

MEETING MATERIALS PACKET

LIFE ACTUARIAL (A) TASK FORCE

December 8, 2021

NAIC FALL NATIONAL MEETING Virtual

December 8, 2021

TABLE OF CONTENTS

PAGE

3	Life Actuarial (A) Task Force Agenda
5	Adoption of Life Actuarial (A) Task Force Minutes
14	Adoption of Subgroup Reports
18	Valuation Manual (VM)-22 (A) Subgroup Report
20	Consider Adoption of the Index-Linked Variable Annuity (A) Subgroup Report
23	Consider Adoption of the Indexed Universal Life (IUL) Illustration (A) Subgroup Report (No Materials)
24	Consider Adoption of Valuation Manual Amendments
39	Discuss Comments on the Economic Scenario Generator (ESG)
48	Discuss Asset Adequacy Testing Actuarial Guideline Exposure
75	Hear an Update on Experience Reporting Data Collection
80	Hear an Update on Future Mortality Improvement Factors
81	Hear an Update on SOA Research and Education
92	Hear an Update from the American Academy of Actuaries (Academy) Life Practice Council
98	Discuss Any Other Matter Brought Before the Task Force (No Materials)

Date: 11/18/21

Virtual Meeting

(in lieu of meeting at the 2021 Fall National Meeting)

LIFE ACTUARIAL (A) TASK FORCE

Wednesday, December 8, 2021

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

Member	Representative	State
Cassie Brown, Chair	Mike Boerner	Texas
Judith L. French, Vice Chair	Peter Weber	Ohio
Jim L. Ridling	Jennifer Li	Alabama
Lori K. Wing-Heier	Sharon Comstock	Alaska
Ricardo Lara	Ahmad Kamil	California
Michael Conway	Eric Unger	Colorado
Andrew N. Mais	Wanchin Chou	Connecticut
Dana Popish Severinghaus	Bruce Sartain	Illinois
Amy L. Beard	Stephen Chamblee	Indiana
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
Glen Mulready	Andrew Schallhorn	Oklahoma
Jonathan T. Pike	Tomasz Serbinowski	Utah
Scott A. White	Craig Chupp	Virginia
Allan L. McVey	Tim Sigman/Joylynn Fix	West Virginia

NAIC Support Staff: Reggie Mazyck/Scott O'Neal

AGENDA

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 – 10:20 a.m.	2. Consider Adoption of the Valuation Manual (VM)-22 (A) Subgroup Report— <i>Bruce Sartain (IL)</i>
10:20 – 10:25 a.m.	3. Consider Adoption of Index-Linked Variable Annuity (A) Subgroup Report— <i>Peter Weber (OH)</i>
10:25 – 10:40 a.m.	4. Consider Adoption of Indexed Universal Life (IUL) Illustration (A) Subgroup Report— <i>Fred Andersen (MN)</i>
10:40 – 11:10 a.m.	5. Consider Adoption of <i>Valuation Manual</i> Amendments— <i>Mike Boerner (TX)</i>

11:10 – 11:25 a.m.	Break
11:25 a.m. – 12:30 p.m.	6. Discuss Comments on the Economic Scenario Generator (ESG) — <i>Daniel Finn (Conning Inc.), Pat Allison (NAIC), and Scott O’Neal</i>
12:30 – 1:30 p.m.	Lunch
1:30 – 2:30 p.m.	7. Discuss Asset Adequacy Testing Actuarial Guideline Exposure — <i>Fred Andersen (MN)</i>
2:30 – 2:45 p.m.	8. Hear an Update on Experience Reporting Data Collection — <i>Pat Allison (NAIC) and Angela McNabb (NAIC)</i>
2:45 – 3:00 p.m.	Break
3:00 – 3:25 p.m.	9. Hear an Update on Future Mortality Improvement Factors — <i>Marianne Purushotham (Society of Actuaries—SOA)</i>
3:25 – 3:40 p.m.	10. Hear an Update on SOA Research and Education— <i>Dale Hall (SOA)</i>
3:40 – 3:55 p.m.	11. Hear an Update from the American Academy of Actuaries (Academy) Life Practice Council— <i>Laura Hanson (Academy Life Practice Council)</i>
3:55 – 4:00 p.m.	12. Discuss Any Other Matters Brought Before the Task Force

[https://naiconline.sharepoint.com/:w:/r/sites/NAICSupportStaffHub/Member Meetings/Fall 2021/TF/LifeActuarial/National Meeting/LATF Agenda 2021 Fall National Meeting](https://naiconline.sharepoint.com/:w:/r/sites/NAICSupportStaffHub/MemberMeetings/Fall2021/TF/LifeActuarial/NationalMeeting/LATF%20Agenda%202021%20Fall%20National%20Meeting)

Agenda Item 1
Consider Adoption of its Minutes

Draft: 12/01/21

Life Actuarial (A) Task Force
Virtual Meeting
December 1, 2021

The Life Actuarial (A) Task Force and the VM-22 (A) Subgroup of the Life Actuarial (A) Task Force met Dec. 1, 2021. The following Task Force members participated: Cassie Brown, Chair, represented by Mike Boerner, Rachel Hemphill, and Karen Jiang (TX); Judith L. French, Vice Chair, represented by Peter Weber (OH); Lori K. Wing-Heier represented by Sharon Comstock (AK); Jim L. Ridling represented by Jennifer Li (AL); Ricardo Lara represented by Ben Bock 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 Seong-min Eom (NJ); Adrienne A. Harris represented by Bill Carmello and Amanda Fenwick (NY); Jonathan T. Pike represented by Tomasz Serbinowski (UT); and Scott A. White represented by Craig Chupp (VA).

1. Adopted AG 25

Reggie Mazyck (NAIC) said no comments on *Actuarial Guideline XXV—Calculation of Minimum Reserves and Minimum Nonforfeiture Values for Policies with Guaranteed Increasing Death Benefits Based on an Index* (AG 25) were submitted during the public comment period. Jessica Sever (National Alliance of Life Companies—NALC) expressed NALC's agreement with the revisions to the guideline. Brian Bayerle (American Council of Life Insurers—ACLI) said the ACLI also agrees with the revisions.

Mr. Chou made a motion, seconded by Mr. Weber, to adopt AG 25 (Attachment A). The motion passed unanimously.

[https://naiconline.sharepoint.com/:f:/r/sites/NAICSupportStaffHub/Member Meetings/Fall 2021/TF/LifeActuarial/LATF Calls/12 01/Dec 1 minutes](https://naiconline.sharepoint.com/:f:/r/sites/NAICSupportStaffHub/Member_Meetings/Fall_2021/TF/LifeActuarial/LATF_Calls/12_01/Dec_1_minutes)

Draft: 11/29/21

Joint Meeting of the Life Actuarial (A) Task Force
and the Valuation Manual (VM)-22 (A) Subgroup
Virtual Meeting
November 18, 2021

The Life Actuarial (A) Task Force and the VM-22 (A) Subgroup of the Life Actuarial (A) Task Force met Nov. 18, 2021. The following Task Force members participated: Cassie Brown, Chair, represented by Mike Boerner, Rachel Hemphill, and Karen Jiang (TX); Judith L. French, Vice Chair, represented by Peter Weber (OH); Lori K. Wing-Heier represented by Sharon Comstock (AK); Jim L. Ridling represented by Jennifer Li (AL); Ricardo Lara represented by Ben Bock 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); Amy L. Beard represented by Stephen Chamblee (IN); 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); Jonathan T. Pike represented by Tomasz Serbinowski (UT); and Scott A. White represented by Craig Chupp (VA).

The following Subgroup members participated: Bruce Sartain, Chair, and Vincent Tsang (IL); Elaine Lam and Thomas Reedy (CA); Lei Rao-Knight (CT); Mike Yanacheak (IA); Nicole Boyd (KS); William Leung (MO); Seong-min Eom (NJ); Bill Carmello and Amanda Fenwick (NY); Rachel Hemphill and Karen Jiang (TX); Tomasz Serbinowski (UT); and Craig Chupp (VA). Also participating was: Ben Slutsker (MN).

1. Adopted Amendment Proposal 2021-12

Mr. Chupp proposed an edit to amendment proposal 2021-12 to correct misnumbering.

Mr. Weber made a motion, seconded by Mr. Chou, to adopt amendment proposal 2021-12 (Attachment A), including the editorial change identified by Mr. Chupp. The motion passed unanimously.

2. Re-Exposed AG 25

Mr. Chupp said that after discussing his comment letter (Attachment B) with NAIC staff, he agreed to withdraw his first comment. He said that the changes proposed in his second comment, his fourth comment, and the latter half of his fifth comment were added to *Actuarial Guideline XXV—Calculation of Minimum Reserves and Minimum Nonforfeiture Values for Policies with Guaranteed Increasing Death Benefits Based on an Index* (AG 25) (Attachment C). He said his third comment and the first part of his fifth comment are outside of the scope of the current exposure and will be deferred for a future review of AG 25. Jim Hodges (National Alliance of Life Companies—NALC) said the proposed revisions satisfactorily address the issues the NALC requested the Task Force to consider.

Mr. Chupp made a motion, seconded by Mr. Slutsker, to re-expose AG 25 for a 12-day public comment period ending Nov. 29. The motion passed unanimously.

3. Agreed to Send a Request for Mortality Rate Development to the SOA and the Academy

Mr. Sartain said the Standard Projection Amount Drafting Group of the VM-22 (A) Subgroup has drafted a request (Attachment D) for the Society of Actuaries (SOA) and the American Academy of Actuaries (Academy) to develop rates for structured settlement mortality. He asked the Subgroup to approve forwarding the request to the SOA and the Academy. The Subgroup agreed, without objection, to forward the request to the SOA and the Academy.

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

[https://naiconline.sharepoint.com/:w:/r/sites/NAICSupportStaffHub/MemberMeetings/Fall 2021/TF/LifeActuarial/LATF Calls/11 18/Nov 18 Minutes](https://naiconline.sharepoint.com/:w:/r/sites/NAICSupportStaffHub/MemberMeetings/Fall%202021/TF/LifeActuarial/LATF%20Calls/11%2018/Nov%2018%20Minutes)

Draft: 11/22/21

Life Actuarial (A) Task Force
Virtual Meeting
November 4, 2021

The Life Actuarial (A) Task Force met Nov. 4, 2021. The following Task Force members participated: Cassie Brown, Chair, represented by Mike Boerner, Rachel Hemphill, and Karen Jiang (TX); Judith L. French, Vice Chair, represented by Peter Weber (OH); Lori K. Wing-Heier represented by Sharon Comstock (AK); Jim L. Ridling represented by Jennifer Li (AL); Ricardo Lara represented by Ben Bock 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); Amy L. Beard represented by Stephen Chamblee (IN); 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); Glen Mulready represented by Andrew Schallhorn (OK); Jonathan T. Pike represented by Tomasz Serbinowski (UT); and Scott A. White represented by Craig Chupp (VA).

1. Re-Exposed Amendment Proposal 2021-12

Bill Wilton (Unaffiliated) discussed his comment letter (Attachment A), which recommends that the reference in amendment proposal 2021-12 (Attachment B) to 0% in-the-money (ITM) be changed to 100% ITM. He said the benefit or guarantee is perceived to be ITM when it provides value in excess of the account value. He said when there is no guaranteed benefit, it is considered at-the-money, which implies that the ITM percentage should be 100%. Ms. Jiang disagreed. She said that Section 6 of VM-21, Requirements for Principle-Based Reserves for Variable Annuities, defines ITM as the ratio of the greatest accumulated present value (GAPV) of a guaranteed benefit to the account value (AV). She said that in the case where there is no guaranteed benefit, the GAPV is zero. Therefore, the ratio of GAPV to AV would be zero.

Brian Bayerle (American Council of Life Insurers—ACLI) said the ACLI comment letter (Attachment C) expressed agreement with the changes in the amendment proposal but suggested a few clarifications. He said the requirements of Section 6.B.3.a.i are intended to apply only to Section 6.B.3.a.v and not to Section 6.B.3.a.ii through Section 6.B.3.a.iv. He suggested deleting Section 6.B.3.a.i and revising the wording of what then becomes Section 6.B.3.a.iv by removing the phrase “the modeled in force prescribed by Section 6.B.3.a.i.” Ms. Jiang agreed with the ACLI edits. She provided a version of amendment proposal 2021-12 that includes the changes suggested by the ACLI and other renumbering changes for potential re-exposure.

Mr. Leung made a motion, seconded by Mr. Weber, to re-expose the new version amendment proposal 2021-12 (Attachment D), including the identified edits, for a 12-day public comment period ending Nov. 16. The motion passed unanimously.

2. Adopted Amendment Proposal 2021-13

Mr. Bayerle said the ACLI comment letter (Attachment C) draws attention to the need for balance between the appropriate prudent margin for conservatism and the appropriate amount of disclosure, with the regulatory need for solvency monitoring. He said the letter suggests striking the last sentence of the guidance note. Ms. Hemphill agreed to strike the sentence as suggested.

Mr. Bock made a motion, seconded by Mr. Weber, to adopt amendment proposal 2021-13 (Attachment E), after striking the last sentence in the guidance note. The motion passed unanimously.

3. Received an Update on the ESG

Scott O’Neal (NAIC) provided a presentation (Attachment F) on the status of the economic scenario generator (ESG). He said a large part of the work on the ESG has been the development of acceptance criteria for the treasury model. He noted that the presentation lists the acceptance criteria in priority order. He said Conning Inc. is working on a new Treasury calibration based on the acceptance criteria. He noted that while Conning is working on the Treasury calibration, the ESG drafting group is beginning to work on the equity model. Mr. Carmello voiced concern that the low for long criteria is not conservative enough. He also suggested that the presentation highlight that December 2020 is the reference point for validation of the current acceptance criteria.

4. Received an Update on the Experience Data Collection Project

Pat Allison (NAIC) said the experience data collection project has participation from 110 companies representing 87.5% of industry claims. She said 83 of the participating companies previously participated in either the Kansas or New York data calls. She said 75 full submissions and nine partial submissions have been received. She noted that NAIC staff are currently reviewing submissions and providing validation packages to assist companies in their file cleanup efforts. She said the NAIC staff review also includes analyzing field distributions to screen company data for year-to-year consistency.

5. Discussed Other Matters

Reggie Mazyck (NAIC) said revisions to *Actuarial Guideline XXV—Calculation of Minimum Reserves and Minimum Nonforfeiture Values for Policies with Guaranteed Increasing Death Benefits Based on an Index* (AG 25) were exposed by the Task Force chair for a public comment period ending Nov. 17. He said the change, which removes the fixed 4% nonforfeiture rate floor, aligns the guideline with the VM-02, Minimum Nonforfeiture Mortality and Interest, changes implemented for the 2021 *Valuation Manual*. Mr. Mazyck said the Task Force plans to adopt AG 25 prior to the Fall National Meeting. He said the Life Insurance and Annuities (A) Committee and the Executive (EX) Committee and Plenary are expected to consider adoption of AG 25 during the Fall National Meeting.

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

[https://naiconline.sharepoint.com/:w:/r/sites/NAICSupportStaffHub/MemberMeetings/Fall 2021/TF/LifeActuarial/LATF Calls/11 04/Nov 4 Minutes](https://naiconline.sharepoint.com/:w:/r/sites/NAICSupportStaffHub/MemberMeetings/Fall%2021/TF/LifeActuarial/LATF%20Calls/11%204/Nov%204%20Minutes)

Draft: 11/30/21

Life Actuarial (A) Task Force
Virtual Meeting
October 21, 2021

The Life Actuarial (A) Task Force met Oct. 21, 2021. The following Task Force members participated: Cassie Brown, Chair, represented by Mike Boerner, Rachel Hemphill, and Karen Jiang (TX); Judith L. French, Vice Chair, represented by Peter Weber (OH); Lori K. Wing-Heier represented by Sharon Comstock (AK); Jim L. Ridling represented by Jennifer Li (AL); Ricardo Lara represented by Ben Bock 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); Amy L. Beard represented by Stephen Chamblee (IN); 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); Adrienne A. Harris represented by Bill Carmello and Amanda Fenwick (NY); Jonathan T. Pike represented by Tomasz Serbinowski (UT); and Scott A. White represented by Craig Chupp (VA).

