scope of business to include. He said the field test will begin in June and run to September. Results are expected to be presented to the public by November. Pat Allison (NAIC) said the response to the initial request for field test participation resulted in companies offering to test a broad range of products. She said a follow-up request, with more details on the field test, is forthcoming.

Brian Bayerle (American Council of Life Insurers—ACLI) discussed the ACLI comments (Attachment **B**). The comments indicated general concerns, as well as concerns specific to the treasury and equity models. Mr. Bayerle said the ACLI does not believe the Conning GEMS model meets the need for determining life insurance and annuity reserves. He said the limited documentation available for the Conning GEMS model is an issue of concern. He said ACLI experts have just offered an alternative model that is understandable and transparent. He stated the ACLI preference for using that model instead of the Conning GEMS model. Jason Kehrberg (American Academy of

Actuaries—Academy) said the Academy also questions the suitability of the Conning GEMs model for life insurance reserving. He said the Academy has offered proposals for changes to the modeling of interest rates, equity returns, and fixed income returns. He said the Academy is working to provide model office results for the current candidates for the field test for discussion on a future call.

Having no further business, the Life Actuarial (A) Task Force and Life Risk-Based Capital (E) Working Group adjourned.

[https://naiconline.sharepoint.com/:w:/r/sites/NAICSupportStaffHub/Member Meetings/2022 NAIC Meetings/Spring National Meeting/Committee Meetings/LIFE INS and ANNUITIES \(A\) COMMITTEE/Life Actuarial \(A\) TF/National Meeting/Spring National Meeting/1. LATF Minutes/Feb 17 Minutes \(3\).docx](https://naiconline.sharepoint.com/:w:/r/sites/NAICSupportStaffHub/MemberMeetings/2022NAICMeetings/SpringNationalMeeting/CommitteeMeetings/LIFEINSandANNUITIES(A)COMMITTEE/LifeActuarial(A)TF/NationalMeeting/SpringNationalMeeting/1.LATFMinutes/Feb17Minutes(3).docx)

Draft: 3/9/22

Life Actuarial (A) Task Force  
Virtual Meeting  
February 10, 2022

The Life Actuarial (A) Task Force met Feb. 10, 2022. The following Task Force members participated: Cassie Brown, Chair, represented by Mike Boerner and Rachel Hemphill (TX); Scott A. White, Vice Chair, represented by Craig Chupp (VA); Jim L. Ridling represented by Jennifer Li (AL); Ricardo Lara represented by Ben Bock, Ted Chang, Ahmad Kamil, and Thomas Reedy (CA); Michael Conway represented by Eric Unger (CO); Andrew N. Mais represented by Wanchin Chou (CT); Trinidad Navarro represented by Charles Santana (DE); Doug Ommen represented by Mike Yanacheak (IA); Dana Popish Severinghaus represented by Bruce Sartain and Vincent Tsang (IL); Vicki Schmidt represented by Nicole Boyd (KS); Grace Arnold represented by Fred Andersen and Ben Slutsker (MN); Chlora Lindley-Myers represented by William Leung (MO); Eric Dunning represented by Derek Wallman (NE); Marlene Caride represented by Seong-min Eom (NJ); Adrienne A. Harris represented by Bill Carmello and Amanda Fenwick (NY); Judith L. French represented by Peter Weber (OH); Jessica K. Altman represented by Steve Boston (PA); and Jon Pike represented by Tomasz Serbinowski (UT).

1. Exposed a Proposed Actuarial Guideline for Asset Adequacy Testing

Mr. Andersen said the proposed actuarial guideline addresses the increased use of complex assets in asset adequacy testing (AAT) modeling to support reserves. He said the guideline provides background for activities and findings leading to the its development. He said while many complex assets tend to be associated with private equity firms, complex assets are also used by insurance companies with traditional ownership. He noted that the development of the guideline is associated with a broad NAIC effort, including coordination by the Macroprudential (E) Working Group, to establish regulatory practices related to private equity-owned insurers. He said the role of the Task Force is to ensure reserves are adequate even when complex assets do not perform as predicted. He said the focus of the guideline is on projected high net yield assets. The proposed effective date of the guideline is Dec. 31.

Mr. Andersen said the scope of the guideline covers life insurers with: 1) over \$5 billion in actuarial reserves; or 2) over \$500 million of actuarial reserves and over 5% of the assets supporting those reserves considered high yield. He said approximately 86 companies fall under the first criterion, and approximately 100 companies fall under the second criterion.

Mr. Carmello suggested that using the current U.S. Treasury rate to determine the investment grade net yield benchmark is better than using the U.S. Treasury rate on the asset purchase date. Mr. Chang said the Scope section should be adjusted for reinsurance agreements where a portion of the supporting assets are held by the reinsurer. Mr. Carmello said he is in favor of having the scope of the guideline apply to all life insurers. Mr. Leung said perhaps there are general principles that would apply to all companies; companies with high yielding assets would be subjected to additional requirements. Mr. Wallman stated his preference for continuing with sensitivity testing for year-end 2023 instead of moving to the proposed investment constraints.

Mr. Andersen made a motion, seconded by Mr. Leung, to expose the AAT actuarial guideline (Attachment A) for a 35-day public comment period ending March 18. The motion passed unanimously.

2. Exposed Amendment Proposal 2022-01

Ms. Hemphill said amendment proposal 2022-01 (Attachment **B**) clarifies the language in Section 8C(18) of VM-20, Requirements for Principle-Based Reserves for Life Products, that is applicable to retrocessions of yearly renewable term (YRT) business. Mr. Slutsker said the proposal clarifies that the same treatment that applies to the reinsurer also applies to the retrocessionaire.

Mr. Slutsker made a motion, seconded by Mr. Chupp, to expose amendment proposal 2022-01 for a 21-day public comment period ending March 3. The motion passed unanimously.

Having no further business, the Life Actuarial (A) Task Force adjourned.

<https://naiconline.sharepoint.com/sites/NAICSupportStaffHub/MemberMeetings/Spring2022NationalMeeting/TaskForces/LifeActuarial/LATF Calls/02 10/LATF Fall 2021 Minutes.docx>

Draft: 2/24/22

Life Actuarial (A) Task Force  
Virtual Meeting  
February 3, 2022

The Life Actuarial (A) Task Force met Feb. 3, 2022. The following Task Force members participated: Cassie Brown, Chair, represented by Mike Boerner and Rachel Hemphill (TX); Scott A. White, Vice Chair, represented by Craig Chupp (VA); Jim L. Ridling represented by Jennifer Li (AL); Ricardo Lara represented by Ben Bock, Ahmad Kamil, and Thomas Reedy (CA); Michael Conway represented by Eric Unger (CO); Andrew N. Mais represented by Wanchin Chou (CT); Doug Ommen represented by Mike Yanacheak (IA); Dana Popish Severinghaus represented by Bruce Sartain and Vincent Tsang (IL); Vicki Schmidt represented by Nicole Boyd (KS); Grace Arnold represented by Fred Andersen (MN); Chlora Lindley-Myers represented by William Leung (MO); Eric Dunning represented by Derek Wallman (NE); Marlene Caride represented by Seong-min Eom (NJ); Adrienne A. Harris represented by Bill Carmello and Amanda Fenwick (NY); Judith L. French represented by Peter Weber (OH); Glen Mulready represented by Andrew Schallhorn (OK); Jessica K. Altman represented by Steve Boston (PA); and Jon Pike represented by Tomasz Serbinowski (UT).

1. Adopted its Fall National Meeting Minutes

Mr. Chupp made a motion, seconded by Mr. Tsang, to adopt the Task Force's Dec. 8, 2021, minutes (Attachment A). The motion passed unanimously.

2. Adopted Amendment Proposal 2021-11

Ms. Hemphill said amendment proposal 2021-11 (Attachment B) was re-exposed after several small changes. She said the amendment proposal augments VM-21, Requirements for Principle-Based Reserves for Variable Annuities, with sections providing guidance on general assumptions, assumption margins, and expenses. Brian Bayerle (American Council of Life Insurers—ACLI) said the ACLI is generally supportive of the changes, but it has concerns about the regulatory value of the sensitivity testing the proposal adds to VM-21, as discussed in its comment letter (Attachment C). He suggested that clarification of why the additional sensitivity tests are needed would be helpful. Ms. Hemphill responded that the sensitivity tests are necessary for companies and state insurance regulators to understand the material risks. She suggested that the proposal be adopted as exposed.

Mr. Leung made a motion, seconded by Mr. Chupp, to adopt amendment proposal 2021-11. The motion passed unanimously.

3. Re-Exposed Amendment Proposal 2020-12

Ms. Hemphill said a drafting group of state insurance regulators and NAIC staff revised the previous draft of amendment proposal 2020-12 to create the current version. She said the concept of a seasoned hedging strategy that appeared in earlier drafts of the proposal is replaced with the concept of a future hedging strategy. She discussed the proposed changes to VM-01, Definitions for Terms in Requirements; VM-20, Requirements for Principle-Based Reserves for Life Insurance; VM-21; and VM-31, PBR Actuarial Report Requirements for Business Subject to a Principle-Based Valuation. She noted that a core change to VM-20 requires that where documentation of future hedging strategies is incomplete, the stochastic reserve must be increased to reflect that future hedging strategies are not clearly defined. She said VM-21 has a similar change that requires an increase in the error factor (E) if the hedging program is not clearly defined.

Mr. Bayerle asked if adoption of the amendment proposal will necessitate changes to accounting requirements. Ms. Hemphill said to the extent that changes are made to the definition of clearly defined hedging strategy (CDHS), coordination with *Statement of Statutory Accounting Principles (SSAP) No. 108—Derivatives Hedging Variable Annuity Guarantees* may be required.

Mr. Chupp made a motion, seconded by Mr. Leung, to re-expose amendment proposal 2020-12 (Attachment **D**) for a 47-day public comment period ending March 21. The motion passed unanimously.

Having no further business, the Life Actuarial (A) Task Force adjourned.

[https://naiconline.sharepoint.com/:w:/r/sites/NAICSupportStaffHub/Member Meetings/2022 NAIC Meetings/Spring National Meeting/Committee Meetings/LIFE INS and ANNUITIES \(A\) COMMITTEE/Life Actuarial \(A\) TF/LATF Calls/02 03/Feb 3 Minutes.docx](https://naiconline.sharepoint.com/:w:/r/sites/NAICSupportStaffHub/Member%20Meetings/2022%20NAIC%20Meetings/Spring%20National%20Meeting/Committee%20Meetings/LIFE%20INS%20and%20ANNUITIES%20(A)%20COMMITTEE/Life%20Actuarial%20(A)%20TF/LATF%20Calls/02%2003/Feb%203%20Minutes.docx)

Draft: 2/17/22

Life Actuarial (A) Task Force  
Virtual Meeting  
January 27, 2022

The Life Actuarial (A) Task Force met Jan. 27, 2022. The following Task Force members participated: Cassie Brown, Chair, represented by Mike Boerner and Rachel Hemphill (TX); Scott A. White, Vice Chair, represented by Craig Chupp (VA); Jim L. Ridling represented by Jennifer Li (AL); Ricardo Lara represented by Ben Bock, Ahmad Kamil, and Thomas Reedy (CA); Michael Conway represented by Eric Unger (CO); Andrew N. Mais represented by Wanchin Chou (CT); Doug Ommen represented by Mike Yanacheak (IA); Dana Popish Severinghaus represented by Bruce Sartain and Vincent Tsang (IL); Vicki Schmidt represented by Nicole Boyd (KS); Grace Arnold represented by Fred Andersen (MN); Chlora Lindley-Myers represented by William Leung (MO); Eric Dunning represented by Derek Wallman (NE); Marlene Caride represented by Seong-min Eom (NJ); Adrienne A. Harris represented by Bill Carmello and Amanda Fenwick (NY); Judith L. French represented by Peter Weber (OH); Glen Mulready represented by Andrew Schallhorn (OK); Jessica K. Altman represented by Steve Boston (PA); and Jon Pike represented by Tomasz Serbinowski (UT).

1. Discussed Comments on an Actuarial Guideline on Asset Adequacy Testing

Mr. Andersen said the Task Force is part of a coordinated NAIC effort to address issues arising from the increase in insurers actively participating with private equity firms or the increasing complexity of assets. Some goals of the efforts include gaining a clearer picture of alternative assets used by insurers, investment management relationships, fee arrangements, affiliated arrangements, accounting, the classification of certain investments, rating agency practices, reinsurance practices, risk-based capital (RBC), and reserves. Mr. Andersen said the focus of the Task Force is on the effects of the modeling of complex assets on reserve adequacy testing. He said the concept of an actuarial guideline leading to clarity on these reserving issues was exposed in September 2021, with a follow-up concept document (Attachment A) exposed at the Fall National Meeting.

Brian Bayerle (American Council of Life Insurers—ACLI) said the ACLI comment letter (Attachment B) advocates a principle-based framework that leverages the expertise of appointed actuaries. He said the definition of complex assets should focus on the novel aspects of the assets and be flexible enough to adapt to new asset classes as they develop in response to changing economic environments. He said the ACLI is proposing a definition of complex assets, a set of disclosure requirements, and guidance on additional disclosures for year-end 2022 reporting. He said state insurance regulators consider materiality in the application of the guideline.

Jason Kehrberg (American Academy of Actuaries—Academy) said page 2 of the Academy comment letter (Attachment C) summarizes the Academy's recommendation. He said the Academy suggests that additional disclosures and guidance may be warranted but warns against the implementation of constraints that could discourage investment in complex assets. He reviewed the Academy's proposed documentation requirements for inflated net yields. Mr. Andersen said the concept of increasing margins for uncertainty in instances where there is limited or unreliable historical data will be key. Len Mangini (Academy) said disclosures should include the setting, testing, and governance of reserves. Mr. Leung asked what asset class constraints might discourage investments in those assets. Mr. Kehrberg gave the example of limiting a company's portfolio to no more than 10% of a particular asset class. Mr. Andersen asked if the ACLI could provide company feedback on whether the VM-20, Requirements for Principle-Based Reserves for Life Products, asset constraints have led to a change in company asset strategies. Mr. Serbinowski asked if constraints on valuation rules applied to a particular asset class might be more acceptable by the Academy. Mr. Kehrberg said the Academy would prefer that the requirements be principle-based.

Aaron Sarfatti (Equitable) said the Equitable comment letter (Attachment D) encourages the Task Force to regard asset adequacy testing as the primary reserve. Steve Tizzoni (Equitable) said the strengthening of the asset adequacy testing standards is necessary to achieve harmonization across reserve determination and testing. He said more than disclosure is necessary to achieve reform. Mr. Mangini said Canada has previously dealt with the issue of constraints. He said companies were forced to map one of their exotic assets to a similar index and cap the returns on the asset to match the index returns. Mr. Serbinowski said having constraints will help moderate actuarial judgment.

Having no further business, the Life Actuarial (A) Task Force adjourned.

[https://naiconline.sharepoint.com/:w:/r/sites/NAICSupportStaffHub/Member Meetings/2022 NAIC Meetings/Spring National Meeting/Committee Meetings/LIFE INS and ANNUITIES \(A\) COMMITTEE/Life Actuarial \(A\) TF/National Meeting/Spring National Meeting/1.LATF Minutes/Jan 27 Minutes.docx](https://naiconline.sharepoint.com/:w:/r/sites/NAICSupportStaffHub/Member%20Meetings/2022%20NAIC%20Meetings/Spring%20National%20Meeting/Committee%20Meetings/LIFE%20INS%20and%20ANNUITIES%20(A)%20COMMITTEE/Life%20Actuarial%20(A)%20TF/National%20Meeting/Spring%20National%20Meeting/1.LATF%20Minutes/Jan%2027%20Minutes.docx)

Agenda Item 1 (Continued)  
Consider Adoption of Subgroup Reports

March 31, 2021

**From:** Fred Andersen, Chair  
The Experience Reporting (A) Subgroup

**To:** Mike Boerner, Chair  
The Life Actuarial (A) Task Force

**Subject:** The Report of the Experience Reporting (A) Subgroup to the Life Actuarial (A) Task Force

The Experience Reporting (A) Subgroup has not met since the Fall National Meeting. Upcoming projects include monitoring the plans for collecting life insurance mortality and policyholder behavior data using the NAIC as the statistical agent, starting to develop mandatory reporting of variable annuity data, and continuing to work on evaluating actuarial aspects of accelerated underwriting.

March 8, 2022

**From:** Seong-min Eom, Chair  
The Longevity Risk (E/A) Subgroup

**To:** Mike Boerner, Chair  
The Life Actuarial (A) Task Force

**Subject:** The Report of the Longevity Risk (E/A) Subgroup to the Life Actuarial (A) Task Force

The Longevity Risk (E/A) Subgroup has not met since the Fall National Meeting. The subgroup will resume the meetings once the currently exposed VM-22 PBR methodology is finalized and adopted to develop and recommend longevity risk factor(s) for the product(s) that were excluded from the application of the current longevity risk factors.

March 31, 2022

**From:** Pete Weber, Chair  
The Variable Annuities Capital and Reserve (E/A) Subgroup

**To:** Mike Boerner, Chair  
The Life Actuarial (A) Task Force

**Subject:** The Report of the Variable Annuities Capital and Reserve (E/A) Subgroup (VACR SG) to the Life Actuarial (A) Task Force

The VACR SG has not met since the Fall National Meeting. At the request of LATF, the Chair has made a request to the Society of Actuaries to expand the work they are currently carrying out for the VM-22 Standard Projection Amount Mortality DG to include variable annuities. More specifically, to develop mortality rates to be used as prescribed assumptions within the VM-21 Standard Projection Amount.

## Agenda Item 2

Consider Adoption of the Valuation Manual (VM)-22 (A) Subgroup Report

March 31, 2022

**From:** Ben Slutsker, Chair  
The VM-22 (A) Subgroup

**To:** Mike Boerner, Chair  
The Life Actuarial (A) Task Force

**Subject:** The Report of the VM-22 (A) Subgroup to the Life Actuarial (A) Task Force

The VM-22 (A) Subgroup has not met since the Fall National Meeting. Prior to the Fall National Meeting, the following events occurred:

- In July 2021, the American Academy of Actuaries' proposed draft of VM-22 language was exposed, along with two sets of definitions for payout and accumulation annuity reserving categories.
- Eight comment letters were received from interested parties and Subgroup members during the public exposure period, three of which included specific mark-ups to the proposed VM-22 draft.
- All mark-ups and comment letters have been consolidated into a single redline version of the proposed VM-22 draft, which will serve as the basis for discussions going forward.

Calls for the Subgroup will start up again on April 13, the first of which will be a 90-minute call. The latest draft of the VM-22 proposal includes 378 comments, which are divided into four tiers:

1. The first tier focuses on foundational and critical issues, for which there are four topics:
  - a. Structure of definitions and scope for VM-22 principle-based requirements
  - b. Reinvestment guardrail on the mix of credit qualities
  - c. Selecting one of the two exposed reserve category definitions for product aggregation
  - d. Whether to develop a small company exemption, analogous to the exemption in VM-20
2. The second tier will focus on 26 highly substantive comments, which include items such as longevity reinsurance, the transition period, and scope of the exclusion test.
3. The third tier will focus on 88 moderately substantive, highly technical comments.
4. The fourth tier consists of the remaining 258 comments, which were deemed either editorial, non-substantive, or non-controversial. These comments already have associated preliminary revisions made in the draft to address and will be eventually re-exposed. Only items for which there are additional comments or objections will be addressed.

The Subgroup will proceed by focusing its discussion on first tier issues, and then working its way down through the other three tiers. The objective of this approach is to use the Subgroup's time efficiently by focusing on the most substantive issues prior to discussing more detailed and less substantive items.

Aside from reviewing the draft VM-22 language, the Subgroup will continue working on developing a standard projection amount. The Subgroup has decided to recommend a standard projection amount to the Life Actuarial Task Force but has not decided on whether to recommend such as a disclosure-only

item or as a minimum floor. There are currently two NAIC drafting groups: one led by Seong-min Eom (NJ) working on development of mortality assumptions and another led by Vincent Tsang (IL) working on policyholder behavior assumptions. The goal will be to target a draft of the Standard Projection Amount to discuss during Subgroup calls in the Fall.

The Subgroup is also targeting a VM-22 field test to be held in the coming year. The current plan is for the field test to be run jointly by the Academy, ACLI, and NAIC. The goal will be to test the latest proposed non-variable annuity principles-based framework in comparison to the current statutory requirements and will include both reserve and capital calculations. A draft of specifications for the field test has been previously exposed by the Subgroup. The field test may also employ the use of a consultant to utilize for projections and analysis of the field test results. Note the timing of a field test for non-variable annuities is still being discuss and will be dependent on the timing of the NAIC Economic Scenario Field Test.

Lastly, Seong-min Eom (NJ) is leading the NAIC PRT Drafting Group, which is focusing on developing mortality assumptions for annuities covering the non-U.S. population, primarily from pension risk transfer transactions. The Drafting Group is seeking to identify a mortality assumption to use for reserving requirements prior to the implementation of principles-based reserves, which will also eventually be incorporated into principles-based reserves upon its effectiveness.

### Agenda Item 3

Consider Adoption of the Index-Linked Variable Annuity (A) Subgroup Report

**Actuarial Guideline ILVA  
Nonforfeiture Requirements for Index Linked  
Variable Annuity Products Supported by  
Non-Unitized Accounts**

**Background**

**The purpose of this guideline is to specify the conditions under which an Index-Linked Variable Annuity (ILVA) is consistent with the definition of a variable annuity and exempt from Model 805 and specify nonforfeiture requirements consistent with variable annuities.**

A number of insurers have developed and are issuing annuity products with credits based on the performance of an index with caps on returns, participation rates, spreads or margins, or other crediting elements, which include limitations on loss such as a floor or a buffer. These products are not unitized and do not invest directly in the assets whose performance forms the basis for the credits. However, unlike traditional non-variable indexed annuities, these annuities may reflect negative index returns.

There is no established terminology for these annuity products. These products go by several names, including structured annuities, registered index-linked annuities (RILA), or index-linked variable annuities, among others. This guideline refers to these products as index-linked variable annuities (ILVA).

Variable annuities are exempted from the scope of NAIC Model 805, *Standard Nonforfeiture Law for Individual Deferred Annuities*, however, NAIC Model 805 does not define the term "variable annuity".

NAIC Model 250, *Variable Annuity Model Regulation*, defines variable annuities as "contracts that provide for annuity benefits that vary according to the investment experience of a separate account" Section 7B of NAIC Model 250 provides that "to the extent that a variable annuity contract provides benefits that do not vary in accordance with the investment performance of a separate account" the contract shall satisfy the requirements of the NAIC Model 805.

The application of the NAIC Model 250 to a traditional variable annuity with unitized values is straightforward. The unitized feature provides an automatic linkage between annuity values and the investment experience of a separate account. Daily values (market values of the separate account assets) are the basis of all the benefits, including surrender values.

The fact that ILVA products are not unitized means they do not have values determined directly by the market prices of the underlying assets. Therefore, this guideline sets forth principles and requirements for determining values, including death benefit, withdrawal amount, annuitization amount or surrender values, such that an ILVA is considered a variable annuity and thereby exempt from Model 805. An ILVA that does not comply

with the principles and requirements of this guideline is not considered a variable annuity and therefore is subject to Model 805.

