LIFE ACTUARIAL (A) TASK FORCE

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The Life Actuarial (A) Task Force met in Austin, TX, Dec. 5–6, 2019. The following Task Force members participated: Kent Sullivan, Chair, represented by Mike Boerner (TX); Jillian Froment, Vice Chair, represented by Peter Weber (OH); Lori K. Wing-Heier represented by Jacob Lauten (AK); Jim L. Ridling represented by Steve Ostlund (AL); Andrew N. Mais represented by Wanchin Chou (CT); Doug Ommen represented by Mike Yanacheak (IA); Robert H. Muriel represented by Bruce Sartain and Vincent Tsang (IL); Stephen W. Robertson represented by Karl Knable (IN); Vicki Schmidt represented by Nicole Boyd (KS); Steve Kelley represented by Fred Andersen (MN); Chlora Lindley-Myers represented by William Leung (MO); Bruce R. Ramge represented by Rhonda Ahrens (NE); Marlene Caride represented by Seong-min Eom (NJ); John G. Franchini represented by Anna Krylova (NM); Linda A. Lacewell represented by Bill Carmello (NY); Glen Mulready represented by Andrew Schallhorn (OK); Todd E. Kiser represented by Tomasz Serbinski (UT); and Scott A. White represented by Craig Chupp (VA). Also participating was: Rachel Hemphill (TX).


The Task Force met Oct. 17, Oct. 3, Sept. 26, Sept. 19 and Sept. 12 and took the following action: 1) adopted its Summer National Meeting minutes; 2) adopted its 2020 proposed charges; 3) adopted the 2020 Generally Recognized Expense Table (GRET); 4) provided direction to the IUL Illustration (A) Subgroup on revising *Actuarial Guideline XLIX—The Application of the Life Illustrations Model Regulation to Policies with Index-Based Interest* (AG 49); 5) adopted the American Academy of Actuaries (Academy) Life Experience Committee and the Society of Actuaries (SOA) Preferred Mortality Oversight Group Valuation Basic Table Team (Joint Committee) Individual Life Insurance Mortality Improvement Scale Recommendation—for Use with (AG 38) and VM-20; 6) heard updates on the Yearly Renewable Term (YRT) Field Test from the Academy YRT Field Test Project Oversight Work Group.

Mr. Yanacheak made a motion, seconded by Mr. Ostlund, to adopt the Task Force’s Oct. 17 (Attachment One), Oct. 3 (Attachment Two), Sept. 26 (Attachment Three), Sept. 19 (Attachment Four), and Sept 12 (Attachment Five) minutes. The motion passed unanimously.

2. **Heard an Update on the YRT Field Test**

Jason Kehrberg (Academy YRT Field Test Project Oversight Work Group) presented an update on the YRT Field Test (Attachment Six), which included a revised timeline and a graphical presentation of the workstreams. He said Oliver Wyman has been engaged to assist in the analysis of field test results. He said calls with field test participants will begin once legal agreements have been executed.

Chris Whitney (Oliver Wyman) presented the details of the design of the analysis models for the field test and some initial insights (Attachment Seven). He said that, in addition to the field test, the Academy is working on a “Range of Interpretations” survey to be distributed to all companies, regardless of whether they are field test participants. The survey seeks further understanding of the range of interpretations from a company participation base that is larger than the field test, which might be used to model the various YRT reinsurance proposals in the field test. Mr. Whitney said the analysis model and its associated tools will be delivered to the NAIC when it is completed. He noted that a secondary benefit of the project is that the NAIC will be able to use the model to analyze the long-term impact of other principle-based reserving (PBR) issues, as needed. He said the model provides a robust projection of PBR over time while unlocking assumptions to observe the impact of the various reserve components.

Ms. Hemphill asked if the model considers any interaction with the post-level term profits restriction. Mr. Whitney said the issue is being considered. Mr. Chupp asked if mortality improvement is built into the current YRT scale. Mr. Whitney said the current scale is equal to best estimate mortality with mortality improvement in future years. Dylan Strother (Oliver Wyman) discussed the mortality and PBR prescribed margins and their impacts on the PBR. He noted that the lack of including a future mortality improvement beyond the valuation date results in an implicit margin. Mr. Andersen asked whether it is important to differentiate the explicit margins from the implicit margins. Mr. Strother said the implicit margin was indicated because some of the amendment proposals that will be considered in the field test allow for the use of mortality improvement in the rates charged by reinsurers. Mr. Whitney said identifying the implicit margin provides a better understanding of what is affecting the overall margin at the various durations. Mr. Strother noted that scenarios reflecting reinsurer reactions can produce reserve...
credits in excess of \( \frac{1}{2} c \). He also noted the importance of looking at long-term reserve projections when evaluating the impact of reinsurance modeling approaches because of the unlocking of mortality improvements and the impact of the margin changes over time.

Katie van Ryn (Oliver Wyman) discussed the scope of the field test, the amendment proposals being considered under various assumptions, and the results of the initial Oliver Wyman analysis. Mr. Whitney noted that modeled reinsurer reactions lag the ceding mortality experience by one year. He broadly discussed possible reinsurer reactions to a number of possible scenarios posed by Task Force members. He noted that, while there are no reinsurers participating in the field test, reinsurers are expected to respond to the “Range of Interpretations” survey. He said the reinsurer responses to the survey are expected to inform assumptions on reinsurer reaction to some of the scenarios of concern to Task Force members.

Mr. Whitney discussed the next steps for the analysis and field test. He said that assuming field test results are received by year-end: 1) point-in-time reserve results from the field test will be confirmed and shared with the Task Force in February 2020; 2) results for each of the specified amendment proposals will be ready for Task Force discussion in March 2020; and 3) company projected reserves will be developed and shared with the Task Force in April 2020.

Mr. Boerner said that given the dates of milestones and next steps, there is a chance that the Task Force could have an amendment proposal in May 2020 to consider for exposure, but the timeframe for an adoption that could be included in the 2021 Valuation Manual would be very tight.

3. **Adopted the Minutes of the VM-22 (A) Subgroup**

Mr. Sartain said the VM-22 (A) Subgroup did not meet subsequent to the Summer National Meeting, but several members have been participating on conference calls of the Academy Annuity Reserves Work Group (ARWG) and the SVL Interest Rate Modernization Work Group (SVLIRMWG). He said Subgroup discussions in the past year were focused on reinvestment risk issues. He said that because of developments in Academy discussions, the conversation on that issue has changed. The Subgroup will be revisiting the reinvestment risk discussions in the first quarter of 2020.

Mr. Sartain said the ARWG is working on PBR for non-variable annuities, including payout annuities. He said the SVLIRMWG is updating the rates and methodologies for the Commissioners’ Annuity Reserve Valuation Method (CARVM), including consideration of an exclusion test.

Mr. Sartain made a motion, seconded by Mr. Weber, to adopt the VM-22 (A) Subgroup’s report. The motion passed unanimously.