1. Adopted the SOA Historical Mortality Improvement Factors

Marianne Purushotham (Society of Actuaries—SOA) presented the SOA Historical Mortality Improvement (HMI) Recommendation 2021 Scale Update (Attachment A) and the HMI Scale Factors (Attachment B). She said slide 10 of the presentation provides the recommendation for application of the HMI scale for 2021. The SOA recommends: 1) applying the same methodology used in past years; 2) decreasing the HMI scale for males and females; and 3) having individual companies use temporary mortality adjustments to reflect their expectations related to the effects of COVID-19 on short-term mortality levels. She said as more data is amassed, COVID-19 impacts will be reflected in future historical mortality improvement factors. Mr. Chupp expressed concern about the mortality deterioration between ages 25 and 40 that was eliminated by the smoothing technique. Ms. Purushotham said that because the smoothing was applied to all ages, the deterioration in the 25 to 40 age range is spread across all other ages and dampens the mortality improvement in the other age ranges. She said the SOA will consider using a different smoothing technique in the future. Mr. Boerner requested that the HMI Scale Factors and the recommendations on slide 10 for application of the HMI scale be reflected on the SOA website once they are adopted.

Mr. Leung made a motion, seconded by Mr. Unger, to adopt the HMI Factors and the SOA recommendations on slide 10 of the presentation. The motion passed unanimously.

2. Exposed Amendment Proposal 2021-11

Ms. Hemphill said amendment proposal 2021-11 seeks to address items related to VM-21, Requirements for Principle-Based Reserves for Variable Annuities, information necessary for review that companies did not include in their VM-31, PBR Actuarial Report Requirements for Business Subject to a Principle-Based Valuation reports. She reviewed the recommended changes to VM-21 and referenced the sections of VM-20, Requirements for Principle-Based Reserves for Life Products that the changes are intended to parallel. Mr. Chupp indicated a few reference changes that should be made prior to exposure.

Mr. Weber made a motion, seconded by Mr. Andersen, to expose amendment proposal 2021-11 (Attachment C) for a 40-day public comment period ending Dec. 1, including the edits suggested by Mr. Chupp. The motion passed unanimously.

3. Discussed Other Matters

Mr. Mazyck announced that the exposure of the proposed actuarial guideline on asset adequacy testing was extended to Dec. 1.

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

[https://naiconline.sharepoint.com/sites/NAICSupportStaffHub/Member Meetings/Fall 2021/TF/LifeActuarial/LATF Calls/1021/Oct 21 Minutes.docx](https://naiconline.sharepoint.com/sites/NAICSupportStaffHub/Member%20Meetings/Fall%202021/TF/LifeActuarial/LATF%20Calls/1021/Oct%2021%20Minutes.docx)

Draft: 10/8/21

Life Actuarial (A) Task Force
Virtual Meeting
September 30, 2021

The Life Actuarial (A) Task Force met Sept. 30, 2021. The following Task Force members participated: Cassie Brown, Chair, represented by Mike Boerner, Rachel Hemphill, and Karen Jiang (TX); Judith L. French, Vice Chair, represented by Peter Weber (OH); Lori K. Wing-Heier represented by Sharon Comstock (AK); Jim L. Ridling represented by Jennifer Li (AL); Ricardo Lara represented by Ben Bock 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); Amy L. Beard represented by Stephen Chamblee (IN); 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); Glen Mulready represented by Andrew Schallhorn (OK); and Scott A. White represented by Craig Chupp (VA).

1. Exposed Concepts and Questions Related to a Proposed Actuarial Guideline on AAT

Mr. Andersen said the Valuation Analysis (E) Working Group identified a potential concern about how blocks of legacy deferred annuity products with 3% or higher lifetime credited rate guarantees are being supported in the current low interest rate environment. He noted that transactions related to this business, including acquisitions of companies and reinsurance deals, has resulted in an increasing concentration of this risk being held by firms that support the risk with nontraditional assets. He said state insurance regulators should pool their actuarial and capital markets expertise to identify good practices and bad practices. He said bad practices must be corrected by reflecting the asset risk more appropriately in asset adequacy testing (AAT), potentially resulting in higher reserves. He said state insurance regulators want to avoid the possibility of a company setting up \$900 of risky assets in support of a \$1,000 liability. The risk of such a scenario occurring increases as the assets held become more complex and are less subject to publicly available valuation. He said the Working Group found that some complex assets have an appropriate risk return profile to support the underlying liability, while others were found to have inflated investment or reinvestment net yield assumptions.

Mr. Andersen said there is a consensus among state insurance regulators discussing this issue that an actuarial guideline should be developed to help ensure reserve adequacy and claims paying ability under moderately adverse conditions, including conditions negatively affecting cash flows from complex assets. He said the guideline should also clarify how margins for uncertainty are established, such that the greater the uncertainty, the larger the required margin and resulting reserve. He said other goals of the guideline will be to recognize that higher asset returns are to some extent associated with higher risk. He said it is possible that sensitivity testing for complex assets supporting certain business, including fixed annuities, may be required. He said the guideline is not contemplated to be a standalone requirement but will provide guidance on modeling and existing asset adequacy requirements. He said the document being considered for exposure represents questions that must be addressed as the guideline is developed. He said there is a possibility that some of the guidance could apply before year-end 2022. Brian Bayerle (American Council of Life Insurers—ACLI) asked how the applicability prior to year-end 2022 would work. Mr. Andersen said it is possible that certain documentation requirements could apply prior to year-end 2022. He asked interested parties to comment on the applicability date.

Mr. Andersen made a motion, seconded by Ms. Eom, to expose the concepts and questions related to a proposed actuarial guideline on AAT (Attachment A) for a 45-day public comment period ending Nov. 15. The motion passed unanimously.

2. Adopted its Summer National Meeting Minutes

Mr. Sartain recommended placing the first sentence of the second paragraph on the report of the VM-22 (A) Subgroup just after the second sentence of the first paragraph and deleting the remainder of the second paragraph.

Mr. Weber made a motion, seconded by Mr. Leung, to adopt the Task Force's Summer National Meeting minutes, including the revision recommended by Mr. Sartain (Attachment B). The motion passed unanimously.

3. Adopted its 2022 Proposed Charges

Mr. Boerner questioned whether the target completion dates for the Guaranteed Issue (GI) Life Valuation (A) Subgroup charges and the Longevity Risk (E/A) Subgroup charges should be retained. He pointed out that no other Subgroup charges have target dates. Reggie Mazyck (NAIC) said the target dates were set by the former chair. He suggested removing the target dates to not unfairly saddle the next chair with target dates in which they did not have input.

Mr. Chou made a motion, seconded by Mr. Schallhorn, to adopt the Task Force's 2022 proposed charges (Attachment C), after removing the target dates. The motion passed unanimously.

4. Exposed Amendment Proposal 2021-12

Ms. Hemphill said amendment proposal 2021-12 (Attachment D) corrects a reference error in VM-21, Requirements for Principle-Based Reserves for Variable Annuities, and clarifies the requirements for variable annuity contracts with no minimum guaranteed benefits under three prescribed assumptions in VM-21 Section 6C.

Mr. Weber made a motion, seconded by Mr. Leung, to expose amendment proposal 2021-12 for a 28-day public comment period ending Oct. 27. The motion passed unanimously.

5. Exposed Amendment Proposal 2021-13

Mr. Bock said amendment proposal 2021-13 (Attachment E) corrects language that allows the addition of prescribed mortality margins for some Life/Long-Term Care (LTC) combination products to decrease, rather than increase, modeled reserves. Ms. Hemphill suggested changing the word "actuary" in the revision proposed for Section 9C(6)e of VM-20, Requirements for Principle-Based Reserves for Life Products, to "company."

Mr. Bock made a motion, seconded by Mr. Unger, to expose amendment proposal 2021-13, including the change suggested by Ms. Hemphill, for a 28-day public comment period ending Oct. 27. The motion passed unanimously.

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

W:\National Meetings\2021\Fall\TF\LA\LATF Calls\09 30\Sep 30 Minutes.docx

Draft: 9/24/21

Life Actuarial (A) Task Force
Virtual Meeting
September 16, 2021

The Life Actuarial (A) Task Force met Sept. 16, 2021. The following Task Force members participated: Cassie Brown, Chair, represented by Mike Boerner, Rachel Hemphill, and Karen Jiang (TX); Judith L. French, Vice Chair, represented by Peter Weber (OH); Lori K. Wing-Heier represented by Sharon Comstock (AK); Jim L. Ridling represented by Jennifer Li (AL); Ricardo Lara represented by Thomas Reedy (CA); Andrew N. Mais represented by Wanchin Chou (CT); Dana Popish Severinghaus represented by Bruce Sartain and Vincent Tsang (IL); Grace Arnold represented by Fred Andersen (MN); Chlora Lindley-Myers represented by William Leung (MO); Eric Dunning represented by Rhonda Ahrens (NE); Marlene Caride represented by Kevin Clarkson (NJ); Adrienne A. Harris represented by Bill Carmello and Amanda Fenwick (NY); Glen Mulready represented by Andrew Schallhorn (OK); and Jonathan T. Pike represented by Tomasz Serbinowski (UT).

1. Adopted the 2022 GRET

Mr. Leung made a motion, seconded by Mr. Weber, to adopt the Society of Actuaries' (SOA's) 2022 Generally Recognized Expense Table (GRET) (Attachment A). The motion passed unanimously.

2. Exposed the SOA HMI 2021 Scale Recommendation

Marianne Purushotham (SOA) presented the SOA Historical Mortality Improvement (HMI) 2021 scale recommendation (Attachment B). She said since 2014, the SOA has applied a standard methodology to develop the HMI scale. The methodology averages a historical component and a forward-looking component to develop the scale, and it uses a smoothing process to eliminate volatility. The historical component is a short-term estimate of the mortality trend since the publication of the 2015 Valuation Basic Table (VBT). The forward-looking component is based on the U.S. Social Security Administration (SSA) Alt2 forecast of future improvements over the next 20 years. Ms. Purushotham noted that there is a difference in experience between the general population data used in the Alt2 forecast and insured population data. She said currently, because of the "noise" in the insured population data, the SOA chooses to use general population data from the SSA. She said in the future, the SOA will look at mortality within the general population by socio-economic group to better differentiate the data.

Ms. Purushotham discussed the graphs, comparing the smoothed and unsmoothed scales by gender for 2018 through 2021. She said the SOA recommends no change to the female scale and a decrease in the male scale for 2021. She recommended that individual companies reflect their expectations for COVID-19 impacts on short-term mortality as part of a temporary mortality adjustment.

Mr. Weber made a motion, seconded by Mr. Kupferman, to expose the SOA HMI 2021 scale recommendation, including the Microsoft Excel tables (Attachment C), for a 21-day public comment period ending Oct. 6. The motion passed unanimously.

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

W:\National Meetings\2021\Fall\TF\LA\LATF Calls\09 16\Sep 16 Minutes.docx

Agenda Item 1 (Continued)

Consider Adoption of Subgroup Reports

Dec 8, 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 Summer 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.

December 8, 2021

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

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

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

The Longevity Risk (E/A) Subgroup has not met since the Summer National Meeting. A new Subgroup chair has been appointed. The Subgroup will coordinate with the PRT Mortality Drafting Group of the VM-22 (A) Subgroup to assess risks associated with pension risk transfer business.

December 8, 2021

From: Reggie Mazyck, NAIC Support Staff
Guaranteed Issue (GI) Life Valuation (A) Subgroup

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

Subject: The Report of Guaranteed Issue (GI) Life Valuation (A) Subgroup to the Life Actuarial (A) Task Force

The Guaranteed Issue (GI) Life Valuation (A) Subgroup has not met since the Summer National Meeting. It is awaiting the appointment of a new chair. Otherwise, it is in a dormant/monitoring mode given that there have been no new known studies of GI Life mortality that could prove useful in formulating a new prescriptive requirement for the reserves for GI Life products. One direction the subgroup could go is to continue consideration of how to adopt the GI Life table but require companies with credible experience to use a credibility weighted mortality whether their experience is lower or higher than the table.

Agenda Item 2

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

Draft: 11/29/21

Joint Meeting of the Life Actuarial (A) Task Force
and the Valuation Manual (VM)-22 (A) Subgroup
Virtual Meeting
November 18, 2021

The Life Actuarial (A) Task Force and the VM-22 (A) Subgroup of the Life Actuarial (A) Task Force met Nov. 18, 2021. The following Task Force members participated: Cassie Brown, Chair, represented by Mike Boerner, Rachel Hemphill, and Karen Jiang (TX); Judith L. French, Vice Chair, represented by Peter Weber (OH); Lori K. Wing-Heier represented by Sharon Comstock (AK); Jim L. Ridling represented by Jennifer Li (AL); Ricardo Lara represented by Ben Bock 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); Amy L. Beard represented by Stephen Chamblee (IN); 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); Jonathan T. Pike represented by Tomasz Serbinowski (UT); and Scott A. White represented by Craig Chupp (VA).

The following Subgroup members participated: Bruce Sartain, Chair, and Vincent Tsang (IL); Elaine Lam and Thomas Reedy (CA); Lei Rao-Knight (CT); Mike Yanacheak (IA); Nicole Boyd (KS); William Leung (MO); Seong-min Eom (NJ); Bill Carmello and Amanda Fenwick (NY); Rachel Hemphill and Karen Jiang (TX); Tomasz Serbinowski (UT); and Craig Chupp (VA). Also participating was: Ben Slutsker (MN).

1. Adopted Amendment Proposal 2021-12

Mr. Chupp proposed an edit to amendment proposal 2021-12 to correct misnumbering.

Mr. Weber made a motion, seconded by Mr. Chou, to adopt amendment proposal 2021-12 (Attachment A), including the editorial change identified by Mr. Chupp. The motion passed unanimously.

2. Re-Exposed AG 25

Mr. Chupp said that after discussing his comment letter (Attachment B) with NAIC staff, he agreed to withdraw his first comment. He said that the changes proposed in his second comment, his fourth comment, and the latter half of his fifth comment were added to *Actuarial Guideline XXV—Calculation of Minimum Reserves and Minimum Nonforfeiture Values for Policies with Guaranteed Increasing Death Benefits Based on an Index* (AG 25) (Attachment C). He said his third comment and the first part of his fifth comment are outside of the scope of the current exposure and will be deferred for a future review of AG 25. Jim Hodges (National Alliance of Life Companies—NALC) said the proposed revisions satisfactorily address the issues the NALC requested the Task Force to consider.

Mr. Chupp made a motion, seconded by Mr. Slutsker, to re-expose AG 25 for a 12-day public comment period ending Nov. 29. The motion passed unanimously.

3. Agreed to Send a Request for Mortality Rate Development to the SOA and the Academy

Mr. Sartain said the Standard Projection Amount Drafting Group of the VM-22 (A) Subgroup has drafted a request (Attachment D) for the Society of Actuaries (SOA) and the American Academy of Actuaries (Academy) to develop rates for structured settlement mortality. He asked the Subgroup to approve forwarding the request to the SOA and the Academy. The Subgroup agreed, without objection, to forward the request to the SOA and the Academy.

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

[https://naiconline.sharepoint.com/:w:/r/sites/NAICSupportStaffHub/MemberMeetings/Fall 2021/TF/LifeActuarial/LATF Calls/11 18/Nov 18 Minutes](https://naiconline.sharepoint.com/:w:/r/sites/NAICSupportStaffHub/MemberMeetings/Fall%202021/TF/LifeActuarial/LATF%20Calls/11%2018/Nov%2018%20Minutes)

Agenda Item 3

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

Draft: 11/30/21

Index-Linked Variable Annuity (A) Subgroup
Virtual Meeting
November 23, 2021

The Index-Linked Variable Annuity (A) Subgroup of the Life Actuarial (A) Task Force met Nov. 23, 2021. The following Subgroup members participated: Peter Weber, Chair (OH); Tomasz Serbinowski, Vice Chair (UT); Sarvjit Samra (CA); Vincent Tsang (IL); Derek Wallman (NE); Kevin Clarkson and David Wolf (NJ); Bill Carmello and Michael Cebula (NY); Mengting Kim and Mike Boerner (TX); and Craig Chupp (VA).