Drafting Note: This guideline interprets the term “variable annuity” for purposes of exemption from Model 805. It is not intended to modify the definition of a variable annuity under Model 250.

### **Scope**

This guideline applies to any index-linked annuity exempt from the NAIC Model 805 on the basis that it is a variable annuity provided through non-unitized separate account(s) and includes index-linked crediting features that are built into policies or contracts (with or without unitized subaccounts) or added to such by rider, endorsement, or amendment.

This guideline does not apply to an annuity contract or a subaccount of an annuity contract that is subject to the requirements of NAIC Model 805, Standard Nonforfeiture Law for Individual Deferred Annuities.

### **Principles**

This guideline is based on the following principles:

1. There exists a package of derivative assets that replicates the index credits provided by an index strategy at the end of an index term.
2. The value of the package of derivative assets can be determined daily using assumptions consistent with observable market values.
3. Interim Values defined in the contract provide equity to both the contract holder and the company where the Interim Values are consistent with the value of the Hypothetical Portfolio over the index term.

### **Definitions**

“Derivative Asset Proxy” means a package of hypothetical derivative assets designed to replicate credits provided by an Index Strategy at the end of an Index Term.

“Fixed Income Asset Proxy” is a hypothetical fixed income asset.

“Hypothetical Portfolio” means a hypothetical portfolio composed of a Fixed Income Asset Proxy and a Derivative Asset Proxy.

“Interim Value” mean the Strategy Value at any time other than the start date and end date of an Index Term.

“Index Strategy” means a method used to determine index credits with specified index or indices and cap, buffer, participation rate, spread, margin or other index crediting elements.

“Index Strategy Base” means the notional amount used to determine index credits that does not change throughout the Index Term except for withdrawals, transfers, deposits, and explicit charges.

“Index Strategy Term” means the period of time from the term start date to the term end date over which an index change and index credit is determined.

“Strategy Value” means the value, attributable to an Index Strategy, used in determining values including death benefit, withdrawal amount, annuitization amount or surrender values.

### **Text**

Index Strategy Base must equal the Strategy Value at an Index Term start date.

The value of the Fixed-Income Asset Proxy:

- a. At the beginning of the Index Term equals the Index Strategy Base less Derivative Asset Proxy value;
- b. At the end of the Index Term equals the Index Strategy Base; and
- c. Earns interest at a level rate.

The value of the Hypothetical Portfolio at any time is the sum of the Fixed-Income Asset Proxy value and the Derivative Asset Proxy value less a provision for the cost of unwinding the hedge positions not to exceed 10 bps.

Contracts in the scope of this guideline must provide Interim Values that are consistent with the value of the Hypothetical Portfolio over the index term.

If a contract provides Interim Values determined using a methodology other than a Hypothetical Portfolio methodology as described in this guideline, the company must demonstrate that the contractually defined Interim Values will be materially consistent with the Interim Values that would be produced using the Hypothetical Portfolio methodology for each combination of Index Strategy and Index Strategy Term under a reasonable number of economic scenarios.

Drafting Note: Acceptable economic scenarios over which consistency should to be demonstrated is yet to be determined. Considerations are the Academy Interest Rate Generator and/or defined deterministic scenarios including shocks that trigger Index Strategy parameters including but not limited to caps, floors and buffers.

The company must provide an actuary’s certification that the provisions of this guideline are being met.

Assumptions used to value the Derivative Asset Proxy including yields, implied volatility, risk-free rate, and dividend yield must be consistent with the observable market prices of derivative assets, whenever possible.

ILVA nonforfeiture benefits must comply with Section 7 of Model 250 with net investment return consistent with the requirements for determining Interim Values in this guideline.

The company (or actuary) must describe the Derivative Asset Proxy and the assumptions used to calculate its value at any time.

**Effective Date**

Draft: 3/22/22

Index-Linked Variable Annuity (A) Subgroup  
Virtual Meeting  
March 9, 2022

The Index-Linked Variable Annuity (A) Subgroup met Mar. 9, 2022. The following Subgroup members participated: Peter Weber (OH), Chair; Tomasz Serbinowski (UT), Vice Chair; Sarvjit Samra (CA); Vincent Tsang (IL); Derek Wallman (NE); David Wolf (NJ); Bill Carmello and Michael Cebula (NY); Mike Boerner, Rachel Hemphill and Kim Mengting (TX); Craig Chupp (VA); and David Hippen (WA).

1. Heard a Presentation on Interim Nonforfeiture Values

Brian Bayerle (American Council of Life Insurers—ACLI) said the ACLI interim value presentation (Attachment A) shows that Method 2 of the proposal jointly submitted by the ACLI and the Committee of Annuity Insurers (CAI), discussed on the Feb. 16 subgroup call, provides a fair and equitable value, and allows consumers to track their assets. Rachel D’Anna (Brighthouse Financial representing the ACLI), Allen Tang (Brighthouse Financial representing the ACLI) and Mike Drislane (Brighthouse Financial representing the ACLI) presented an analysis (Attachment B), incorporating historical scenarios, to compare the application of Method 2 to the application of the interim value determination in the initial version of the indexed-linked variable annuity (ILVA) guideline proposal. Mr. Tang said the results are presented over one-year, three-year and six-year scenarios. He said that slides demonstrate that on average, when looking at one thousand plausible scenarios, the pro rata method produces an expected value that is within one percent of the value provided when using the proposed interim value method.

Mr. Weber said the Subgroup seemed to favor Method 1 of the ACLI/CAI proposal. He asked how the pro rata method compares with Method 1. Ms. D’Anna said Method 1 allows for a different range of options. She said the initial proposal would fit within that range of options. She opined that a comparison of the pro rata method to other Method 1 options would yield results like those observed in the comparison of the initial proposal. Mr. Serbinowski expressed discomfort with blanketly accepting the pro rata method based on the demonstration of the success of one specific pro rata method. Ms. D’Anna said wording can be developed to address that issue. Mr. Hippen said the initial guideline seemed to be structured to prevent abusive products. He suggested that protective language is needed. He suggested that the ACLI expand its demonstration to include various product designs, including designs that are not acceptable. Mr. Serbinowski asked if it might be possible to develop a pro rata value certification method. Ms. D’Anna said that sounds reasonable. Mr. Wallman asked if consumers could be given a choice between the initial proposal and the pro rata method.

Having no further business, the Index-Linked Variable Annuity (A) Subgroup adjourned.

ILVA/Mar 9, 2022 Minutes

Draft: 3/17/22

Index-Linked Variable Annuity (A) Subgroup  
Virtual Meeting  
March 2, 2022

The Index-Linked Variable Annuity (A) Subgroup met Mar. 2, 2022. The following Subgroup members participated: Peter Weber (OH), Chair; Tomasz Serbinowski (UT), Vice Chair; Sarvjit Samra (CA); Vincent Tsang (IL); Derek Wallman (NE); David Wolf (NJ); Bill Carmello and Michael Cebula (NY); Mike Boerner, Sandra Dodson, Rachel Hemphill and Kim Mengting (TX); Craig Chupp (VA); and David Hippen (WA).

1. Discussed Comments on the ILVA Actuarial Guideline

Mr. Weber said comments from the American Academy of Actuaries (Academy) and joint comments from the American Council of Life Insurers (ACLI) and the Committee of Annuity Insurers (CAI) were heard on the Feb. 16 call. He indicated that a drafting group is incorporating some of those comments into the next draft of the Indexed-Linked Variable Annuity (ILVA) actuarial guideline. He said the ACLI/CAI provided an alternative guideline proposing two methods for determining interim values. He noted that some subgroup members were supportive of Method 1 of the ACLI/CAI alternative guideline. Most subgroup members were not supportive of Method 2.

David Hanzlik (CUNA Mutual) said the CUNA Mutual comments (Attachment 1) are supportive of the ACLI/CAI alternative as they address the core concerns raised in the CUNA Mutual letter. He said a specific concern is that the proposed ILVA guideline does not accommodate a product design that credits the full index performance, subject to a cap and floor. He said Method 2 of the ACLI/CAI alternative guideline does accommodate that product design.

Sarah Wood (Insurance Retirement Institute--IRI) said the IRI comment letter (Attachment 2) is supportive of the ACLI/CAI comments, including the alternative actuarial guideline. She said the IRI is concerned about the potential market disruption if products that currently provide pro-rata interim values are not accommodated. Mr. Serbinowski asked if there are acceptable alternatives, such as setting an effective date far enough into the future so that companies could develop compliant products, that could effectively address the potential market disruption issue. Mr. Weber said the market disruption issue is better suited for discussion by the Life Insurance and Annuities (A) Committee. He suggested that the guideline could include a drafting note that informs the Committee on the issue and provides a recommendation. Mr. Serbinowski said the guideline should not be applied to existing contracts. He said an effective date should be chosen that allows companies time to develop new products that comply with the guideline.

Jonathan Clymer (Prudential) said the Prudential comment letter (Attachment 3) focused on the explicit fee vs. the spread-based approach. He said the currently marketed ILVA products are fundamentally designed as a spread-based product. He said the proposed guideline may have many interpretations, including some that are not beneficial to consumers. He noted that such interpretations could disrupt the marketplace by limiting consumer choice, harming product simplicity, and stifling innovation. Mr. Clymer said the Prudential comment letter suggests a clarification to proposed guideline that would allow either a spread-based or fee-based approach. He said the spread-based approach would be accomplished by requiring an actuarial certification that the spreads are reasonable. Mr. Serbinowski asked if the ACLI Method 1 sufficiently addresses the Prudential concerns. Mr. Clymer responded that if both the spread-based and fee-based approaches are allowed the concern will be sufficiently addressed.

Mr. Leung asked if an actuarial guideline has the authority to supersede existing model regulations. Mr. Serbinowski suggested removing any references to general accounts or separate accounts from the guideline. He said it should focus on the application of nonforfeiture values to these products for any products that claim exemption from the Standard Nonforfeiture Law for Individual Deferred Annuities (#805).

Mr. Weber said some comments will be incorporated into the proposed guideline. He said the drafting group will work to have a revised draft for discussion during the March 31 Life Actuarial (A) Task Force meeting.

Having no further business, the Index-Linked Variable Annuity (A) Subgroup adjourned.

ILVA/Mar 2, 2022 Minutes

Draft: 2/24/22

Index-Linked Variable Annuity (A) Subgroup  
Virtual Meeting  
February 16, 2022

The Index-Linked Variable Annuity (A) Subgroup met Feb. 16, 2022. The following Subgroup members participated: Peter Weber (OH), Chair; Tomasz Serbinowski (UT), Vice Chair; Sarvjit Samra (CA); Vincent Tsang (IL); Derek Wallman (NE); Kevin Clarkson and David Wolf (NJ); Bill Carmello and Michael Cebula (NY); Mike Boerner, Kim Mengting and Rachel Hemphill (TX); Craig Chupp (VA); and David Hippen (WA).

1. Discussed Comments on the ILVA Actuarial Guideline

Beth Keith (American Academy of Actuaries—Academy) said the Academy comment letter (Attachment 1) provided conceptual comments, not recommendations for specific changes. She said the comments covered three areas within the actuarial guideline: 1) the scope; 2) the terminology; and 3) the hypothetical portfolio considerations. Mr. Chupp and Mr. Serbinowski questioned whether it is necessary for the proxy values proposed in recommendation 11 to be calculated monthly. Ms. Keith agreed to have her group consider that issue.

Brian Bayerle (American Council of Life Insurers—ACLI) and Steve Roth (Committee of Annuity Insurers—CAI) their organizations' views are jointly presented in their comment letter (Attachment 2). Mr. Bayerle said they are concerned that the guideline could affect all spread-based products, resulting in market disruptions. He said they believe the guideline is too prescriptive and may not allow the flexible to change as with economic conditions. He noted that they have an operational concern related to the guideline's effect on company separate accounts, which may also affect how the registered indexed-linked annuities (RILAs) are viewed by the Securities and Exchange Commission (SEC). He said the industry-proposed draft guideline (Attachment 3) addresses these issues. A spreadsheet (Attachment 4) is provided to illustrate some of their concerns about the proposed actuarial guideline. Subgroup members agreed that the ACLI and CAI should demonstrate why Method 2 in the spreadsheet example should be considered a viable option.

Mr. Weber said discussion of the remaining comments will continue on the March 2 Subgroup call.

Having no further business, the Index-Linked Variable Annuity (A) Subgroup adjourned.

[ILVA/Feb 16 2022 Minutes](#)

Agenda Item 4

Consider Adoption of the Indexed Universal Life (IUL)

Illustration (A) Subgroup Report

(No Materials)

## Agenda Item 5

Consider Adoption of Valuation Manual Amendments

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## Life Actuarial (A) Task Force/ Health Actuarial (B) Task Force Amendment Proposal Form\*

1. Identify yourself, your affiliation and a very brief description (title) of the issue.

**Identification:**

Hedging Drafting Group of LATF

**Title of the Issue:**

Reflect all future hedging strategies in VM-20 and VM-21. Revise hedge modeling to increase E factor (VM-21) or residual risk (VM-20) when future hedging strategies are not clearly defined.

2. Identify the document, including the date if the document is “released for comment,” and the location in the document where the amendment is proposed:

VM-01, VM-20 Section 6.A.1.b, VM-20 Section 7.E.1.g, VM-20 Section 7.K, VM-20 Section 7.L, VM-21 Section 1.D.2, VM-21 Section 4.A.4, VM-21 Section 4.D.4.b, VM-21 Section 6.B.3.a.ii, VM-21 Section 6.B.3.b.ii, VM-21 Section 6.B.5, VM-21 Section 9, VM-31 Section 3.C.5, VM-31 Section 3.D.6.f, VM-31 Section 3.D.14.a and 3.D.14.b, VM-31 Section 3.E.5, VM-31 Section 3.F.8, VM-31 Section 3.F.12.c, VM-31 Section 3.F.16.a and Section 3.F.16.b

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3. Show what changes are needed by providing a red-line version of the original verbiage with deletions and identify the verbiage to be deleted, inserted or changed by providing a red-line (turn on “track changes” in Word®) version of the verbiage. (You may do this through an attachment.)

See attached.

4. State the reason for the proposed amendment? (You may do this through an attachment.)

1. Consistent definition of CDHS for use in VM-20 and VM-21.
2. Add a definition for “future hedging strategy,” consistent with the definition for CDHS and the current VM-01 definition of “derivative program”, which VM-01 notes includes hedging programs.
3. Add a definition for “hedging transactions,” taken from the APPM but modified slightly to be consistent with Valuation Manual terminology.
4. Reflect all of a company’s future hedging strategies, but reflect the additional error (VM-21) or residual risk (VM-20) that is presented by a future hedging strategy not being clearly defined.
5. Remove optionality for liquidating currently held hedges (despite liquidation not being a part of the company investment strategy) if not modeling a future hedging strategy.
6. New hedging strategies (<6 months experience) have an E factor of 1.0 for VM-21. For comparison, the current draft VM-22 only allows modeling hedges after they have been in place for 6 months. When only CDHS were modeled in VM-21, new hedging strategies with no experience had E factors as low as 0.5 even without meaningful analysis. This treatment was much too lenient for new hedging strategies.

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\* This form is not intended for minor corrections, such as formatting, grammar, cross-references or spelling. Those types of changes do not require action by the entire group and may be submitted via letter or email to the NAIC staff support person for the NAIC group where the document originated.

NAIC Staff Comments:

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## VM-01

- The term “clearly defined hedging strategy” (CDHS) means a ~~strategy undertaken by a company to manage risks through the future purchase or sale of hedging instruments and the opening and closing of hedging positions~~ future hedging strategy for which the following attributes are clearly documented that meet the criteria specified in the applicable reserve requirement section of the Valuation Manual:

- a. The specific risks being hedged (e.g., cash flow, fee income, policy interest credits, delta, rho, vega, etc.).
- b. The hedging objectives.
- c. The material risks that are not hedged (e.g., variation from expected mortality, withdrawal, and other utilization or decrement rates assumed in the hedging strategy, etc.).
- d. The financial instruments used to hedge the risks.
- e. The hedging strategy’s trading rules, including the permitted tolerances from hedging objectives.
- f. The metrics, criteria, and frequency for measuring hedging effectiveness.
- g. The conditions under which hedging will not take place and for how long the lack of hedging can persist.
- h. The group or area, including whether internal or external, responsible for implementing the hedging strategy.
- i. Areas where basis, gap or assumption risk related to the hedging strategy have been identified.
- j. The circumstances under which hedging strategy will not be effective in hedging the risks.

The hedge strategy may be dynamic, static or a combination thereof.

**Guidance Note:** For purposes of the CDHS documented attributes, “effectiveness” need not be measured in a manner as defined in *SSAP No. 86—Derivatives* in the AP&P Manual.

- The term “future hedging strategy” is a derivative program undertaken by a company to manage risks through one or more future hedging transactions, including the future purchase or sale of hedging instruments and the opening and closing of hedging positions.

A future hedging strategy may be dynamic, static or a combination thereof. A strategy involving the offsetting of the risks associated with products falling under the scope of different requirements within the *Valuation Manual* (e.g., VM-20, VM-21, or VM-22) does not qualify as a future hedging strategy.

- The term “hedging transaction” means a derivative(s) transaction which is entered into and maintained to reduce:
  - a. The risk of a change in the fair value, the value on a statutory, GAAP, or other basis, or cash flow of assets and liabilities which the company has acquired or incurred or has a firm commitment to acquire or incur or for which the company has a forecasted acquisition or incurrence; or
  - b. The currency exchange rate risk or the degree of foreign currency exposure in assets and liabilities which the company has acquired or incurred or has a firm commitment to acquire or incur or for which the company has forecasted acquisition or incurrence.

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### VM-20 Section 6.A.1.b

A company may not exclude a group of policies for which there is one or more future hedging strategies supporting the policies~~clearly defined hedging strategies~~ from SR requirements, except in the case where all future hedging strategies supporting the policies~~clearly defined hedging strategies~~ are solely associated with product features that are determined to not be material under Section 7.B.1 due to low utilization.

### VM-20 Section 7.E.1.g

Notwithstanding the above requirements, the modeled reserve shall be the higher of that produced by the modeled company investment strategy and that produced by substituting an alternative investment strategy in which the fixed income reinvestment assets have the same weighted average life (WAL) as the reinvestment assets in the modeled company investment strategy and are all public non-callable corporate bonds with gross asset spreads, asset default costs and investment expenses by projection year that are consistent with a credit quality blend of 50% PBR credit rating 6 (A2/A) and 50% PBR credit rating 3 (Aa2/AA).

Policy loans, equities and derivative instruments associated with the execution of future hedging strategies supporting the policies~~a clearly defined hedging strategy~~ (in compliance with Section 7.L) are not affected by this requirement.

### VM-20 Section 7.K

#### K. Modeling of Derivative Programs

1. When determining the DR and the SR, the company shall include in the projections the appropriate costs and benefits of derivative instruments that are currently held by the company in support of the policies subject to these requirements. The company shall also include the appropriate costs and benefits of anticipated future derivative instrument transactions associated with the execution of future hedging strategies supporting the policies~~a clearly defined hedging strategy~~, as well as the appropriate costs and benefits of anticipated future derivative instrument transactions associated with non-hedging derivative programs (e.g., replication, income generation) undertaken as part of the investment strategy supporting the policies, provided they are normally modeled as part of the company's risk assessment and evaluation processes.

**Guidance Note:** ~~The requirements stated here for handling hedging strategies are essentially consistent with those included in the CTE methodology of VM 21 and the five principles spelled out there. The prohibition in these modeled reserve requirements against projecting future hedging transactions other than those associated with a clearly defined hedging strategy is intended to address initial concerns expressed by various parties that reserves could be unduly reduced by reflection of programs whose future execution and performance may have greater uncertainty. The prohibition appears, however, to be in conflict with Principle 2 listed in VM-21. Companies may actually execute and reflect in their risk assessment and evaluation processes hedging strategies similar in many ways to clearly defined hedging strategies but lack sufficient clarity in one or more of the qualification criteria. By excluding the associated derivative instruments, the investment strategy that is modeled may also not reflect the investment strategy the company actually uses. Further, because the future hedging transactions may be a net cost to the company in some scenarios and a net benefit in other scenarios, the exclusion of such transactions can result in a modeled reserve that is either lower or higher than it would have been if the transactions were not excluded. The direction of such impact on the reserves could also change from period to period as the actual and projected paths of economic conditions change. A more graded approach to recognition of non-qualifying hedging strategies~~

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~~may be more theoretically consistent with Principle 2. It is recommended that as greater experience is gained by actuaries and state insurance regulators with the principle-based approach and as industry hedging programs mature, the various requirements of this section be reviewed.~~

2. For each derivative program that is modeled, the company shall reflect the company’s established investment policy and procedures for that program; project expected program performance along each scenario; and recognize all benefits, residual risks and associated frictional costs. The residual risks include, but are not limited to: basis, gap, price, parameter estimation and variation in assumptions (mortality, persistency, withdrawal, etc.). Frictional costs include, but are not limited to: transaction, margin (opportunity costs associated with margin requirements) and administration. For future hedging strategies supporting the policies~~clearly defined hedging strategies~~, the company may not assume that residual risks and frictional costs have a value of zero, unless the company demonstrates in the PBR Actuarial Report that “zero” is an appropriate expectation. VM-21 Section 1.B Principle 5 applies as a general principle for the modeling of future hedging strategies.

3. In circumstances where one or more material risk factors related to a derivative program are not fully captured within the cash-flow model used to calculate CTE 70, the company shall reflect such risk factors by increasing the SR as described in Section 5.E.

4. In circumstances where documentation outlining the future hedging strategies is incomplete, the company shall reflect the future hedging strategies not being clearly defined by increasing the SR as described in Section 5.E. To support no increase to the SR, there should be very robust documentation outlining each future hedging strategy. In particular, the SR shall be at least as great as the SR that would result if a future hedging strategy were not reflected in the SR, if the documentation is materially incomplete for any of the individual CDHS attributes (a) through (j), as listed in VM-01.

Any increases required to the SR to reflect that documentation is not available to support that the future hedging strategies are clearly defined shall be in addition to increases to the SR pursuant to Section 7.K.3 above.

**Guidance Note:** Section 5.E requires that the company "Determine any additional amount needed to capture any material risk included in the scope of these requirements but not already reflected in the cash-flow models using an appropriate and supportable method and supporting rationale." In the case of a derivative program that is a future hedging strategy, Section 7.K.3 requires such an increase for disconnects between the hedge modeling and the future hedging strategy, while Section 7.K.4 requires such an increase for disconnects between the loosely defined future hedging strategy and what may actually take place.