4. **Heard an Update from the Academy Annuity Reserves Work Group**

Ben Slutsker (ARWG) discussed some elements of the ARWG proposal for a revised non-variable annuity reserve framework (Attachment Eight). He said the elements are only representative, and a more comprehensive proposal will be developed in the coming months. He said the ARWG plan is to propose a PBR approach for non-variable annuities that utilizes a Conditional Tail Expectation (CTE) 70 reserve calculation. He said the baseline of the methodology is the recent revisions to VM-21, Requirements for Principle-Based Reserves for Variable Annuities, with deviations and enhancements, as needed, to handle product complexities. The complexities include guaranteed living benefits (GLBs), fixed deferred or fixed index annuities, and reinvestment risks. Mr. Slutsker said the target date for Task Force adoption of the proposed framework is Spring 2022. He said the ARWG is looking for Task Force feedback on: 1) asset assumptions related to spreads, default costs and reinvestment methodology; 2) exclusion test methodology; and 3) any concerns on the scope of the proposed framework, including possible retrospective application of the methodology to existing contracts, regardless of issue date.

Mr. Slutsker said the ARWG recommends hedging requirements consistent with VM-21, without the clearly defined hedging strategy (CDHS) distinction. Ms. Hemphill said that it would be helpful if the ARWG noted when its recommendation is not consistent with VM-21. She said the notes should be accompanied by a brief explanation of the reasons for deviating from the VM-21 framework.

Mr. Slutsker said the ARWG recommends applying the VM-21 methodology to fixed annuity PBR. The ARWG also recommends using a modified version of the VM-20, Requirements for Principle-Based Reserves for Life Products, exclusion testing methodology for fixed annuity PBR. Mr. Tsang asked if the exclusion test would be applied before or after reinsurance. Mr. Slutsker responded that the ARWG has not explored that question. He suggested that the VM-20 methodology, which applies the exclusion test both pre- and post-reinsurance ceded, would most likely prevail.
Mr. Slutsker asked for Task Force feedback on the ARWG recommendation to use the VM-21 discount rate and starting asset methodology for fixed annuity PBR. He said the ARWG position is that company specific spreads and defaults are more appropriate because fixed annuity investments tend to be heavily dependent on general account returns. Ms. Hemphill asked what kind of guardrail would be applied for these assumptions given how dependent the reserves are on these returns, and asked how the framework would assess the credibility of company-specific spread and default assumptions. Mr. Slutsker said that this would be considered further as the framework was developed.

Mr. Boerner said retroactive application of the revised framework to contracts issued prior to the effective date of the Valuation Manual would require actuarial guideline changes and could have tax implications. Paul S. Graham (American Council of Life Insurers—ACLI) said the tax code no longer considers the date of issue, but it is instead tied to the valuation methodology. He said that should alleviate any concern about retroactivity. He said whether there might be issues that may arise by making the changes optional will require more study.

Mr. Tsang asked if there will be a floor reserve, similar to the VM-20 net premium reserve (NPR). Mr. Slutsker said there is a cash surrender value (CSV) floor and potentially a separate floor for guaranteed living income benefits (GLIBs). Ms. Hemphill said she would like to hear how the proposal handles the VM-21 standard scenario. Mr. Slutsker said the focus has been on the modeled reserve, and the floor has not yet been discussed; but it will be considered. Mr. Slutsker stated that the Academy is generally in favor of the CTEPA approach for the standard scenario, as a disclosure item.

5. Heard an Update from the Academy SVL Interest Rate Modernization Work Group

Chris Conrad (SVLIRMWG) gave an update on the work of the SVLIRMWG (Attachment Nine). He said the SVLIRMWG is working closely with the ARWG to develop valuation rates to be used by products that pass the exclusion test that the ARWG is developing. He said valuation rates will be determined by finding the single discount rate that produces the same present value of benefits and expenses at time zero as discounting the cashflows at the quarterly portfolio yields, including realized gains and losses. He said the plan is to determine the discount rate under assumptions of rising rates, falling rates and level rates. He noted that the group has yet to determine how to weight the three scenarios and whether the final rate will be locked at issue. Once calculated, the rates will be used to develop a formula which relates the initial portfolio yield and the ultimate single valuation rate. The formula will be used to update the valuation rates quarterly. Mr. Conrad noted that the proposed framework will use U.S. treasuries plus VM-20 spreads as a reference index.

6. Discussed Considerations for Changes to the Life Mortality Improvement Factor Process

Marianne Purushotham (Joint Committee) said a presentation was made to the Task Force last year to make it aware of the methodology used to annually update the mortality improvement scale used for VM-20 and AG 38. She said the purpose of the presentation was to give the Task Force an opportunity to understand and ask questions about the Joint Committee process. She said the process entails annually looking at recent historical and current projected mortality improvements and applying a set methodology to update the scale. She said the improvements are used to move the Valuation Basic Table (VBT) from the date of the table to the current valuation date (e.g., the 2019 mortality improvement scale will be used to update the 2015 VBT from mid-2015 to the end of 2019). She noted that the methodology has not changed since 2013. She provided several slides (Attachment Ten) describing the current methodology, including some of its limitations and other considerations. She said the methodology uses U.S. Social Security Administration (SSA) data as a consistent source of population mortality data. She said that population mortality data tends to be more stable than insured mortality data. She said the population data is forecasted over a 20-year period to create an unsmoothed mortality improvement scale. She said actuarial judgment is used in the process of peer reviewing the unsmoothed scale to determine whether the scale should be changed that year. She said that after the peer review, the final step is to apply smoothing to the scale. She said the process is limited in that it looks at age and gender as basis risk due to the use of population data, and it is not intended for long-term projections. She noted that mortality improvement scales for insured mortality tables generally use population data.

Ms. Purushotham said that over the next two to three years, the mortality methodology will be changing as a common tool is being developed, which will allow practitioners from life, annuity and pension to share a consistent framework for producing mortality improvement scales. She said that in the short term, the Joint Committee will be looking to revise the methodology to remove more actuarial judgment by defining clear thresholds that would trigger a change in the scale. She said another consideration is whether the updates should require the formal approval of the Task Force. She said the Valuation Manual does not require Task Force approval. She suggested that once the actuarial judgment is removed from the methodology, the improvement scale methodology could be added to the Valuation Manual. That would allow the annual update to be automatically adopted if no changes are made to the prescribed methodology.

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Mr. Sartain asked if there could be a process that would allow the Task Force to formally adopt the mortality improvement factors annually. Mr. Boerner said that if the factor adoption is to be considered a Valuation Manual update, the mortality improvement factors may not be available until the subsequent year’s Valuation Manual. However, if the mortality improvement follows a process adopted in the Valuation Manual then annual improvements could be applied for the current valuation year. He also said there are other issues related to the timing of the availability of the population data and the availability of the scale for industry use that will need to be considered. Ms. Purushotham said companies have indicated that they would like the scale to be published earlier in the year. She said the scale can be published earlier, but that would require sacrificing an additional year of data. She said the Joint Committee is working with a three year time lag, such that the SSA data through 2016 is used for the 2019 mortality improvement scale. She said the SOA accesses Medicare data in July, provides an updated scale at the end of August, and publishes the mortality improvement scale by the end of September. She said that if the Joint Committee uses a four year time lag, the mortality improvement scale could be published earlier in the year, but it would lose the benefit of the recent mortality trends.