1. Exposed the Draft Actuarial Guideline for ILVAs

Mr. Weber said index-linked variable annuities (ILVAs) are filed as variable products. As such, they are exempt from nonforfeiture requirements, which are a source of consumer protection. He said the usual tradeoff available to variable product owners in lieu of nonforfeiture values is the availability of unitized separate account values at surrender. He said that the ILVA product does not have the safeguard of nonforfeiture, nor does it have unitized values. He said the proposed actuarial guideline (Attachment One) seeks to remedy this issue by providing guidance for how a non-unit-linked product can be considered to provide values that vary according to the investment experience of a separate account. He said the guideline clarifies the application of the *Standard Nonforfeiture Law for Individual Deferred Annuities* (#805) and the *Variable Annuity Model Regulation* (#250) to ILVAs to provide values that vary according to the investment experience of the assets in the underlying separate account, therefore allowing them to be considered variable annuities. Mr. Serbinowski provided an overview of the proposed guideline. He noted that the guideline is not a finished product but is intended to be a good starting point for discussion. He recommended that state insurance regulators review non-unitized products being filed as variable in their states to ensure that they are in conformance with the requirements of Model #250.

Wayne Mehlman (American Council of Life Insurers—ACLI) and Steve Roth (Committee of Annuity Insurers) said an industry drafting group has been developed to create a revised version of the proposed guideline. He said the aims of the revised version are to: 1) ensure that there are more choices and options for ILVA clients; 2) maintain the transparency of the interim or unitized value designs; 3) preserve the ability for carriers to use spread based rather than fee-based manufacturing model; and 4) allow flexibility in new product innovation and development. He said that industry believes the proposed guideline is currently too prescriptive and should be more principle-based.

The Subgroup agreed, without objection, to expose the proposed actuarial guideline for a 60-day public comment period ending Jan. 27, 2022.

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

https://naiconline.sharepoint.com/:w:/r/sites/NAICSupportStaffHub/Member_Meetings/Fall_2021/TF/LifeActuarial/ILVA/1123/11_23_ILVA_Minutes.docx

Draft: 10/4/21

Index-Linked Variable Annuity (A) Subgroup
Virtual Meeting
September 23, 2021

The Index-Linked Variable Annuity (A) Subgroup of the Life Actuarial (A) Task Force met Sept. 23, 2021. The following Subgroup members participated: Peter Weber, Chair (OH); Tomasz Serbinowski, Vice Chair (UT); Sarvjit Samra (CA); Derek Wallman (NE); Kevin Clarkson and David Wolf (NJ); Bill Carmello (NY); and Mengting Kim (TX). Also participating were: Vincent Tsang (IL); David Sky (NH); and Mike Boerner (TX).

1. Discussed Establishing Interim Values for ILVAs

Mr. Weber discussed the list of options (Attachment One) for the consideration of the Subgroup. Mr. Clarkson suggested that the Subgroup determine the order of importance for addressing the following items: 1) determining the definition of the product; 2) resolving the valuation and nonforfeiture issues; 3) deciding how closely the returns must come to matching the underlying index; and 4) the equity of the interim value provisions. Mr. Weber noted that valuation issues are outside of the scope of the Subgroup charges. He said he wants to focus on the Subgroup charge to provide recommendations for interim values.

Mr. Samra voiced support for basing any new guidance on state regulations currently in use. He asked if Mr. Weber's survey of state regulations also included state-issued bulletins or notices companies could use as guidance. Mr. Weber responded that his survey, which was informal and conducted verbally, did not uncover any notices or bulletins. He said most states provided companies with a list of questions intended to promote disclosure.

Mr. Tsang said Illinois Regulation 1551 provides a definition for a variable contract, but it does not cover index-linked variable annuity (ILVA) products and other contracts that provide guarantees. Mr. Serbinowski said the ILVA may be covered if it is registered under the Securities Act of 1933. Mr. Weber suggested using the regulation as a template for developing a regulation that addresses interim values. Mr. Carmello said the New York State Department of Financial Services (NYSDFS) has a draft ILVA regulation that bases interim values on the market value of the segment guarantees or the prorated value based on the term of the guarantee. He said the buffer is included as part of the prorated value. He said the proration method is not perfect, but it has the advantage of being simple. Mr. Serbinowski said he favors developing an Actuarial Guideline that follows the path of the Illinois regulation, but it provides a slightly different interpretation of how benefits may follow the performance of the asset values. Mr. Carmello said the guideline should be applied to new issues only. Mr. Sky suggested notifying the commissioner of the intent to develop new requirements and recommending a moratorium on new ILVA product approvals. Mr. Carmello said it is probably too late for such a recommendation. Mr. Weber said he, Mr. Serbinowski, and a few others will begin work on the guideline.

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

W:\National Meetings\2021\Fall\TF\LA\ILVA\09 23\9_23 ILVA Minutes.docx

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

Dates: Received	Reviewed by Staff	Distributed	Considered
8/26/21	RM		
Notes: APF 2021-11			

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:

PBR Staff of Texas Department of Insurance

Title of the Issue:

Add a section for other assumptions requirement in VM-21 which covers general guidance and requirements for assumptions, and expense assumptions.

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-21 Section 1.C.2.b, VM-21 Section 12, VM-21 Section 13, VM-21 Section 1.B, VM-21 Section 10.A, VM-31 Section 3.F.3.d, VM-31 Section 3.F.13.d

January 1, 2021 NAIC Valuation Manual

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.)

A new section is needed in VM-21 to provide general guidance and requirements for assumptions, similar to VM-20, to address assumption reporting issues identified in VM-21 PBR report reviews, e.g., some companies don’t discuss regular assumption reviews for any necessary updates. In addition, this section provides the specific requirements for assumptions that have not been covered in previous sections of VM-21, i.e., the expense assumptions. VM-21 is not very explicit about expenses (e.g., whether they are fully allocated or include one-time expenses). For VM-20, we have had some material impacts from how companies treat one-time expenses that may be multi-year but temporary. Companies could understate expenses if there is no adjustment for periodic or other recurrent expenses in expense study years where they do not occur. This APF is to make the VM-21 expense assumption requirement explicit and consistent with what is specified in VM-20 Section 9.E. The new section can also be used to cover any other assumptions requirements that need to be addressed in the future. The reporting requirement of the sensitivity testing and the impact of margin analysis is added to VM-31 to help regulators better understand how companies comply with the newly added assumption guidance and requirements.

VM-21 Section 1.C.2.b

- a) Liability risks
 - i. Reinsurer default, impairment or rating downgrade known to have occurred before or on the valuation date.
 - ii. Mortality/longevity, persistency/lapse, partial withdrawal and premium payment risks.
 - iii. Utilization risk associated with guaranteed living benefits.
 - iv. Anticipated mortality trends based on observed patterns of mortality improvement or deterioration, where permitted.
 - v. Annuitization risks.
 - vi. Additional premium dump-ins (high interest rate guarantees in low interest rate environments).
 - vi.vii. Applicable expense risks, including fluctuation in maintenance expenses directly attributable to the business, future commission expenses, and expense inflation/growth.

VM-21 Section 12 (new)

Section 12: Other Guidance and Requirements for Assumptions

A. Overview

This section provides guidance and requirements in general for setting prudent estimate assumptions when determining either the stochastic reserve or the reserve for any contracts determined using the Alternative Methodology. It also provides specific guidance and requirements for expense assumptions.

B.

General Assumption Requirements

1. The company shall use prudent estimate assumptions for risk factors that are not stochastically modeled by applying margins to the anticipated experience assumptions if such risk factors have been categorized as material risks by following Section 1.B Principle 3 and requirements in Section 12.C.
2. The company shall establish the prudent estimate assumptions for risk factors in compliance with the requirements in Section 12 of Model #820 and must periodically review and update the assumptions as appropriate in accordance with these requirements.
3. The company shall model the following risk factors stochastically unless the company

elects the Alternative Methodology defined in Section 7:

- a. Interest rate movements (i.e., Treasury interest rate curves).
 - b. Equity performance (e.g., Standard & Poor's 500 index [S&P 500] returns and returns of other equity investments).
4. If the company elects to stochastically model risk factors in addition to the economic scenarios, the requirements in this section for determining prudent estimate assumptions for these risk factors do not apply.

Guidance Note: It is expected that companies will not stochastically model risk factors other than the economic scenarios, such as contract holder behavior or mortality, until VM-21 has more specific guidance and requirements available. Companies shall discuss with domiciliary regulators if they wish to stochastically model other risk factors.

5. The company shall use its own experience, if relevant and credible, to establish an anticipated experience assumption for any risk factor. To the extent that company experience is not available or credible, the company may use industry experience or other data to establish the anticipated experience assumption, making modifications as needed to reflect the circumstances of the company.
- a. For risk factors (such as mortality) to which statistical credibility theory may be appropriately applied, the company shall establish anticipated experience assumptions for the risk factor by combining relevant company experience with industry experience data, tables or other applicable data in a manner that is consistent with credibility theory and accepted actuarial practice.
 - b. For risk factors (such as utilization of guaranteed living benefits) that do not lend themselves to the use of statistical credibility theory, and for risk factors (such as some of the lapse assumptions) to which statistical credibility theory can be appropriately applied but cannot currently be applied due to lack of industry data, the company shall establish anticipated experience assumptions in a manner that is consistent with accepted actuarial practice and that reflects any available relevant company experience, any available relevant industry experience, or any other experience data that are available and relevant. Such techniques include:
 - i. Adopting standard assumptions published by professional, industry or regulatory organizations to the extent they reflect any available relevant company experience or reasonable expectations.
 - ii. Applying factors to relevant industry experience tables or other relevant data to reflect any available relevant company experience and differences in expected

experience from that underlying the base tables or data due to differences between the risk characteristics of the company experience and the risk characteristics of the experience underlying the base tables or data.

- iii. Blending any available relevant company experience with any available relevant industry experience and/or other applicable data using weightings established in a manner that is consistent with accepted actuarial practice and that reflects the risk characteristics of the underlying contracts and/or company practices.
 - c. For risk factors that have limited or no experience or other applicable data to draw upon, the assumptions shall be established using sound actuarial judgment and the most relevant data available, if such data exists.
 - d. For any assumption that is set in accordance with the requirements of Section 12.B.5.c, the qualified actuary to whom responsibility for this group of contracts is assigned shall use sensitivity testing and disclose the analysis performed to ensure that the assumption is set at the conservative end of the plausible range.
 - e. The qualified actuary, to whom responsibility for this group of contracts is assigned, shall annually review relevant emerging experience for the purpose of assessing the appropriateness of the anticipated experience assumption. If the results of statistical or other testing indicate that previously anticipated experience for a given factor is inadequate, then the qualified actuary shall set a new, adequate, anticipated experience assumption for the factor.
- 6. The company shall sensitivity test risk factors that are not stochastically modeled and examine the impact on the stochastic reserve. The company shall update the sensitivity tests periodically as appropriate. The company may update the tests less frequently, but no less than every 3 years, when the tests show less sensitivity of the stochastic reserve to changes in the assumptions being tested or the experience is not changing rapidly. Providing there is no material impact on the results of the sensitivity testing, the company may perform sensitivity testing:
 - a. Using samples of the contracts in force rather than performing the entire valuation for each alternative assumption set.
 - b. Using data from prior periods.

Guidance Note: Sensitivity testing every risk factor on an annual basis is not required. For some risk factors, it may be reasonable, in lieu of sensitivity testing, to employ statistical measures for margins, such as adding one or more standard deviations to the anticipated experience assumption.

7. The company shall vary the prudent estimate assumptions from scenario to scenario within the stochastic reserve calculation in an appropriate manner to reflect the scenario-dependent risks.

C. Assumption Margins

The company shall include margins to provide for adverse deviations and estimation error in the prudent estimate assumption for each risk factor that is not stochastically modeled or prescribed, subject to the following:

1. The level of margin applied to the anticipated experience assumptions may be determined in aggregate or independently as discussed in Section 1.B Principle 3. It is not permissible to set a margin less toward the conservative end of the spectrum to recognize, in whole or in part, implicit or prescribed margins that are present, or are believed to be present, in other risk factors.

Risks that are stochastically modeled (e.g., interest rates, equity returns) or have prescribed margins or guardrails (e.g., assets, revenue sharing) shall be considered material risks. Other risks generally considered to be material include, but are not limited to, mortality, contract holder behavior, maintenance and overhead expenses, inflation and implied volatility. In some cases, the list of material risks may also include acquisition expenses, partial withdrawals, policy loans, annuitizations, account transfers and deposits, and/or option elections that contain an element of anti-selection.

2. The greater the uncertainty in the anticipated experience assumption, the larger the required margin, with the margin added or subtracted as needed to produce a larger modeled TAR than would otherwise result. For example, the company shall use a larger margin when:

- a. The experience data have less relevance or lower credibility.
- b. The experience data are of lower quality, such as incomplete, internally inconsistent or not current.
- c. There is doubt about the reliability of the anticipated experience assumption, such as, but not limited to, recent changes in circumstances or changes in company policies.
- d. There are constraints in the modeling that limit an effective reflection of the risk factor.

3. In complying with the sensitivity testing requirements in Section 12.B.6 above, greater analysis and more detailed justification are needed to determine the level of uncertainty when establishing margins for risk factors that produce greater sensitivity on the stochastic reserve.

4. A margin is permitted but not required for assumptions that do not represent material risks.
5. A margin should reflect the magnitude of fluctuations in historical experience of the company for the risk factor, as appropriate.
6. The company shall apply the method used to determine the margin consistently on each valuation date but is permitted to change the method from the prior year if the rationale for the change and the impact on the stochastic reserve is disclosed.

D. Expense Assumptions

1. General Prudent Estimate Expense Assumption Requirements

In determining prudent estimate expense assumptions, the company:

- a. May spread certain information technology development costs and other capital expenditures over a reasonable number of years in accordance with accepted statutory accounting principles as defined in the Statements of Statutory Accounting Principles.

Guidance Note: Care should be taken with regard to the potential interaction with the inflation assumption below.

- b. Shall assume that the company is a going concern.
- c. Shall choose an appropriate expense basis that properly aligns the actual expense to the assumption. If values are not significant, they may be aggregated into a different base assumption.

Guidance Note: For example, death benefit expenses should be modeled with an expense assumption that is per death incurred.

- d. Shall reflect the impact of inflation.
- e. Shall not assume future expense improvements.
- f. Shall not include assumptions for federal income taxes (and expenses paid to provide fraternal benefits in lieu of federal income taxes) and foreign income taxes.
- g. Shall use assumptions that are consistent with other related assumptions.

- h. Shall use fully allocated expenses.

Guidance Note: Expense assumptions should reflect the direct costs associated with the block of contracts being modeled, as well as indirect costs and overhead costs that have been allocated to the modeled contracts.

- i. Shall allocate expenses using an allocation method that is consistent across company lines of business. Such allocation must be determined in a manner that is within the range of actuarial practice and methodology and consistent with applicable ASOPs. Allocations may not be done for the purpose of decreasing the stochastic reserve.
- j. Shall reflect expense efficiencies that are derived and realized from the combination of blocks of business due to a business acquisition or merger in the expense assumption only when any future costs associated with achieving the efficiencies are also recognized.

Guidance Note: For example, the combining of two similar blocks of business on the same administrative system may yield some expense savings on a per unit basis, but any future cost of the system conversion should also be considered in the final assumption. If all costs for the conversion are in the past, then there would be no future expenses to reflect in the valuation.

- k. Shall reflect the direct costs associated with the contracts being modeled, as well as an appropriate portion of indirect costs and overhead (i.e., expense assumptions representing fully allocated expenses should be used), including expenses categorized in the annual statement as “taxes, licenses and fees” (Exhibit 3 of the annual statement) in the expense assumption.
- l. Shall include acquisition expenses associated with business in force as of the valuation date and significant non-recurring expenses expected to be incurred after the valuation date in the expense assumption.
- m. For contracts sold under a new policy form or due to entry into a new product line, the company shall use expense factors that are consistent with the expense factors used to determine anticipated experience assumptions for contracts from an existing block of mature contracts taking into account:
- i. Any differences in the expected long-term expense levels between the block of new contacts and the block of mature contracts.
- ii. That all expenses must be fully allocated as required

under Section 142.D.1.h above.

2. Margins for Prudent Estimate Expense Assumptions

The company shall determine margins for expense assumptions following Section 12.C.

VM-21 Section 13

Section 13: Allocation of the Aggregate Reserve to the Contract Level

VM-21 Section 1.B

Principle 3: The implementation of a model involves decisions about the experience assumptions and the modeling techniques to be used in measuring the risks to which the company is exposed. Generally, assumptions are to be based on the conservative end of the confidence interval. The choice of a conservative estimate for each assumption may result in a distorted measure of the total risk. Conceptually, the choice of assumptions and the modeling decisions should be made so that the final result approximates what would be obtained for the stochastic reserve at the required CTE level if it were possible to calculate results over the joint distribution of all future outcomes. In applying this concept to the actual calculation of the stochastic reserve, the company should be guided by evolving practice and expanding knowledge base in the measurement and management of risk.