## **VM-20 Section 7.L (Remove entire Section 7.L)**

### ~~L. Clearly Defined Hedging Strategy~~

~~1. A clearly defined hedging strategy must identify:~~

- ~~a. The specific risks being hedged (e.g., cash flow, policy interest credits, delta, rho, vega, etc.);~~
- ~~b. The hedge objectives;~~
- ~~c. The risks that are not hedged (e.g., variation from expected mortality, withdrawal, and other utilization or decrement rates assumed in the hedging strategy, etc.);~~
- ~~d. The financial instruments used to hedge the risks.~~

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- ~~e.— The hedge trading rules, including the permitted tolerances from hedging objectives.~~
- ~~f.— The metrics for measuring hedging effectiveness.~~
- ~~f.— The criteria used to measure hedging effectiveness.~~
- ~~f.— The frequency of measuring hedging effectiveness.~~
- ~~f.— The conditions under which hedging will not take place.~~
- ~~f.— The person or persons responsible for implementing the hedging strategy.~~
- ~~f.— Areas where basis, gap or assumption risk related to the hedging strategy have been identified.~~
- ~~f.— The circumstances under which hedging strategy will not be effective in hedging the risks.~~

~~Hedging strategies involving the offsetting of the risks associated with other products outside of the scope of these requirements is not a clearly defined hedging strategy.~~

~~**Guidance Note:** For purposes of the above criteria, “effectiveness” need not be measured in a manner as defined in *SSAP No. 86 – Derivatives* in the AP&P Manual.~~

### **VM-21 Section 1.D.2 (Delete entire definition and renumber subsequent sections VM-21 Section 1.D.3 and VM-21 Section 1.D.4)**

~~The term “clearly defined hedging strategy” (CDHS) is defined in VM 01. In order to be designated as a CDHS, the strategy must meet the principles outlined in Section 1.B (particularly Principle 5) and shall, at a minimum, identify:~~

- ~~— The specific risks being hedged (e.g., delta, rho, vega, etc.).~~
- ~~— The hedge objectives.~~
- ~~— The risks not being hedged (e.g., variation from expected mortality, withdrawal, and other utilization or decrement rates assumed in the hedging strategy, etc.).~~
- ~~— The financial instruments that will be used to hedge the risks.~~
- ~~— The hedge trading rules, including the permitted tolerances from hedging objectives.~~
- ~~— The metric(s) for measuring hedging effectiveness.~~
- ~~— The criteria that will be used to measure hedging effectiveness.~~
- ~~— The frequency of measuring hedging effectiveness.~~
- ~~— The conditions under which hedging will not take place.~~
- ~~— The person or persons responsible for implementing the hedging strategy.~~

~~**Guidance Note:** It is important to note that strategies involving the offsetting of the risks associated with VA guarantees with other products outside of the scope of these requirements (e.g., equity-indexed annuities) do not currently qualify as a clearly defined hedging strategy under these requirements.~~

### **VM-21 Section 4.A.4**

#### Modeling of Hedges

- a. For a company that does not have a ~~CDHS~~future hedging strategy supporting the contracts:
  - i. The company shall not consider the cash flows from any future hedge purchases or any rebalancing of existing hedge assets in its modeling, since they are not included in the company’s investment strategy supporting the contracts.

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~~ii. Existing hedging instruments that are currently held by the company in support of the contracts falling under the scope of these requirements shall be included in the starting assets. The hedge assets may then be considered in one of two ways:~~

~~ii.~~

~~a) Include the asset cash flows from any contractual payments and maturity values in the projection model; or~~

~~No hedge positions in which case the hedge positions held on the valuation date are replaced with cash and/or other general account assets in an amount equal to the aggregate market value of these hedge positions.~~

~~**Guidance Note:** If the hedge positions held on the valuation date are replaced with cash, then as with any other cash, such amounts may then be invested following the company's investment strategy.~~

~~A company may switch from method a) to method b) at any time, but it may only change from b) to a) with the approval of the domiciliary commissioner.~~

b. For a company with ~~a one or more CDHS future hedging strategies supporting the contracts~~, the detailed requirements for the modeling of hedges are defined in Section 9. The following paragraphs are a high-level summary and do not supersede the detailed requirements.

i. The appropriate costs and benefits of hedging instruments that are currently held by the company in support of the contracts falling under the scope of these requirements shall be included in the projections used in the determination of the SR.

ii. The projections shall take into account the appropriate costs and benefits of hedge positions expected to be held in the future through the execution of the ~~CDHS future hedging strategies supporting the contracts~~. Because models do not always accurately portray the results of hedge programs, the company shall, through back-testing and other means, assess the accuracy of the hedge modeling. The company shall determine a SR as the weighted average of two CTE values; first, a CTE70 ("best efforts") representing the company's projection of all of the hedge cash flows, including future hedge purchases, and a second CTE70 ("adjusted") which shall use only hedge assets held by the company on the valuation date and no future hedge purchases. These are discussed in greater detail in Section 9. The SR shall be the weighted average of the two CTE70 values, where the weights reflect the error factor (E) determined following the guidance of Section 9.C.4.

iii. The company is responsible for verifying compliance with ~~CDHS requirements and any other all~~ requirements in Section 9 for all hedging instruments included in the projections.

iv. The use of products not falling under the scope of these requirements (e.g., equity-indexed annuities) as a hedge shall not be recognized in the determination of accumulated deficiencies.

### **VM-21 Section 4.D.4.b**

Notwithstanding the above requirements, the SR shall be the higher of that produced by the modeled company investment strategy and that produced by substituting an alternative investment strategy in which the fixed income reinvestment assets have the same weighted average life (WAL) as the reinvestment assets in the modeled company investment strategy and are all public non-callable corporate bonds with gross asset spreads, asset default costs, and

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investment expenses by projection year that are consistent with a credit quality blend of 50% PBR credit rating 6 (A2/A) and 50% PBR credit rating 3 (Aa2/AA).

Policy loans, equities and derivative instruments associated with the execution of a-future hedging strategies supporting the contracts~~clearly defined hedging strategy~~ are not affected by this requirement.

### **VM-21 Section 6.B.3.a.ii – Footnote (Footnote at Bottom of Page 21-23)**

Throughout this Section 6, references to CTE70 (adjusted) shall also mean the SR for a company that does not have a future hedging strategy supporting the contracts ~~CDHS~~ as discussed in Section 4.A.4.a.

### **VM-21 Section 6.B.3.b.ii**

Calculate the Prescribed Projections Amount as the CTE70 (adjusted) using the same method as that outlined in Section 9.C (which is the same as SR following Section 4.A.4.a for a company that does not have a future hedging strategy supporting the contracts ~~CDHS~~) but substituting the assumptions prescribed by Section 6.C. The calculation of this Prescribed Projections Amount also requires that the scenario reserve for any given scenario be equal to or in excess of the cash surrender value in aggregate on the valuation date for the group of contracts modeled in the projection.

### **VM-21 Section 6.B.5**

Cash flows associated with hedging shall be projected in the same manner as that used in the calculation of the CTE70 (adjusted) as discussed in Section 9.C or Section 4.A.4.a for a company without a future hedging strategy supporting the contracts ~~CDHS~~.

### **VM-21 Section 9**

#### **Section 9: Modeling of Hedges under a ~~CDHS~~-Future Hedging Strategy**

##### A. Initial Considerations

1. Subject to Section 9.C.2, the appropriate costs and benefits of hedging instruments that are currently held by the company in support of the contracts falling under the scope of these requirements shall be included in the calculation of the SR, determined in accordance with Section 3.D and Section 4.D.
2. If the company is following a-one or more future hedging strategies supporting the contracts ~~CDHS~~, in accordance with an investment policy adopted by the board of directors, or a committee of board members, the company shall take into account the costs and benefits of hedge positions expected to be held by the company in the future along each scenario based on the execution of the hedging strategy, and it is eligible to reduce the amount of the SR using projections otherwise calculated. The investment policy must clearly articulate the company's hedging objectives, including the metrics that drive rebalancing/trading. This specification could include maximum tolerable values for investment losses, earnings, volatility, exposure, etc. in either absolute or relative terms over one or more investment horizons vis-à-vis the chance of occurrence. Company management is responsible for developing, documenting, executing and evaluating the investment strategy, including the hedging strategy, used to implement the investment policy.

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3. For this purpose, the investment assets refer to all the assets, including derivatives supporting covered products and guarantees. This also is referred to as the investment portfolio. The investment strategy is the set of all asset holdings at all points in time in all scenarios. The hedging portfolio, which also is referred to as the hedging assets, is a subset of the investment assets. The hedging strategy is the hedging asset holdings at all points in time in all scenarios. There is no attempt to distinguish what is the hedging portfolio and what is the investment portfolio in this section. Nor is the distinction between investment strategy and hedging strategy formally made here. Where necessary to give effect to the intent of this section, the requirements applicable to the hedging portfolio or the hedging strategy are to apply to the overall investment portfolio and investment strategy.
4. This particularly applies to restrictions on the reasonableness or acceptability of the models that make up the stochastic cash-flow model used to perform the projections, since these restrictions are inherently restrictions on the joint modeling of the hedging and non-hedging portfolio. To give effect to these requirements, they must apply to the overall investment strategy and investment portfolio.

~~4. Before either a new or revised hedging strategy can be used to reduce the amount of the SR otherwise calculated, the hedging strategy should be in place (i.e., effectively implemented by the company) for at least three months. The company may meet the time requirement by having evaluated the effective implementation of the hedging strategy for at least three months without actually having executed the trades indicated by the hedging strategy (e.g., mock testing or by having effectively implemented the strategy with similar annuity products for at least three months).~~

#### B. Modeling Approaches

1. The analysis of the impact of the hedging strategy on cash flows is typically performed using either one of two types of methods as described below. Although a hedging strategy normally would be expected to reduce risk provisions, the nature of the hedging strategy and the costs to implement the strategy may result in an increase in the amount of the SR otherwise calculated. Particular attention should be given to VM-21 Section 1.B Principle 5 for the modeling of future hedging strategies.
2. The fundamental characteristic of the first type of method, referred to as the “explicit method,” is that hedging positions and their resulting cash flows are included in the stochastic cash-flow model used to determine the scenario reserve, as discussed in Section 3.D, for each scenario.
3. The fundamental characteristic of the second type of method, referred to as the “implicit method,” is that the effectiveness of the current hedging strategy on future cash flows is evaluated, in part or in whole, outside of the stochastic cash-flow model. There are multiple ways that this type of modeling can be implemented. In this case, the reduction to the SR otherwise calculated should be commensurate with the degree of effectiveness of the hedging strategy in reducing accumulated deficiencies otherwise calculated.
4. Regardless of the methodology used by the company, the ultimate effect of the current hedging strategy (including currently held hedge positions) on the SR needs to recognize all risks, associated costs, imperfections in the hedges and hedging mismatch tolerances associated with the hedging strategy. The risks include, but are not limited to: basis, gap, price, parameter estimation and variation in assumptions (mortality, persistency, withdrawal, annuitization, etc.). Costs include, but are not limited to: transaction, margin (opportunity costs associated with margin requirements) and administration. In addition, the reduction to the SR attributable to the hedging strategy may need to be limited due to the uncertainty associated with the company’s ability to implement the hedging strategy in a timely and effective manner.

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The level of operational uncertainty varies indirectly with the amount of time that the new or revised strategy has been in effect or mock tested.

**Guidance Note:** No hedging strategy is perfect. A given hedging strategy may eliminate or reduce some but not all risks, transform some risks into others, introduce new risks, or have other imperfections. For example, a delta-only hedging strategy does not adequately hedge the risks measured by the “Greeks” other than delta. Another example is that financial indices underlying typical hedging instruments typically do not perform exactly like the separate account funds, and hence the use of hedging instruments has the potential for introducing basis risk

5. A safe harbor approach is permitted for ~~CDHS~~ reflection of future hedging strategies supporting the contracts for those companies whose modeled hedge assets comprise only linear instruments not sensitive to implied volatility. For companies with option-based hedge strategies, electing this approach would require representing the option-based portion of the strategy as a delta-rho two-Greek hedge program. The normally modeled option portfolio would be replaced with a set of linear instruments that have the same first-order Greeks as the original option portfolio.

#### C. Calculation of SR (Reported)

1. The company shall calculate CTE70 (best efforts)—the results obtained when the CTE70 is based on incorporating the future hedging strategies supporting the contracts ~~CDHS~~ (including both currently held and future hedge positions) into the stochastic cash-flow model on a best efforts basis, including all of the factors and assumptions needed to execute the future hedging strategies supporting the contracts ~~CDHS~~ (e.g., stochastic implied volatility). The determination of CTE70 (best efforts) may utilize either explicit or implicit modeling techniques.
2. The company shall calculate a CTE70 (adjusted) by recalculating the CTE70 assuming the company has no future hedging strategies supporting the contracts ~~CDHS~~, therefore following the requirements of Section 4.A.4.a.
3. Because most models will include at least some approximations or idealistic assumptions, CTE70 (best efforts) may overstate the impact of the hedging strategy. To compensate for potential overstatement of the impact of the hedging strategy, the value for the SR is given by:
 
$$SR = CTE70 \text{ (best efforts)} + E \times \max[0, CTE70 \text{ (adjusted)} - CTE70 \text{ (best efforts)}]$$
4. The company shall specify a value for *E* (the “error factor”) in the range from 5% to 100% to reflect the company’s view of the potential error resulting from the level of sophistication of the stochastic cash-flow model and its ability to properly reflect the parameters of the hedging strategy (i.e., the Greeks being covered by the strategy), as well as the associated costs, risks and benefits. The greater the ability of the stochastic model to capture all risks and uncertainties, the lower the value of *E*. The value of *E* may be as low as 5% only if the model used to determine the CTE70 (best efforts) effectively reflects all of the parameters used in the hedging strategy. If certain economic risks are not hedged, yet the model does not generate scenarios that sufficiently capture those risks, *E* must be in the higher end of the range, reflecting the greater likelihood of error. Likewise, simplistic hedge cash-flow models shall assume a higher likelihood of error.
5. The company shall conduct a formal back-test, based on an analysis of at least the most recent 12 months, to assess how well the model is able to replicate the hedging strategy in a way that supports the determination of the value used for *E*.

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6. Such a back-test shall involve one of the following analyses:
- a. For companies that model hedge cash flows directly (“explicit method”), replace the stochastic scenarios used in calculating the CTE70 (best efforts) with a single scenario that represents the market path that actually manifested over the selected back-testing period and compare the projected hedge asset gains and losses against the actual hedge asset gains and losses – both realized and unrealized – observed over the same time period. For this calculation, the model assumptions may be replaced with parameters that reflect actual experience during the back-testing period. In order to isolate the comparison between the modeled hedge strategy and actual hedge results for this calculation, the projected liabilities should accurately reflect the actual liabilities throughout the back-testing period; therefore, adjustments that facilitate this accuracy (e.g. reflecting actual experience instead of model assumptions, including new business, etc.) are permissible.

To support the choice of a low value of E, the company should ascertain that the projected hedge asset gains and losses are within close range of 100% (e.g., 80–125%) of the actual hedge asset gains and losses. The company may also support the choice of a low value of E by achieving a high R-squared (e.g., 0.80 or higher) when using a regression analysis technique.

- b. For companies that model hedge cash flows implicitly by quantifying the cost and benefit of hedging using the fair value of the hedged item (an “implicit method” or “cost of reinsurance method”), calculate the delta, rho and vega coverage ratios in each month over the selected back-testing period in the following manner:

- i. Determine the hedge asset gains and losses—both realized and unrealized—incurred over the month attributable to equity, interest rate, and implied volatility movements.
- ii. Determine the change in the fair value of the hedged item over the month attributable to equity, interest rate, and implied volatility movements. The hedged item should be defined in a manner that reflects the proportion of risks hedged (e.g., if a company elects to hedge 50% of a contract’s market risks, it should quantify the fair value of the hedged item as 50% of the fair value of the contract).
- iii. Calculate the delta coverage ratio as the ratio between (i) and (ii) attributable to equity movements.
- iv. Calculate the rho coverage ratio as the ratio between (i) and (ii) attributable to interest rate movements.
- v. Calculate the vega coverage ratio as the ratio between (i) and (ii) attributable to implied volatility movements.
- vi. To support the company’s choice of a low value of E, the company should be able to demonstrate that the delta and rho coverage ratios are both within close range of 100 % (e.g., 80–125%) consistently across the back-testing period.
- vii. In addition, the company should be able to demonstrate that the vega coverage ratio is within close range of 100 % in order to use the prevailing implied volatility levels as of the valuation date in quantifying the fair value of the hedged item for the purpose of calculating CTE70 (best efforts). Otherwise, the company shall quantify the fair value of the hedged item for the purpose of calculating CTE70 (best efforts) in a manner consistent with the realized volatility of the scenarios captured in the CTE (best efforts).

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c. Companies that do not model hedge cash flows explicitly, but that also do not use the implicit method as outlined in Section 9.C.6.b above, shall conduct the formal back-test in a manner that allows the company to clearly illustrate the appropriateness of the selected method for reflecting the cost and benefit of hedging, as well as the value used for E.

~~5.~~—A company that does not have 12 months of experience to date shall set E to a value that reflects the amount of experience available, and the degree and nature of any change to the hedge program. For a material change in strategy, with ~~no less than 6 months of~~ history, E should be ~~at least 0.50~~ 1.0. However, E may be lower than ~~0.50~~ 1.0 if ~~some at least 6 months of~~ reliable experience is available and/or if the change in strategy is a minor refinement rather than a substantial-material change in strategy.

7.

**Guidance Note:** The following examples are provided as guidance for determining the E factor when there has been a change to the hedge program:

- The error factor should be temporarily large (e.g.,  $\geq 50/100\%$ ) for substantial-material changes in hedge methodology (e.g., moving from a fair-value based strategy to a stop-loss strategy) ~~where the company has not been able to provide a meaningful simulation of hedge performance based on the new strategy.~~
- ~~A temporary moderate increase (e.g., 15–30%) in error factor should be used for substantial modifications to hedge programs or CDHS modeling where meaningful simulation has not been created (e.g., adding second-order hedging, such as gamma or rate convexity).~~
- ~~No~~ An increase in the error factor may not always be used-needed for incremental-modifications minor refinements to the hedge strategy (e.g., ~~adding death benefits to a program that previously covered only living benefits, or~~ moving from swaps to Treasury ~~Department~~ futures).

8. The company shall set the value of E reflecting the extent to which the hedging program is clearly defined. To support a value of E below 1.0, there should be very robust documentation outlining all future hedging strategies. To the extent that documentation outlining any of the future hedging strategies is incomplete, the value of E shall be increased. In particular, the value of E shall be 1.0 if documentation is materially incomplete for any of the individual CDHS attributes (a) through (j), as listed in VM-01.

Any increases required to the value of E to reflect that documentation is not available to support that the future hedging strategies are clearly defined shall be in addition to increases to the value of E to reflect a lack of historical experience or to reflect the back-testing results, subject to an overall ceiling of 1.0 for E.

#### D. Additional Considerations for CTE70 (best efforts)

If the company is following ~~a one or more future hedging strategies supporting the contracts~~ CDHS, the fair value of the portfolio of contracts falling within the scope of these requirements shall be computed and compared to the CTE70 (best efforts) and CTE70 (adjusted). If the CTE70 (best efforts) is below both the fair value and CTE70 (adjusted), the company should be prepared to explain why that result is reasonable.

For the purposes of this analysis, the SR and fair value calculations shall be done without requiring the scenario reserve for any given scenario to be equal to or in excess of the cash surrender value in aggregate for the group of contracts modeled in the projection.

#### E. Specific Considerations and Requirements

1. As part of the process of choosing a methodology and assumptions for estimating the future effectiveness of the current hedging strategy (including currently held hedge positions) for purposes of reducing the SR, the company should review actual historical hedging effectiveness. The company shall evaluate the appropriateness of the assumptions on future trading, transaction costs, other elements of the model, the

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strategy, the mix of business and other items that are likely to result in materially adverse results. This includes an analysis of model assumptions that, when combined with the reliance on the hedging strategy, are likely to result in adverse results relative to those modeled. The parameters and assumptions shall be adjusted (based on testing contingent on the strategy used and other assumptions) to levels that fully reflect the risk based on historical ranges and foreseeable future ranges of the assumptions and parameters. If this is not possible by parameter adjustment, the model shall be modified to reflect them at either anticipated experience or adverse estimates of the parameters.

2. A discontinuous hedging strategy is a hedging strategy where the relationships between the sensitivities to equity markets and interest rates (commonly referred to as the Greeks) associated with the guaranteed contract holder options embedded in the variable annuities and other in-scope products and these same sensitivities associated with the hedging assets are subject to material discontinuities. This includes, but is not limited to, a hedging strategy where material hedging assets will be obtained when the variable annuity account balances reach a predetermined level in relationship to the guarantees. Any hedging strategy, including a delta hedging strategy, can be a discontinuous hedging strategy if implementation of the strategy permits material discontinuities between the sensitivities to equity markets and interest rates associated with the guaranteed contract holder options embedded in the variable annuities and other in-scope products and these same sensitivities associated with the hedging assets. There may be scenarios that are particularly costly to discontinuous hedging strategies, especially where those result in large discontinuous changes in sensitivities (Greeks) associated with the hedging assets. Where discontinuous hedging strategies contribute materially to a reduction in the SR, the company must evaluate the interaction of future trigger definitions and the discontinuous hedging strategy, in addition to the items mentioned in the previous paragraph. This includes an analysis of model assumptions that, when combined with the reliance on the discontinuous hedging strategy, may result in adverse results relative to those modeled.
3. A strategy that has a strong dependence on acquiring hedging assets at specific times that depend on specific values of an index or other market indicators may not be implemented as precisely as planned.
4. The combination of elements of the stochastic cash-flow model—including the initial actual market asset prices, prices for trading at future dates, transaction costs and other assumptions—should be analyzed by the company as to whether the stochastic cash-flow model permits hedging strategies that make money in some scenarios without losing a reasonable amount in some other scenarios. This includes, but is not limited to:
  - a. Hedging strategies with no initial investment that never lose money in any scenario and in some scenarios make money.
  - b. Hedging strategies that, with a given amount of initial money, never make less than accumulation at the one-period risk-free rates in any scenario but make more than this in one or more scenarios.
5. If the stochastic cash-flow model allows for such situations, the company should be satisfied that the results do not materially rely directly or indirectly on the use of such strategies. If the results do materially rely directly or indirectly on the use of such strategies, the strategies may not be used to reduce the SR otherwise calculated.
6. In addition to the above, the method used to determine prices of financial instruments for trading in scenarios should be compared to actual initial market prices. In addition to comparisons to initial market prices, there should be testing of the pricing models that are used to determine subsequent prices when scenarios involve trading financial instruments. This testing should consider historical relationships. For example, if a method is used where recent volatility in the scenario is one of the determinants of prices for trading in that scenario, then that model should approximate actual historic prices in similar circumstances in history.

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### **VM-31 Section 3.C.5**

Assets and Risk Management – A brief description of the asset portfolio, and the approach used to model risk management strategies, such as hedging, and other derivative programs, including a description of any ~~clearly defined hedging strategies~~ future hedging strategies supporting the policies, and any material changes to the hedging strategies from the prior year.

### **VM-31 Section 3.D.6.f**

Risk Management – Detailed description of model risk management strategies, such as hedging and other derivative programs, including any ~~clearly defined hedging strategies and any adjustments to the SR pursuant to VM-20 Section 7.K.3 and VM-20 Section 7.K.4,~~ specific to the groups of policies covered in this sub-report and not discussed in the Life Summary Section 3.C.5. Documentation of any future hedging strategies should include documentation addressing each of the CDHS documentation attributes.