Ms. Purushotham summarized three possible options: 1) continue with the present process of using actuarial judgment to determine whether to change the scale; 2) have the scale change every year regardless of how immaterial the change might be; and 3) apply the current methodology, but make the changes subject to set thresholds. Mr. Boerner said Task Force members should consider the three options, as well as whether increasing the time lag might be acceptable.

7. Exposed Amendment Proposal 2019-33

Mary Bahna-Nolan (Academy Life Reserves Work Group—LRWG) discussed the presentation (Attachment Eleven) recommending revised PBR treatment for individually underwritten group insurance. She said amendment proposal 2019-33 proposes subjecting certain group life certificates that are marketed, underwritten and solicited in a manner similar to individual life policies to the same Valuation Manual requirements as individual life policies. She said the Statement of Statutory Accounting Principles (SSAP) No. 50—Classifications of Insurance or Managed Care Contracts (SSAP No. 50) provides a definition of group life that is not fully applicable to the group certificates under consideration, as individually underwritten group certificates do not preclude individual selection and are for the benefit of policyholder. She said VM-51, Experience Reporting Formats, scopes out individually solicited group life policies from the mandatory data collection. She reviewed each of the eight recommended changes proposed by amendment proposal 2019-33.

Mr. Chou made a motion, seconded by Mr. Leung, to expose amendment proposal 2019-33 (Attachment Twelve) for a public comment period ending Feb. 7, 2020. The motion passed unanimously.


Linda Lankowski (LRWG) said amendment proposal 2019-62 recommends requirements for disclosure and the reporting of conversion reserves.


9. Exposed Amendment Proposal 2019-60

Ms. Hemphill said VM-20 requires a single credibility method for all business subject to PBR. She said that because Buhlmann credibility factors are not currently available for simplified issue (SI) business, companies are forced to use the Limited Fluctuation credibility method for their SI business; therefore, they are required to use the Limited Fluctuation method for fully underwritten business subject to VM-20 as well, even if the Buhlmann credibility method is more appropriate. She said amendment proposal 2019-60 proposes to: 1) remove the single credibility method restriction from Section 9.C.5.a of VM-20 for all business, regardless of the type of underwriting; and 2) add a Guidance Note to Section 9.C.7.b.ii of VM-20.

Ms. Ahrens made a motion, seconded by Mr. Chou, to expose amendment proposal 2019-60 (Attachment Fourteen) for a public comment period ending Jan. 31, 2020. The motion passed unanimously.

10. Exposed Amendment Proposal 2019-61

Ms. Hemphill said amendment proposal 2019-61 clarifies that the life PBR exemption cannot be applied to a policy with a material secondary guarantee, regardless of whether the secondary guarantee is a rider or part of the base policy.
Ms. Eom made a motion, seconded by Mr. Leung, to expose amendment proposal 2019-61 (Attachment Fifteen) for a public comment period ending Jan. 31, 2020. The motion passed unanimously.

11. **Heard an Update on SOA Research and Education**

Dale Hall (SOA) provided a presentation (Attachment Sixteen) identifying recent and upcoming topics that he thought would be of interest to life insurance regulators. Referencing the earlier discussion on mortality improvement, he noted that the SOA is conducting a mortality improvement survey to gather information on how companies make assumptions for life and annuity financial projections and what factors they consider in that process. He said the report will be available in early 2020. He said another report that will be available in January 2020 is the Centers for Disease Control and Prevention (CDC) population mortality observations report, updated for 2018 experience. He said the 2018 experience shows considerable improvement over the prior three to four years.

Mr. Hall said the SOA is hosting an accelerated underwriting expert panel forum on Dec. 11 to discuss best practices for validating algorithms used for underwriting life insurance products. He said the SOA expects to issue a report of best practices and other insights gathered from the forum.

Mr. Hall said the SOA launched its Mortality & Longevity Strategic Research Program in October. He said one of the research items released is a study on the economic impact of opioid abuse. He said that while the main insurance impact is associated with healthcare, there is an economic impact on other insurance lines from premature mortality and increases in group disability and workers’ compensation claims.

Ms. Ahrens asked for more information on the report on *Public Perception of Longevity and Its Drivers*. Mr. Hall said the report resulted from surveys asking participants to evaluate their longevity. He said most people either underestimated or overestimated their life expectancy by four to five years. He said the report provides insights on the impact of individuals misestimating their longevity.


Ms. Ahrens said the Subgroup met on Nov. 25, Nov. 4, Oct. 7, Sept. 30 and Sept. 18. The minutes of these conference calls are included in the minutes of the Life Risk-Based Capital (E) Working Group. Ms. Ahrens said the Subgroup will recommend the Academy Longevity Risk Task Force (LRTF) proposed C-2 factors for longevity risk to the Working Group. She noted that the Subgroup is not comfortable with the application of the proposed factors to longevity risk transfer. They will ask that longevity risk transfers be scoped out of the application of the C-2 factors and that they receive a charge to continue studying longevity risk transfers.

Ms. Ahrens said the LRTF submitted recommendations to the Working Group in August for a correlation component for C-2 mortality and C-2 longevity in the final calculation. She said the Subgroup is not comfortable making the decision, and it will forward the issue to the Working Group.

Ms. Ahrens made a motion, seconded by Mr. Yanacheak, to adopt the Longevity Risk (A/E) Subgroup’s report. The motion passed unanimously.

13. **Recommended to the Life Insurance and Annuities (A) Committee the Formation of a GI Valuation Subgroup**

Ms. Ahrens said a new guaranteed issue (GI) table is needed to replace the 2001 Commissioners’ Standard Ordinary (CSO) table as the mortality standard for GI business. She said the 2001 CSO was used as an interim solution after the rescission of the 2017 Commissioners’ Standard Guaranteed Issue (CSGI) table upon discovering that it produced excessive deficiency reserves for some companies. She asked the Task Force to recommend that the Life Insurance and Annuities (A) Committee form a subgroup of the Task Force to address the issue. She said the recommendation to form the subgroup (Attachment Seventeen) provides a proposed charge that is aligned with an existing Task Force charge and provides justification for the subgroup formation. She said Nebraska has been asked to chair the Subgroup. Alabama, Connecticut, Illinois, New York, Ohio and Texas will be the initial members of the Subgroup, with other state insurance regulators welcome to join. Mr. Boerner proposed a more concise version of the recommendation (Attachment Eighteen).