Guidance Note: The intent of Principle 3 is to describe the conceptual framework for setting assumptions. Section 10 provides the requirements and guidance for setting contract holder behavior assumptions and includes alternatives to this framework if the company is unable to fully apply this principle. More guidance and requirements for setting assumptions in general are provided in Section 12.

VM-21 Section 10.A

Section 10: Contract Holder Behavior Assumptions

A. General

Contract holder behavior assumptions encompass actions such as lapses, withdrawals, transfers, recurring deposits, benefit utilization, option election, etc. Contract holder behavior is difficult to predict accurately, and variance in behavior assumptions can significantly affect the results. In the absence of relevant and fully credible empirical data, the company should set behavior assumptions as guided by Principle 3 in Section 1.B and Section 12.

VM-31 Section 3.F.3.d

3. Liability Assumptions and Margins – A listing of the assumptions and margins used in the projections to determine the stochastic reserve, including a discussion of the source(s) and the rationale for each assumption:
 - a. Premiums and Subsequent Deposits – Description of premiums and subsequent deposits.

- b. Interest Crediting Strategy – Description of the interest crediting strategy.
- c. Commissions – Description of commissions, including any commission chargebacks.
- d. Expenses Other than Commissions – Description and listing of insurance company expenses other than commissions, such as overhead, including:
 - i. Method used to allocate expenses to the contracts included in a principle- based valuation under VM-21 and a statement confirming that expenses have been fully allocated in accordance with VM-21 Section 12.D.1.h.-
 - ii. Method used to apply the allocated expenses to model segments or sub- segments within the cash-flow model.
 - iii. Identification of types of costs that were spread, and for how many years, if any cost spreading was done pursuant to VM-21 Section 12.D.1.a.
 - ii-iv. Method used to determine margins.

VM-31 Section 3.F.13.c (new)

- c. Sensitivity Tests - For each distinct product type for which margins were established:
- i. List the specific sensitivity tests performed for each risk factor or combination of risk factors., other than those discussed in Section 3.D.3.h.iv and 3.D.3.i.ii.
 - ii. Indicate whether the reserve was calculated based on the anticipated experience assumptions or prudent estimate assumptions for all other risk factors while performing the tests.
 - iii. Provide the numerical results of the sensitivity tests for both reserves and capital.
 - iv. Explain how the results of sensitivity tests were used or considered in developing assumptions.

VM-31 Section 3.F.13.d (new)

d. Impact of Margin

- i. Company can perform the impact of margin analysis using off-cycle data. The analysis can be done less frequently than annual unless there is change or update in the margins, but not less frequently than every 3 years.

ii. Impact of Margins for Each Risk Factor – The impact of margins on the stochastic reserve for each risk factor, or group of risk factors, that has a material impact on the stochastic reserve, determined by subtracting (i) from (ii), expressed in both dollar amounts and percentages:

(1) The CTE70(best efforts), as outlined in VM-21 Section 9.C, but with the reserve calculated based on the anticipated experience assumption for the risk factor and prudent estimate assumptions for all other risk factors.

(2) The CTE70(best efforts), as outlined in VM-21 Section 9.C, for that group of contracts as reported.

(3) Repeat the impact analysis using the same method on CTE(98) levels.

Guidance Note: Pursuant to VM-21, margins must increase TAR, so the impact of each margin, as calculated above on CTE(98), must be positive.

iii. Aggregate Impact of Margins – the aggregate impact of all margins on the stochastic reserve for that group of contracts determined by subtracting (1) from (2), expressed in both dollar amounts and percentages:

(1) The CTE70(best efforts), as outlined in VM-21 Section 9.C, for that group of contracts, but with the reserve calculated based on anticipated experience assumptions for all risk factors prior to the addition of any margins.

(2) The CTE70(best efforts), as outlined in VM-21 Section 9.C, for that group of contracts as reported.

(3) Repeat the impact analysis using the same method on CTE(98) levels.

iv. Impact of Implicit Margins – For purposes of the disclosures required in 13.d.ii and 13.d.iii above:

(1) If the company believes the method used to determine anticipated experience assumptions includes an implicit margin, the company can adjust the anticipated experience assumptions to remove this implicit margin for this reporting purpose only. If any such adjustment is made, the company shall document the rationale and method used to determine the anticipated experience assumption.

(2) Since the company is not required to determine an anticipated experience assumption or a prudent estimate assumption for risk factors that are prescribed (i.e., interest rates movements, equity performance, default costs and net spreads on reinvestment assets), when determining the impact of margins, the prescribed assumption shall be deemed to be the prudent estimate assumption for the risk factor, and the company can elect to determine an anticipated experience assumption for the risk factor, based on the company's anticipated experience for the risk factor. If this is elected, the company shall document the rationale and method used to determine the anticipated experience assumption.



AMERICAN ACADEMY of ACTUARIES

Objective. Independent. Effective.™

December 1, 2021

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

Re: Amendment Proposal Form (APF) 2021-11

Dear Mr. Boerner,

On behalf of the Variable Annuity Reserves & Capital Work Group (VARCWG) of the American Academy of Actuaries,¹ I am pleased to provide comments on the proposed assumption disclosure requirements in APF 2021-11.

VARCWG believes that the proposed disclosures in VM-31 Section 3.F.13.d.ii and iii should consider unfloored conditional tail expectations (CTEs)—i.e., calculate the CTE without requiring that the scenario reserve for any scenario be no less than the cash surrender value. Quantifications before the cash surrender value floor are likely to provide a better understanding of the conservatism selected for the assumption.

It may also be possible to simplify the assumption margin analysis.

For example, one approach would be to simplify the assessment of individual risk factors in VM-31 Section 3.F.13.d.ii by using CTE 70 (adjusted) instead of CTE 70 (best efforts) and removing the CTE 98 requirement.

- Using CTE 70 (adjusted) for the assumption margin analysis is consistent with the use of CTE 70 (adjusted) to assess assumption outliers in the Standard Projection and in other disclosures.
- The CTE (adjusted) basis may make the analysis more tractable and/or less subject to estimation noise from simplifications for companies with a Clearly Defined Hedging Strategy (CDHS).

¹ 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 analogous disclosure requirement for VM-20 reserves uses only the Deterministic Reserve even if there are stochastic reserves.
- If desired, CTE 70 (adjusted) could be added to the VM-31 Section 3.F.13.d.iii aggregate margin disclosure requirements to connect the individual margin analysis to the aggregate CTE 70 and CTE 98 margin analysis.

Another approach would also remove the CTE 98 requirement from VM-31 Section 3.F.13.d.ii but allow actuaries to use either CTE (adjusted) or CTE (best efforts) for both VM-31 Section 3.F.13.d.ii and iii and disclose their selected basis and rationale. Both measures provide insights into assumption margins, and some actuaries may determine that one is more appropriate than the other based upon the underlying facts and circumstances.

Thank you for your consideration of these comments. Please contact Academy life policy analyst Khloe Greenwood (greenwood@actuary.org) with any questions.

Sincerely,
Connie Tang, MAAA, FSA, CERA, CFA
Chairperson, VARCWG

Brian Bayerle
Senior Actuary

December 1, 2021

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

Re: APF 2021-11

Dear Mr. Boerner:

The American Council of Life Insurers (ACLI) appreciates the opportunity to submit the following comments on APF 2021-11.

ACLI is supportive of regulatory requirements that ensure appropriate assumptions and margins, as well as disclosures that provide regulators useful insights into how a company has determined reserves. Industry is, however, concerned about further increases in reporting requirements that do not provide significant value to regulators. Therefore, although we support the majority of this APF, we are concerned about the inclusion of language regarding sensitivity testing in VM-21 Section 12.B.6. The margins on the assumptions are intended to account for the uncertainty around the assumptions, not the sensitivity of reserves to a given assumption; thus, it is unclear how this information assists regulators in assessing the reasonableness of the margin. The phrase “no material impact” also may be a source of confusion, as certain assumptions can display different sensitivities in different market conditions. Further, it is unclear how, if at all, the qualified actuary is intended to use the results of this sensitivity testing. For this reason, ACLI believes this requirement should be removed from APF 2021-11.

The proposed requirements regarding sensitivity testing in this APF are like those found in VM-20. Consequently, the same comment above holds for VM-20; namely, that sensitivity tests appear to have little regulatory value concerning the determination of margins because sensitivity is different from uncertainty. Accordingly, ACLI believes that strong consideration should be given to removing the sensitivity testing requirements from VM-20 as well.

In addition to the primary concern raised above, we have the following additional comments:

- VM-21, Section 12.B.4 Guidance Note: The last sentence of the guidance note states that “Companies shall discuss...”, and we would like clarification if this language is intended as a requirement or a suggestion. If the latter, we would suggest changing to “Companies ~~may shall~~ discuss...”

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.

- VM-21, Section 12.C.1: This language seems to require a conservative margin on every individual assumption without recognizing potential impacts from other margins. That appears to contradict Principle 3, which says, “The choice of a conservative estimate for each assumption may result in a distorted measure of the total risk.” Principle 3 implies that margins should be set to get to an appropriate overall level of conservatism.
- - VM-31, Section 3.F.13.d.ii.3: The Guidance Note implies that TAR is equal to CTE(98), which is inaccurate. TAR is equal to reserves plus C-3 RBC, which will not be equal to CTE(98) due to the factors within the C-3 RBC formula.

We appreciate the consideration of our comments and look forward to discussing on a future call. Thank you.

Sincerely,

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

cc: Reggie Mazyck, NAIC

Agenda Item 6

Discuss Comments on the Economic Scenario Generator (ESG)



NAIC ESG Update

NAIC National Meeting - Fall 2021

Scott O'Neal, FSA, MAAA - NAIC Life Examination Actuary
Dan Finn, FCAS, ASA - Managing Director at Conning

December 8, 2021

NAIC  NATIONAL ASSOCIATION OF
INSURANCE COMMISSIONERS

1



Agenda

1. Treasury Model Calibration Update
2. Key Decisions for Equity Model
3. Key Decisions for Corporate Model

Treasury Model Calibration Update

- Conning has developed a new calibration of the GEMS® Treasury model according to the acceptance criteria defined by the ESG Drafting Group (see Appendix 1)
- NAIC Staff and Conning are analyzing the Treasury scenarios from the new calibration to ensure that they meet the most important acceptance criteria while making appropriate tradeoffs, where necessary.
- The analysis of the scenarios is expected to be completed shortly to be presented at an upcoming ESG Drafting Group in December for additional discussion.
- The ESG Drafting Group may request tweaks to the Treasury scenarios upon review.
- After the ESG Drafting Group approves the scenarios, a discussion of the Treasury scenarios will occur on a public Life Actuarial (A) Task Force (LATF) and Life Risk-Based Capital (E) Working Group (LRBC WG) meeting.

Key Decisions for Equity Model: Relationship between equities and Treasury rates

Theoretical and Historical Relationship

- The relationship between equities and Treasury rates, commonly referred to as the “Equity Risk Premium”, reflects the additional return investors demand to invest in risky equity assets over the risk-free return offered by U.S. Treasuries.
- It is difficult to see strong relationships in historical data between equities and Treasuries because the equity market is so volatile.
- The idea of an “Equity Risk Premium” is consistent with a number of theoretical concepts, including the Capital Asset Pricing Model (CAPM) and the Sharpe Ratio

Modeling Considerations

- As currently configured, the GEMS® equity model contains a linkage to Treasury rates in both the process governing equity returns as well as the dividend process.
- There are a number of ways that the relationship between equities and interest rates could be defined in the model, including a formulaic linkage, correlation factors, and linking long-term equity targets to long-term interest rate targets. Alternatively, the equity returns could be set to be independent of the Treasury rates.
- Altering GEMS® existing equity/Treasury linkage by specifying an alternative relationship between equities and treasuries or assuming independence would require a currently unknown amount of development time and effort.

Key Decisions for Equity Model: Other Considerations

Risk/return relationship for and between different equity indices

- The GEMS® equity model will produce returns for a variety of U.S. and international funds.
- Typically, it is reasonable to assume that there is a relationship with expected return and volatility, such that “it would generally be inappropriate to assume that a market or fund consistently “outperforms” (lower risk, higher expected return relative to the efficient frontier) over the long term.” (VM-21 Section 8.C.4)
- Recent historical data (since 1987) for the International Diversified Equity fund (MSCI EAFE) has shown underperformance on a risk-adjusted basis relative to the Diversified Large Cap U.S. Equity fund (S&P 500). However, an evaluation of the longer historical record has shown both periods of under- and over-performance for the International Diversified Equity fund.

How should equity rates respond to changes in initial market conditions

- Changes to recent and/or initial market conditions such as equity returns, equity volatility, and Treasury rates can influence future equity returns. For example, the Chicago Board Options Exchange Volatility Index (VIX) reflects the market’s estimate of future volatility. When the VIX is high, there tends to be more volatility in the short term.
- Some subject-matter experts from the ESG Drafting Group have suggested that initial/recent market conditions should not impact equity returns beyond the near term (~six years) with most of the impacts from initial conditions experienced in the first two years.

Key Decisions for Corporate Model

Corporate Model Complexity

- The GEMS® corporate model has the capability to produce bond fund returns that reflect dynamic spreads, credit rating transitions, and defaults.
- Bond fund returns produced by the ESG will be used to model policyholder separate account investments in bond funds and general account investments in bond funds where applicable.
- Regulators will have to weigh the benefits of a complex model that is able to capture the key dynamics that drive bond fund returns versus the desire for a simplified model.
- It will be a development effort for Conning to produce a new simplified corporate model if that is the direction chosen by regulators.

Appendix 1: Treasury Model Acceptance Criteria

Item	Category	Suggested Direction for Next Iteration
1.	Low For Long	10 and 30-year geometric average of 20yr UST below current level a) 10-year threshold: 10% b) 30-year threshold: 5%
2.	Prevalence of High Rates, Upper Bound on Treasury Rates	a) The scenario set should reasonably reflect history, with some allowance for more extreme high and low interest rate environments b) Upper Bound: i. [20%] is \geq [99%]-tile on the 3M yield fan chart, and no more than [5%] of scenarios have 3M yields that go above [20%] in the first 30 years ii. [20%] is \geq [99%]-tile on the 10Y yield fan chart, and no more than [5%] of scenarios have 10Y yields that go above [20%] in the first 30 years
3.	Lower Bound on Negative Interest Rates, Arbitrage Free Considerations	Apply the following guidance for negative rates: a) All maturities could experience negative interest rates b) Interest rates may remain negative for multi-year time periods c) Rates should generally not be lower than -1.5% A floor will likely be employed but the exact form of the floor will be determined later

Appendix 1: Treasury Model Acceptance Criteria (cont.)