### **VM-31 Section 3.D.14.a and 3.D.14.b**

- a. Investment Officer on Investments – A certification from a duly authorized investment officer that the modeled company investment strategy, including any future hedging strategies supporting the policies, is representative of and consistent with the company’s investment policy and that documentation of the CDHS attributes for any future hedging strategies supporting the policies are accurate.
- b. Qualified Actuary on Investments – A certification by a qualified actuary, not necessarily the same qualified actuary that has been assigned responsibility for the PBR Actuarial Report or this sub-report, that the modeling of any ~~future hedging strategies supporting the policies is consistent with the company’s actual future hedging strategies and clearly defined hedging strategies~~ was performed in accordance with VM-20 and in compliance with all applicable ASOPs, and the alternative investment strategy as defined in VM-20 Section 7.E.1.g reflects the prescribed mix of assets with the same WAL as the reinvestment assets in the company investment strategy.

### **VM-31 Section 3.E.5**

Assets and Risk Management – A brief description of the general account asset portfolio, and the approach used to model risk management strategies, such as hedging and other derivative programs, including a description of any ~~future hedging strategies supporting the contracts~~ clearly defined hedging strategies, and any material changes to the hedging ~~strategy strategies~~ from the prior year.

### **VM-31 Section 3.F.8**

Hedging and Risk Management – The following information regarding the hedging and risk management assumptions used by the company in performing a principle-based valuation under VM-21:

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- a. Strategies – Detailed description of risk management strategies, such as hedging and other derivative programs, including any future hedging strategies supporting the contractsCDHS, specific to the groups of contracts covered in this sub-report.
  - i. Descriptions of basis risk, gap risk, price risk and assumption risk.
  - ii. Methods and criteria for estimating the a priori effectiveness of the strategy.
  - iii. Results of any reviews of actual historical hedging effectiveness.
  
- b. CDHS – Documentation addressing each of the CDHS documentation attributes for any future hedging strategies supporting the contractshedging strategy that meets the requirements to be a CDHS.
  
- c. Strategy Changes – Discussion of any changes to the hedging strategy during the past 12 months, including identification of the change, reasons for the change, and the implementation date of the change.
  
- d. Hedge Modeling – Description of how the hedge strategy was incorporated into modeling, including:
  - i. Differences in timing between model and actual strategy implementation.
  - ii. For a company that does not have a future hedging strategy supporting the contractsCDHS, disclosure of the method used to consider confirmation that currently held hedge assets were included in the starting assets, ~~either (1) including the asset cash flows in the projection model; or (2) replacing the hedge positions with cash and/or other general account assets in an amount equal to the market value of the hedge positions, as discussed in VM 21 Section 4.A.4.a.~~
    - iii. Evaluations of the appropriateness of the assumptions on future trading, transaction costs, other elements of the model, the strategy, and other items that are likely to result in materially adverse results.
    - iii.iv. Discussion of the projection horizon for the future hedge strategy as modeled and a comparison to the timeline for any anticipated future changes in the company's hedge strategy.
    - iv.v. If residual risks and frictional costs are assumed to have a value of zero, a demonstration that a value of zero is an appropriate expectation.
    - v.vi. Any discontinuous hedging strategies modeled, and where such discontinuous hedging strategies contribute materially to a reduction in the SR, any evaluations of the interaction of future trigger definitions and the discontinuous hedging strategy, including any analyses of model assumptions that, when combined with the reliance on the discontinuous hedging strategy, may result in adverse results relative to those modeled.
    - vi.vii. Disclosure of any situations where the modeled hedging strategies make money in some scenarios without losing a reasonable amount in some other scenarios, and an explanation of why the situations are not material for determining the CTE 70 (best efforts).
    - vii.viii. Results of any testing of the method used to determine prices of financial instruments for trading in scenarios against actual initial market prices, including how the testing considered historical relationships. If there are substantial discrepancies, disclosure of the substantial discrepancies and documentation as to why the model-based prices are appropriate for determining the SR.
    - viii.ix. Any model adjustments made when calculating CTE 70 (adjusted), in particular, any liquidation or substitution of assets for currently held hedges.
  
- e. Error Factor (E) and Back-Testing – Description of *E*, the error factor, and formal back-tests performed, including:
  - i. The value of *E*, and the approach and rationale for the value of *E* used in the reserve calculation.
  - ii. For companies that model hedge cash flows using the explicit method, as described in VM-21 Section 9.C.6.a, and have 12 months of experience, an analysis of at least the most recent 12 months of experience and the results of a back-test showing that the model is able to replicate the hedging results experienced in a way that justifies the value used for *E*. Include at least a ratio of the actual

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- change in market value of the hedges to the modeled change in market value of the hedges at least quarterly.
- iii. For companies that model hedge cash flows using the implicit method, and have 12 months of experience, as described in VM-21 Section 9.C.6.b, the results of a back-test in which (a) actual hedge asset gains and losses are compared against (b) proportional fair value movements in hedged liability, including:
    - a) Delta, rho and vega coverage ratios in each month over the back-testing period, which may be presented in a chart or graph.
    - b) The implied volatility level used to quantify the fair value of the hedged item, as well as the methodology undertaken to determine the appropriate level used.
  - iv. For companies that do not model hedge cash flows using either the explicit method or the implicit method, as described in VM-21 Section 9.C.6.c, and have 12 months of experience, the results of the formal back-test conducted to validate the appropriateness of the selected method and value used for E.
    - v. For companies that do not have 12 months of experience, the basis for the value of *E* that is chosen based on the guidance provided in VM-21 Section 9.C.7, considering the actual history available and the degree and nature of any changes made to the hedge strategy.
    - ~~vi.~~ The basis for the magnitude of adjustment or lack of adjustment for the value of E chosen based on the robustness of the documentation outlining the future hedging strategy.
  - f. Safe Harbor for Future Hedging Strategies CDHS – If electing the safe harbor approach for a future hedging strategy supporting the contracts CDHS, as discussed in VM-21 Section 9.C.8, a description of the linear instruments used to model the option portfolio.
  - g. Hedge Model Results – Disclosure of whether the calculated CTE 70 (best efforts) is below both the fair value and CTE 70 (adjusted), and if so, justification for why that result is reasonable, as discussed in VM-21 Section 9.D.

### **VM-31 Section 3.F.12.c**

CTEPA – If using the CTEPA method, a summary including:

- i. Disclosure (in tabular form) of the scenario reserves using the same method and assumptions as those used by the company to calculate CTE 70 (adjusted) as outlined in VM-21 Section 9.C (or the SR following VM-21 Section 4.A.4.a for a company that does not have a future hedging strategy supporting the contracts CDHS), as well as the corresponding scenarios reserves substituting the assumptions prescribed by VM-21 Section 6.C.
- ii. Summary of results from a cumulative decrement projection along the scenario whose reserve value is closest to the CTE 70 (adjusted), as outlined in VM-21 Section 9.C (or the SR following VM-21 Section 4.A.4.a for a company that does not have a future hedging strategy supporting the contracts CDHS), under the assumptions outlined in VM-21 Section 6.C. Such a cumulative decrement projection shall include, at the end of each projection year, the projected proportion (expressed as a percent of the total projected account value) of persisting contracts as well as the allocation of projected decrements across death, full surrender, account value depletion, elective annuitization, and other benefit election.
- iii. Summary of results from a cumulative decrement projection, identical to (ii) above, but replacing all assumptions outlined in VM-21 Section 6.C with the corresponding assumptions used in calculating the SR.

### **VM-31 Section 3.F.16.a and Section 3.F.16.b**

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- a. Investment Officer on Investments – A certification from a duly authorized investment officer that the modeled asset investment strategy, including any future hedging strategies supporting the contractsCDHS, is consistent with the company’s current investment strategy except where the modeled reinvestment strategy may have been substituted with the alternative investment strategy, and ~~also any CDHS meets the~~that documentation of the requirements of a CDHS attributes for any future hedging strategies supporting the contracts are accurate.
  
- b. Qualified Actuary on Investments – A certification by a qualified actuary, not necessarily the same qualified actuary that has been assigned responsibility for the PBR Actuarial Report or this sub-report, that the modeling of any future hedging strategies supporting the contracts~~clearly defined hedging strategies~~ is consistent with the company’s actual future hedging strategies and was performed in accordance with VM-21 and in compliance with all applicable ASOPs.



March 23, 2022

Mr. Mike Boerner  
Chair  
National Association of Insurance Commissioners (NAIC)  
Life Actuarial Task Force (LATF)

Re: APF 2020-12; Hedging strategies in VM-20 and VM-21

Dear Mr. Boerner,

The American Academy of Actuaries<sup>1</sup> Life Valuation Committee (LVC) appreciates the opportunity to provide comments on APF 2020-12 regarding hedging in VM-20 and VM-21.

As various Academy Life Practice Council (LPC) groups have stated in the past, the LVC believes companies should model their investment strategies as part of a principle-based reserve calculation, which includes the modeling of hedging activities. With respect to VM-21, the LPC/LVC recommends that a principle-based approach for hedges that applies margins for modeling and strategy risks be adopted. This eliminates the need for VM-21 metrics such as conditional tail expectation (CTE) 70 (adjusted) and the error “E” factor that results in questionable measurements of the error/residual risk margin for hedging strategies.

Additionally, the LVC does not believe the concept of a clearly defined hedging strategy (CDHS) or “future hedging strategy” definition is needed in a principle-based approach. However, we understand that the NAIC may wish to incorporate guardrails that would highlight the necessity for companies to reflect higher margins for certain hedging strategies.

Below are additional comments and recommendations for three of the stated reasons contained in the proposal.

- 1. Reflect all of a company’s future hedging strategies but reflect the additional error (VM-21) or residual risk (VM-20) that is presented by a future hedging strategy not being clearly defined.*

The LVC agrees that companies should be required to model their hedging strategies and recommends that a more principle-based approach (conceptually similar to the current VM-20) in determining the margin for error/residual risk be incorporated in VM-21.

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<sup>1</sup> 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.

The VM-21 approach currently uses a weighted average of CTE70 (best efforts) and CTE70 (adjusted) to determine an error/residual margin. CTE70 (adjusted) is determined by only using hedge assets held by the company as of the valuation date. It assumes the investment strategy for such hedge assets is to runoff the assets or to convert them to cash/other general account assets. Neither of these options may be representative of the company's actual hedging policy. A metric that does not reflect a company's investment policy is not principle-based and is less likely to properly reflect the error/residual risk one is trying to measure. Additionally, we note that if CTE70 (adjusted) is less than CTE70 (best efforts), the error/residual risk is assumed to be \$0. This is also not principle-based and fails to properly measure the underlying risk. In order to properly measure the underlying risk, companies should model their investment strategy (CTE70 best efforts) and then apply an appropriate level of margin.

A VM-20-like principle-based approach to modeling hedge cash flows is consistent with how other cash flows are projected; margins are added to best estimate cash flows with the level of such margins based on the confidence in the modeling of the cash flows. Such an approach avoids issues associated with trying to bifurcate hedging between in force and future hedges or multiple hedging strategies. It also eliminates the current lack of a margin when CTE70 (adjusted) is less than CTE70 (best efforts).

2. *Remove optionality for liquidating currently held hedges (despite liquidation not being a part of the company investment strategy) if not modeling a future hedging strategy.*

The LVC recommends that companies model their investment strategies, with appropriate margins. Companies should not have the option to liquidate currently held hedges as this would not be consistent with their investment strategy. Moving to a VM-20-like principle-based approach in the modeling of hedges would remove the need for this option.

3. *New hedging strategies (<6 months experience) have an E factor of 1.0 for VM-21. For comparison, the current draft VM-22 only allows modeling hedges after they have been in place for 6 months. When only CDHS were modeled in VM-21, new hedging strategies with no experience had E factors as low as 0.5 even without meaningful analysis. This treatment was much too lenient for new hedging strategies.*

The reserve requirement should encourage companies to adopt strategies that serve to reduce risk. Limiting E factors for new hedging strategies can have the unintended effect of discouraging hedging strategies that reduce risk. Adopting the principle-based approach in VM-20 would eliminate the need for an E factor and allow companies to pursue hedging strategies without the potential for an increase in reserve created by artificial limits.

Investment strategies, including hedging strategies, will change over time. These changes may be marginal, such as minor modifications to sector allocations, credit limits, or hedge targets. At other times—such as during changes in a company's risk appetite—the changes may be more substantial. In either event, changes in strategies should be reflected in the reserves as they are adopted by the company. Redeterminations of the error/residual margin calculations should be required when significant changes occur and be supported by robust simulation testing or other meaningful analysis. Changes should be clearly disclosed with adequate supporting documentation.

Thank you for your consideration of these comments. We would be pleased to answer any questions you may have and to provide additional support as needed. Please feel free to contact Devin Boerm, the Academy's deputy director of public policy, to arrange for discussion of these comments.

Sincerely,

Craig Morrow  
Chairperson, Life Valuation Committee  
American Academy of Actuaries

CC: Reggie Mazyck, NAIC



Brian Bayerle  
Senior Actuary

March 21, 2022

Mike Boerner  
Chair, NAIC Life Actuarial Task Force (LATF)

Re: APF 2020-12

Dear Mr. Boerner:

The American Council of Life Insurers (ACLI) appreciates the opportunity to submit comments on the re-exposure of APF 2020-12.

Historically, many carriers have understood the PBR framework to require an insurer to satisfy elevated CDHS criteria for hedging strategies to be included within PBR modeling. This approach was established in consideration of (a) regulator concerns about assuming ongoing future hedging activity, (b) the existence of strategies with non-statutory targets, and (c) modeling challenges associated with the incorporation of hedge cash flows in stochastic models.

The APF proposes to consider future hedging activity as a form of reinvestment, with CDHS criteria becoming minimum documentation requirements.

ACLI can potentially support the APF but believes that several improvements are needed, as follows:

1. A long runway should be provided for implementation;
2. Provisions for indexed credit derivative programs should be incorporated;
3. The existing VM-21 E factor guidance for new or substantially modified strategies should be retained;
4. The CTE70 (adjusted) run in VM-21 should allow companies to use either a run-off or liquidation basis;
5. The exception within the definition of “future hedging strategy” should be clarified, and time should be given for further industry review; and
6. Outreach should be conducted to provide assurance that the proposed changes will not reintroduce undesirable incentives that led to the VA reform project.

Each of these provisions is explained below.

#### 1. A long runway should be provided for implementation

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The American Council of Life Insurers (ACLI) is the leading trade association driving public policy and advocacy on behalf of the life insurance industry. 90 million American families rely on the life insurance industry for financial protection and retirement security. ACLI's member companies are dedicated to protecting consumers' financial wellbeing through life insurance, annuities, retirement plans, long-term care insurance, disability income insurance, reinsurance, and dental, vision and other supplemental benefits. ACLI's 280 member companies represent 94 percent of industry assets in the United States.

acli.com

The APF requires all “future hedging strategies” to be incorporated within PBR models. Implementing this on an explicit basis (or, in VM-21, developing the formal analysis to support an implicit basis), will require advanced modeling and analytical capabilities that some carriers do not currently possess. At present, a company that does not have a CDHS under VM-21 performs a simple run-off or cash-out of existing hedges. For non-PBR purposes such as business planning, stochastic modeling is typically not required, and it is common to layer the effects of hedging on top of modeled cash flows.

The APF will require some carriers to make significant new investments in modeling infrastructure, involving systems, coding, testing, and controls. Some may require external resources. In short, significant lead time would be necessary for this APF to be enacted smoothly and successfully throughout the industry.

We do not believe it is realistic for this APF to take effect prior to the 2024 Valuation Manual. For some carriers, a more expeditious implementation may be possible, but it would be necessary to insert a transition regime to accommodate carriers that need time to develop the necessary modeling infrastructure. An extended implementation runway or transition regime would also aid carriers with capital planning, should the APF have material financial impacts.

## 2. Provisions for indexed credit derivative programs should be incorporated

ACLI believes that indexed credit derivative programs must be reflected in PBR models to produce a reasonable valuation of indexed products, including IUL and RILAs. These derivative programs are used to support crediting rates, are fundamental to product design, and more closely resemble ALM general account crediting rate investment strategies than GMxB hedging strategies.

The APF, however, can be interpreted as applying a “one size fits all” approach to derivative programs. ACLI disagrees with this philosophy from a proportionality standpoint: it seems appropriate for straightforward derivative payoffs that offset indexed interest credits to merit different treatment relative to dynamic strategies that involve daily trading.

We recommend two modifications. First, the existence of an indexed credit derivative program should not eliminate the ability for a VM-20 product to satisfy the VM-20 stochastic exclusion test, as currently dictated by VM-20, Section 6.A.1.b. We see little reason why VM-20 should always require stochastic modeling for indexed products. If an indexed product, including derivatives, has material interest rate and/or equity price risk, the Stochastic Exclusion Test will still require the calculation of the Stochastic Reserve.

Second, within VM-21, the APF should include an approach similar to the American Academy of Actuaries’ VM-22 proposal that haircuts the returns of indexed credit derivative programs in the Stochastic Reserve and eliminates the CTE70 (adjusted) calculation. In its VM-22 presentation, the American Academy of Actuaries proposed a haircut as low as 1% for indexed products. Although this haircut needs additional calibration, ACLI supports the language and approach used in the VM-22 draft.

These two changes would “right-size” the treatment of indexed credit derivative programs based on the nature and risk of the investment strategy and align treatment across VM sections.

**3. Existing VM-21 E factor guidance for new or substantially modified strategies should be retained**

ACLI supports the principle that VM-21 E factors should be higher when greater uncertainty exists, such as when a new strategy is introduced or when a strategy is not “clearly defined.”

For VM-21 strategies with less than six months of history, the APF, while consolidating the guidance between sections 9.A.7 and 9.C.5, proposes significant increases to the E factors. While we support consolidating the guidance, we do not support the E factor increases.

The APF would require the E factor to be 1.0 for VM-21 CDHS strategies with less than six months of history, effectively establishing the Stochastic Reserve as the maximum of CTE70 (best efforts) and CTE70 (adjusted) for the first six months after the introduction of a new or substantially modified hedging strategy. At present, strategies can have E factors less than 1.0 using at least three months of experience, mock testing, or implementation of the strategy on similar products.

The rigor around a CDHS, as well as VM-G requirements, should alleviate concerns about “window dressing” and eliminate the need for a blanket six-month “waiting period.” In addition, the formation of a hedging strategy is always subject to internal governance, which includes an assessment of the effects of the strategy on multiple frameworks (e.g., GAAP/IFRS, internal economic, liquidity, and tax). In most states, the filing of a derivatives use plan is required. These guardrails mitigate against the possibility of “window dressing”.

We also view mock testing as useful for establishing an E factor and hedging credit during the initial months following the introduction of a new or substantially modified hedging strategy in light of the internal governance that underpins hedging activity. We would support the development of regulatory guidance for mock testing practices, but we would need to better understand regulatory concerns to address the substance of this guidance.

We consider the current E factor guidance for new or substantially modified strategies to be conceptually appropriate. By disallowing specified alternatives for historical experience, the APF requires an E factor of 1.0. Disallowing these alternatives would introduce unrealistic prudence, cliff effects, and volatility, leading to perverse disincentives to hedge or to improve existing strategies. The Task Force should retain the current provisions of VM-21 that allow new strategies to have E factors less than 1.0.

**4. The CTE70 (adjusted) run in VM-21 should allow companies to use either a run-off or liquidation basis**

The APF is unclear regarding the VM-21 CTE70 (adjusted) run, which is used in both the Stochastic Reserve and the Standard Projection Amount. At present, CTE70 (adjusted) is CTE70

“assuming the company has no CDHS, therefore following the requirements of Section 4.A.4.a.” The APF rewrites the first part of this provision to say that CTE70 (adjusted) is CTE70 “assuming the company has no future hedging strategies supporting the contracts,” which implies liquidation. But rewritten Section 4.A.4.a says that “existing hedging instruments that are currently held by the company in support of the contracts falling under the scope of these requirements shall be included in the starting assets,” which, if anything, implies run-off. The guidance appears contradictory and unclear.

ACLI believes that company optionality is the preferred solution. Because CTE70 (adjusted) is an artificial construct, neither the runoff of in-force hedges nor liquidation is necessarily a good representation of the company’s actual strategy. The more reasonable approach might depend on the nature of the program and the tenor of the derivative instruments used. We recommend that both runoff and liquidation options be permitted, at the discretion of the company.

5. The exception within the definition of “future hedging strategy” should be clarified, and time should be given for further industry review

The APF defines “future hedging strategy” as “a derivative program undertaken by a company to manage risks through one or more future hedging transactions...” The definition includes an exception: “A strategy involving the offsetting of the risks associated with products falling under the scope of different requirements within the *Valuation Manual* (e.g., VM-20, VM-21, or VM-22) does not qualify as a future hedging strategy.”

This language needs careful consideration, because it defines whether a derivative program is to be subject to or excluded from PBR modeling and documentation requirements. To avoid ambiguity, ACLI recommends the following wording clarifications, followed by additional time for study: “A derivative program undertaken by a company to manage strategy involving the offsetting of the risks associated with products falling under the scope of different requirements of the *Valuation Manual* (e.g., VM-20, VM-21, or VM-22) does not qualify as a future hedging strategy.”

6. Outreach should be conducted to provide assurance that the proposed changes will not reintroduce undesirable incentives that led to the VA reform project

The updated variable annuity framework was intended to address drivers of the old framework that led carriers to form captive reinsurers. Oliver Wyman’s discussions with carriers indicated that many captives were intended to address challenges related to hedging. For example, hedging strategies designed to manage financial outcomes under non-statutory frameworks were producing unintuitive outcomes when applied to the statutory reserves and capital. To mitigate these outcomes, major changes were made to AG43/VM-21 and C3P2, and an interest-rate only accounting solution (SSAP 108) was introduced.

The APF proposes to overhaul the treatment of hedging within the new framework. By promoting the reflection of additional hedging within PBR models and including provisions that are not sufficiently principle-based, the APF may exacerbate the challenges that carriers face when

managing to both statutory and non-statutory frameworks. The APF may run the risk of reversing, at least in part, the outcomes of the VA reform project.

It has been our understanding that the Valuation Analysis Working Group had been planning to contact individual carriers to discuss the potential effects of the APF. It is unclear if any carrier has been contacted to date. We urge the Task Force members who are members of VAWG to undertake this outreach prior to finalization of this APF.

Thank you for your consideration,

A handwritten signature in cursive script, appearing to read "B. Banerji".

cc: Reggie Mazyck, NAIC

## Agenda Item 6

Discuss Asset Adequacy Testing Actuarial Guideline Exposure

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**

1. Effective Date

This Guideline shall be effective for reserves reported in the December 31, 2022 and subsequent annual statutory financial

statements.

2. 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.

3. Definitions

- A. 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.
- B. 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.
  - B. 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).
    - i. 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.
    - ii. Include considerations of the underlying assets (e.g., debt instruments, securitization structure) and timing of expected payments when modeling.
    - iii. 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]

Utah Insurance Department received the following comments on the proposed guideline from one of the insurers domiciled in the state.

**Section 4E**

--Characterization of all assets that aren't plain vanilla corporate bonds as "complex" seems a bit broad/shallow; an asset that is privately underwritten and not publicly traded is not necessarily complex.

--The sensitivity testing instructions here are quite vague; incorporating this into an actuarial model would require more clear instruction.

--Implementing a margin means that an insurer with an investment strategy that includes some less traditional assets is automatically penalized, when in fact these investments may have even stronger covenants, protection, and subordination than traditional publicly-traded bonds.

**Section 4F**

Seems very broad and punitive for all private assets; 5% of a material portion of an insurer's portfolio can be a very large number.