Mr. Ahrens made a motion, seconded by Mr. Ostlund, to forward the concise version of the recommendation to form a GI subgroup of the Task Force to the Life Insurance and Annuities (A) Committee. The motion passed unanimously.
14. **Heard an Update from the Academy PBR Governance Work Group**

Donna Claire (Academy PBR Governance Work Group) gave a presentation (Attachment Nineteen) on PBR resources available from the Academy. She said the Academy PBR practice page on the Academy website provides the PBR toolkit, Academy comments on PBR, links to NAIC PBR resources, and Academy publications on PBR. She noted that Actuarial Standard of Practice (ASOP) No. 52, *Principle-Based Reserves for Life Products under the NAIC Valuation Manual* and other ASOPs apply to actuaries responsible for doing or reviewing PBR work. She said the Boot Camp following the Fall National Meeting will include a variable annuities track. She said there will also be a series of Academy webinars on variable annuity reserves. She noted that a practice note on PBR projections is soon to be released, and a “PBR Checklist” that lists important characteristics to consider for PBR valuations was released in October. Other publications referenced by Ms. Claire are the PBR analysis template and an updated VM-20 practice note reflecting changes effective in the 2020 *Valuation Manual*.

15. **Heard an Update on the RFP for the ESG**

Pat Allison (NAIC) presented an update (Attachment Twenty) on the request for proposal (RFP) for a new economic scenario generator (ESG) requested by the Task Force and the Life Risk-Based Capital (E) Working Group earlier this year. The RFP is being developed and will result in the selection of a vendor to provide a new ESG to be prescribed for life and annuity reserves and capital. More specifically, the ESG will be used for VM-20, VM-21, C-3 Phase I and C-3 Phase II. She said the target date for completion of the RFP is the first quarter of 2020. She noted that implementation of the ESG will be no earlier than 2022.

16. **Heard an Update on the Cessation of LIBOR**

Ms. Allison provided an update (Attachment Twenty-One) on the cessation of the London Interbank Offered Rate (LIBOR). She said LIBOR will no longer be available after 2021. She said the replacement of LIBOR is due to: 1) LIBOR becoming less suitable as a benchmark; 2) the reduction of LIBOR-based borrowing; 3) the unsecured nature of LIBOR; and 4) the reluctance of banks to submit LIBOR rates based on judgment rather than actual transactions.

Ms. Allison said the Alternative Reference Rates Committee (ARRC) was formed in 2014 by the Board of Governors of the Federal Reserve and the Federal Reserve Bank of New York in response to risks related to LIBOR. She said the ARRC has identified the Secured Overnight Financing Rate (SOFR) as the rate representing best practice for use in derivatives and other financial contracts. The presentation lists a number of reasons for the selection of the SOFR and the risks associated with moving to the SOFR. The Federal Reserve Bank of New York began daily publication of the SOFR in April 2018. Ms. Allison encouraged companies to consider actions that they may need to take to accommodate the replacement of LIBOR. She also noted that changes to the *Valuation Manual* and the *Accounting Practices and Procedures Manual* (AP&P Manual) will be necessary.

17. **Heard an Update on Life Insurance Mortality Experience Reporting**

Ms. Allison provided an update (Attachment Twenty-Two) on life insurance experience reporting for 2020. She said that beginning the fourth quarter of 2019, companies can begin to submit data using the Regulatory Data Collection (RDC) tool. Companies are also able to request exemptions or communicate exclusions from the data collection requirements. Ms. Allison said the initial data call begins in the second quarter of 2020, with a Sept. 30, 2020, deadline for submission. She noted that companies must correct any identified data errors by Dec. 31. She said the deadline for NAIC submission of aggregate experience data to the SOA is May 31, 2021.

Ms. Allison said the company selection process was limited because the lack of granularity of annual statement data made it difficult to exclude the lines of business outside the scope identified in the *Valuation Manual*. She said the selection process focused on groups of affiliated companies and individual companies large enough to be subject to PBR in 2020. She said the process resulted in the selection of 176 companies from 31 different domiciliary states. She noted that 107 of the selected companies have participated in the Kansas or New York data calls.

Ms. Allison said no state insurance regulator decision is necessary to determine that a company is able to meet available exclusions. She said exemptions require the NAIC to consult with a company’s domestic regulator before being granted or disallowed. She said after potential exclusions and exemptions, 148 companies are currently selected to participate in the data call. She said the NAIC is providing a number of resources to support companies in the data submission process. She also
discussed data checks currently in place to provide controls for the submission process, and she reviewed some frequently asked questions (FAQs).

18. **Discussed PBR Mortality Aggregation**

Ms. Hemphill said the mortality aggregation presentation (Attachment Twenty-Three) from the Summer National Meeting is provided for reference. She said there were no formal comments submitted when the materials were previously exposed. She cautioned that, even when there are no written prohibitions against the aggregation of particular segments, actuarial judgment as to the relevance and appropriateness of data is still applicable and should prevail. She noted that one informal comment suggested adding a guidance note to the *Valuation Manual* that would direct readers to the aggregation examples provided on the Industry tab of the NAIC webpage.

David Neve (Academy LRWG) said one of the principles of PBR is that the same assumptions should be used across all company applications. He said that developing new mortality assumptions for PBR based on VM-20’s aggregation requirements seem to be inconsistent with that principle. Ms. Hemphill said the intent of the examples was to provide general principles or dos and do nots for aggregating, not to specifically dictate how the aggregation should be executed.

19. **Heard an Update from the Compact**

Jeanne Daharsh (Interstate Insurance Product Regulation Commission—Compact) provided an update (Attachment Twenty-Four) on the activities of the Compact. She said the Commission Officers and Management Committee will meet on Dec. 9 to consider approval of uniform standards for: 1) group policyholder application; 2) group annuity certificate for employer groups; and 3) group guaranteed interest contracts (GICs) for non-variable annuities for employer groups.

She said the single premium group fixed annuity contract standards adopted by the Compact will be effective for filing Jan. 14, 2020. She noted that the Product Standards Committee continues to address the gaps in uniform standards for individual life and annuity. She said a referral was sent to the Actuarial Working Group to consider developing standards for index-linked variable annuity products.

Ms. Daharsh said the Compact has received 1,367 filings through October, of which 1,305 have been approved. She said the average wait time for review of a filing is 33 days. The median number of states on a Compact filing is 43. The number of mix-and-match filings has continued to decrease and now comprises 28% of filings. She said 69% of the filings are for life products, 18% of the filings are for annuity products, and the remaining filings are for long-term care (LTC) and disability income. She noted that there has been a 50% increase in life filings due to the 2017 CSO filings.

19. **Adopted the Report of the IUL Illustration (A) Subgroup**

Mr. Andersen made a motion, seconded by Mr. Chou, to adopt the Nov. 14 (Attachment Twenty-Five), Nov. 1 (Attachment Twenty-Six) and Sept. 16 (Attachment Twenty-Seven) minutes of the IUL Illustration (A) Subgroup. The motion passed unanimously.