Item	Category	Suggested Direction for Next Iteration
4.	Initial Yield Curve Fit, Yield Curve Shapes in Projection, and Steady State Yield Curve Shape	<ul style="list-style-type: none"> a) Review initial actual vs. fitted spot curve differences for a sampling of 5 dates representing different shapes and rate levels for the entire curve and review fitted curves qualitatively to confirm they stylistically mimic the different actual yield curve shapes b) The frequency of different yield curve shapes in early durations should be reasonable considering the shape of the starting yield curve (e.g. a flatter yield curve leads to more inversions). c) The steady state curve has normal shape (not inverted for short maturities, longer vs shorter maturities, or between long maturities)
5.	Realized short and long maturity volatility at different interest rate levels	<ul style="list-style-type: none"> a) No Criteria for realized short and long maturity volatility at different interest rate levels

Agenda Item 7

Discuss Asset Adequacy Testing Actuarial Guideline Exposure

Life Actuarial (A) Task Force

Modeling of complex assets in asset adequacy testing

December 8, 2021
Webex

12/8/2021

NAIC

1

1

Drivers of project

- Rapid entry of private equity firms into life insurer
 - Owners of life insurers
 - Acquirers of fixed annuity blocks
- Valuation Analysis (E) Working Group charge
 - Identify concerns re: life insurers' asset adequacy testing (AAT)
- MN Department, coordinating with VAWG, collected information from 27 companies representing 17 groups
 - Details on AAT, including modeling of complex assets
 - Scope: one or more of: connected to private equity, large fixed annuity exposure, complex assets
 - Company-specific information is confidential, per SVL

12/8/2021

NAIC

2

2

Information collected

- Richness of liability guarantees
 - Implying pressure to attain yield to support the liabilities
- Non-traditional assets, amount and valuation of
 - Including CLOs, ABS, BA assets
- Assumed net yields on existing and reinvestment assets
- Investment manager, arrangement, expertise, fees
- Other actuarial assumptions: lapse, borrowing
- Reinsurance ceded

12/8/2021

NAIC

3

3

Findings

- Sampling of responses
- If investment assumptions are too optimistic:
 - Inappropriately signal adequacy of formula reserves
 - Additional AAT reserves won't be held
 - Understated reserves
 - Inflated surplus
 - Inflated RBC ratios
 - Money leaving the insurer under inappropriate circumstances
 - e.g., through shareholder dividends
 - Claims-paying ability in jeopardy

12/8/2021

NAIC

4

4

Findings (in some cases) and risks

- Inflated net yields
 - Simplistic modeling - similar level of defaults assumed for higher-yielding complex assets as for similarly-rated corporate bonds
- Internal modeling of asset values
 - When no CUSIP and no deep secondary market
 - Risk of asset values being overstated is high
- CLO performance
 - Generally performed well in recent years
 - Some assume this high performance will continue for the length of the projection
- Investment manager relationships and expenses
 - Is an inappropriate amount of money leaving the insurer?
 - In some cases, AAT modeling of investment expenses appears simplistic

12/8/2021

NAIC

5

5

Other findings

- Creation of structured assets
 - Packaging of underlying collateral, selling lower tranches
 - Ensure modeling captures tail risk and realistic cash flows
- Offshore / affiliated reinsurance
 - To address perceived reserve redundancy, tax favorability, and increasing RBC ratios
- Trend towards less liquid assets
 - To attain high yield, recognizing low liquidity of some liabilities
 - Ensure appropriate modeling in scenarios where asset sale needed

12/8/2021

NAIC

6

6

LATF Exposure – Sept 2021

- Findings and rapid increase in private equity / complex asset / life insurer activity -> need for action
- Action item: development of actuarial guideline, focused on modeling of complex assets
- Comment period re:
 - Product scope
 - Size scope
 - Focus on constraints / standards of documentation
 - Effective date

12/8/2021

NAIC

7

7

Comments: Scope

- Activity beyond fixed annuities has occurred
- Potential consensus is all liabilities with significant investment risk should be in the scope
- Exemption or phase in for some cases?
 - Exemption by size of insurer may not be appropriate
 - Even some smaller insurers are getting more aggressive with investments
 - Perhaps exemption if complex assets are a small portion of the portfolio
 - Need to focus on definition of complex assets if exemption put in place

12/8/2021

NAIC

8

8

Comments: Establishment of Constraints

- Establishing constraints on asset assumptions - Pros
 - Needed to prevent further optimism in assumptions
 - Discourage race to the bottom (re: minimizing reflection of risk associated with high returns)
 - Level playing field
 - Consistent with moderately adverse condition requirement
 - VM-20 already has constraints on net yields
 - Why would other blocks be treated differently?
- Establishing constraints on asset assumptions - Cons
 - Difficult to establish a one-size-fits all constraint without being too restrictive
 - Analysis of risk/reward relationship is key, will vary by situation
 - Additional documentation will help in the understanding of the modeling

12/8/2021
NAIC
9

9

Comments: Effective date

- YE 2021 is too early for an AG adoption
 - However, insurers should be on notice – expect robust support for assumptions
 - Particularly those that can be viewed as optimistic
- YE 2022 target for AG adoption
- Perhaps narrower scope for 2022, boarder scope for 2023

12/8/2021
NAIC
10

10

Potential AG AAT goals

- Uniform guidance for support of asset-related AAT assumptions
- Help ensure reserve adequacy and claims-paying ability in moderately adverse conditions
 - Including conditions negatively impacting complex asset cash flows
- Clarify how margins for uncertainty are established such that the greater the uncertainty the larger the margin and resulting reserve
 - If modeling of asset risk is simplistic, add margin
- Recognize that higher gross returns are, to some extent, associated with higher risk
 - Assumptions should fit reasonably within the risk-return spectrum

12/8/2021

NAIC

11

11

Potential AG AAT goals

- Require sensitivity testing of complex asset returns;
- Identify expectations in practice regarding the valuation of complex assets
- Require additional documentation of investment fee income relationships with affiliated / close entities

12/8/2021

NAIC

12

12

Next steps

- Draft Actuarial Guideline, considering comments
- Refine AG draft in early 2022

12/8/2021

NAIC

13

Life Actuarial (A) Task Force
Exposure Draft

Attachment Seven
Life Actuarial (A) Task Force
12/8/21

Please send comments to Reggie Mazyck (RMazyck@NAIC.Org)
by close of business December 1

Consider concept of an actuarial guideline focusing on modeling of complex or high-yielding assets in asset adequacy testing.

Development of an actuarial guideline focusing on modeling of complex or high-yielding assets in asset adequacy testing (AAT), with particular interest in receiving feedback on the following issues:

- Product scope: Should the focus be on assets supporting fixed annuities or assets supporting all life insurer liabilities subject to AAT?
- Size scope: Should only life insurers or blocks exceeding a certain size threshold be subject to the actuarial guideline?
- Constraints or documentation: Should the actuarial guideline focus on establishing constraints related to the modeling of complex or high gross yield assets (impacting AAT results) or providing detailed documentation and sensitivity testing on the modeling of such assets (potentially not impacting AAT results)?
- Effective date: Is a year-end 2022 effective date for the actuarial guideline reasonable, or should some guidance apply before that date?

I. My main suggestion would be to be broader in how you look at and write things up (rather than focusing on a specific asset such as CLOs).

II. Areas of investment-related risk likely not captured in credit ratings include:

- 1. Liquidity**
- 2. Volatility of returns**
- 3. Volatility of fair market valuation**
- 4. Difficulty in assessing fair market valuation**

Life insurers have largely been trying to get more yield by going farther out on the spectrum for one or all of those risks. Guidance could include adjustments related to those risks.

Life Actuarial (A) Task Force
Exposure Draft

Attachment Seven
Life Actuarial (A) Task Force
12/8/21

Please send comments to Reggie Mazyck (RMazyck@NAIC.Org)
by close of business November 15

Consider concept of an actuarial guideline focusing on modeling of complex or high-yielding assets in asset adequacy testing.

Submitted by David Yetter - NCDOT

Development of an actuarial guideline focusing on modeling of complex or high-yielding assets in asset adequacy testing (AAT), with particular interest in receiving feedback on the following issues:

- Product scope: Should the focus be on assets supporting fixed annuities or assets supporting all life insurer liabilities subject to AAT? **NC would prefer the focus to be on assets supporting all life insurer liabilities. There are concerns that if the focus was only looking at just assets supporting annuities, companies could just move/switch assets.**
- Size scope: Should only life insurers or blocks exceeding a certain size threshold be subject to the actuarial guideline? **We would be more concerned with the percentage of the liability the asset (or assets) is supporting. In other words, if the high-yielding assets are supporting 50% of the block, we should be concerned. If the high-yielding assets are supporting 0.5%, it's probably not worth including.**
- Constraints or documentation: Should the actuarial guideline focus on establishing constraints related to the modeling of complex or high gross yield assets (impacting AAT results) or providing detailed documentation and sensitivity testing on the modeling of such assets (potentially not impacting AAT results)? **NC would rather see detailed documentation and sensitivity testing on the modeling. The company, hopefully, understands the asset much better than anyone else. There should not be constraints on modeling new or unique assets. By having the company provide detailed documentation, the regulator can decide what factors could affect the value of that asset.**
- Effective date: Is a year-end 2022 effective date for the actuarial guideline reasonable, or should some guidance apply before that date?

Life Actuarial (A) Task Force
Exposure Draft

Attachment Seven
Life Actuarial (A) Task Force
12/8/21

Please send comments to Reggie Mazyck (RMazyck@NAIC.Org)
by close of business ~~November 15~~December 1

Consider concept of an actuarial guideline focusing on modeling of complex or high-yielding assets in asset adequacy testing.

Development of an actuarial guideline focusing on modeling of complex or high-yielding assets in asset adequacy testing (AAT), with particular interest in receiving feedback on the following issues:

- Product scope: Should the focus be on assets supporting fixed annuities or assets supporting all life insurer liabilities subject to AAT?

I believe this approach should apply to both fixed annuities and to life insurance liabilities. The performance of the ALT assets is not linked to the liabilities, so the approach to modeling the assets should be consistent by product line.

- Size scope: Should only life insurers or blocks exceeding a certain size threshold be subject to the actuarial guideline?

I would link the size of the block would not matter. The approach to modeling these assets should be appropriate and consistent across all life insurers.

- Constraints or documentation: Should the actuarial guideline focus on establishing constraints related to the modeling of complex or high gross yield assets (impacting AAT results) or providing detailed documentation and sensitivity testing on the modeling of such assets (potentially not impacting AAT results)?

I am not sure what constraints would mean. Does this suggest that the approach can be aggressive, but the guideline will limit the aggressiveness? I have discussed CFT analysis with other actuaries that use ALTS for CFT. Their comments seem to fall under two buckets (both of which are concerning):

- o The ALTS are only 5% of the portfolio, so it was immaterial. If the ALTs are assumed to earn 12% and this replaces assets earning 3%, then the impact is an extra 45bps of return. It seems difficult to argue immateriality.
- o The ALTs are expected to have a 12% return, so the appointed actuary uses 8% to be "conservative" and model as a bond. We are talking about assets that could have an annual return distribution from -30% to +30%. It also has cash flows that are dissimilar from other asset types (pledged capital, contributions, distributions). The NII is not realized until distributions occur. The analysis needs to recognize the asset cash flows and NII pattern used to support the liability cash flows.

It seems like the AG should require detailed documentation on the ALT modeling approach. In addition, ALTS are one of the most volatile asset types used by Life insurers. It seems like the AG should require the analysis to capture the volatility of the asset type. Some of the requirements to consider include:

- o The analysis should capture the cash flows of the asset type. This would include contributions, distributions, and total returns.

Life Actuarial (A) Task Force
Exposure Draft

Attachment Seven
Life Actuarial (A) Task Force
12/8/21

Please send comments to Reggie Mazyck (RMazyck@NAIC.Org)
by close of business ~~November 15~~December 1

- The analysis should capture the distributions of the outcomes from the A/L analysis. This may require stochastic analysis that captures the distribution of results for the ALTs and for the other assets supporting the liabilities. It could use the NY7 scenarios and run number of paths of stochastic asset spreads, defaults (migrations), and equity returns for each scenario. It seems like reserve sufficiency is an 85th percentile measure, so a focus at the 85th percentile seems reasonable to consider. (I would suggest Conning could provide these paths for each NY scenario)
- The requirements should consider the illiquidity of the asset type. The analysis shouldn't be allowed to disinvest an asset type that is illiquid.

(This approach is difficult to implement, but the volatility of the asset class requires this level of detail. If the appointed actuary is going to use these asset types to support CFT, then the analysis requires this level of thoroughness. I would pose this question: How would the appointed actuary know the assets are adequate to support the liabilities without this type of analysis?)

- Effective date: Is a year-end 2022 effective date for the actuarial guideline reasonable, or should some guidance apply before that date?

EOY 2022 seems appropriate if a documentation approach is used. The industry would need time to implement.

Memo

To: Mike Boerner, Chair, Life Actuarial Task Force

From: Tricia Matson, Partner and Ed Toy, Director

Date: November 18, 2021

Subject: RRC comments regarding AG on complex assets

Background

The Life Actuarial Task Force (LATF) issued a request for feedback related to the concept of an actuarial guideline (AG) focusing on modeling of complex or high-yielding assets in asset adequacy testing (AAT). This request relates to the increasing use of complex investments to back reserves, and the importance of appropriately capturing the risks associated with those assets in AAT. RRC appreciates the opportunity to offer our comments. Should you have any questions, we would be glad to discuss our comments with you and the LATF members.

RRC Comments

- Overall comments:
 - We applaud these efforts. There are many unique risks associated with some of the invested assets that are increasingly being used to back insurance liabilities. As noted, many of these invested assets present unique challenges due to their complexity, but they also often represent assets that are opaque, are highly volatile from a fair value standpoint and are illiquid. While these complex investments can provide benefits to the insurer and the policyholder (typically in the form of higher yields), it is critical that the reserves (and capital) supporting the business appropriately take the additional risk exposures into account.
 - We support doing this in the near term via an Actuarial Guideline. We would also encourage LATF and the NAIC to consider how to incorporate guidance more directly into the valuation manual and into the risk-based capital formula.
 - We believe that current guidance to Appointed Actuaries (in Actuarial Standards of Practice that apply to AAT) already require appropriate inclusion of asset risks in AAT; however, more specific guidance in the form of an AG may be helpful to Appointed Actuaries and may improve consistency of industry practice and policyholder protection.
- Regarding Product Scope (Should the focus be on assets supporting fixed annuities or assets supporting all life insurer liabilities subject to AAT?)
 - We believe the scope should include all products.
 - We see use of complex investments backing life insurance and long term care, and see no reason why the associated risks should be considered in fixed annuity reserves but not other types of products.

- Regarding Size Scope (Should only life insurers or blocks exceeding a certain size threshold be subject to the actuarial guideline?)
 - We do not think the size of the insurer or the block should impact application of the guidance. If an insurer is willing to take the risk, we believe the insurer should be able to appropriately understand the unique nature of some of these assets and reserve for the risk.
 - That said, if complex assets are less than some defined immaterial percentage of the total assets backing the reserves or are very short duration in nature, limiting application of the guidance might be appropriate.
- Regarding Constraints or Documentation (Should the actuarial guideline focus on establishing constraints related to the modeling of complex or high gross yield assets (impacting AAT results) or providing detailed documentation and sensitivity testing on the modeling of such assets (potentially not impacting AAT results)?)
 - We believe that a higher risk profile for any invested assets should result in additional provision for risk in the reserve analysis, and therefore we favor a “constraints” approach. We also believe that this approach is aligned with existing guidance, which requires that reserves cover moderately adverse conditions.
 - In addition to specific constraints, inclusion of explicit disclosure requirements and/or sensitivity tests may also be helpful. For example, many of the “newer” investments do not have as much historical data for use in setting assumptions regarding investment yield, cash flow profile, default or prepayment, thereby making both provisions for adverse deviation and sensitivity testing important. The availability of reliable data may also be informative in determining what would be appropriately considered “moderately adverse”.
- Regarding Effective Date (Is a year-end 2022 effective date for the actuarial guideline reasonable, or should some guidance apply before that date?)
 - Since there is current guidance (albeit not necessarily prescriptive) in ASOPs, and new guidance should generally be implemented with sufficient notice so that companies can make good faith efforts to comply, we believe that year-end 2022 is sufficient.
 - We also recognize that to develop, vet, and adopt good guidance on this complex topic takes time, so it may also make sense to adopt interim guidance for year-end 2022, and further enhance that guidance for subsequent year ends.

Life Actuarial (A) Task Force
Exposure Draft

Please send comments to Reggie Mazyck (RMazyck@NAIC.Org)
by close of business December 1

Consider concept of an actuarial guideline focusing on modeling of complex or high-yielding assets in asset adequacy testing.

Development of an actuarial guideline focusing on modeling of complex or high-yielding assets in asset adequacy testing (AAT), with particular interest in receiving feedback on the following issues:

- **Product scope:** Should the focus be on assets supporting fixed annuities or assets supporting all life insurer liabilities subject to AAT?
Investing in complex and/or high-yielding assets is not a stand-alone issue for fixed annuity products. Providing guideline for all life insurer liabilities subject to AAT is not expected to dilute the focus for assets supporting fixed annuities.

Formatted: No underline

- **Size scope:** Should only life insurers or blocks exceeding a certain size threshold be subject to the actuarial guideline?
When the actuarial guideline is specifically applied to assets, it should not be limited to certain size of business. Smaller companies asset assumptions should follow the same guideline as it applies to larger companies.

- **Constraints or documentation:** Should the actuarial guideline focus on establishing constraints related to the modeling of complex or high gross yield assets (impacting AAT results) or providing detailed documentation and sensitivity testing on the modeling of such assets (potentially not impacting AAT results)?

The actuarial guideline should focus on establishing constraints related to the modeling of complex or high gross yield assets (impacting AAT results), which should include detailed documentation, and supplemental sensitivity tests. The regulating actuary who review the actuarial memorandum may not have adequate experience in assessing the risk underlying these complex/ high yielding assets. Simply relying on documentation and sensitivity test does not give sufficient support for regulators to review and challenge the assumptions used.