**Section 4K**

Foreign/Alien reinsurers often perform their own versions of AAT that may not conform to VM-30 requirements exactly, but are very similar. These results should be acceptable in place of the ceding company having to perform additional AAT on the same business.

**Section 5A**

We're happy to include extra sensitivity tests where helpful/illustrative, but including this as a constraint would have drastic negative impacts on probably a lot of insurance companies. As of 12/31/2021, here are the net yields for a 5-year asset calculated per the Investment Grade Net Yield Benchmark.

	<u>Current Assets</u>	<u>Reinvested Assets</u>
1) 5yr Treasury	1.26%	1.26%
2) 5yr Spread, PBR Rating 10	1.40%	2.42%
3) 5yr Default Cost, PBR Rating 10	0.77%	0.77%
1 + 2 - 3 =	1.89%	2.91%

Therefore, if this were a constraint of CFT modeling, any insurer that offers a traditional fixed deferred annuity or MYGA with a crediting rate over 2-3% would automatically lose money in the projection. This seems unreasonable and highly punitive towards smaller, younger, and/or lower-rated insurance companies that already have a higher cost of capital than their larger competitors.

**Section 5B**

--This would be extremely labor-intensive to perform for every in-force asset and would pose a big resource issue for a smaller firm that doesn't have a huge actuarial staff and/or dedicated ALM resources.

--Additionally, some assets are often held for shorter terms (1-2 years or less), which would mean that new assets would have to be documented each year for CFT. This would compound the labor/resource issue.

--If a reasonable form of aggregation of similar assets were allowed, this analysis would be much less onerous.

--A formal definition of 'volatility risk' would be helpful. Otherwise, this may be difficult to quantify.

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Ms. Cassie Brown  
Chair, Life Actuarial (A) Task Force  
1100 Walnut Street, Suite 1500  
Kansas City, MO 64106-2197

LOMBARD  
INTERNATIONAL

**Re: Draft Asset Adequacy Testing Actuarial Guideline**

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March 18, 2022

Dear Ms. Brown:

Lombard International Life Assurance Company (Lombard International) appreciates the opportunity to comment on the Life Actuarial (A) Task Force exposure of the *Asset Adequacy Testing Actuarial Guideline* draft.

Lombard International's feedback on the draft relates to clarifying the definition of the term *Actuarial Reserves*. Lombard believes that Separate Account reserves ("Green Book" reserves) should not be considered Actuarial Reserves and therefore Separate Account reserves would not be applied to the reserve thresholds laid out in the Scope section of the proposed AAT requirements. Only reserves held in the Insurance Company's General Account would be applied towards the proposed limits in the new AAT memo.

Separate Account Reserves are held dollar-for-dollar to match the Separate Account Assets of the company. As such there is no "Actuarial" component to calculate the Separate Account Reserves. The insurance company holds these assets for the express benefit of the individual policy owner and does not control the investment decisions of the assets held in the Separate Accounts. Further, these assets cannot be used to satisfy the general obligations of the insurance company. As such the investment return assumptions related to separate account assets would have at best a minimal indirect impact on the ability of the insurer to meet its General Account liability obligations. Reserves held as a result of any secondary guarantees related to the performance of these separate account assets would be held in the General Account and would clearly be included when determining the total Actuarial Reserves of the Company.

Similar to Separate Account Assets and Reserves, Lombard believes that reserves associated with Life Insurance Policy Loans made to policyholders should also be excluded from the calculation of actuarial Reserves. For reporting and reserving purposes, Policy Loans are treated exactly like Separate Account Assets. Therefore, they should receive the same exclusion for the reasons listed above.

If the term Actuarial Reserves was already intended to only incorporate General Account reserves, we suggest updating the Scope to explicitly state this or to add the term "Actuarial Reserves" to the Definitions in Section 3 in order to provide full clarity.

In closing, Lombard once again would like to thank the task force for providing an opportunity to receive industry feedback on the Guideline draft.



Respectfully Submitted,

A handwritten signature in blue ink, appearing to read "S. Hedgepeth".

Scott Hedgepeth

EVP, Chief Actuary & Appointed Actuary

Lombard International Life Assurance Company

Copies to: Steve Boston, Reggie Mazyck



Brian Bayerle  
Senior Actuary

March 21, 2022

Mr. Mike Boerner  
Chair, NAIC Life Actuarial Task Force (LATF)

Mr. Fred Andersen  
Chief Life Actuary, Minnesota Department of Commerce

Re: Actuarial Guideline Asset Adequacy Testing

Dear Messrs. Boerner and Andersen:

The American Council of Life Insurers (ACLI) appreciates the opportunity to submit the following comments on the proposed Actuarial Guideline on Asset Adequacy Testing (AAT, collectively Guideline).

#### Executive Summary

ACLI is generally supportive of modernizing AAT regulation. ACLI also supports such modernization being applied to the industry's use high net yield assets as the use of such assets in an informed, controlled way enables industry to make, support, and critically deliver on policyholder benefits. ACLI supports the legitimate regulatory attention to the projected net yields for such assets and would support the development of further analysis, documentation, disclosures, and sensitivity testing to inform the Appointed Actuary's opinion and facilitate dialogue with the domestic regulator regarding the use of such assets. We believe these efforts will address regulatory concerns by increasing transparency into AAT assumptions across the industry and enabling further regulator evaluation.

ACLI has significant concerns with this Guideline:

- ACLI does not support the wholesale application of a cap on yields as such a constraint is not actuarially sound, is prescriptive and is unduly limiting.
- ACLI does not support the proposed requirement for reinsurance, as it is potentially disruptive and creates a host of issues that conflict with other reinsurance-related initiatives of state regulators.
- ACLI feels the scope of assets in this Guideline is overly expansive and would impact far more assets than we believe the regulators intended.

American Council of Life Insurers | 101 Constitution Ave, NW, Suite 700 | Washington, DC 20001-2133

The American Council of Life Insurers (ACLI) is the leading trade association driving public policy and advocacy on behalf of the life insurance industry. 90 million American families rely on the life insurance industry for financial protection and retirement security. ACLI's member companies are dedicated to protecting consumers' financial wellbeing through life insurance, annuities, retirement plans, long-term care insurance, disability income insurance, reinsurance, and dental, vision and other supplemental benefits. ACLI's 280 member companies represent 94 percent of industry assets in the United States.

[aclli.com](http://aclli.com)

In light of these concerns and the additional comments listed below, ACLI does not believe the proposed Guideline would meet the regulators' stated objectives.

ACLI is committed to working with regulators to address their concerns in a feasible, targeted, and timely way. We support independent and informed assumption setting consistent with the principles of AAT and the applicable ASOPs. We hope that additional engagement and exposures of this Guideline will lead to a holistic analysis of the issues and reasonable guidance for Appointed Actuaries.

We offer the following commentary on the various sections of the Guideline.

### Section 1 – Effective Date

ACLI supports making enhancements to the asset assumption disclosures, including adding sensitivities for AAT as part of the December 31, 2022 asset adequacy analysis. Given the intent that “the requirements contained in this Guideline will be incorporated into the NAIC Valuation Manual (VM-30) at a future date”, we strongly encourage the development of a corresponding APF in tandem with future developments of this Guideline. This approach ensures at the end of this process, regulators can adopt changes for the 2024 NAIC Valuation Manual. ACLI also supports an explicit ending effective date for this Guideline corresponding to the effective date of the corresponding NAIC Valuation Manual changes.

### Section 2 – Scope

ACLI supports significant restriction of the scope of the Guideline. We think it is critical to establish the appropriate scope of assets in this Guideline. The definition in the current exposure is overly expansive and would impact far more assets than we believe the regulators intended. Through additional dialogue of regulators, industry, and interested parties, an appropriate principles-based scope can be developed.

Clearly defining the scope will take time beyond the exposure period. In concept, validating higher spreads associated with certain assets that otherwise have similar quality and duration to rated public bonds may be appropriate. Such assets may reflect a different risk profile than traditional fixed income assets and justify greater disclosure and explanation in the Actuarial Memorandum. Equities are another example of an asset class that involve a very different kind of risk and may require a different approach when presenting sensitivities and yield disclosure, with potential consideration for publicly traded versus private equity positions.

### Section 3 – Definitions

ACLI has two suggestions regarding the proposed definitions.

First, the development of a formal definition of the term “complex assets” would be beneficial.

Second, section 3.A.i mixes purchase/book yield concepts and market yield concepts. Because it may be difficult to obtain accurate historical information, it may be preferable to use a current market view for purposes of identifying high net yield assets. However, any relevant analysis, documentation, disclosures, or sensitivities should then be applied on a book yields basis. For future purchases, ACLI supports the proposed use of long-term spreads.

#### Section 4 – Asset Adequacy Considerations for Analysis of Business Supported by Any Projected High Net Yield Assets

ACLI does not support the reinsurance component of the Guideline. On its face, the requirement appears to circumvent broader NAIC initiatives related to reinsurance collateral, including the Covered Agreement and Reciprocal Jurisdictions, which effectively convey confidence in the regulatory regimes of non-U.S. jurisdictions. Further, the material counterparty risk requirement potentially challenges the Actuarial Opinion of the reinsurer that files a VM-30 report.

In addition to those jurisdictional considerations, we note that the use of the term “asset adequacy testing” is ambiguous and therefore leads to different interpretations. If “asset adequacy testing” is intended to mean “asset adequacy analysis,” the requirement is redundant, as the Appointed Actuary is already required to assess the collectability of reinsurance in forming the Actuarial Opinion. However, if “asset adequacy testing” is intended to mean “cash flow testing,” the requirement would create a significant new operational burden and would require extensive use of hypothetical assets and judgmental assumptions that may make it challenging for the Appointed Actuary to gain comfort with the results. It is also unclear how results from the proposed testing would impact net AAT results, reinsurance credit taken, reinsurance reserves held and any action that the regulator expects from or will undertake based on the results of such analysis.

Overall, it is unclear what problem the reinsurance component of the draft Guideline fixes. We believe that this initiative should maintain the focus on the use of high net yield assets rather than expanding the scope to include reinsurance issues. Therefore, the reinsurance component should be removed from the Guideline because it is unrelated to the issues underlying high net yield assets.

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

ACLI opposes the inclusion of the prescribed constraint on “Projected High Net Yield Assets”. This fundamentally changes the nature of asset adequacy testing and moves cash flow testing away from the “principles-based” framework that has long been the underpinning of such testing. The approach outlined in the Guideline supersedes the professional judgment of the Appointed Actuary to fulfill their responsibilities according to presently accepted ASOPs. NAIC Model 820 already provides regulators with the necessary authority to compel an Appointed Actuary to change an assumption that regulators do not believe is reasonable or appropriate.

Further, there are credible arguments for credit spreads exceeding the benchmark spreads (e.g., liquidity, structure, complexity, size, and expertise). ACLI supports enhanced documentation and support in such instances rather than arbitrary limitations.

#### Analysis, Documentation, Disclosures, and Sensitivity Testing

ACLI believes that regulatory concerns can be addressed through a package of analysis, documentation, disclosures, and sensitivity testing. Some of the requirements in the Guideline may have merit, but others seem disproportionately burdensome. ACLI requests more time to work with regulators to establish appropriate and value-added provisions to more effectively address the concerns of regulators.

Sensitivities are a valuable tool in understanding the volatility and risk of assumptions on AAT results, which is why we are largely supportive of providing enhanced sensitivities. Sensitivities can also reflect the inherent link between policyholder obligations and the supporting assets. We would like to work with regulators to determine which sensitivities would be most beneficial and appropriate. We ask for more time than the current exposure period allows to develop such a proposal that maintains the requirement that Appointed Actuaries continue to apply professional judgement.

### Summary

In summary, ACLI would like to continue to work with regulators to develop appropriate scope, definitions, disclosures, and sensitivities for the proposed Guideline. The constraint on high net yield assets should be removed from the Guideline because it is damaging to the industry and policyholders, and the reinsurance aspects of the Guideline should be removed because they are unrelated to the issues underlying high net yield assets.

ACLI is working on developing specific recommendations to the Guideline reflecting the comments above. We appreciate consideration of those recommendations and questions generated from our work as they are more fully developed.

ACLI is appreciative of your consideration of our comments and looks forward to a future discussion.

Thank you for your consideration,



cc: Reggie Mazyck, NAIC



March 23, 2022

To: Mr. Mike Boerner  
Chair, NAIC Life Actuarial Task Force (LATF)

Mr. Fred Andersen  
Chief Life Actuary, Minnesota Department of Commerce

From: Catherine Murphy, Deputy Appointed Actuary, Jeff Johnson AVP & Actuary

CC: Marianne Harrison, President and CEO; Rich Harris, VP & US Appointed Actuary;  
Ken Ross VP & Counsel – Government Relations  
Reggie Mazyck, NAIC

**Re: John Hancock Comments on Draft Actuarial Guideline for AAT Related to Complex Asset Modeling**

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Dear Messrs. Boerner and Andersen:

John Hancock<sup>1</sup> appreciates the opportunity to comment on the draft actuarial guideline presented for comment at LATF on February 10.

While we are supportive of the letter submitted by the ACLI, we submit this letter with additional, more specific comments for your consideration.

**Executive Summary**

As presented at LATF on December 8, 2021, insurance regulators have identified the need to better understand risks associated with modeling complex or high yielding assets for Asset Adequacy Testing (AAT). While we understand the concerns that have been articulated, we believe that the exposed proposal could have a number of adverse consequences on how companies conduct business and hence, ultimately, on policyholders. We would like to partner with you to find a solution that addresses the concerns and at the same time mitigates the adverse consequences.

The proposed guideline imposes a “one-solution-fits-all” approach for all asset classes and all companies by setting a constraint on complex/high yielding assets and reinsurance. Reducing all asset returns to the equivalent of a BBB bond is excessively generic and punitive as it ignores the fact that investing in a diverse basket of asset classes represents a valuable risk mitigation strategy when these assets are paired with the liabilities of an insurance company through a robust Asset/Liability management strategy. We, therefore, fully support ACLI’s position that better documentation of the risks and return experience associated with these assets should address regulatory concerns. We’d envision this documentation to be comprehensive, inclusive of data supporting the underlying assumptions and margins along with corresponding rationale for the way in which the assets have been modeled. This reporting could include measures of the variability of results and sensitivities on asset margins.

This more fulsome disclosure would enable the domiciliary regulator to assess the reasonableness of the Appointed Actuary’s assumptions and discuss any concerns individually with a company. Such a focused approach would be much more appropriate from a risk oversight perspective and – unlike the

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<sup>1</sup> John Hancock is a unit of Manulife Financial Corporation, a leading international financial services provider that helps people make their decisions easier and lives better by providing financial advice, insurance, and wealth and asset management solutions. Manulife Financial Corporation trades as MFC on the TSX, NYSE, and PSE, and under 945 on the SEHK. One of the largest life insurers in the United States, John Hancock supports more than ten million Americans with a broad range of financial products, including life insurance, long term care and annuities.



framework outlined in the exposed draft - would not impose restrictive constraints across the industry that, being generic, would be arbitrary in nature, much less risk sensitive and which could constrain investment strategies in a manner detrimental to the offerings of our products and their pricing. Setting constraints for Asset Adequacy Testing is not appropriate and could have far reaching consequences.

Additionally, as part of the risk framework, the Appointed Actuary could more formally report to the Board, not only on Asset Adequacy but also on risks related to specific asset classes, such as a governance infrastructure covering the aspects of policies, procedures, controls and resources in the context of assumptions and margins.

### **Increased Disclosure – Relating to Experience**

As asset cash flows are projected for Asset Adequacy Testing, the asset assumptions and margins should be based on experience, similar to what may be done for liability assumptions today for the purpose of AAT. For example, when liability cashflows are projected, the Appointed Actuary may leverage the company's own observed experience for mortality, lapse, etc. in setting the assumptions. A similar approach could be applied to all asset assumptions, including growth/income/yield, expenses, and default, among others. To the extent that a company has extensive experience with data supporting it, the Asset Adequacy Testing assumptions should reflect that experience. Margins should also be set considering uncertainties. ASOP22<sup>2</sup> already provides guidance to the Appointed Actuary in setting assumptions and margins.

To complement the disclosures on assumption/margin selection, sensitivity analysis could be performed. One way to make the sensitivity relevant to the underlying asset portfolio would be to test asset assumptions by adjusting the margins and report the results.

The Actuarial Opinion Memorandum should include documentation and rationale supporting these assumptions and margins along with results from sensitivity testing. While documentation standards may be considered, a simple approach could be to make sure that there is clear rationale on "why the assumptions/margins were selected". The documentation could also include Actual/Expected reporting, similar to what may be done on liabilities. For example, the Appointed Actuary could demonstrate the appropriateness of a company's own assumptions by relating the assumption to the actual experience observed for both assets and liabilities.

Finally, formalizing the AAT corporate governance guidance where the Appointed Actuary expands the reporting to the Board beyond Asset Adequacy results could also help increase transparency in AAT. This reporting could include a description of risks related to governance infrastructure (policies, procedures, controls and resources), assumptions and margins. This approach to more formal governance reporting for Asset Adequacy could be incorporated into VM-G – Corporate Governance for Principle-Based Reserves

We believe that increased transparency and disclosure would address the regulators' concerns whilst additionally strengthening Board governance and oversight.

### **Risk Management**

Today, insurance companies leverage the benefits of diversification of asset classes to help mitigate risks and to maintain strong yields during a variety of economic cycles. Portfolio diversification should be a part of any investment strategy to manage Asset/Liability risks and ensure appropriate protection for policyholders. A diversified portfolio allows a company to take on measured risk matched to its liability profile; for example, long tail liabilities are generally supported by assets held for a similar period. Having a diverse mix of public and private investments has a variety of incidental societal and economic benefits, the value of which should not be underestimated (for example through investments in roads and infrastructure, agriculture and real property). Arbitrary constraints could lead companies to adjust their investment strategies, which in turn could negatively impact policyholders, public and

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<sup>2</sup> Actuarial Standard or Practice #22 on Asset Adequacy Analysis



private bond issuers and to some extent, the companies we invest in.

Insurance companies already set capital aside to cover losses that could be more than moderately adverse. A constraint on yield as part of AAT would amount to a double charge for certain complex or high yielding assets. This double charge could lead companies to change their investment strategy.

Finally, regulators should consider the role that reinsurance plays as an effective risk mitigation technique that allows companies to distribute risk. The AAT guideline proposes a constraint on reinsurance that could negatively impact insurance companies' use of reinsurance and therefore could lead to less diversification of risk. An alternative to a reinsurance constraint in AAT could be to ensure that companies have a robust and demonstrated reinsurance management process in place.

An actuarial guideline for AAT that limits yields on assets or requires testing gross of reinsurance could lead a company to take action that may result in more risk or could have negative impact on policyholders through more limited product offerings or higher pricing to cover the higher regulatory requirements. Increased disclosures, sensitivities and an open dialogue between companies and their domestic regulators would provide increased transparency for those assets, mitigating concerns more effectively than broad constraints on returns could ever deliver.

## **Conclusion**

The existing guidance and standards already provide direction to the Appointed Actuary on modeling assets and liabilities, including the selection of assumptions and margins based on the risks. These references also apply to modeling of complex or high yielding assets. Guiding the Appointed Actuaries to increase transparency to regulators and Boards should be sufficient to facilitate more robust discussions with domiciliary regulators and key stakeholders. This increased transparency should include modeling, governance infrastructure, selection of assumptions and margins and discussion of risks. We believe that such an approach would effectively address the concerns raised by LATF members while, at the same time, mitigating the negative impact to policyholders, the industry and the economy, more broadly, as outlined above.

For these reasons, we join ACLI in our opposition to adding rigid and arbitrary constraints in Asset Adequacy Testing for both the asset yield and reinsurance.

We are committed to working with regulators, bilaterally and with ACLI, to help address the concerns raised by better defining documentation standards, proposed sensitivities and strengthening the governance approach.



March 23, 2022

Mr. Mike Boerner  
Chair, NAIC Life Actuarial Task Force (LATF)

Mr. Fred Andersen  
Chief Life Actuary, Minnesota Department of Commerce

Re: Asset Adequacy Testing Actuarial Guideline

Dear Messrs. Boerner and Andersen:

Western & Southern Financial Group, Inc. appreciates the opportunity to comment on the exposed Actuarial Guideline for Asset Adequacy Testing (“AAT”).

Given the timing of the release of the exposure, we are not commenting on all aspects of it. Western & Southern Financial Group would, however, like to specifically comment on the proposed requirements around Documentation, Sensitivity Testing and a Constraint for AAT.

#### Documentation

We believe that additional asset documentation would be helpful in facilitating AAT conversations between Appointed Actuaries and regulators. It would be particularly helpful for regulators, as they would see the same reporting across all companies. Given our initial review of the exposure and our own assets, we believe that requiring individual asset level documentation would be quite onerous and potentially unhelpful given the amount of data involved. Determining the attribution of all of the various types of spread components over an entire historical portfolio would be difficult and would very likely lead to aggregate simplifications. Due to that likelihood and the cost-benefit considerations at issue, we suggest considering aggregate spread documentation split out by asset classes, which would more quickly and easily convey to regulators how much each spread component drives asset yields by asset class.

#### Constraint/Sensitivity Testing

Asset Adequacy Testing is a test on the adequacy of reserves and, in our view, one could consider it as a principles based reserve. In other contexts within the Valuation Manual, the NAIC has included asset constraints (e.g., VM-20 asset spreads and asset reinvestment mix) and liability constraints (e.g., VM-21 additional standard projection amount). The exposure of this draft is due to the NAIC observing certain aggressive practices regarding assets backing liabilities and asset modeling practices. Providing a Constraint would be in line with other

Mr. Mike Boerner  
Mr. Fred Andersen  
Page 2

current reserving practices and would provide a consistent approach to avoid overly optimistic assumptions. Western & Southern Financial Group supports the utilization of a Constraint or “guardrail” in connection with AAT.

Due to the use of historical book yields and current market spreads, our understanding of the exposure suggests that more assets are scoped in than previously contemplated (including, e.g., equities and below investment grade fixed income), and note that this approach would result in a very prescriptive asset assumption within AAT. We believe the original intent was to scope in fewer assets, focusing on complex or high-yielding assets with uncertain credit sensitivities and particular liquidity concerns, rather than well-understood asset classes with a long historical performance record. We respectfully submit that a more targeted approach would address regulators’ legitimate concerns while appropriately narrowing the scope of reporting, such that the Constraint would be more of a boundary or guardrail than a prescription. We further believe that providing an initial Sensitivity Test, which would align with the Constraint, would be helpful for regulators to understand how sensitive results are to asset assumptions. Adopting a consistent Sensitivity Test and Constraint across the industry would also help regulators consistently see impacts and potential issues among companies.

Most importantly, we believe that adopting a clear and consistent standard impacting all companies is important, as a consistent standard helps facilitate a high level of assurance that companies are appropriately reserving for their obligations to policyholders.

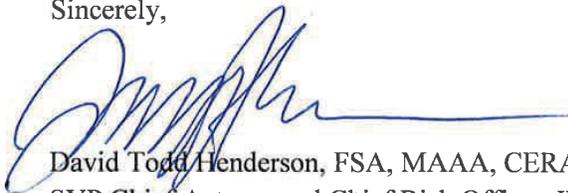
Regarding the specific drafting notes as requested in the exposure, we would like to provide the following comments for consideration.