Mr. Andersen said the Task Force voted that illustrations for indexed universal life (IUL) policies with multipliers and product enhancements should illustrate no better than IUL policies without multipliers. He said one of the product enhancements of concern to the Task Force is the cap buy-up, which allows a policyholder to receive returns in excess of the investment return cap specified in the policy. He noted that there are charges associated with multipliers and product enhancements, but the net return on policies are in excess of the returns for IUL products without those features.

Mr. Andersen said the Task Force decision produced a number of comments from industry members. He said some of the letters offered opinions on what to do with the cap buy-up feature. Before considering the comment letters, he asked Task Force members to confirm that their intent was to have IUL policies with cap buy-ups illustrate no better than IUL policies without cap buy-up features. Mr. Serbinowski said his intent was to quote in that manner. He followed by saying that unless there is a restriction placed on the underlying investments returns, companies will continue to design products to circumvent the limitation. Mr. Chupp said that he no longer supports the position taken in his comment letter (Attachment Twenty-Eight). Mr. Andersen discussed the table of numerical examples provided in the Nationwide recommendation. He said the recommendation differentiates between an index bonus charge, which covers the cost related to the multiplier, and an index parameter charge, which are applicable to the benchmark index account. Ms. Ahrens said the charges should be treated in a similar manner to avoid the company circumvention efforts spoken of by Mr. Serbinowski. Birny Birnbaum (Center for Economic Justice—CEJ) said cap buy-ups should be treated in the same manner as multipliers because the same principles hold for both features. He
said the multipliers, bonuses and buy-ups all show up as increased returns without demonstrating increased risks. Mr. Boerner asked if Mr. Birnbaum believes that AG 49 could be revised to show downside risk. Mr. Birnbaum said he does not believe that the current illustration model, and by extension AG 49, is able to reflect the downside risk. He also suggested that the issue with illustrations should be addressed by the Life Insurance and Annuities (A) Committee instead of the Task Force. Ms. Ahrens said that some of the actions of the Task Force seem to be aimed at stomping out product innovation. She said actions to limit product design should be the purview of the Life Insurance and Annuities (A) Committee. Mr. Birnbaum said he is in favor of the Task Force addressing this issue with illustrations, but he also thinks that the Life Insurance and Annuities (A) Committee should take a broader look at illustrations.

Tom Doruska (Global Atlantic) said the Global Atlantic comments (Attachment Thirty) recommend that cap buy-ups and multipliers should be treated the same. He also said the necessary changes should be accomplished in Section 5 of AG 49. Mr. Boerner agreed and said the inclusion of downside risk in illustrations can be considered as Phase 2. The Task Force voted to direct the IUL Illustration (A) Subgroup to revise AG 49 to subject cap buy-ups and index return enhancements to constraints reasonably similar to the constraints to be applied to multipliers, with Mr. Chupp dissenting.

Mr. Serbinowski made a motion, seconded by Ms. Ahrens, to adopt the IUL Illustration (A) Subgroup’s report. The motion passed unanimously.

20. **Discussed the VBT and Expiring Experience**

Ms. Bahna-Nolan introduced the VBT analysis process (Attachment Thirty-One). She plans to have the analysis completed for discussion with the Task Force at the 2020 Summer National Meeting. She said the 2015 VBT and the relative risk (RR) tables were based on 2002–2009 industry data projected forward with mortality improvement to 2015. She said the 2015 VBT, projected to the valuation date with the mortality improvement scale that Ms. Purushotham previously discussed with the Task Force, is used as the best estimate mortality. She said starting in 2020, the number of companies contributing to the mandatory data collection will grow significantly. She said the Joint Committee would like to develop analytics to determine when there is sufficient differentiation to warrant development of a new table. She said an approach has been developed that is based on a normal distribution and uses confidence intervals to determine whether to develop a new table.

Ms. Bahna-Nolan said the Joint Committee will work with MIB, Inc. and the NAIC to add calculation fields and credibility calculations to the individual mortality data. She said Task Force and industry feedback is welcome.

21. **Discussed Comments Received on Amendment Proposal 2019-56**

Ms. Bahna-Nolan said comments from Allstate (Attachment Thirty-Two), the ACLI (Attachment Thirty-Three) and the CEJ (Attachment Thirty-Four) were submitted on amendment proposal 2019-56 (Attachment Thirty-Five), which recommended the addition of data elements to the mandatory data call that would assist in segmenting and differentiating experience by underwriting programs. She said the comments shared concerns related to data privacy and security, data complexity, the costs of compliance, and timing. She said they are working with the NAIC Legal staff to address the data privacy issue, which is a primary concern. Dan Schelp (NAIC) said the new data elements being requested do not add to the data privacy issue. He said work was done last year to ensure that personally identifiable information was not being collected. He agreed to look at any of the new data fields about which there is concern.

22. **Adopted the Report of the Experience Reporting (A) Subgroup**

Mr. Andersen said it is time to begin collection of variable annuities (VA) policyholder behavior data. He said that due to the market rising since 2008, the need for the policyholder behavior data has not been as critical. He said it is important that the structure for data collection be put in place to prepare for the future.

Mr. Andersen made a motion, seconded by Mr. Yanacheak, to adopt the Experience Reporting (A) Subgroup’s report. The motion passed unanimously.

23. **Heard an Update from the Academy Council on Professionalism**

Kathy Riley (Academy) said the Actuarial Standards Board (ASB) has completed its review of ASOP No. 11, *Financial Statement Treatment of Reinsurance Transactions Involving Life Insurance or Health Insurance*. ASOP No. 11 will be posted on the ASB webpage soon, with comments due by Feb. 28, 2020. Ms. Riley said the ASB expects to complete its revisions to ASOP No. 22, *Statements of Opinion Based on Asset Adequacy Analysis by Actuaries for Life or Health Insurers* in February
Draft Pending Adoption

2020. She said the guidance in ASOP No. 22 has been expanded with changes to the language on discount rates and assumptions, and additional guidance on reinsurance and separate account assets. She said comments from the exposure draft of ASOP No. 2, *Nonguaranteed Charges or Benefits for Life Insurance Policies and Annuity Contracts* are being reviewed. ASOP No. 56, *Modeling* has been finalized after four exposure drafts.

David Ogden (Academy) said the Actuarial Board for Counseling and Discipline (ABCD) provided general descriptions of the life requests for guidance. He encouraged actuaries to utilize the process if they have questions.