- **Effective date:** Is a year-end 2022 effective date for the actuarial guideline reasonable, or should some guidance apply before that date?
Year-end 2022 effective date for the actuarial guideline appears reasonable. Providing guidance before that date would imply year-end 2021 effectiveness, which would seem too rush and not much time for industry to react.

In addition, I wonder if LATF would be interested in expanding the scope to cover all assets including the non-callable corporate bonds with regularly updated assumptions for PBR purposes. These should cover

a) if reinvestment strategy should be consistent with the company's investment strategy for the relevant block of business.

b) If default assumptions should be allowed to be less than Table A less margin.

Life Actuarial (A) Task Force
Exposure Draft

Please send comments to Reggie Mazyck (RMazyck@NAIC.Org)
by close of business December 1

c) If current spreads and ultimate spread should be allowed to be higher than the VM-20 spreads as published in Table F and Table G for Current Benchmark Spreads and Table H & Table I for Long Term Spreads.

d) If a grading period is used to bridge current spread and ultimate spread, what range of grading period would be considered acceptable in light of the four year prescribed in VM-20.



DATE: December 1, 2021

FROM: Aaron Sarfatti, Chief Risk Officer

SUBJECT: Equitable Comments on the concept of developing an Actuarial Guideline on modeling complex or high-yielding assets in Asset Adequacy Testing (AAT).

Equitable appreciates the opportunity to comment on the concept of developing an Actuarial Guideline on modeling of complex or high-yielding assets in Asset Adequacy Testing (AAT). We support an Actuarial Guideline to govern spread recognition as a first step in a necessary broader effort to establish consistent national standards for AAT. Our viewpoints are summarized in the table below:

Question	Recommendation	Rationale
Should the AG <i>constrain</i> spreads or require <i>enhanced documentation</i> ?	Constrained via guardrails	<ul style="list-style-type: none"> Spread forecasts are inherently subjective; guardrails govern against “unbridled optimism” in judgments Guardrails simplify governance and improve comparability across firms (within and across states) Documenting subjective forecasts in detail is a low value activity for both regulators and industry
When should be the effective date?	Year-end 2022	<ul style="list-style-type: none"> Design of a simple guardrail is readily achievable Field testing of impact should be straightforward and readily estimable by firms (e.g. DV01 estimate)
What other reforms to AAT should be pursued? ¹	Introduce an aggregate investment spread cap equal to the “A- rated” corporate bond spread + a modest illiquidity premium	<ul style="list-style-type: none"> Subjectivity and inconsistency in spread recognition applies to all investment classes Aggregate spread cap best ensures resilience of reserves to “above market” spread recognition “A rated” bond spread is the emergent standard for spread recognition in other public accounting and regulatory regimes (FASB, IAIS, VM-22, etc.) Illiquidity allowance reflects “benefit of doubt” for superior spread generation through private credit
	Harmonize capital markets scenarios (interest rates, equity returns)	<ul style="list-style-type: none"> Regulators should enforce a consistent reserve standard for common risk factors US Treasury rates and public equity returns are common risk factors across all entities

¹ For further details on additional proposed reforms please reference “Illuminating the “Low Interest Rate Peril”—A Blueprint to Recalibrate the U.S. Life Insurance Reserve and Capital Framework Amid Global Low Interest Rates”. The Financial Reporter, July 2020. <https://www.soa.org/globalassets/assets/library/newsletters/financial-reporter/2020/july/fr-2020-iss-07.pdf>

	Simplify and shorten stress scenarios to “stressed intrinsic value”, with ALM actions permitted	<ul style="list-style-type: none"> • Intrinsic value approach reduces company burden by obviating complex reinvestment modeling • Short-term stresses allow companies and regulators to focus on priority AAT measure: reserve adequacy in light of ALM mismatches and hedging policies
--	---	---

For background, Equitable views the life insurance industry and regulatory system as having arrived at a critical juncture that calls for increased reliance on a robust AAT framework:

- Sustained low interest rates has manifested in a material gap between the (i) market yields at which firms can reinvest maturing investments and (ii) Stat Valuation Rates that drive reserves.
- Consequently, the life industry has begun to increase investment risk concentrations both directly and through reinsurance, with structured securities a common tool for increasing yields; industry surveys have further shown that actuarial judgments regarding what constitutes “moderately adverse” future interest rate scenarios are further diverging in consistency - in particular, whether the continuation of prevailing market yields qualifies as moderately adverse
- The result is a rising reliance on AAT as the *de facto* reserving standard for many life insurers, which today is inconsistent in its governance of high sensitivity input judgments such as the projected recognition of investment spreads, among other factors
- Moreover, the prevalence of market-based regulatory regimes is increasing internationally, and there are growing calls for the NAIC Model Law and RBC system to demonstrate substantive equivalence with such regimes to avoid the imposition of supplemental regimes on select firms.

These combined factors increase the imperative to enact standards that boost comparability across firms, necessary to ensure the resilience of reserves in a low interest rate environment. Maintaining the current AAT framework, with its inconsistency across firms and non-standard use of inputs that are common to all financial markets (e.g. US Treasury rates), is no longer in the best interests of the US regulator community. A broader-based reform of AAT as recommended represents the most pragmatic way both to introduce necessary consistency across firms and on common market factors, as well as demonstrate substantive equivalence with international regimes that staves off the imposition of supplementary regulatory regimes (like the International Capital Standard) that could challenge industry capital management.²

So, in summary, Equitable fully supports the plan to create a formal Actuarial Guideline to ensure companies do not assume complex assets generate high gross returns with little deduction for risk – but also to encourage regulators to consider this as simply the first step in a broader reform necessary to harmonize AAT across firms irrespective of their state of domicile.

Below are our thoughts on specific items requested for comment in the exposure; on the questions of product and size scope, our views are appropriately captured in the ACLI comment letter. We note that the exposure was limited and so would appreciate any additional information that can be shared to help us better address and understand regulator concerns.

Constraint or Documentation:

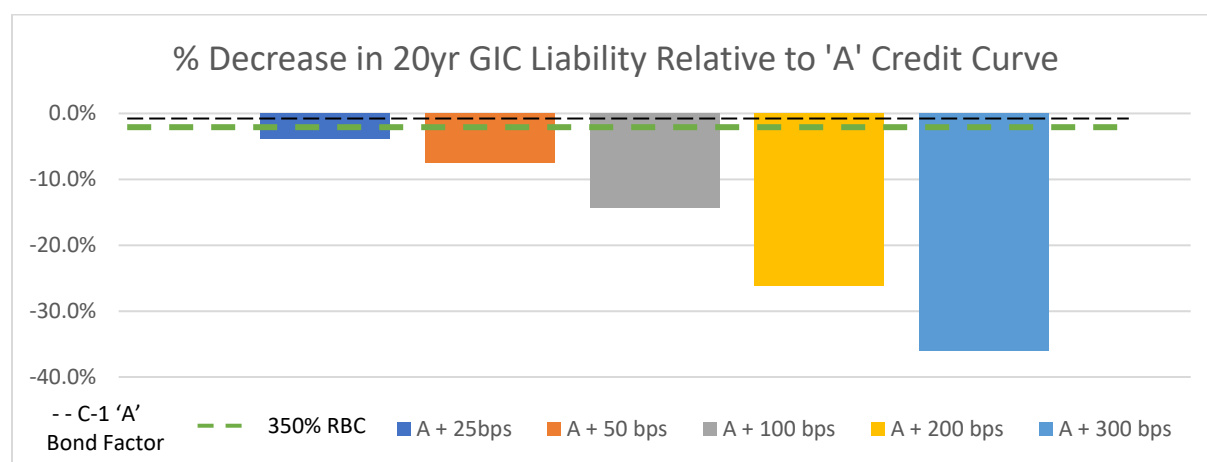
Question: Should the actuarial guideline focus on establishing constraints related to the modeling of complex or high gross yield assets (impacting AAT results) or providing detailed documentation and sensitivity testing on the modeling of such assets (potentially not impacting AAT results)?

² See IAIS HLP1, a requirement for reciprocal regimes (including the US-proposed Aggregation Method) to demonstrate consistent movements in reserves and capital with the market-based ICS design.

Equitable Perspective: Equitable believes that formal guidance should establish guardrails related to the modeling of complex or high yielding assets. Imposing a constraint rather than a documentation requirement would provide the issue with the appropriate focus. We note that in the current low interest rate environment, AAT requirements frequently become the de facto reserve requirement, validating the importance of this topic and need for formal guardrails.

Equitable suggests a credit spread cap of a single- “A-“corporate bond spread plus a modest illiquidity premium as a potential guardrail for such complex assets. We firmly believe that companies should not be incentivized and rewarded for taking on higher investment risk without a commensurate reserve increase, and this guardrail would ensure that reserves are appropriately risk adjusted. We note that the single-A curve is widely recognized in the insurance industry as an appropriate measure of fair value (e.g., GAAP LDTI, VM22, etc.), and we believe that adding a modest illiquidity premium is appropriate to reflect the ability of insurers to realize such a premium given the long-dated nature of their liabilities.

Credit spread limits are an important part of a principle-based reserving framework. Such limits ensure reserves do not rely on excessive amounts of credit spread in excess of industry investment and pricing practices. As an example of the significance of spread assumptions within AAT reserves, we examined the market value AAT requirement of a 20-year guaranteed investment contract (GIC) liability as of December 2020. The chart below shows the results, namely that the market value of liabilities significantly decreases as the assumed asset spread increases. While a portion of this risk is contemplated in the Risk-Based Capital framework, the C-1 charges are not significant enough to offset the impacts on reserves shown below at higher spread levels. Assuming elevated spreads can cause insurers to hold insufficient AAT reserves, thereby impairing their claims-paying ability.



If the guideline is not retained for reserving, we propose that it be retained for dividend setting practices. This will result in companies retaining necessary capital, instead of paying dividends, to pay for future policyholder obligations.

Additional Equitable Perspective on AAT:

In addition to the potential introduction of guardrails on the spreads of complex or high yielding assets assumed in cash flow testing discussed above and contemplated in the NAIC exposure, Equitable posits that broader AAT reform within the NAIC regulatory framework is necessary. In particular, this includes some basic standardization of the interest rate scenario(s) tested in AAT and an aggregate guardrail on spread recognition across *all* asset classes. As noted above, in the current interest rate environment AAT requirements frequently become the binding reserve requirement, thus necessitating the need for some guardrails on the most important inputs into the AAT calculation.

Effective Date:

Question: Is a year-end 2022 effective date for the actuarial guideline reasonable, or should some guidance apply before that date?

Equitable Perspective: Equitable supports a year-end 2022 goal for an Actuarial Guideline.

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

Sincerely,

A handwritten signature in cursive script, appearing to read "Aaron Sarfatti".

Aaron Sarfatti, ASA

Chief Risk Officer, Equitable



AMERICAN ACADEMY of ACTUARIES

Objective. Independent. Effective.™

December 2, 2021

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

Re: Consider concept of an actuarial guideline on asset adequacy testing focusing on modeling of complex or high-yielding assets

Dear Mr. Boerner,

The American Academy of Actuaries¹ Life Practice Council (LPC) has formed an ad hoc task force² to provide comment on the exposure of LATF's proposal on consideration of a conceptional actuarial guideline on asset adequacy testing (AAT) with a comment period ending December 1.

Before we respond to the specific questions that were included in the exposure, we would like to note that the ad hoc task force was unable to form an opinion on many of the issues raised because we did not have a clear understanding of the specific practices giving rise to regulators' concerns.

We would also like to note that several Actuarial Standards of Practice (ASOPs) currently exist for actuaries when modeling complex or high-yielding assets in AAT. Specifically, the actuary should:

- Identify the assets chosen for the analysis (ASOP No. 7);
- Consider any known factors that are likely to have a material effect on asset cash flows and/or the insurer's investment strategy (ASOP No. 7).
- Choose assets that are appropriate for the analysis (ASOP No. 22);
- Use assumptions that are appropriate for the analysis (ASOP No. 22);
- Document the assumptions used and provide supporting rationale for the appropriateness of the assumptions (ASOP No. 22);
- Disclose the assets chosen and provide supporting rationale for the appropriateness of the assets (ASOP No. 22³);
- Review data for reasonableness, consistency and limitations, and provide appropriate disclosures (ASOP No. 23);

¹ 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.

² The members of the ad hoc task force are listed at the end of this comment letter.

³ Version that will be effective June 1, 2022.

- Identify the methods, procedures, assumptions and data used with sufficient clarity as to allow for an objective appraisal of the reasonableness of the actuary's work (ASOP No. 41);
- Confirm that the selected model reasonably meets the intended purpose (ASOP No. 56);
- Make reasonable efforts to confirm that the model structure, data, assumptions, governance and controls, and model testing and output validation are consistent with the intended purpose (ASOP No. 56); and
- Understand important aspects of the model being used, as well as known weaknesses and limitations (ASOP No. 56).

Nevertheless, we recognize that there may be differences among actuaries in this evolving area, and a regulatory effort to promote more transparency around actuarial practices and uniformity in the related disclosures would be a positive step. For such an effort, we note that revisions to VM-30 may be preferable to a new actuarial guideline because VM-30 contains the Actuarial Opinion and Memorandum Regulation (AOMR) requirements for AAT.

With those comments in mind, responses to the specific questions that were included in the exposure are provided below.

Product scope: Should the focus be on assets supporting fixed annuities or assets supporting all life insurer liabilities subject to AAT?

We believe the focus should be on assets supporting all liabilities subject to AAT because considerations and best practices for the modeling of the assets would be applicable regardless of the liabilities supported by those assets.

Size scope: Should only life insurers or blocks exceeding a certain size threshold be subject to the actuarial guideline?

We believe an appropriate threshold would be based on the materiality of the assets to the AAT because a small exposure can be material to the AAT. Thus, all insurers or blocks with a material percentage of these assets should be subject to the requirements, regardless the size of the insurer or block.

Constraints or documentation: Should the actuarial guideline focus on establishing constraints related to the modeling of complex or high gross yield assets (impacting AAT results) or providing detailed documentation and sensitivity testing on the modeling of such assets (potentially not impacting AAT results)?

As stated above, a regulatory effort that is focused on disclosures would be beneficial. Such disclosures would promote more transparency and uniformity and could stimulate more robust actuarial analysis in support of the disclosures.

We are unable to comment on the establishment of constraints because we do not have a clear understanding of the specific practices giving rise to the regulators' concerns. We would be pleased to provide comments on such an approach if LATF outlines specific concerns.

Effective date: Is a year-end 2022 effective date for the actuarial guideline reasonable, or should some guidance apply before that date?

A year-end 2022 effective date seems reasonable if LATF establishes disclosure requirements; however, more time may be needed for implementation if LATF establishes constraints.

In summary, we note that several ASOPs apply to the actuary when modeling complex or high-yielding assets in AAT, and a regulatory effort that brings more transparency to these practices would be a positive development. Such an effort should apply to the assets regardless of the liabilities they support and should apply to assets that are material to the AAT. Focusing on disclosure requirements would promote more transparency and uniformity of the disclosures and could stimulate more robust actuarial analysis in support of the disclosures.

Thank you for your consideration of these comments. Please contact Academy life policy analyst, Khloe Greenwood (greenwood@actuary.org), with any questions.

Jason Kehrberg, MAAA, FSA
Chair, Ad Hoc Task Force of the Life Practice Council

Nancy Bennett, MAAA, FSA
Laura Hanson, MAAA, FSA
Len Mangini, MAAA, FSA
Tricia Matson, MAAA, FSA
John Miller, MAAA, FSA
Craig Morrow, MAAA, FSA
Link Richardson, MAAA, FSA
Ben Slutsker, MAAA, FSA
Mike Ward, MAAA, FSA

Brian Bayerle
Senior Actuary

December 1, 2021

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

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

Re: Proposed Actuarial Guideline on Complex Assets in 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 to address the modeling of complex assets in Asset Adequacy Testing (AAT).

ACLI encourages the task force to provide a clear, concise, public statement of the regulatory concern that would guide drafting efforts and facilitate the assessment of any proposed solutions. Based on public comments to date, ACLI understands that regulators are concerned about assumed projected yields, used in the context of asset adequacy testing, for certain complex and high-yielding assets that some companies have used to back in-force blocks of fixed annuities.