*{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}*

The Appointed Actuary meets with the Board every year and presents on the results. We believe the current process is an adequate process for Board involvement.

Thank you for the opportunity to comment on the exposure.

Sincerely,



David Todd Henderson, FSA, MAAA, CERA  
SVP Chief Actuary and Chief Risk Officer, Western & Southern Financial Group



**Jason Klawonn, FSA, MAA**  
Vice-President & Chief Actuary

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March 23, 2022

Mr. Mike Boerner  
Chair, NAIC Life Actuarial Task Force (LATF)

Mr. Fred Andersen  
Chief Life Actuary, Minnesota Department of Commerce

Attention: Reggie Mazyck ([rmazyck@naic.org](mailto:rmazyck@naic.org))

Re: Proposed Actuarial Guideline for Asset Adequacy Testing

Dear Messrs. Boerner and Andersen:

Northwestern Mutual appreciates the opportunity to submit comments on the proposed Actuarial Guideline on Modeling Complex or High Yielding Assets in Asset Adequacy Testing.

We support the development of a guardrail on assumed net investment yields for certain asset types to be used in asset adequacy testing and that testing be applied both to direct reserves and to ceded reserves not tested elsewhere.

Northwestern Mutual supports this ultimately being implemented as a guardrail to be met in testing rather than only a disclosure. This ensures that asset adequacy results are not based on net yields relative to the risks that may be excessive for these hard-to-model assets and allows for comparability across companies. This also provides more predictable guidance to the appointed actuary doing the testing. However, we believe more time should be taken to ensure that the guardrail is appropriate for all assets currently in scope. Examples of areas of possible refinement include the treatment of equities under the guardrail (since the characteristics of the risk are different than fixed income assets) and the introduction of an appropriate illiquidity premium for private asset classes. As such, beginning the guardrail as a disclosure and sensitivity test while additional refinements are made is a prudent approach.

We also believe that ceded reserves that are not asset adequacy tested should be addressed. Without this change, it is difficult to ensure that the primary insurer's liabilities to policyholders are being supported by reserves (whether held by the primary insurer or a reinsurer) that meet the moderately adverse standard. We believe the choice of reinsuring business should not be a reason why testing would not be performed.

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Re: Proposed Actuarial Guideline for Asset Adequacy Testing

In addition, more work needs to be done to better understand the practical limitations for the appointed actuary in testing ceded reserves and if other simplified approaches can ensure that reserves meet the moderately adverse standard. Similar to implementing guardrails for direct business, it may also be prudent to implement this first as a disclosure.

Sincerely,

A handwritten signature in black ink, appearing to read "Jason T. Klawonn". The signature is fluid and cursive, with a large initial "J" and a long horizontal stroke at the end.

Jason T. Klawonn, FSA, MAAA  
Vice-President & Chief Actuary



EQUITABLE

DATE: March 23, 2022

FROM: Aaron Sarfatti, Chief Risk Officer; Steve Tizzoni, Head of Actuarial Regulatory Affairs

SUBJECT: Equitable Comments on the Concept of Developing an Actuarial Guideline on Modeling Complex or High-Yielding Assets in Asset Adequacy Testing (AAT).

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Equitable appreciates the opportunity to further comment on the concept of developing an Actuarial Guideline on the modeling of complex or high-yielding assets in Asset Adequacy Testing (AAT).

As noted in our December 2021 and January 2022 letters, Equitable continues to support establishing a credit spread guardrail within AAT. Equitable believes an AAT credit spread guardrail: (1) is consistent with current principles-based reserving approaches, (2) prevents gross abuses within the statutory reserve and capital framework that regulators are rightly concerned about, (3) aids the appointed actuary in determining asset adequacy and (4) is easier to implement and monitor than robust but voluminous documentation.

Further, while compressed development timelines may not support guardrail implementation for YE2022 filings, we encourage the NAIC to underscore its intent to establish a guardrail applicable to both retained business and ceded reinsurance. We observe few other viable paths for the NAIC to maintain confidence in reserve integrity amid rising scrutiny of offshore reinsurance from stakeholders ranging from industry insiders, media outlets, trade publications, the NAIC itself, the Federal Reserve and, most recently, the US Senate.

The remainder of this letter is organized to outline the basis of this support and recommend paths forward:

- 1) Executive summary – To outline principal arguments and positions
- 2) Recommendations on guardrail design
- 3) Recommendations on application to ceded reinsurance

## **I. Executive Summary**

Equitable supports the creation of a guardrail inclusive of both direct and ceded liabilities. Our primary reasons for support include the following:

- A. Guardrails are justified empirically by the observed excessive net yields assumed
- B. Guardrails are conceptually consistent with Principles-Based Reserve methodologies and do not represent “prescription”
- C. Guardrails are more practical and effective than disclosure alone
- D. The efficacy of the proposed guardrail design would be enhanced by targeted changes
- E. The application to ceded reinsurance is a pragmatic and necessary step to ensure resilience of entities who ceded business to jurisdictions without analogous guardrails
- F. The mechanics of the guardrail application to ceded insurance require clarification
- G. Regulators should consider phase-ins for ceded businesses given its profound impact on companies with significant offshore reinsurance

### ***A. Guardrails are justified empirically by the observed excessive net yields assumed***

The NAIC survey-based observations indicating median net yields of 7+% projected in perpetuity for certain classes of widely held securities that went unchecked by appointed actuaries and regulators is *prima facie* evidence of the need for a guardrail. Such optimism in assumptions for unearned spreads can degrade reserves supported by such assets by 40+%.

### ***B. Guardrails are conceptually consistent with Principles-Based Reserves (PBR) methodologies and are not “prescription”***

Including a credit spread guardrail in AAT is consistent with existing statutory reserving approaches. As noted in our previous letters, VM-20, VM-21, and the NY Special Considerations Letter (NY SCL) all require some form of a spread cap as a guardrail to ensure reasonable asset spread assumptions in reserve calculations. For those products governed under prior valuation rules, AAT is the *de facto* reserve in the current rate environment and including a spread guardrail in AAT would be consistent with current industry practices regarding principle-based reserves.

Further, a guardrail safeguards the integrity of principles-based reserves. A guardrail represents boundary setting and not the parameters specification associated with prescription. Guardrails ultimately further PBR adoption by preventing abuses by a minority of companies that undermine confidence in the overall PBR framework.

### ***C. Guardrails are more practical and effective than disclosure alone***

As noted in our previous letters, a constraint is less burdensome for regulators to monitor, as it reduces the reliance on the regulator to identify and challenge overly optimistic assumptions of spread recognition in complex and high-yielding assets. While documentation of assumptions can enhance regulator understanding of the regulated entity’s basis for spread recognition, it neither (a) ensures uniform regulator treatment across states nor (b) reliably protects the integrity of the total asset requirement in the face of questionable judgment or lax oversight. This is especially true given regulator resource constraints and in light of the proposed robust disclosures that, while valuable, may be of limited effectiveness due to their sheer volume.

Moreover, the guardrail aids the Appointed Actuary in determining asset adequacy for assets that are new or where there is either limited internal or external knowledge or data. A guardrail ensures that actuaries who may not be familiar with certain emerging high-yielding assets classes are using appropriate asset assumptions within AAT.

***D. The efficacy of the proposed guardrail design would be enhanced with targeted changes***

Recommended enhancements are detailed below, but highlights include:

- Use of market yields to concentrate the guardrail only on assumed unearned spread
- Changing the ratings index to A- from BBB- to align better with market practice
- Adding a modest illiquidity premium to reflect enhanced earnings potential for less liquid, non-public assets – while also giving companies the “benefit of the doubt” in gray areas
- Application as an aggregate yield cap, not a security-specific cap, so as not to punish companies with bar-belled net yield profiles and to establish a total budget for assumed unearned spread per projection year

***E. The application to ceded reinsurance is a pragmatic and necessary step to ensure resilience of entities who ceded business to jurisdictions without analogous guardrails***

A common feature of reinsurance transactions is the use of offshore entities that lack guardrails analogous to the current proposal. The application of such guardrails to ceded reinsurance is the most pragmatic and effective way to safeguard offshore reserve integrity against the same excessive spreads that motivated the proposed AAT guardrail. Absent this provision, we anticipate even greater migration of reserves to offshore jurisdictions that readily permit such lenience and, in turn, further exposure of onshore entities to lax offshore reserve standards. Moreover, the use of AAT is more practical and expedient than other mitigation paths such as re-opening jurisdictional reciprocity and prohibiting the use of lower quality letters of credit to fund any onshore reserve deficiencies.

***F. The mechanics of the guardrail application to ceded insurance require clarification***

As detailed in Section III, we think the mechanics of the guardrail application to ceded reinsurance require clarification, particularly with respect to the treatment of trust assets and the allocation of any entity-wide deficiencies to specific treaties.

***G. Regulators should consider phase-ins for ceded businesses given its profound impact on companies with significant offshore reinsurance***

Our understanding is that the offshore reserves for many offshore companies reflect aggregate earned spreads of c.100bps or more than the proposed guardrail. In this circumstance, a liability with a typical 10-year duration would experience a reserve deficiency of c.10+%. The management teams of companies who ceded such liabilities (many recently transacted) will require considerable time and effort to restructure their balance sheets, perhaps more time than the present deadline allows. If this were the concern, regulators could also consider enforcing the proposed reinsurance constraints only for transactions effective after a defined date in order to limit the growth of future reinsurance transactions that rely on lenient offshore requirements.

## II. Recommended Enhancements to Current Spread Constraint Design

We believe an aggregate spread cap based on Single-A corporate spreads plus a modest illiquidity premium applied on a market value basis remains the most effective and appropriate design for an AAT spread guardrail. As such, we offer the following suggestions and associated rationale for the currently proposed spread guardrail. Our key recommendation is that the guardrail be applied based on a market value basis.

<b>Topic</b>	<b>Recommendation</b>	<b>Commentary</b>
<b><u>Key Recommendation:</u></b> <b>Spread Guardrail Definition – Market Value vs. Book Value</b>	<ul style="list-style-type: none"> <li>Define the spread cap based on market value, instead of book value.</li> </ul>	<ul style="list-style-type: none"> <li>Market value spread is superior to book value in incorporating market information about risk to cash flows</li> <li>Market value is sufficiently audited to be reliable.</li> <li>The book-value based constraint as currently formulated will have the unintended consequence of reducing spreads on highly rated corporate bonds purchased in periods of compressed spreads.</li> <li>Market value approach is the same approach utilized by the NY SCL.</li> </ul>
<b>Level of Aggregation for Spread Guardrail</b>	<ul style="list-style-type: none"> <li>Formulate credit spread guardrail or cap in the aggregate, rather than at the individual asset level.</li> </ul>	An Aggregate Guardrail would: <ul style="list-style-type: none"> <li>Allow for some diversification across assets and asset categories while also being easier and more effective to implement.</li> <li>Allow some reflection of legitimate excess spread unique to certain assets to the extent other, higher-grade assets are below the constraint.</li> <li>Ameliorate concerns regarding the one-size fits all approach taken by the current proposal.</li> </ul>
<b>Inclusion of Equities in the Actuarial Guideline</b>	<ul style="list-style-type: none"> <li><u>If aggregate guardrail is adopted:</u> Apply the spread guardrail to equities and equity-like investments backing general account liabilities.</li> <li><u>If aggregate guardrail is not pursued:</u> Exclude GA equity investments from the guardrail but govern by other measures, such as the immediate shock and subsequent cap on net returns utilized in the NY SCL.</li> </ul>	<ul style="list-style-type: none"> <li>Additional investment risk should not reduce reserves beyond what is prudent.</li> <li>Lack of a guardrail on any one asset class (equities) could have unintended consequence of increasing investment in that asset class.</li> </ul>
<b>Reflection of Illiquidity Premium</b>	<ul style="list-style-type: none"> <li>Include a modest illiquidity premium within the spread guardrail.</li> </ul>	Including a modest illiquidity premium within the constraint will: <ul style="list-style-type: none"> <li>Acknowledge the ability of insurers to reliably realize an illiquidity premium given the long-dated nature of their liabilities and ability to invest in private markets.</li> </ul>

		<ul style="list-style-type: none"> <li>• Maintain the industry’s ability to compete based on differentiated investment strategies while still addressing the excessive optimism in projected asset yields that regulators are rightly concerned about.</li> </ul>
<b>Level of Guardrail</b>	<p>Set the appropriate level for the proposed guardrail dependent on whether the guardrail is applied in aggregate or restricted to high yield assets.</p> <ul style="list-style-type: none"> <li>• <u>If the guardrail is applied in aggregate:</u> Set the spread cap on slightly higher credit ratings, such as A or A-, plus a modest illiquidity premium.</li> <li>• <u>If the guardrail is applied solely to high yielding assets:</u> Maintaining the BBB-spread proposed is not unreasonable. However, if and when C1 reforms for structured securities are enacted, use the same models at a confidence level like CTE70 to calibrate guardrails for assets with bespoke C1 charges.</li> </ul>	<ul style="list-style-type: none"> <li>• Single A curve is recognized in the industry as an appropriate measure of fair value and is the emergent standard for spread recognition in other public accounting regimes (FASB, IAIS, VM-22)</li> <li>• As of 12/31/21, the proposed BBB- spread (net of default costs) is actually c. 10bps more conservative than a spread cap based on A-, BBB+ or BBB rated bonds.</li> <li>• This is the result of the significant default costs associated with BBB- bonds and the low spread environment as of 12/31/21. Formulating the guardrail as BBB+ or BBB plus an illiquidity premium would result in a more reliable and less volatile spread cap.</li> <li>• For assets with bespoke C1 charges, setting the guardrail consistent with the C1 capital modeling ensures consistency in spread recognition between reserves and capital.</li> </ul>
<b>Reinvestment Spreads vs. Current Spreads</b>	<ul style="list-style-type: none"> <li>• Harmonize guardrail for existing and reinvestment assets, as currently the reinvestment yields are materially less restrictive than for currently held assets.</li> <li>• Address via grading from current spreads to long term reinvestment spreads over the period of several years, consistent with current VM-21 and VM-22 frameworks.</li> </ul>	<ul style="list-style-type: none"> <li>• Significant disconnects between existing and reinvestment assets could encourage modeling practices that project significant asset turnover in early years to realize the immediately higher reinvestment spreads, which we do not believe is the intent of the guideline.</li> <li>• We would, however, guard against situations when current spreads are elevated and above long-term spreads. In those situations, history suggests swift mean reversion of those elevated spreads over a period of no more than 1 year.</li> </ul>

### III. Recommendations on Application to Ceded Reinsurance

The current language requires that a company perform asset adequacy testing on business that includes a ceded reserve if the reinsurer does not file a VM-30 report. While we support the intent of the guidance as noted above, there are practical considerations that must be clarified.

There is limited guidance for how gross asset adequacy testing is defined and should be performed – especially when the insurer has minimal information about the reinsurance assets that are backing the ceded reserves. Key questions include: (i) what assets should be used in the gross AAT calculation when there are no trust assets supporting the ceded reserves and (ii) in the

event there are no trust assets and the assuming reinsurer has an entity wide AAT deficiency, how such asset deficiency is assigned to different treaties.

Additional guidance regarding how the results of the proposed testing would impact net AAT results, gross reserves, and reserve credits taken at the ceding company is also necessary. For example, if the results of testing indicated that reinsurance assets for a particular treaty were insufficient, guidance must be provided whether the ceding insurer should (1) compel the reinsurer to increase collateral, (2) reduce reinsurance reserve credit taken, (3) reduce overall AAT margins to reflect the insufficiency or (4) some combination of the above.

We do believe that with these additional clarifications, the proposed application of AAT to ceded reinsurance is a pragmatic and effective way to ensure the resilience of entities that have ceded significant amounts of business offshore.

\* \* \* \* \*

Equitable appreciates the opportunity to comment on this exposed proposal and looks forward to working with regulators to reach an appropriate framework for modeling of high yielding assets within the Asset Adequacy Testing framework. We are available to discuss our comments further as desired.

Sincerely,



Aaron Sarfatti, ASA

Chief Risk Officer, Equitable

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Stephen M. Tizzoni, FSA, MAAA

Head of Actuarial Methodology and Regulatory Affairs, Equitable



**New York Life Insurance Company**  
51 Madison Avenue  
New York, NY 10010

BY EMAIL

March 23, 2022

Mr. Mike Boerner  
Chair, NAIC Life Actuarial (A) Task Force

Mr. Fred Anderson  
Chief Life Actuary, Minnesota Department of Commerce

Attention: Reggie Mazyck ([rmazyck@naic.org](mailto:rmazyck@naic.org))

**Re: Proposed Actuarial Guideline for Asset Adequacy Testing (AAT)**

Dear Messrs. Boerner and Anderson,

New York Life Insurance Company (NYL) appreciates the opportunity to comment on the draft Actuarial Guideline for Asset Adequacy Testing (AAT). We strongly support the ongoing efforts of the NAIC to develop an actuarial guideline focused on the appropriate modeling of complex or high-yielding assets. We believe it is important for the Appointed Actuary to reflect, and regulators to understand, the risks associated with these assets in AAT. Given the increased use of these complex assets, an actuarial guideline would improve consistency in their modeling, offer greater transparency and enhance the quantification of risks associated with these asset classes. It is our view that this guideline would significantly strengthen the solvency of the life insurance industry and protect consumers by ensuring the ability of companies to meet current and future policyholder obligations.

New York Life Insurance Company, a Fortune 100 company founded in 1845, is the largest mutual life insurance company in the United States<sup>1</sup> and one of the largest life insurers in the world. New York Life has the highest financial strength ratings currently awarded to any U.S. life insurer from all four of the major credit rating agencies<sup>2</sup>. Headquartered in New York City, New York Life's family of companies offers life insurance, retirement income, investments and long-term care insurance.

**Net Yield Guardrails in Asset Adequacy Testing Safeguard Solvency and Promote Consistency**

NYL supports the use of guardrails in AAT as a practical way to ensure that the net yield of assets used to back statutory reserves receive regulatory focus commensurate with the

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<sup>1</sup> Based on revenue as reported by "Fortune 500 ranked within Industries, Insurance: Life, Health (Mutual)," Fortune magazine, 6/2/2021. For methodology, please see <http://fortune.com/fortune500/>.

<sup>2</sup> Individual independent rating agency commentary as of 9/30/2021: A.M. Best (A++), Fitch (AAA), Moody's Investors Service (Aaa), Standard & Poor's (AA+).



importance that regulators have accorded to this risk area while bringing greater discipline to AAT.

The emergence and increased usage of complex and high yielding assets have improved the assumed earnings rate on invested cash flows. Given this, we believe it is critical that the risk associated with these assets be appropriately reflected in reserving and accounting standards. Regulators have observed that the assumed net yields on these asset classes reflect favorable spreads without necessarily adding an adequate provision to account for increased risk. If insurers' reliance on the sustained outperformance of these assets when setting reserves is not addressed, this growing trend may pose a potential solvency risk for the life insurance industry. The life insurance industry has been resilient through various financial and other crises, and this is in large part due to the strong solvency protections afforded by the state regulatory system. We believe that the use of guardrails in setting the net yields for complex and high yielding assets is not only appropriate but critical to ensuring that strong solvency protections continue.

In addition, the increasing dependence on high yielding assets to support long duration liabilities has, in turn, increased the degree of reliance counted upon by Appointed Actuaries to set assumptions for the risks underlying these assets and has potentially created increased pressure to rely on aggressive assumptions for their net yields. This may result in inconsistency in assumed net yields for similarly rated assets among different companies despite having a similar level of risk.

It has been suggested that relying solely on additional disclosure requirements and sensitivity testing would provide satisfactory insight into the assumptions used with respect to these asset classes. We disagree and believe that such an approach is too weak to effectively address regulatory concerns. Relying solely on sensitivity testing and documentation for these complex and high yielding assets will potentially expand and exacerbate the questionable modeling practices that regulators have begun to observe. In contrast, establishing guardrails around the modeling of complex and high yielding assets will ensure that AAT appropriately reflects the risks inherent in these assets and therefore enhance both transparency and consistency across insurers, allowing regulators to better understand the underlying risks.

While NYL is supportive of guardrails, we acknowledge that the specific guardrail definitions in the draft Actuarial Guideline will require further development and refinement. Consequently, we support the draft's measured approach to introduce the guardrails as sensitivity tests for year-end 2022 with the goal of transitioning to guardrails the following year and thereby allowing more time to vet and develop appropriately conservative guardrails.

**Net Yield Guardrails do not Diminish the Role of the Appointed Actuary, and are Entirely Consistent with the Discretion Accorded to the Appointed Actuary under the Standard Valuation Law**

AAT is by definition a judgement-based exercise that relies on the expertise, integrity and discretion of the Appointed Actuary. We believe that regulators should take great care not to impinge on the judgement and discretion of the Appointed Actuary. However, we do not believe adding guardrails for complex and high yielding assets impinges upon Appointed Actuary discretion.



Under the Standard Valuation Law, the Appointed Actuary must form “an opinion ... as to whether the reserves and related actuarial items held in support of the policies and contracts ... when considered in light of the assets held by the company with respect to the reserves and related actuarial items ... make adequate provision for the company’s obligations under the policies and contracts...”<sup>3</sup> Any proposed guardrails will have no impact on this requirement, nor on the Appointed Actuary’s use of discretion and judgement in forming such opinion.

In fact, Appointed Actuaries do not rely on their own judgment in setting all critical assumptions, particularly in areas where they lack sufficient expertise. In these situations, Appointed Actuaries instead rely on others, and obtain reliance statements.<sup>4</sup> In particular, Appointed Actuaries often rely on others to set investment-related assumptions, particularly spread and default assumptions, with respect to which the Appointed Actuary may have limited expertise. This does not limit the Appointed Actuary’s judgment or discretion, but instead facilitates appropriate assumption setting and analysis. Similarly, establishing guardrails on certain asset-related assumptions is entirely appropriate and does not impede the role of the Appointed Actuary.

### **Greater Transparency into Reinsured Liabilities and Supporting Assets**

The use of offshore reinsurance transactions, sidecars and similar structures has increased in recent years and the NAIC has rightfully identified this as one area of concern that needs to be understood:

“Insurers’ use of offshore reinsurers (including captives) and complex affiliated sidecar vehicles to maximize capital efficiency, reduce reserves, increase investment risk, and introduce complexities into the group structure.”<sup>5</sup>

We support the NAIC’s continued efforts to explore this and related issues. In addition, in the interim, we support efforts to bring greater transparency and consistency to these transactions and therefore support the proposed requirement to include certain ceded reserves (and the related assets) in AAT. While we appreciate the practical challenges associated with this proposal, we believe there is significant value in providing regulators with a view into reinsured liabilities. Given this, we would suggest including additional guidance to help companies navigate the practical challenges (e.g., sourcing appropriate asset data).

\* \* \*

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<sup>3</sup> Standard Valuation Law, NAIC Model 820, Section 3.B(2). See also Section 3.A(2)(a).

<sup>4</sup> Section 3.A.1.d of Section 30 of the Valuation Manual specifically contemplates this sort of reliance: “A reliance section (see Section 3.A.6) describing those areas, if any, where the appointed actuary has relied upon other experts for data, assumptions, projections or analysis (e.g., anticipated cash flows from currently owned assets, including variation in cash flows according to economic scenarios), supported by a statement of each such expert in the form prescribed by Section 3.A.12.”