Having no further business, the Life Actuarial (A) Task Force adjourned.
The Life Actuarial (A) Task Force met via conference call Oct. 17, 2019. The following Task Force members participated:

Kent Sullivan, Chair, represented by Mike Boerner (TX); Jillian Froment, Vice Chair, represented by Peter Weber (OH); Lori K. Wing-Heier represented by Jacob Lauten (AK); Jim L. Ridling represented by Steve Ostlund (AL); Ricardo Lara represented by Perry Kupferman (CA); Andrew N. Mais represented by Wanchin Chou (CT); Doug Ommen represented by Mike Yanacheak (IA); Robert H. Muriel represented by Bruce Sartain (IL); Stephen W. Robertson represented by Karl Knable (IN); Vicki Schmidt represented by Nicole Boyd (KS); Steve Kelley represented by Fred Andersen and John Robinson (MN); Chlora Lindley-Myers represented by William Leung (MO); Bruce. R. Ramge represented by Rhonda Ahrens (NE); Marlene Caride represented by Seong-min Eom (NJ); John G. Franchini represented by Mark Hendrick (NM); Linda A. Lacewell represented by Bill Carmello and Amanda Fenwick (NY); Glen Mulready represented by Andrew Schallhorn (OK); Todd E. Kiser represented by Tomasz Serbinowski (UT); and Scott A. White represented by Craig Chupp (VA). Also participating was: Rachel Hemphill (TX).

1. Provided Direction on AG 49 Revisions to the IUL Illustration (A) Subgroup

Mr. Andersen said that during the Sept. 16 IUL Illustration (A) Subgroup conference call, the Subgroup discussed five possible ways to address concerns related to the crediting rate applied to indexed universal life (IUL) illustrations. The possibilities were narrowed down to possibility 2, eliminating any difference between the illustrated rate for products with index multipliers and products without index multipliers, and possibility 3, allowing a heavily constrained difference between products with multipliers and products without multipliers. Mr. Andersen noted that separate drafts of edits to Actuarial Guideline XLIX, The Application of the Life Illustrations Model Regulation to Policies with Index-Based Interest (AG 49) to reflect possibility 2 (Attachment One-A) and possibility 3 (Attachment One-B) have been prepared. He said the language addressing the illustrated rate applicable to policy loans is the same in both drafts. He said disclosure issues will be addressed in phase 2 of this project.

Austin Bichler (Allianz Life) said Allianz Life’s comment letter (Attachment One-C) supports limits on the illustrated rates for multiplier policies, as proposed in the AG 49 edits for possibility 3. He proposed a mandatory ledger that would show all policy charges and credits on an annual basis. He also proposed a numerical disclosure displaying the impact of the non-level sequence of credits. Mr. Andersen said the Subgroup can determine whether the non-level sequence of credits disclosure is easy to employ or if it should be deferred to phase 2.

Ernest Armijos (Pacific Life) said Pacific Life favors possibility 3 with the addition of a secondary guardrail designed to protect consumers. A feature of the secondary guardrail would be a guaranteed alternative cash value, which would limit the downside risk while allowing for potential growth. Possibility 3 proposes an allowance for a 45% annual return on charges up to 2.5%. Mr. Weber and Ms. Ahrens said 2.5% was chosen as a reasonable middle ground to use as a guardrail.

Mary Bahna-Nolan (Pacific Life) said Pacific Life opposes possibility 2 because it does not seem to comply with the requirements of the Life Insurance Illustrations Model Regulation (#582) or Actuarial Standard of Practice (ASOP) 24, Compliance with the NAIC Life Insurance Illustrations Model Regulation. She said the implementation of possibility 2 would require the illustration of the multiplier charges without allowing the illustration of the upside benefits. She also noted that possibility 2 may conflict with the Advertisements of Life Insurance and Annuities Model Regulation (#570), which requires life insurance advertising to be complete and clear. She said that since multiplier features were not modeled under possibility 2, companies would be prohibited from discussing these features, leading to incomplete information. Ms. Hemphill said possibility 2 models both the multiplier charges and an offsetting amount of associated credits; therefore, there would not be a prohibition on discussing the multiplier features. Mr. Leung questioned how possibility 2 would not comply with Model #582 and ASOP 24 if the current version of AG 49 is in compliance. Ms. Bahna-Nolan said that is a different issue related to the incorporation of features and benefits into the disciplined current scale.

Birny Birnbaum (Center for Economic Justice—CEJ) said possibility 2 is the best way to immediately address the current issues. He said the questions related to sequence of charges and disclosure can be addressed later.

Mr. Andersen asked the Task Force members to express their preference for revising AG 49 to reflect either possibility 2 or possibility 3. Alabama, Alaska, California, Connecticut, Illinois, Iowa, Kansas, Missouri, New Mexico, New York, Oklahoma,
Texas and Utah voted for possibility 2. Indiana, Minnesota, Nebraska, New Jersey, Ohio and Virginia voted for possibility 3. Mr. Boerner asked if anyone disagreed with directing the Subgroup to proceed with addressing the crediting rate for loans using the approach provided in the AG 49 edits that reflect possibility 2. No Task Force members objected. On behalf of the Subgroup, Mr. Andersen accepted the direction to revise AG 49 to reflect possibility 2 and submit the revised document to the Task Force for its consideration.

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

THE APPLICATION OF THE LIFE ILLUSTRATIONS MODEL REGULATION TO POLICIES WITH INDEX-BASED INTEREST

Background

The Life Insurance Illustrations Model Regulation (#582) was adopted by the NAIC in 1995. Since that time there has been continued evolution in product design, including the introduction of benefits that are tied to an external index or indices. Although these policies are subject to Model #582, not all of their features are explicitly referenced in the model, resulting in a lack of uniform practice in its implementation. In the absence of uniform guidance, two illustrations that use the same index and crediting method often illustrated different credited rates. The lack of uniformity can be confusing to potential buyers and can cause uncertainty among illustration actuaries when certifying compliance with Model #582.

This guideline provides uniform guidance for policies with index-based interest. In particular, this guideline:

(1) Provides guidance in determining the maximum crediting rate for the illustrated scale and the earned interest rate for the disciplined current scale.

(2) Limits the policy loan leverage shown in an illustration.

(3) Requires additional consumer information (side-by-side illustration and additional disclosures) that will aid in consumer understanding.

Text

1. Effective Date

This Actuarial Guideline shall be effective as follows:

i. Sections 4 and 5 shall be effective for all new business and in force life insurance illustrations on policies sold on or after September 1, 2015.

ii. Effective March 1, 2017, Section 4 and Section 5 shall be effective for all in-force life insurance illustrations on policies within the scope of this actuarial guideline, regardless of the date the policy was sold.

iii. Sections 6 and 7 shall be effective for all new business and in force life insurance illustrations on policies sold on or after March 1, 2016.

2. Scope

This Actuarial Guideline shall apply to any life insurance illustration that meets both (i) and (ii), below:

i. The policy is subject to Model #582.

ii. The policy offers interest credits, multipliers, factors, bonuses, or other enhancements to policy values that are linked to an external index or indices.