Given our current understanding, we believe that a prudent initial approach involves developing additional disclosures in VM-30 instead of the proposed Actuarial Guideline. For example, disclosures could include details of the assets, describe characteristics including credit and liquidity, and explain modeling practices, including the development of projected returns. Such disclosures would also provide consistency across the states. ACLI welcomes the opportunity to assist in the development of appropriate and meaningful disclosures.

We believe that disclosure is preferable to an actuarial guideline at this stage for several reasons. First, we believe well-designed disclosures provide regulators with greater insight and allow for productive discussions between regulators and appointed actuaries. Second, enhanced disclosures encourage appointed actuaries to devote additional attention and provide additional support and justification to modeling practices. Finally, disclosures inform the development of subsequent measures, if any are necessary.

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.

We have the following specific comments regarding the exposed questions:

Product scope: Should the focus be on assets supporting fixed annuities or assets supporting all life insurer liabilities subject to AAT?

ACLI response: If regulators are concerned about the modeling of certain categories of assets, then the material use of assets to back any line of business is more relevant than the fact that such assets are being used to back any particular product line. Additionally, AAT is by definition based on a holistic view of each company's balance sheet and is not specific to a particular line of business such as fixed annuities.

Size scope: Should only life insurers or blocks exceeding a certain size threshold be subject to the actuarial guideline?

ACLI response: We believe that it is appropriate to develop size/materiality thresholds for both the size of the block and the material use of complex/high-yielding assets. Immaterial exposures should be exempt from any new requirements.

Constraints or documentation: Should the Actuarial Guideline focus on establishing constraints related to the modeling of complex or high gross yield assets (impacting AAT results) or providing detailed documentation and sensitivity testing on the modeling of such assets (potentially not impacting AAT results)?

ACLI response: Given our current understanding of the concern, ACLI believes regulators should focus on detailed documentation and disclosures around the use of such assets as discussed above. Our thinking may evolve as we better understand the concerns of the regulators.

Effective date: Is a year-end 2022 effective date for the Actuarial Guideline reasonable, or should some guidance apply before that date?

ACLI response: Given our current understanding of the regulatory concern, we believe it is most appropriate to develop appropriate disclosures in VM-30, which would complement the existing documentation requirements already in VM-30. Given the lead time required for changes to the Valuation Manual, revised requirements would be effective for the 2023 Valuation Manual. If regulators believe the disclosures are necessary sooner, the task force can release guidance along with the adoption of the APF. Additionally, state regulators can request a variety of additional information from carriers using existing authority.

We appreciate the consideration of our comments and look forward to discussing on a future call. Thank you.

Sincerely,

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

cc: Reggie Mazyck, NAIC

Agenda Item 8

Hear an Update on Experience Reporting Data Collection

Update on Mortality Experience Data Collection

Pat Allison, FSA, MAAA
December 8, 2021



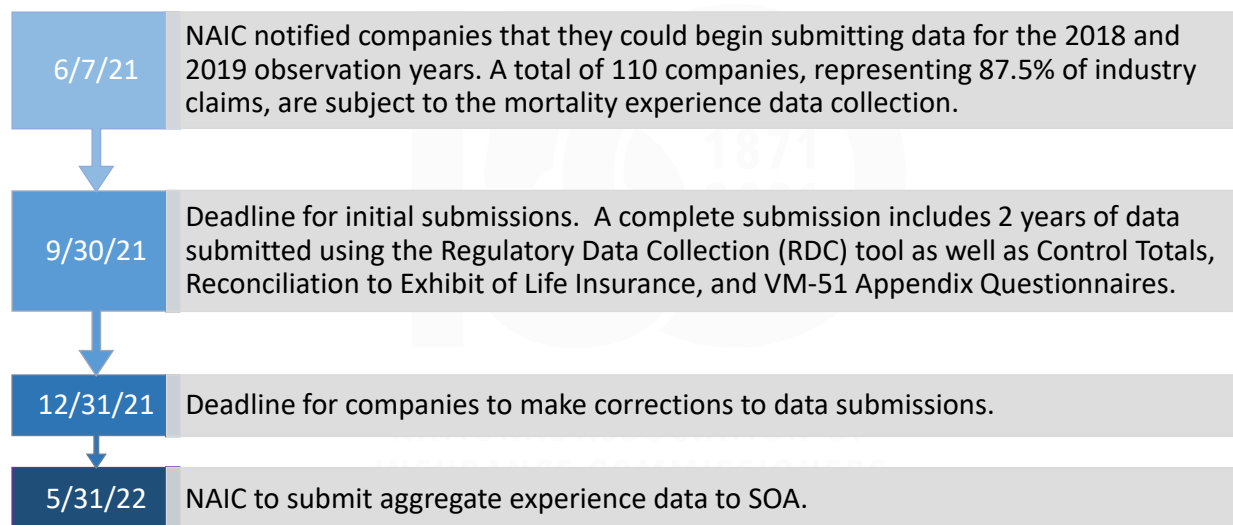
1

Agenda

- Current Data Collection Timeline
- NAIC Data Review Process and Status
- Recommended Deadline Extension

2

2021 Experience Data Collection Timeline



© 2021 NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

3

3

Data Review Process and Status

1. Data submissions - RDC Tool gives immediate feedback on form and format data exceptions (Example of a data exception: Smoker Status has an invalid code)
Status: 100 companies have submitted their data for the 2018 and 2019 observation years. The remaining 10 companies have uploaded their data but have not yet submitted it.
2. Control Totals and Reconciliation to Annual Statement – These serve as an inclusion controls, ensuring that all records intended to be submitted were received, and that only business in scope was submitted.
Status: The NAIC is having ongoing communication with companies regarding any control totals and reconciliations that do not match the data submission.
3. VM-51 Appendix Questionnaires – Preferred Class Structure Questionnaires, Mortality Claims Questionnaire, Additional Plan Code Form
Status: Most companies have completed these.

© 2021 NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

4

4

Data Review Process and Status (continued)

4. Rules-Based Data Validation - includes all RDC checks, plus more complex data validations (e.g., year-over-year data comparisons) added by NAIC actuarial staff. A list of the validations can be found on the NAIC website (https://content.naic.org/pbr_data.htm - Scroll down to VM-50 / VM-51 Experience Reporting). A company will need to meet a minimum threshold of acceptable data in order to be included in the aggregate file to be sent to the SOA.

Status: Initial data submissions range from 0% - 100% acceptable.

- Small companies tend to have higher percentages of acceptable data. Large companies are generally more complex. There are often many product types, multiple admin systems, and sometimes coordination is required with 3rd party administrators.
- Common reasons for lower acceptance percentages include:
 - Face Amount is missing, zero, or negative.
 - Inconsistencies in year-over-year data (e.g., changes in issue age, smoker status, or number of classes in preferred class structure)

Data Review Process (continued)

5. Field Distribution Review - checks data reasonability in accordance with VM-50 Section 4.B.8. To do this, the NAIC created approximately 150 charts and tables in Tableau to help identify potential systematic errors, unusual or unlikely reporting patterns in the data, etc. Note: Data corrections may be needed even if review step #4 indicates that 100% of the data passes the rules-based tests.

Status: Typically, companies are receiving at least 60 comments/questions for which a written response is required.

- Common questions are regarding:
 - Small face amounts (<\$5,000) – These may represent paid-up additions in some cases.
 - Preferred classes – There is confusion on how to code preferred and standard classes.
 - Underwriting type – Many companies have coded a high percentage of records as Unknown, Not Underwritten, or Underwritten with unknown fluid collection.
 - Terminations – These appear low for some companies.
 - Unlikely gender and smoker status concentrations (e.g., plan codes with 100% females)
- Note: There may be reasonable explanations for apparent data anomalies. In this case, the NAIC will keep track of company responses so that questions are not repeated in future years.

Recommendation for Deadline Extension

- The VM-51 deadline for corrected data submissions is 12/31/21.
- NAIC staff recommends a deadline extension to 3/31/22 to allow companies more time to review NAIC feedback, provide responses, and make corrections as needed.
 - It is anticipated that companies may need to submit more than one corrected file. We encourage companies to resubmit as soon as they feel they have addressed the data exceptions and questions from the data validation and field distribution review.
- A deadline extension is not expected to delay delivery of aggregated data to the SOA by 5/31/22.

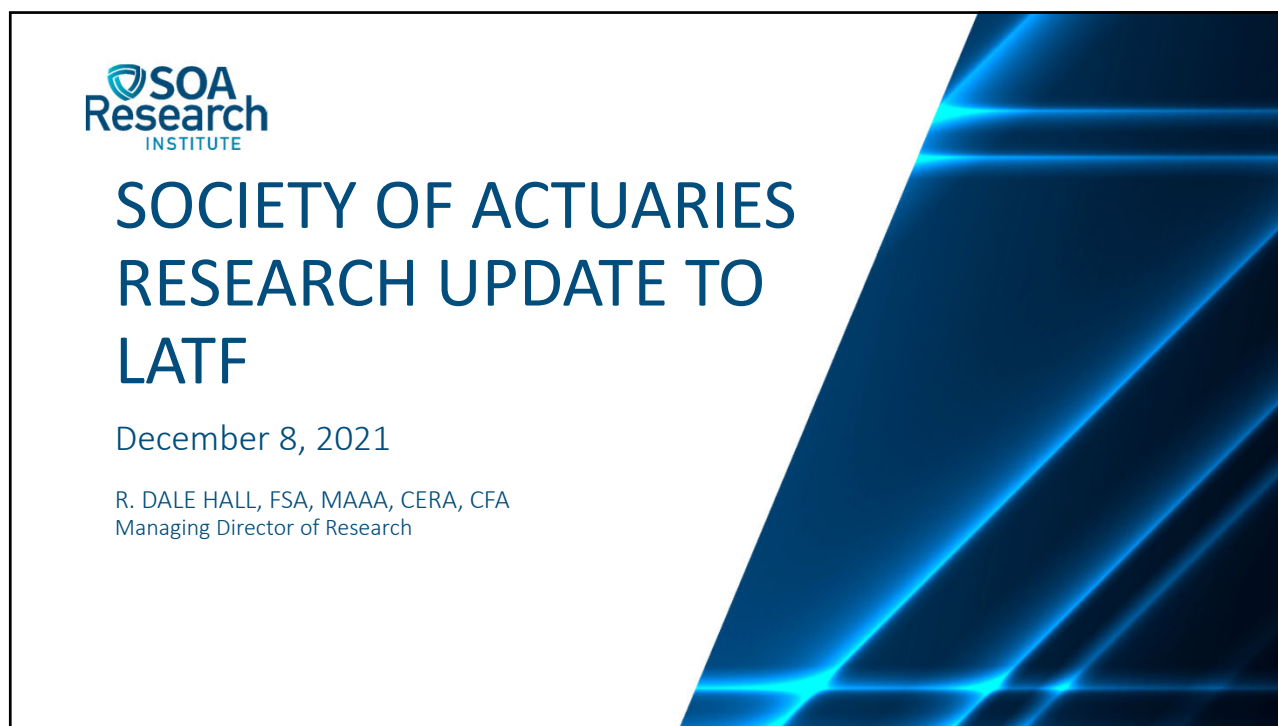
Agenda Item 9

Hear an Update on Future Mortality Improvement Factors

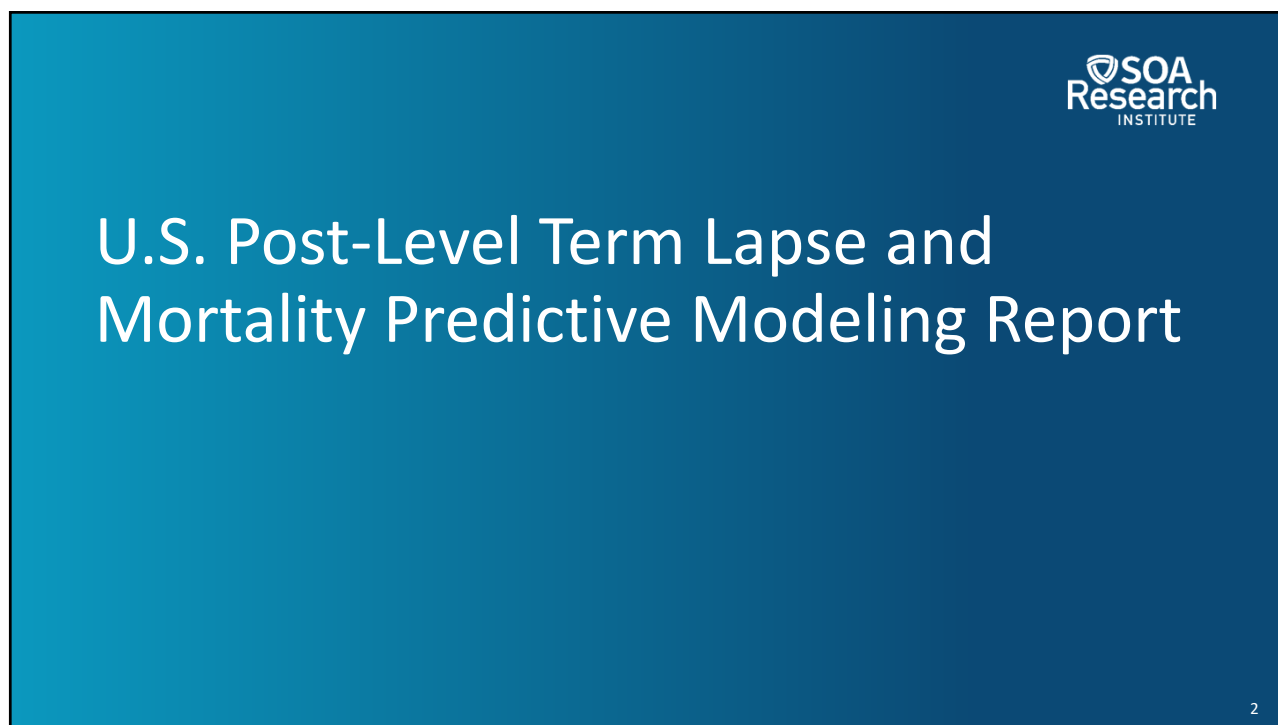
Materials to be provided in a supplemental packet at a later date

Agenda Item 10

Hear an Update on SOA Research and Education



1



2

U.S. Post Level Term Lapse and Mortality

- Previous PLT report published in 2014
 - Included data from 37 companies
 - 317,000 policy years in duration 11
 - Did not include significant predictive modeling
- Current study began in January, 2019
 - Included data from 25 companies
 - 737,000 policy years in duration 11
 - Enough experience to:
 - Compare graded vs jump to ART premium experience
 - Analyze PLT experience for 15-year LT policies



3

U.S. Post Level Term Lapse and Mortality

- Key findings
 - Shock lapse at the end of the term is the pivotal variable
 - Other variables have greater impact for lower premium increases (esp. up to 3x premium increases)
 - Lapses in each duration are higher if the shock lapse is higher
 - For graded, subsequent premium jumps in the PLT period were an important driver of lapsation
 - Mortality deterioration in PLT was higher for higher shock lapses
 - For higher shock lapse ranges, the mortality deterioration wore off quickly; this was not the case for graded or low shock lapses



4

U.S. Post Level Term Lapse and Mortality

- Modeling approach
 - Use Generalized Linear Regression to build a model for the shock lapse at the end of the level term
 - Include all variables and interactions found to be significant
 - Add the predicted shock lapse as a new variable to the dataset
 - Use the data, including the predicted shock lapse, to build separate models (Step 2 Models) for experience during the PLT period for:
 - Lapse experience
 - Mortality experience



5

U.S. Post Level Term Lapse and Mortality

- Link to Report: <https://www.soa.org/resources/research-reports/2021/u.s.-post-level-term-lapse-and-mortality-predictive-modeling/>
- Tableau Link: <https://tableau.soa.org/t/soa-public/views/USPost-LevelTermPredictiveModelingInteractiveTool/1-ShockLapseOverview>



6



Analysis of Historical U.S. Population Mortality Improvement Drivers Since 1950

7

7

Research Objective

- Authors: Andres Villegas, lead researcher
- Builds on earlier SOA-sponsored project “Components of Historical Mortality Improvements” (Li et al., 2017a,b).
- Identifying significant mortality drivers in the U.S. population that have a high likelihood of being linked to the improvement or deterioration of mortality by age, period and cohort (APC) components.
- Quantifying possible correlations using cause of death and other relevant data sources and quantifying the likely degree of causality between each APC mortality improvement component and the relevant extrinsic drivers.