<sup>5</sup> “Regulatory Considerations Applicable (But Not Exclusive) to Private Equity (PE) Owned Insurers”, NAIC Macroprudential (E) Working Group exposure dated December 7, 2021, available at <https://content.naic.org/sites/default/files/inline-files/12-7-21%20Exposed%20List%20of%20MWG%20Considerations%20-%20PE%20Related%20and%20Other.pdf>



We are grateful for your time and attention to our comments. Please let us know if you need any additional information or if you would like to discuss this letter with us.

Sincerely,

A handwritten signature in blue ink that reads "Elizabeth K. Brill".

Elizabeth K. Brill  
Senior Vice President & Chief Actuary  
New York Life Insurance Company

March 23, 2022

The Honorable Cassie Brown  
Texas Insurance Commissioner  
Chair, NAIC Life Actuarial (A) Task Force  
via email to [rmazyck@naic.org](mailto:rmazyck@naic.org)

The Honorable Commissioner Scott White  
Virginia Insurance Commissioner  
Vice-chair, Life Actuarial (A) Task Force  
via email to [rmazyck@naic.org](mailto:rmazyck@naic.org)

Mr. Fred Anderson  
Chief Life Actuary, Minnesota Department of Commerce  
via email to [rmazyck@naic.org](mailto:rmazyck@naic.org)

Dana Popish Severinghaus  
Director, Illinois Department of Insurance  
via email to [Dana.Severinghaus@illinois.gov](mailto:Dana.Severinghaus@illinois.gov)

Bruce Sartain  
Deputy Director, Illinois Department of Insurance  
via email to [Bruce.Sartain@illinois.gov](mailto:Bruce.Sartain@illinois.gov)

RE: Proposed Actuarial Guideline Asset Adequacy Testing ("AAT")

Everlake has the following commentary on the proposed AAT Actuarial Guideline (AAT AG).

The AAT AG is a significant proposal requiring additional study and input to ensure that:

- the regulatory solvency framework supports the diverse assets that stand behind insurance products, including retirement services, long term care and other long-term liabilities,
- regulatory concerns are addressed through the appropriate mechanism, and
- the strengths of the current solvency framework are considered.

Everlake supports enhancements to the regulatory solvency framework that would improve AAT documentation and transparency as described below. We encourage the Task Force to consider the recommendations in this letter, and the adverse impact the AAT AG will have on the insurance market.

While we agree that the regulatory concern on the increased use of higher yielding assets is appropriate and needs to be addressed, we have significant concerns with several aspects of the proposal. We share your concern that additional documentation, disclosure and sensitivities are warranted, and we would like to work with regulators to develop these requirements to adequately address regulatory concerns. However, we do not support the constraint on spreads for reasons outlined below. We also believe the reinsurance requirement does not belong in this AG and should be removed.

## Overview and Background

Over the last decade, the insurance industry has implemented substantial, healthy, and necessary innovation with respect to assets and risk management. Core aspects of that innovation have involved expanding and optimizing the asset classes used to back liabilities and improving asset and liability modeling techniques that consider expected liquidity requirements and policyholder behavior. At the same time, developments in the capital markets, such as ultra-low and even negative interest rates, have forced responsible companies to question the efficacy of continuing to purchase such instruments under the premise of conservatism. Consumers have benefited by expanding the pool of assets available to support long-term liabilities and diversifying asset risk. This has been achieved while increasing crediting rates and reducing costs for the same premium. Adding certain growth-oriented assets may increase short term volatility but can also substantially reduce the risk of falling short of satisfying one's liabilities over the long term by utilizing diversification as a risk mitigator. Higher yielding assets have been integral to the innovations in the insurance industry. Insurance products have evolved to be an effective and efficient means to meet this macroeconomic consumer need.

At the same time, we recognize challenges that regulators face; needing the tools to validate whether the asset innovation is truly in the best interests of policyholders and assuring that insurance companies are taking and managing risk appropriately, in part through how particular assets are aligned with appropriate liabilities.

We maintain that:

- regulations should foster asset diversification that allows insurers to meet the growing need for affordable insurance products;
- in addition to reserves, asset risk is addressed through established measurements and processes including Risk Based Capital and Enterprise Risk Management ("ERM") Frameworks; and
- the current AAT framework is strong, with decades of successful field testing through multiple economic cycles.

The overall asset requirements of insurance companies have grown, and over the next decade is expected to grow substantially. Moreover, the contribution to overall enterprise risk from adding higher yielding assets will not be the same for each company; it crucially depends on the interdependence of such risk factors with other portfolio assets, the amount of capital held, and with the characteristics of individual company liability factors as well. Assets must be evaluated in the context of the liabilities they support.

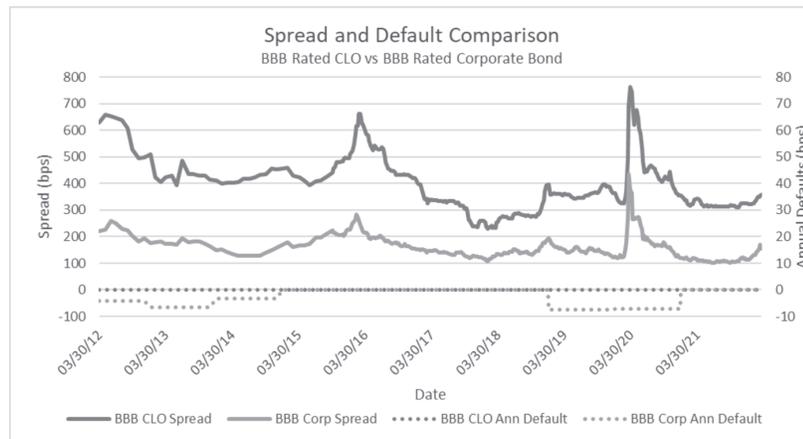
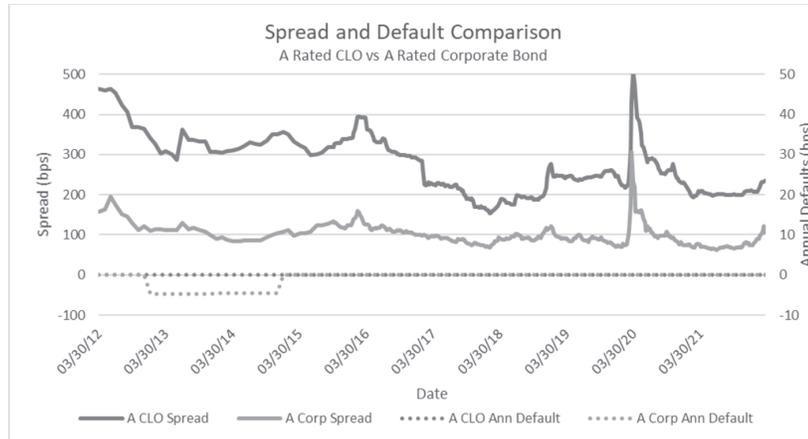
We've outlined below our concerns with the proposal and have included an early view on potential solutions to these concerns.

### Elimination of the cap on net investment returns

Higher net returns are not just a function of the credit rating of the asset. Other characteristics of the assets that can lead to higher returns including illiquidity premiums, underwriting complexity and skill required to price assets. Illiquidity is addressed by the liquidity risk of the liabilities supported by the assets. Underwriting assets is addressed by the skilled professionals and risk management programs employed by the industry. Cashflow timing variability also contributes to greater yields but can be

diversified away in the asset portfolio or by supporting long duration liabilities not dependent on early period cash flows.

Over the past decade (including periods of market dislocation), many higher yielding investment grade asset classes have performed more favorably (from a yield and default standpoint) than similarly rated traditional corporate bonds. For example, the charts here compare the spread over risk free rate and historical realized defaults for A and BBB rated CLOs with comparably rated corporate bonds. This data illustrates that the higher spread achieved with investment grade CLOs are not associated with higher realized defaults. In fact, the opposite is true: CLOs have lower realized defaults than similarly rated corporate bonds.



CLO Spreads: Palmer Square CLO Index; Corp Spreads: Bloomberg Barclays US Agg; Defaults: Moody's

**Our Concern:** Imposing a cap on returns that is based solely on the credit risk of a comparable corporate bond ignores other characteristics that generate higher yield. Moreover, a diversified portfolio that includes higher yielding investment grade assets can provide higher net returns on a risk-adjusted basis than a non-diversified portfolio that is limited to lower returning assets.

**Potential Solution:** Yields in excess of the credit risk associated with the asset, specifically asset illiquidity, cash flow timing variability, or recovery, is typically addressed in ERM Frameworks. Integrating risk management governance, including the liability consideration, can give comfort to external stakeholders that yields can be achieved under moderately adverse conditions. The analysis supporting the current C1 charges clearly shows that equity markets recover, and long-term excess returns are achieved. Similar analysis could be prepared in consideration of a company's liabilities to show that illiquidity premium is an appropriate source of return when investing to fund illiquid long term liabilities.

Potential Solution: The concern over high returns can also be addressed by increased disclosure of the liabilities supported and the matching of the assets and liabilities, namely through projected cash flow reports and sensitivities exhibited through these cash flow reports. Disclosure and documentation of return assumptions can be supported by the data and rationale for spread assumptions.

Our Concern: Companies manage shortfall risk as well as credit, market and liquidity risks. The punitive nature of caps will bias the industry to overinvesting in traditional fixed income assets replacing credit and liquidity risk with shortfall risk.

Strength of the Current Frameworks: [The current AAT framework has decades of successful field testing through multiple economic cycles that models the actual risk/return characteristics of the currently held assets. Further, the projections provide statistically calibrated forward looking views on the performance of the portfolio under moderately adverse conditions. The current framework maintains a consistent approach across all relevant assumptions, including actuarial, policyholder behavior, expense, and asset assumptions. Appointed Actuaries are accountable to understand the business and they are best equipped to develop a moderately adverse set of assumptions. This approach has provided useful information to regulators and management to assess asset adequacy throughout a range of market stress and interest rate environments. This framework has worked well for the industry and has advanced and informed many companies' Asset Liability Matching ("ALM") and investment strategies. Additionally, regulators have engaged sophisticated actuarial and investment firms to review and opine on the Appointed Actuary reports. These reviews are both productive and insightful for both the company and the regulator.

Our Concern: Under the proposed framework, all yields are capped at a level achievable with public non-callable BBB bonds. There is no "one size fits all" solution for accessing risk and setting reserves, and we are concerned that this yield constraint is counterproductive for the industry and regulators. A single cap on an assumption is a major paradigm shift from the principles based framework, and this overrides the informed analysis by professionals who are fully integrated into a company's risks and reserves. Creating an artificial constraint on investment modeling will diminish the informational value of the asset adequacy exercise and does not support regulators or companies in developing thoughtful and informed views on asset adequacy, ALM and risk and return. The proposed reserving requirements are also based on an arbitrary investment constraint, representing a portfolio with no diversification and no prudent, informed risk vs. return asset selection for policyholders. The proposed framework will likely cause insurers to hold artificially higher, excess reserve levels that are not aligned with economic reality. These costly additional reserves may ultimately harm policyholders via rate changes and impacts to non-guaranteed element management.

The industry conducts businesses that span the spectrum of liability profiles. We specialize in different kinds of products across a broad spectrum that range from liabilities that mimic traditional fixed income assets, to liabilities that are exceedingly long and illiquid, to liabilities that are short, to liabilities that are asset intensive, etc. To provide this diverse range of products, the industry must have the flexibility to make asset/liability decisions that support our own unique blocks of business.

Our Concern: The proposed AAT AG discourages asset diversification by requiring a cap on returns. It could lead to structural disincentives to higher yielding asset portfolios by creating unfair reserve increases and, in turn, creating shortfall risk. This would have significant public policy implications given that insurers rely upon higher yielding assets to satisfy their long-term obligations to policyholders.

### **Scoping of Assets for Additional Disclosure**

An important step is proper scoping of assets for which more disclosure is necessary.

Concern: As currently drafted, the guideline is excessively broad and would include assets of a very straightforward and well understood nature.

Potential Solution: A consideration would be to focus on projected market yields compared to similarly rated and similar weighted average life (“WAL”) corporate bonds, but with a margin for deviation due to typical market conditions (spread variance within a rating class), as well as recognition of illiquidity premium. This would more appropriately define the scope of assets warranting further disclosure.

### **We support additional disclosure and sensitivity testing**

Strength of the Current Frameworks: Regulators today have existing authority to require individual insurance companies to provide additional information and sensitivities related to their specific books of business. In many cases, regulators have used that authority to gain additional company specific insight and can engage in dialogue with the appointed actuary to ensure proper modeling and reasonableness of assumptions considering the liabilities being supported.

We support constructive improvements to the framework and agree that disclosures should be enhanced to address the growing usage of higher-yielding assets and facilitate regulatory and insurer dialogue.

Targeted refinements to the proven existing frameworks, expanded AAT disclosures and regulators’ existing authority to require individual companies to provide supplemental data addresses the concern over individual companies taking potentially excessive risk. Everlake believes that the best path forward is for regulators to take additional time to gather industry input to develop broadly informed and vetted solutions to their concerns.

### **Elimination of the new reinsurance requirement on ceded reserves**

The reinsurance proposal is not a good fit within the proposed actuarial guideline. The AAT AG addresses concerns over higher yielding assets, not the treatment of reinsurance.

Concern: The reinsurance requirement replaces dialogue between regulator and Appointed Actuaries and should be removed from the AAT AG. This topic can be addressed as a separate discussion between Appointed Actuaries and Regulators.

Concern: Perhaps the most significant concern with the reinsurance requirement is that it appears to conflict with broader NAIC initiatives regarding the regulation of reinsurance collateral required from reinsurers from qualified and reciprocal jurisdictions. This could be viewed as circumventing credit for reinsurance rules and the existing Covered Agreements.

Potential Solution: If regulators are concerned with the credit for reinsurance or the impact of reinsurance on the cash flow testing results for a specific company, the regulator should discuss the concern directly with the company, and make appropriate adjustments as needed, rather than imposing “one size fits all” reinsurance requirement on all companies.

## Conclusion

Higher yielding assets are critical to the long-term success of the insurance industry and should not be discouraged if the exposure and assumptions are accurately disclosed, and the risks are appropriately understood and modeled. Everlake is committed to appropriate ALM to ensure obligations to policyholders are satisfied, and in that spirit, we support efforts of regulators to ensure AAT procedures are serving their intended purpose.

However, we believe the proposed AAT AG is too restrictive which over the long run will be harmful to policyholders by disincentivizing companies from achieving the overall best risk-adjusted investment results for the benefit of their policyholders. While we support regulatory efforts to improve disclosure and sensitivity analysis to ensure matching of assets and liabilities properly takes into account complexities and riskiness of supporting assets, constraints without reference to economic analysis, such as artificial limits on yields, should not be adopted.

The constraint should be removed as it is damaging to the industry and policyholders and discriminates against companies that can demonstrate higher credit spreads. It creates an arbitrary benchmark that is not equitable across companies and not consistent with liability assumption margins.

We are supportive of additional disclosure, transparency and sensitivities, which should go a long way in remediating regulator concerns around higher yielding assets in AAT.

Reinsurance does not belong in the AAT AG and should be removed.

We stand ready to engage with you to address regulatory concerns, with a view towards ensuring our industry as a whole can continue to deliver on its promise of providing policyholders with insurance products supported by solid well performing asset portfolios.

Thank you for the opportunity to comment on the proposed AAT AG. We look forward to continuing the dialogue and jointly developing solutions that address the concerns raised by regulators.



Doney Largey (Mar 25, 2022 10:28 CDT)

Doney Largey  
Chief Executive Officer  
Everlake Life Insurance Company



Ted Johnson (Mar 23, 2022 10:33 CDT)

Ted Johnson  
Chief Financial Officer  
Everlake Life Insurance Company

Theresa M. Resnick

Theresa M. Resnick (Mar 23, 2022 12:53 CDT)

Theresa M. Resnick

Senior Vice President and Chief Actuary

Everlake Life Insurance Company



March 21, 2022

AMERICAN ACADEMY *of* ACTUARIES

Mr. Mike Boerner,  
Chair  
Life Actuarial (A) Task Force (LATF)  
National Association of Insurance Commissioners

Re: Comments on the exposed draft Actuarial Guideline on Asset Adequacy Testing

Dear Mr. Boerner,

The Asset Modeling and Reporting Task Force of the American Academy of Actuaries (“the Task Force”) is pleased to provide the following comments on the draft Actuarial Guideline (AG) on Asset Adequacy Testing (AAT) which was exposed during LATF’s February 10 meeting.

The Task Force appreciates the need to provide guidance in this area and believes that appointed actuaries should be able to explain the drivers of asset performance and how they’ve reflected the asset risks in their AAT. We support the principle-based guidance and required disclosures in the AG which will help facilitate consistent practice by appointed actuaries and understanding by regulators. However, the Task Force believes the constraints in the AG (e.g., arbitrary yield caps) are at odds with the independence and judgment appointed actuaries need to perform AAT given the wide variety of products and risk profiles of insurers. We strongly recommend the AG focus on principle-based guidance and required disclosures instead of prescribing non-principle-based constraints which could hamper the appointed actuary’s ability to assess the risks affecting an insurer’s specific mix of assets and liabilities, and how to best reflect those risks in AAT.

Regarding the AG’s scope, the Task Force believes company-wide exclusions from the AG should be based on a company’s current and future asset portfolio, not an arbitrary company size threshold (whether measured on a gross or net basis). For example, exclusions could be allowed based on a defined maximum weighted average assumed spread in AAT or defined criteria on the mix of assets a company uses for asset adequacy testing, e.g., considering the quality, volatility, and liquidity characteristics of those assets.

Regarding the AG’s method of identifying high risk assets based solely on asset ratings, we note that due to limitations of and potential inconsistencies among ratings of complex assets, the asset rating alone does not always provide sufficient information regarding an asset’s risk profile. Therefore, we suggest using principle-based approaches to identify assets with high risk relative to their yield, rather than basing their identification solely on asset ratings.

Regarding reinsurance, we note that U.S. actuaries are required to follow ASOP 11, *Treatment of Reinsurance or Similar Risk Transfer Programs Involving Life Insurance, Annuities, or Health Benefit Plans in Financial Reports*, which has recently been revised (with an effective date of December 1, 2022). Our task force believes that the judgment of the appointed actuary, following actuarial standards of practice in revised ASOP 11, is preferable to prescribing certain situations when AAT must be performed on a gross basis.

Regarding the treatment of equities in the AG, we believe it will be difficult to apply some of the requirements in the exposed AG to equities and suggest considering the development of separate guidance that is specific to the treatment of equities.

The exposure specifically asked for comments on the pros and cons of an individual asset-specific versus aggregate sensitivity test as required in Section 5.A of the AG. The Task Force believes that many companies would perform 5.A's sensitivity test at the individual asset (or asset group when there is asset compression) level, however we recommend leaving this decision up to the appointed actuary since some companies may need or want to perform this sensitivity test at more aggregate levels for practical reasons, e.g., when portfolios are managed to an aggregate mix of assets. Also, in line with our comments regarding constraints above, the Task Force believes it is appropriate that the sensitivity test in Section 5.A remain a disclosed sensitivity test, rather than becoming a prescribed constraint in 2023 as is currently the case in the AG.

The exposure specifically asked for comments on the inclusion of board of director and senior management responsibilities on the quality of complex asset-related assumptions like those stated in the Valuation Manual's Governance section (VM-G). Our task force believes that the inclusion of such responsibilities would be beneficial. If additional such responsibilities are added to VM-G we recommend materiality be a consideration.

The Task Force is concerned the amount of work required to comply with the AG by year-end 2022 will be a challenge for some appointed actuaries. In particular, the seriatim attribution analysis required in Section 5.B requires extensive effort, and judgment on how elements are attributed, so we suggest considering alternatives such as limiting the analysis to a handful of assets, postponing the analysis to year-end 2023, doing the analysis at a more aggregate level, or relying on the other required disclosures in Section 4. In addition, if a company is required to make certain model enhancements per Section 4.E, implementing those enhancements in a well-governed and controlled environment by year-end 2022 may be challenging.

Finally, the Task Force appreciates the urgency on this issue however we would prefer the requirements in the AG be implemented directly through the Valuation Manual's section on the Actuarial Opinion and Memorandum (VM-30) rather than first being implemented as an Actuarial Guideline to accomplish an earlier effective date for the requirements.

Thank you for your consideration of these comments. Please contact the Academy's deputy director for public policy Devin Boerm ([boerm@actuary.org](mailto:boerm@actuary.org)), with any questions.

Sincerely,

Jason Kehrberg, MAAA, FSA  
Chairperson  
Asset Modeling and Reporting Task Force  
American Academy of Actuaries

Agenda Item 7

Discuss the Economic Scenario Generator (ESG)

(Materials Pending)

## Agenda Item 8

Hear an Update on SOA Research and Education



# SOCIETY OF ACTUARIES RESEARCH UPDATE TO LATF

March 31, 2022

R. DALE HALL, FSA, MAAA, CERA, CFA  
Managing Director of Research



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# SOA, Academy, ACLI, NAIC Communication Group



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## SOA, Academy, LATF, ACLI, NAIC Communication Group

- Replaces Preferred Mortality Project Oversight Group (PM POG)
- Purpose
  - Monthly calls with entities involved in valuation table/assumption development
  - Covers all life and annuity valuation needs
  - Provide status updates on current valuation efforts
  - Discuss anticipated future efforts
  - Coordinate resources
  - Charter, in development, to clarify purpose/roles/membership term
- Membership
  - SOA, Academy, LATF, ACLI & NAIC representatives
  - Valuation/assumption work group leaders



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## Preliminary 2015-2018 Group Annuity Mortality

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## Preliminary 2015-2018 Group Annuity Mortality

- Current study indicates higher A/E ratios on a lives basis, lower A/E ratios on an income basis compared to 2011-2014 study

Expected Basis	Actual-to-Expected Ratios (2015-2018)		Actual-to-Expected Ratios (2011-2014)	
	By Lives	By Income	By Lives	By Income
1983 GAM	89.0%	81.6%	91.7%	80.9%
1994 GAM Basic with Projection	103.5%	97.2%	104.8%	95.3%
1994 GAR	111.2%	104.5%	112.7%	102.4%
Pri-2012 Projected with MP-2020 to Experience Year	102.7%	97.2%	N/A	N/A
Pri-2012 Projected with MP-2020 to Study Midpoint	102.6%	97.2%	N/A	N/A



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## Preliminary 2015-2018 Group Annuity Mortality

- Mortality improvement in 2015-2018 study data
  - 0.3% slower than Scale AA during 2015-2018 on both a lives and income basis
  - Roughly the same as Scale MP-2020 on a lives basis, 0.1% faster on an income basis
  - For the 2007-2014 study, improvement was 2.0% faster than Scale AA by lives and 0.9% faster by income
- Pri-2012 annuitant table produces smoother A/E ratio pattern by age at younger retiree ages
  - GAM 1994 developed as a blend of experience for active and retiree lives, so there is a spike in A/E ratios under age 65.