3. Definitions

A. Alternate Scale: A scale of non-guaranteed elements currently being illustrated such that:

i. The credited rate for each Index Account does not exceed the lesser of the maximum credited rate for the illustrated scale less 100 basis points and the credited rate for the Fixed Account. If the insurer does
not offer a Fixed Account with the illustrated policy, the credited rate for each Index Account shall not exceed the average of the maximum credited rate for the illustrated scale and the guaranteed credited rate for that account. However, the credited rate for each Index Account shall never be less than the guaranteed credited rate for that account.

ii. If the illustration includes a loan, the illustrated rate credited to the loan balance, including Index Credits and all other illustrated benefits and bonuses that impact the policy’s account value, shall not exceed the illustrated loan charge rate.

iii. All other non-guaranteed elements are equal to the non-guaranteed elements for the illustrated scale.

B. Annual Net Investment Earnings Rate: Gross portfolio annual earnings rate, less provisions for investment expenses and default cost, of the general account assets (excluding hedges for Indexed Credits) allocated to support the policy.

B.C. Benchmark Index Account: An Index Account with the following features:

i. The interest calculation is based on the percent change in S&P 500® Index value only, over a one-year period using only the beginning and ending index values. (S&P 500® Index ticker: SPX)

ii. An annual cap is used in the interest calculation.

iii. The annual floor used in the interest calculation shall be 0%.

iv. The participation rate used in the interest calculation shall be 100%.

v. Interest is credited once per year.

vi. Account charges do not exceed the account charges for any corresponding Index Accounts within the policy in any policy year. If Index Accounts with different levels of account charges are offered with the illustrated policy, more than one Benchmark Index Account may be used in determining the maximum illustrated crediting rates for the policy’s Index Accounts, subject to the requirements of 5.D.. However, for each Index Account within the policy, only one Benchmark Index Account shall apply. Any rate calculated in 4 (B) shall not apply for an Index Account if the account charges for the applicable Benchmark Index Account exceed the account charges for that Index Account in any policy year. Account charges include all charges applicable to an Index Account, whether deducted from policy values or from premiums or other amounts transferred into such Index Account.

vii. Additional amounts credited are not less than the additional amounts credited for any corresponding Index Accounts within the policy in any policy year. Any rate calculated in 4 (B) shall not apply for an Index Account if the additional amounts credited for the applicable Benchmark Index Account are less than the additional amounts credited for that Index Account in any policy year. Additional amounts include all credits that increase policy values, including but not limited to experience refunds or bonuses.

viii. There are no limitations on the portion of account value allocated to the account.

C.D. Fixed Account: An account where the credited rate is not tied to an external index or indices.

E. Index Account: An account where the credited rate is tied to an external index or indices.

F. Indexed Credits: Any interest credit, multiplier, factor, bonus, or other enhancement to policy values that is linked to an external index or indices.

G. Supplemental Option Budget: The total amount spent to generate the Indexed Credits of the policy minus the Annual Net Investment Earnings Rate. This amount is expressed as a percent of the policy’s indexed account value.
Drafting note: When AG 49 was originally adopted, the Option Budget was typically less than or equal to the Annual Net Investment Earnings Rate. However, in subsequent IUL designs, the Option Budget may be supplemented by asset-based charges or other policy charges, leading to an Option Budget that may exceed the Annual Net Investment Earnings Rate.

4. Illustrated Scale

The credited rate for the illustrated scale for each Index Account shall be limited as follows:

A. Calculate the geometric average annual credited rate for each applicable Benchmark Index Account for the 25-year period starting on 12/31 of the calendar year that is 66 years prior to the current calendar year (e.g., 12/31/1949 for 2015 illustrations) and for each 25-year period starting on each subsequent trading day thereafter, ending with the 25-year period that ends on 12/31 of the prior calendar year.

i. If the insurer offers an applicable Benchmark Index Account with the illustrated policy, the illustration actuary shall use the current annual cap for the applicable Benchmark Index Account in 4 (A).

ii. If the insurer does not offer an applicable Benchmark Index Account with the illustrated policy, the illustration actuary shall use actuarial judgment to determine a hypothetical, supportable current annual cap for a hypothetical, supportable Index Account that meets the definition of a Benchmark Index Account, and shall use that cap in 4 (A).

B. For each applicable Benchmark Index Account, the arithmetic mean of the geometric average annual credited rates calculated in 4 (A) shall be the maximum credited rate(s) for the illustrated scale.

C. For other Index Accounts using other equity, bond, and/or commodity indexes, and/or using other crediting methods, the illustration actuary shall use actuarial judgment to determine the maximum credited rate for the illustrated scale. The determination shall reflect the fundamental characteristics of the Index Account and the parameters shall have the appropriate relationship to the expected risk and return of the applicable Benchmark Index Account. In no event shall the credited rate for the illustrated scale exceed the applicable rate calculated in 4 (B).

D. At the beginning of each calendar year, the insurer shall be allowed up to three (3) months to update the credited rate for each Index Account in accordance with 4 (B) and 4 (C).

5. Disciplined Current Scale

The annual earned interest rate underlying the disciplined current scale shall be limited as follows:

A. If an insurer engages in a hedging program for interest Indexed Credits, the assumed annual earned interest rate underlying the disciplined current scale for the policy, inclusive of all hedge/derivative assets and cash flows that support Indexed Credits and all other investments that support the policy, shall not exceed i. + ii. + iii., where:

i. equals the Annual Net Investment Earnings Rate,

ii. equals 45% times the Annual Net Investment Earnings Rate, and

iii. equals the Supplemental Option Budget.

145% of the annual net investment earnings rate (gross portfolio earnings less provisions for investment expenses and default costs) of the general account assets (excluding hedges for index-based credits) allocated to support the policy.

Drafting note: i. is a proxy for the amount funding the 0% interest guarantee; ii. Allows a 45% return on the portion of the Option Budget up to the Annual Net Investment Earnings Rate; iii. Allows a return of the Supplemental Option Budget to offset the charges.
A-B. If an insurer does not engage in a hedging program for index-based interest on Indexed Credits, the assumed annual earned interest rate underlying the disciplined current scale for the policy shall not exceed the annual net investment earnings rate of the general account assets allocated to support the policy.

B-C. These experience limitations shall be included when testing for self-support and lapse-support under Model #582, accounting for all Indexed Credits and all other illustrated benefits and including illustrated bonuses.

D. If more than one Benchmark Index Account is used for an illustrated policy, each set of Index Accounts that correspond to each Benchmark Index Account, and all Indexed Credits that apply to an Indexed Account, must independently pass the self-support and lapse-support tests under Model #582, subject to the limitations in 5 (A), (B), and (C). All experience assumptions that do not directly relate to the Index Accounts and Indexed Credits as to expenses, mortality, investment earnings rate of the general account assets, lapses, and election of any Fixed Account shall equal the assumptions used in the testing for the entire policy.

E. The table below illustrates four examples of the calculation of the assumed annual earned interest rate underlying the disciplined current scale. Example 1 assumes the insurer engages in a hedging program and the Supplemental Option Budget is zero. Examples 2-4 assume the insurer’s Supplemental Option Budget is positive in increasing amounts.