8

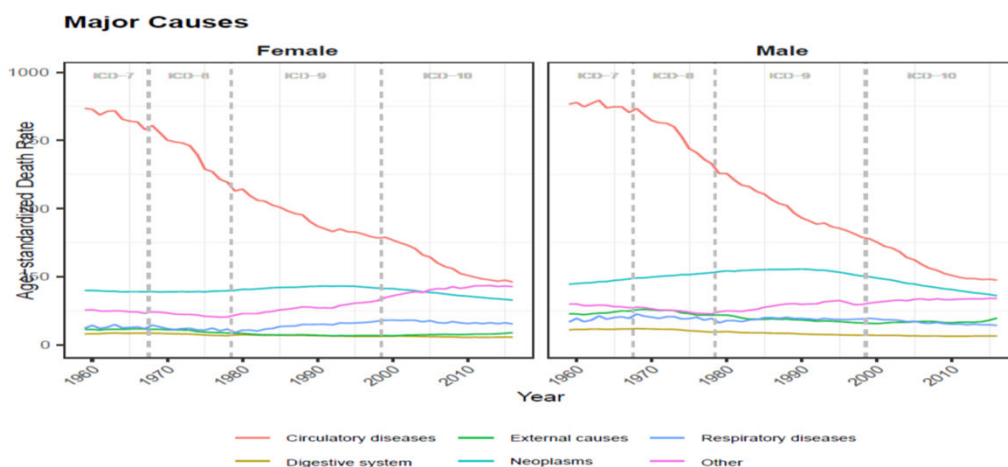
Data Source

- HMD Cause of Death Data 1959-2016
- 6 broad causes of death - circulatory diseases, neoplasms, respiratory diseases, digestive system diseases, external causes and other causes.
- 26 subcategories
- 9 Risk factors associated with mortality – AIDS and tuberculosis, alcohol abuse, dementia and Alzheimers, diabetes and obesity, drug dependency, homicide, hypertensive disease, self harm, smoking



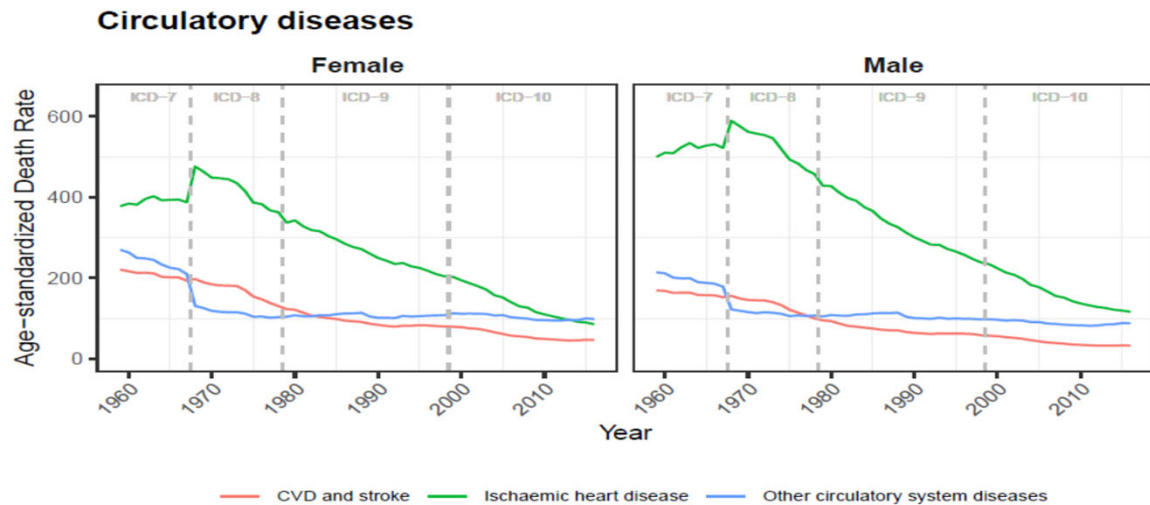
9

Age Standardized Death Rates



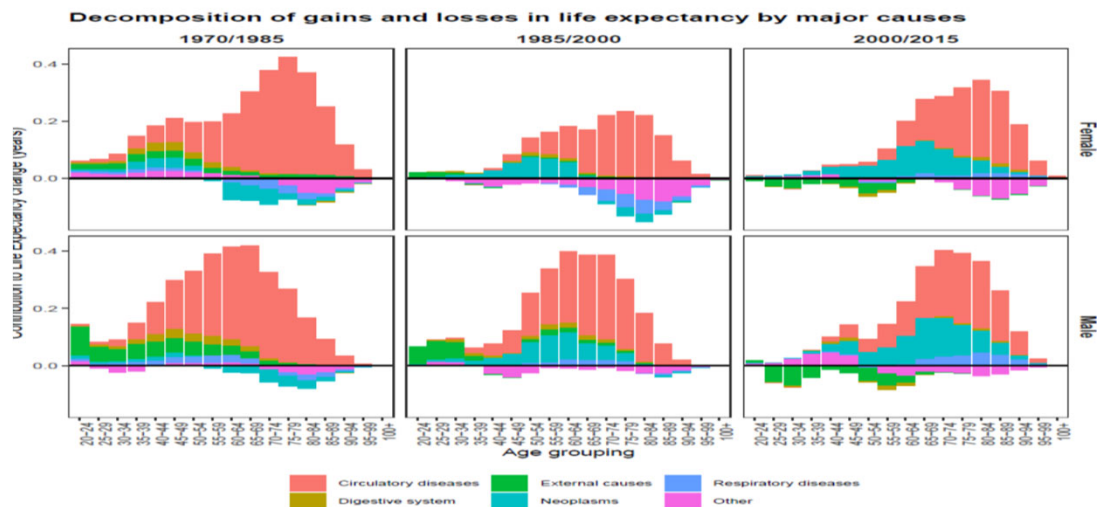
10

Age Standardized Death Rates - Subcause



11

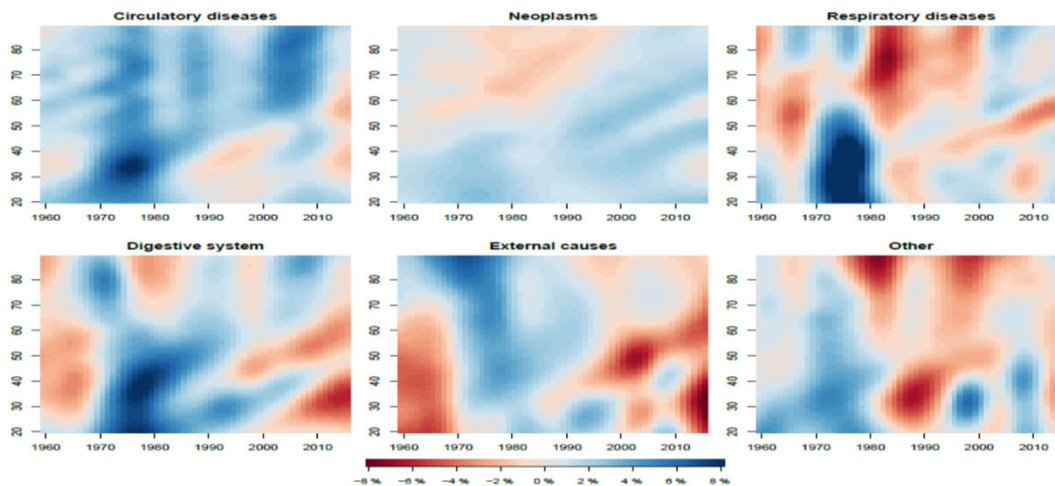
Life Expectancy Decomposition



12

Heatmaps

Figure 4.13: Heatmaps for broad causes of death, ages 20–89, years 1959–2016, females



Link to Report

- <https://www.soa.org/resources/research-reports/2021/analysis-historical-us-drivers/>



Additional SOA Life Research

15

15

SOA Experience Studies

Project Name	Objective	Link/Expected Completion Date
2000-2017 Post Level Term Mortality and Lapse - Machine Learning Report	Draft a report regarding the PLT machine learning analysis that was done; this report will supplement the main report.	https://www.soa.org/resources/research-reports/2021/us-post-level-term-lapse-and-mortality-predictive-modeling/
2000-2019 U.S. Historical Population Mortality Rates	Publish unsmoothed SSA-Style historical mortality rates for 2000-2019.	https://www.soa.org/resources/research-reports/2021/us-pop-mort-rates-2000-2019/
2016-18 Fixed Indexed Annuity Study	Examine lapse and the utilization of guaranteed living withdrawal benefit options on fixed index annuity policies under a Joint SOA/LIMRA project and release Tableau visualizations with the observations from the study.	https://www.soa.org/resources/experience-studies/2021/fixed-indexed-annuity-experience-study-policy-years-2016-2018/
2018 Variable Annuity Guaranteed Living Benefit Utilization Study	Examine the utilization of guaranteed living benefit options on variable annuity policies under a Joint SOA/LIMRA project.	https://www.soa.org/research/topics/2018-variable-annuity-guaranteed-living-benefits-utilization/
2020 U.S. Population Mortality - Preview	Complete an analysis of 2020 U.S. population mortality using the CDC's quarterly rapid release data.	https://www.soa.org/resources/research-reports/2021/us-population-observations-preview/
2020 U.S. Population Mortality - Preview Update	Develop AG38 mortality improvement assumptions for YE 2021.	https://www.soa.org/resources/research-reports/2021/individual-life-insurance-mortality-improvement-scale-recommendation/
2021 Life Mortality Improvement	Complete a mortality study assessing the impact of COVID-19 on Individual Life Insurance.	https://www.soa.org/resources/experience-studies/2021/covid-19-life-mortality-study/
COVID-19 Individual Life Mortality Study - Experience Study Report - 2020 Q3	Update the AAA Economic Scenario Generator Annually.	https://www.soa.org/resources/tables-calcs-tools/research-scenario/
Economic Scenario Generator - 2020 update	Develop the Generally Recognized Expense Table (GRET) for 2022.	https://www.soa.org/resources/research-reports/2020/2022-gret-recommendations/
GRET for 2021	Complete an update on a mortality study assessing the impact of COVID-19 on Group Life Insurance.	https://www.soa.org/resources/experience-studies/2021/group-life-covid-19-mortality/
Group Life COVID-19 Mortality Survey Update - Report	Complete a mortality study assessing the impact of COVID-19 on Individual Life Insurance.	https://www.soa.org/resources/experience-studies/2021/covid-mortality-update-2020-4th-qtr/
COVID-19 Individual Life Mortality Study - Experience Study Report - 2020 Q4	Draft a report updating the ILEC mortality experience reporting for 2017.	11/30/2021
ILEC Mortality Experience Report Update for 2009-2017	Complete a survey to learn how companies are reacting to the slowdown in the level of mortality improvement within the general population.	12/30/2021
Mortality Improvement Survey	Complete an update on a mortality study assessing the impact of COVID-19 on Group Life Insurance.	1/31/2022
Group Life COVID-19 Mortality Survey Update - Report	Explore observations from the release of the 2020 U.S. population mortality data.	1/31/2022
US Population Mortality Observations: Updated with 2020 Experience	Examine the mortality experience from 2011-2015 in deferred annuity contracts and release a report with the findings and a database with the experience data.	2/28/2022
2011-2015 Deferred Annuity Mortality Study		



16

SOA Practice Research & Data Driven In-house Research

Project Name	Objective	Link/Expected Completion Date
2020 Emerging Risks Survey	Tracks the trends and thoughts of risk managers on emerging risks across time.	https://www.soa.org/resources/research-reports/2021/14th-annual-survey/
Deep Learning for Liability-Driven Investments	Explores the possibility of using deep learning and reinforcement learning techniques to improve investment decision-making for pension funds and life insurance companies.	https://www.soa.org/resources/research-reports/2021/liability-driven-investment/
Human Mortality Database - 2019 Projects-Interstate mortality in the United States	Enhances the Human Mortality Database by focusing on state level mortality tables and expanding causes of death mortality tables for more countries.	https://www.soa.org/resources/research-reports/2021/interstate-variations-in-mortality-in-the-united-states-1959-2018/
Managing Investment Risks of Insurance/Annuity Contractual Designs	Develop a framework for quantifying and analyzing various forms of contractual designs and their risk management techniques.	https://www.soa.org/resources/research-reports/2021/contractual-designs/
MIM-2021 Update	Update MIM-2021 for RPEC model integration.	https://www.soa.org/resources/research-reports/2021/mortality-improvement-model/
Modelling and Forecasting Cause-of-Death Mortality by Socio-Economic Factors	Develop mortality projection models to analyze and forecast mortality by cause of death and socio-economic factors.	https://www.soa.org/resources/research-reports/2021/modelling-and-forecasting-cause-of-death-mortality-by-socioeconomic-factors/
Predictive Analytics for Early Detection of Insurer Insolvency	Develop market-based insolvency prediction model to detect financially distressed insurers at an early stage.	https://www.soa.org/resources/research-reports/2021/early-detection-insolvency/
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.	12/9/2021
Impact of Ins & Ret Products on Wealth Inequality	Quantify the impact of a variety insurance, retirement and financial products and services on the wealth gap across various racial and ethnic groups in the U.S.	1/31/2022
Mortality Improvement Trends Analysis	Identify how mortality improvement varies by driver.	1/31/2022
U.S. Cause of Death Mortality By Socioeconomic Category	Develop US age-adjusted death rates by cause of death and socioeconomic category from 1982-2018.	1/31/2022



17

Presentation Disclaimer

Presentations are intended for educational purposes only and do not replace independent professional judgment. Statements of fact and opinions expressed are those of the participants individually and, unless expressly stated to the contrary, are not the opinion or position of the Society of Actuaries, its cosponsors or its committees. The Society of Actuaries does not endorse or approve, and assumes no responsibility for, the content, accuracy or completeness of the information presented. Attendees should note that the sessions are audio-recorded and may be published in various media, including print, audio and video formats without further notice.



18



Agenda Item 11

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

Life Practice Council Update

Laura Hanson, MAAA, FSA
Outgoing Vice President



© 2021 American Academy of Actuaries. All rights reserved.
May not be reproduced without express permission.

Life Actuarial Task Force (LATF) Meeting—December 8, 2021

1

Agenda

- Webinars and Events
- Recent Activities and Deliverables
- Ongoing Efforts

2



© 2021 American Academy of Actuaries. All rights reserved.
May not be reproduced without express permission.

2

Webinars and Events

□ Recent

- *PBR Boot Camp: The Regulatory Perspective* (Oct 13)
- Academy Annual Meeting (Nov 4-5)
 - Life breakout sessions on reinsurance, long-term care, and registered index-linked annuities

□ Upcoming

- Winter 2022 Life Policy Update Webinar (January 2022)

3



3

Recent Activity

- Presented recommendations on updated C-2 mortality factors to the NAIC's Life Risk-Based Capital Working Group
- Submitted comments to the Actuarial Standards Board on the exposure draft of ASOP No. 24
- Published an exposure draft on considerations regarding Market Risk Benefits
- Published an updated version of the Life Illustrations Practice Note

4



4

Recent Activity (continued)

- ❑ Submitted comments to LATF on Asset Adequacy Testing modeling
- ❑ Submitted comments to LATF on APF 2021-11
- ❑ Submitted comments to Accelerated Underwriting (A) Working Group on the charges and scope of the working group

5

5

Ongoing Activities

- ❑ Provide input on Economic Scenario Generator development
- ❑ Develop VM-22 and C-3 field study for non-variable annuities
- ❑ Publish the VM-21 Practice Note Addendum
- ❑ Publish FAQs on changes to tax reserve calculations and reporting under the federal Tax Cuts and Jobs Act of 2017

6

6

Ongoing Activities (continued)

- Provide public policy analysis on:
 - The use of annuities in retirement plans, including changes as a result of the federal SECURE* Act
 - The use of data and algorithms in risk classification and underwriting
 - Efforts to promote diversity and inclusion in the profession and in life insurance products

* Setting Every Community Up for Retirement Enhancement

7



Recent Academy Activities

- Released a major issue paper, *Big Data and Algorithms in Actuarial Modeling and Consumer Impacts*, from the Data Science and Analytics Committee
- Updated U.S. Qualifications Standards effective January 1, 2022
- Council on Professionalism and Education (CoPE)

8



Thank You

- Questions?
- For more information, please contact the Academy's life policy analyst, Khloe Greenwood, at greenwood@actuary.org.

Agenda Item 12

Discuss Any Other Matter Brought Before the Task Force

(No Materials)