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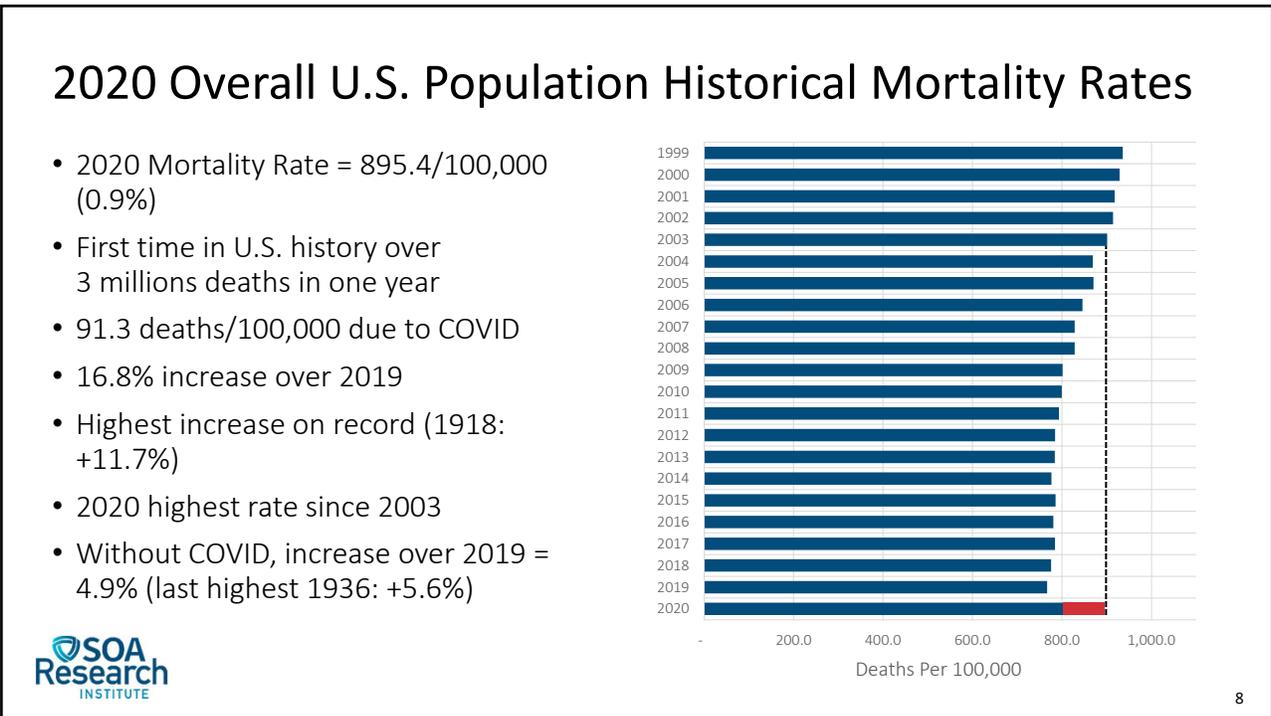
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# U.S. Population Mortality Observations: Updated with 2020 Experience



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## 2020 U.S. Population Mortality Rates by Age

- Mortality rates were lower in 2020 than 2019 for ages under 5
- Younger adults, aged 15-44, saw most of their increase from non-COVID CODs
- Older ages were impacted by COVID much more than non-COVID CODs

Age Group	Change in Mortality Rates 2019-2020		
	All CODs	w/o COVID	COVID
Less than 1	-5.2%	-5.4%	0.2%
1-4	-2.6%	-2.6%	0.0%
5-14	2.3%	1.4%	0.9%
15-24	20.7%	19.0%	1.7%
25-34	23.8%	20.0%	3.8%
35-44	24.5%	17.2%	7.3%
45-54	20.7%	10.0%	10.7%
55-64	17.6%	6.4%	11.2%
65-74	17.4%	4.2%	13.2%
74-84	16.0%	2.3%	13.7%
85+	15.0%	2.5%	12.5%
All Ages	16.8%	4.9%	11.9%



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## 2020 U.S. Population Mortality Rates by Cause of Death

- Heart disease had 4.2% increase – largest increase in 20 years
- Cancer continued its steady improvement
- Accidents, diabetes, liver, hypertension, assaults had very large increases
- Deaths from suicides down but story varies by age group

Cause of Death	Deaths	%	Change in Age-Adjusted Mortality Rates 2019-2020
Heart Disease	696,962	20.6%	4.2%
Cancer	602,350	17.8%	-1.4%
COVID	350,831	10.4%	n/a
Alzheimer's/Dementia	259,200	7.7%	7.8%
Accidents	200,955	5.9%	16.3%
Stroke	160,264	4.7%	5.2%
Pulmonary	152,657	4.5%	-4.5%
Diabetes	102,188	3.0%	14.9%
Flu & Pneumonia	53,544	1.6%	5.7%
Liver	51,642	1.5%	16.0%
Suicide	45,979	1.4%	-3.5%
Hypertension	41,907	1.2%	13.3%
Assault	24,576	0.7%	28.6%
Other	640,674	18.9%	6.2%
All COD	3,383,729	100.0%	16.8%



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## Heart Disease – Historical Annual Death Rates

- Steady decrease until 2012; relatively flat thereafter
- 2015 and 2020 only years with an increase
- Heart Disease is #1 cause of death and key driver of historical overall improvement in mortality

\*Age-adjusted



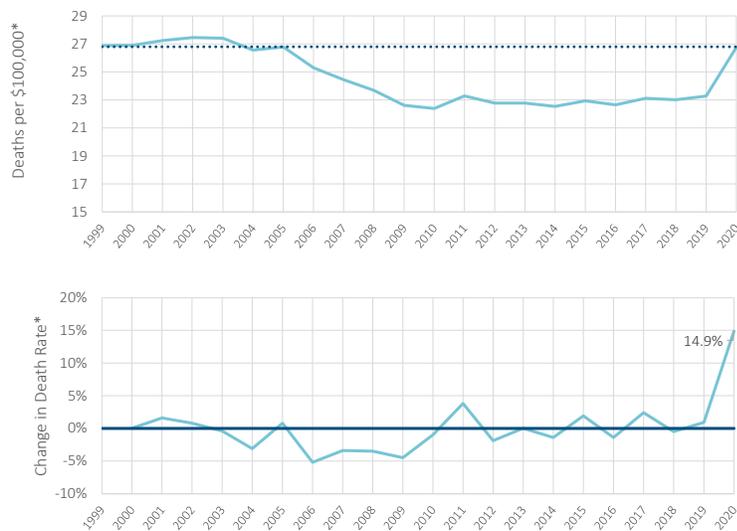
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## Diabetes – Historical Annual Death Rates

- 2005-2009 saw decreasing mortality rates
- Fairly level rates over 2009-2019
- 2020 mortality rate at 2005 levels

\*Age-adjusted

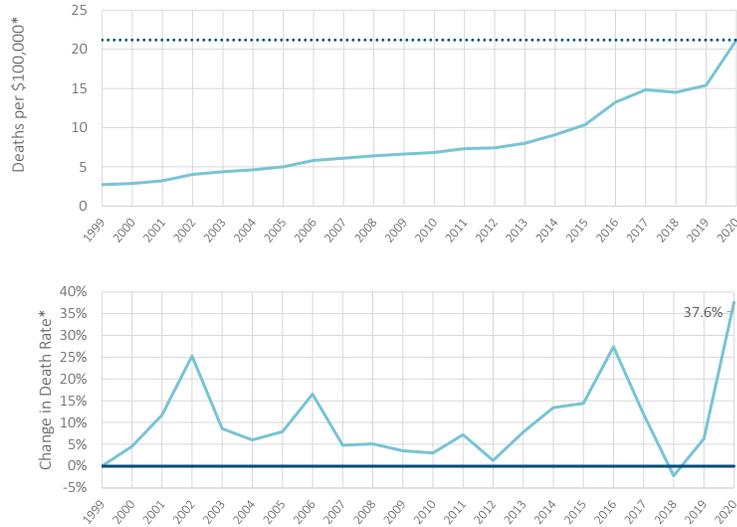


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## Opioid Deaths – Historical Annual Death Rates

- Steady increase, excluding 2018
- 2018 was only year with improvement
- Big portion of accidental death increase
  - Accidental deaths increased 16.3%
  - Accidents w/o Opioid increased 6.8%



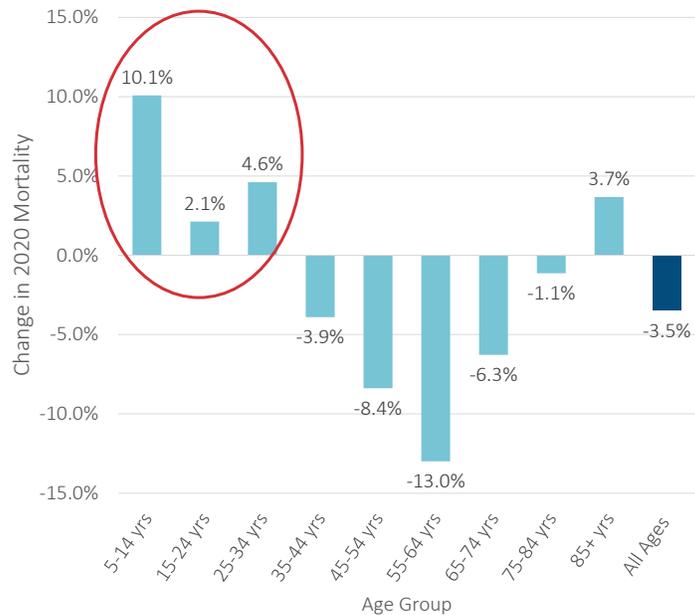
\*Age-adjusted

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## Suicides

- Suicides saw improvement of 3.5% over all ages
- Younger age groups saw an increase in mortality

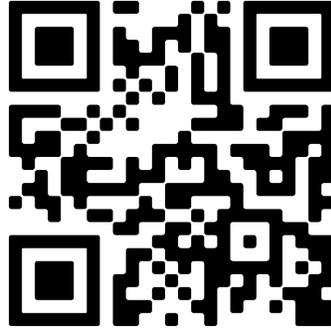


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## U.S. Population Mortality Observations: Updated with 2020 Experience

[www.soa.org/resources/research-reports/2022/us-population-mortality/](http://www.soa.org/resources/research-reports/2022/us-population-mortality/)



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## Group Life COVID-19 Mortality Study

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## Group Life COVID Mortality Study

- Updated through September 2021

COUNT-BASED INCURRED INCIDENCE RESULTS RELATIVE TO 2017-2019 BASELINE PERIOD

Count-Based	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21	4/20-9/21
Total / Baseline	115.4%	115.1%	128.1%	122.0%	106.9%	137.7%	120.8%
COVID-19 Claims	12,972	9,820	23,555	24,441	6,868	18,623	96,278
COVID / Baseline	12.4%	9.6%	21.7%	21.8%	6.6%	18.7%	15.1%
Non-COVID / Baseline	103.0%	105.5%	106.4%	100.2%	100.3%	119.0%	105.7%

GROUP LIFE AND U.S. POPULATION EXCESS MORTALITY PERCENTAGES BY QUARTER

Age	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021
Group Life	15%	15%	28%	22%	7%	38%
U.S. Population	20%	16%	21%	17%	5%	25%
Difference	-5%	-1%	7%	5%	2%	13%



<https://www.soa.org/resources/experience-studies/2022/group-life-covid-19-mortality/>

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## Group Life COVID Mortality Study

- Updated through September 2021

EXCESS MORTALITY BY DETAILED AGE BAND

Age	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	4/20-9/21	% COVID	% Non-COVID	% Count
0-24	119%	127%	108%	102%	121%	129%	118%	2.7%	15.2%	2%
25-34	129%	135%	124%	120%	131%	181%	136%	11.4%	25.1%	2%
35-44	124%	136%	129%	129%	132%	217%	144%	19.8%	24.7%	4%
45-54	123%	127%	130%	133%	121%	208%	140%	23.8%	16.5%	10%
55-64	117%	123%	130%	129%	116%	170%	131%	21.0%	10.0%	18%
65-74	116%	115%	133%	130%	108%	133%	122%	16.8%	5.6%	17%
75-84	113%	113%	132%	122%	105%	116%	117%	13.3%	3.7%	20%
85+	111%	102%	123%	110%	90%	98%	106%	10.4%	-4.6%	27%
All <sup>10</sup>	116%	115%	128%	122%	107%	139%	121%	15.6%	5.7%	100%



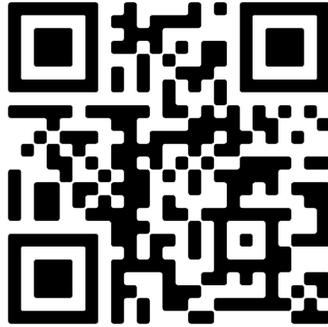
<https://www.soa.org/resources/experience-studies/2022/group-life-covid-19-mortality/>

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## Group Life COVID-19 Mortality Study

[www.soa.org/resources/experience-studies/2022/group-life-covid-19-mortality/](http://www.soa.org/resources/experience-studies/2022/group-life-covid-19-mortality/)



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## U.S. Individual Life COVID-19 Mortality Study

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## U.S. Individual Life COVID-19 Reported Claims Analysis

- Updated through 3<sup>rd</sup> Quarter 2021

Table 1 Reported Claims – Ratio of 2020 and 2021 Claims by Quarter to Historical Average (2017-2019)  
 By Claim Count and Claim Amount

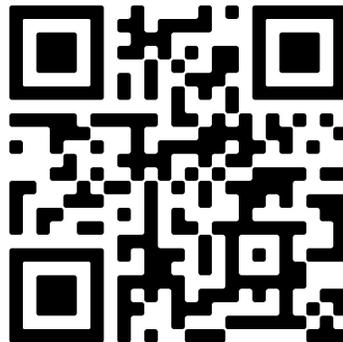
	Quarter	Group Life*	Individual Life
<b>Claim Count</b>			
	2020 Quarter 1	99%	101%
	2020 Quarter 2	111%	117%
	2020 Quarter 3	114%	117%
	2020 Quarter 4	122%	125%
	2021 Quarter 1	129%	121%
	2021 Quarter 2	110%	102%
	2021 Quarter 3	120%	107%



<https://www.soa.org/resources/experience-studies/2022/us-ind-life-covid-19-reported-claims/>

## U.S. Individual Life COVID-19 Mortality Study

[www.soa.org/resources/experience-studies/2022/us-ind-life-covid-q1/](http://www.soa.org/resources/experience-studies/2022/us-ind-life-covid-q1/)





# Additional Life Research

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## Experience Studies

Project Name	Objective	Link/Expected Completion Date
COVID-19 Individual Life Mortality Study - Experience Study Report - 2021 Q1	Complete a mortality study assessing the impact of COVID-19 on Individual Life Insurance.	<a href="https://www.soa.org/resources/experience-studies/2022/us-ind-life-covid-q1/">https://www.soa.org/resources/experience-studies/2022/us-ind-life-covid-q1/</a>
COVID-19 Reported Claims Analysis	Draft a research study reviewing Covid-19 reported deaths by quarter	<a href="https://www.soa.org/resources/experience-studies/2022/us-ind-life-covid-19-reported-claims/">https://www.soa.org/resources/experience-studies/2022/us-ind-life-covid-19-reported-claims/</a>
Group Life COVID-19 Mortality Survey Update - Report	Complete an update on a mortality study assessing the impact of COVID-19 on Group Life Insurance.	<a href="https://www.soa.org/resources/experience-studies/2022/group-life-covid-19-mortality/">https://www.soa.org/resources/experience-studies/2022/group-life-covid-19-mortality/</a>
ILEC Mortality Experience Report Update for 2009 - 2017	Draft a report updating the ILEC mortality experience reporting for 2017	<a href="https://www.soa.org/resources/research-reports/2021/2017-mortality-experience/">https://www.soa.org/resources/research-reports/2021/2017-mortality-experience/</a>
Mortality Improvement Survey	Complete a survey to learn how companies are reacting to the slowdown in the level of mortality improvement within the general population.	<a href="https://www.soa.org/resources/research-reports/2022/mortality-improvement-survey/">https://www.soa.org/resources/research-reports/2022/mortality-improvement-survey/</a>
US Population Mortality Observations: Updated with 2020 Experience	Explore observations from the release of the 2020 U.S. population mortality data.	<a href="https://www.soa.org/resources/research-reports/2022/us-population-mortality/">https://www.soa.org/resources/research-reports/2022/us-population-mortality/</a>
Cause of Death Study	Prepare a cause of death study.	3/30/2022
2009-2015 Individual Life Experience Committee Lapse and Mortality Study	Study mortality and lapse experience in the database of 2009-2015 individual life experience data and release a report with the findings.	4/30/2022
COVID-19 Individual Life Mortality Study - Experience Study Report - 2021 Q2	Complete a mortality study assessing the impact of COVID-19 on Individual Life Insurance.	4/30/2022
Individual Life Waiver of Premium Study	Review mortality and lapse experience where waiver of premium provisions apply.	4/30/2022



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## Practice Research

Project Name	Objective	Link/Expected Completion Date
2021 Emerging Risks Survey-Key Findings	Provide highlights of the 2021 Emerging Risk Survey that tracks the trends and thoughts of risk managers across time.	<a href="https://www.soa.org/resources/research-reports/2022/15th-survey-emerging-risks/">https://www.soa.org/resources/research-reports/2022/15th-survey-emerging-risks/</a>
Obesity Trends and Morbidity and Longevity Impacts	Develop an estimate of the impact of obesity in mortality and morbidity costs in the US and Canada.	<a href="https://www.soa.org/resources/research-reports/2021/2021-obesity-morbidity-mortality/">https://www.soa.org/resources/research-reports/2021/2021-obesity-morbidity-mortality/</a>
US Mortality by Socioeconomic Category—2019 Update	Update the set of detailed life tables by socioeconomic category across all US counties for 2019 data.	<a href="https://www.soa.org/resources/research-reports/2020/us-mort-rate-socioeconomic/">https://www.soa.org/resources/research-reports/2020/us-mort-rate-socioeconomic/</a>
US Cause of Death Mortality By Socioeconomic Category	Develop US age-adjusted death rates by cause of death and socioeconomic category from 1982-2018.	4/29/2022
2022 MIM-2021 update	Update MIM-2021 based on user feedback.	4/30/2022
2022 Mortality Improvement Company Survey	Survey life insurers and annuity companies to see how mortality improvement assumptions have changed in light of COVID.	5/2/2022
ALM Practices	Conducts a survey of current ALM practices focused on various life insurance company products with attention paid to issues such as general account vs. separate account product distinctions.	6/30/2022
Expert Opinion on Impact of COVID-19 on Future Mortality	Survey panel of experts on short and mid term thoughts on future population and insured mortality.	4/30/2022
Mortality Improvement Trends Analysis	Identify how mortality improvement varies by driver.	6/30/2022



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## Agenda Item 9

Hear an Update from the American Academy of  
Actuaries (Academy) Life Practice Council

# Life Practice Council Update

Ben Slutsker, MAAA, FSA  
Vice President, Life Practice Council



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Life Actuarial Task Force (LATF) Meeting—March 31, 2022

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## Agenda

- Webinars and Events
- Recent and Ongoing Activities
- Life Experience Committee
- Professionalism

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# Webinars and Events

- Recent
  - Winter 2022 Life Policy Update Webinar (January)
- Upcoming
  - ASOP No. 2 Webinar, on Nonguaranteed Elements—  
[\*The Revised ASOP No. 2: What You Need to Know\*](#) (April 5)
  - ASOP No. 11, *Treatment of Reinsurance or Similar Risk Transfer Programs Involving Life Insurance, Annuities, or Health Benefit Plans in Financial Reports*—Webinar (May 12)
  - Life Policy Update Webinar (May 2022)
  - Webinar on VM-31 PBR Actuarial Report Reviews (Fall 2022)

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# Recent Activity

- Presented potential Academy model office testing for the National Association of Insurance Commissioners (NAIC) economic scenario generator proposals
- Proposed an amendment proposal form to LATF on transitioning from LIBOR to SOFR (APF 2022-04)
- Presented recommendations on updated C-2 mortality factors to the NAIC's Life Risk-Based Capital (E) Working Group

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## Recent Activity (continued)

- Submitted comments to LATF on high yielding asset actuarial guideline for asset adequacy analysis
- Provided comments to LATF related to the Actuarial Guideline 49 exposure
- Shared a comment letter with the Index-Linked Variable Annuity (A) Subgroup on the nonforfeiture interim value actuarial guideline exposure

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## Recent Activity (continued)

- Published an updated version of the [VM-21 Variable Annuity Practice Note](#)
- Submitted comments to the NAIC Life Risk-Based Capital (E) Working Group on the Pension Risk Transfer in light of C-2 longevity risk charges
- Submitted comments to Accelerated Underwriting (A) Working Group
- Submitted comments on APF 2020-12, hedging strategies, to LATF

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# Ongoing Activities

- Developing fixed annuity principle-based approach joint field study for non-variable annuities in coordination with the NAIC and ACLI
- Providing input on economic scenario generator transition and field study
- Continue providing comments and ideas related to active LATF issues: high-yielding asset actuarial guideline, nonforfeiture, and Actuarial Guideline 49

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# Life Experience Committee

- Assist practicing actuaries and regulators with respect to assumptions regarding life insurance and annuity products
- First goal: Addressing mortality questions such as:
  - How COVID-19 should be reflected in PBR/asset adequacy/RBC calculations
  - Modeling a product where mortality improvement is both a positive and a negative
  - Changes to be made to reflect accelerated underwriting
- Other projects
  - Review other assumptions, such as lapse, benefit utilizations

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# Life Experience Committee (continued)

- Work with the SOA, which does the experience studies and develops the CSO Tables
  - Interface with LATF with respect to any changes needed to the Valuation Manual, Actuarial Guidelines and RBC
  - Write practice notes to assist the practicing actuary who works with mortality and other assumptions
  - Interface with the Actuarial Standards Board with respect to any changes needed to actuarial standards of practice

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# Professionalism

- The Actuarial Standards Board (ASB) adopted revisions to the following actuarial standards of practice (ASOPs):
  - ASOP No. 2, *Nonguaranteed Elements for Life Insurance and Annuity Products* (Effective June 2022)
  - ASOP No. 22, *Statements of Actuarial Opinion Based on Asset Adequacy Analysis for Life Insurance, Annuity, or Health Insurance Reserves and Other Liabilities* (Effective June 2022)
  - ASOP No. 38, *Catastrophe Modeling* (Effective Dec. 2021)

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# Professionalism (continued)

- The ASB is currently working on the following ASOPs:
  - ASOP No. 7, *Analysis of Life, Health, or Property/Casualty Insurer Cash Flows*
  - ASOP No. 10, *Methods and Assumptions for Use in Life Insurance Company Financial Statements Prepared in Accordance with U.S. GAAP*
  - ASOP No. 12, *Risk Classification*
  - ASOP No. 24, *Compliance with the NAIC Life Insurance Illustrations Model Regulation*
  - ASOP No. 40, *Compliance with the NAIC Valuation of Life Insurance Policies Model Regulation with Respect to Deficiency Reserve Mortality*
  - ASOP No. 41, *Actuarial Communications*
  - New ASOPs on reinsurance pricing and actuarial opinions without asset adequacy analysis

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# Thank You

- Questions?
- For more information, please contact the Academy's deputy director for public policy, Devin Boerm, at [boerm@actuary.org](mailto:boerm@actuary.org).

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Agenda Item 10

Discuss Any Other Matter Brought Before the Task Force

(No Materials)