<table>
<thead>
<tr>
<th>Example 1</th>
<th>Example 2</th>
<th>Example 3</th>
<th>Example 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Net Investment Earnings Rate</td>
<td>4.5%</td>
<td>4.5%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Supplemental Option Budget (as % of Indexed Account Value)</td>
<td>0%</td>
<td>1.5%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Maximum Annual Earned Interest Rate underlying the Disciplined Current Scale</td>
<td>6.53%</td>
<td>8.03%</td>
<td>9.03%</td>
</tr>
<tr>
<td>Maximum Annual Earned Interest Rate minus Supplemental Option Budget</td>
<td>6.53%</td>
<td>6.53%</td>
<td>6.53%</td>
</tr>
</tbody>
</table>

6. Policy Loans

If the illustration includes a loan, the illustrated rate credited to the loan balance, including Index Credits and all other illustrated benefits and bonuses that impact the policy’s account value, shall not exceed the sum of explicit illustrated loan charges and asset-based charges by more than 100 basis points.

6.7. Additional Standards

The basic illustration shall also include the following:

A. A ledger using the Alternate Scale shall be shown alongside the ledger using the illustrated scale with equal prominence.

B. A table showing the minimum and maximum of the geometric average annual credited rates calculated in 4 (A).

C. For each Index Account illustrated, a table showing actual historical index changes and corresponding hypothetical interest rates using current index parameters for the most recent 20-year period.
Actuarial Guideline XLIX

THE APPLICATION OF THE LIFE ILLUSTRATIONS MODEL REGULATION TO POLICIES WITH INDEX-BASED INTEREST

Background

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iii. Sections 6 and 7 shall be effective for all new business and in force life insurance illustrations on policies sold on or after March 1, 2016.

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ii. The policy offers interest credits, multipliers, factors, bonuses, or other enhancements to policy values that are linked to an external index or indices.

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i. The credited rate for each Index Account does not exceed the lesser of the maximum credited rate for the illustrated scale less 100 basis points and the credited rate for the Fixed Account. If the insurer does
not offer a Fixed Account with the illustrated policy, the credited rate for each Index Account shall not exceed the average of the maximum credited rate for the illustrated scale and the guaranteed credited rate for that account. However, the credited rate for each Index Account shall never be less than the guaranteed credited rate for that account.

ii. If the illustration includes a loan, the illustrated rate credited to the loan balance, including Index Credits and all other illustrated benefits and bonuses that impact the policy’s account value, shall not exceed the illustrated loan charge rate does not exceed the illustrated loan charge.

iii. All other non-guaranteed elements are equal to the non-guaranteed elements for the illustrated scale.

B. Annual Net Investment Earnings Rate: Gross portfolio annual earnings rate, less provisions for investment expenses and default cost, of the general account assets (excluding hedges for Indexed Credits) allocated to support the policy.

B-C. Benchmark Index Account: An Index Account with the following features:

i. The interest calculation is based on the percent change in S&P 500® Index value only, over a one-year period using only the beginning and ending index values. (S&P 500® Index ticker: SPX)

ii. An annual cap is used in the interest calculation.

iii. The annual floor used in the interest calculation shall be 0%.

iv. The participation rate used in the interest calculation shall be 100%.

v. Interest is credited once per year.

vi. Account charges do not exceed the account charges for any corresponding Index Accounts within the policy in any policy year. If Index Accounts with different levels of account charges are offered with the illustrated policy, more than one Benchmark Index Account may be used in determining the maximum illustrated crediting rates for the policy’s Index Accounts, subject to the requirements of 5.D.. However, for each Index Account within the policy, only one Benchmark Index Account shall apply. Any rate calculated in 4 (B) shall not apply for an Index Account if the account charges for the applicable Benchmark Index Account exceed the account charges for that Index Account in any policy year. Account charges include all charges applicable to an Index Account, whether deducted from policy values or from premiums or other amounts transferred into such Index Account.

vii. Additional amounts credited are not less than the additional amounts credited for any corresponding Index Accounts within the policy in any policy year. Any rate calculated in 4 (B) shall not apply for an Index Account if the additional amounts credited for the applicable Benchmark Index Account are less than the additional amounts credited for that Index Account in any policy year. Additional amounts include all credits that increase policy values, including but not limited to experience refunds or bonuses.

viii. There are no limitations on the portion of account value allocated to the account.

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4. Illustrated Scale

The credited rate for the illustrated scale for each Index Account shall be limited as follows:

A. Calculate the geometric average annual credited rate for each applicable Benchmark Index Account for the 25-year period starting on 12/31 of the calendar year that is 66 years prior to the current calendar year (e.g., 12/31/1949 for 2015 illustrations) and for each 25-year period starting on each subsequent trading day thereafter, ending with the 25-year period that ends on 12/31 of the prior calendar year.

   i. If the insurer offers an applicable Benchmark Index Account with the illustrated policy, the illustration actuary shall use the current annual cap for the applicable Benchmark Index Account in 4 (A).

   ii. If the insurer does not offer an applicable Benchmark Index Account with the illustrated policy, the illustration actuary shall use actuarial judgment to determine a hypothetical, supportable current annual cap for a hypothetical, supportable Index Account that meets the definition of a Benchmark Index Account, and shall use that cap in 4 (A).

B. For each applicable Benchmark Index Account, the arithmetic mean of the geometric average annual credited rates calculated in 4 (A) shall be the maximum credited rate(s) for the illustrated scale.

C. For other Index Accounts using other equity, bond, and/or commodity indexes, and/or using other crediting methods, the illustration actuary shall use actuarial judgment to determine the maximum credited rate for the illustrated scale. The determination shall reflect the fundamental characteristics of the Index Account and the parameters shall have the appropriate relationship to the expected risk and return of the applicable Benchmark Index Account. In no event shall the credited rate for the illustrated scale exceed the applicable rate calculated in 4 (B).

D. At the beginning of each calendar year, the insurer shall be allowed up to three (3) months to update the credited rate for each Index Account in accordance with 4 (B) and 4 (C).

5. Disciplined Current Scale

The earned interest rate for the disciplined current scale shall be limited as follows:

A. If an insurer engages in a hedging program for index-based interest Indexed Credits, the assumed annual earned interest rate underlying the disciplined current scale for the policy, inclusive of all hedge/derivative assets and cash flows that support Indexed Credits and all other investments that support the policy, shall not exceed i. + ii. + iii., where:

   i. equals the Annual Net Investment Earnings Rate,

   ii. equals 45% times the Annual Net Investment Earnings Rate, and

   iii. equals 145% times the minimum of the Supplemental Option Budget and 2.5%.

145% of the annual net investment earnings rate (gross portfolio earnings less provisions for investment expenses and default costs) of the general account assets (excluding hedges for index-based credits) allocated to support the policy.

Drafting note: i. is a proxy for the amount funding the 0% interest guarantee; ii. Allows a 45% return on the portion of the Option Budget up to the Annual Net Investment Earnings Rate; iii. Allows for a 45% annual return on charges up to 2.5%.
A-B. If an insurer does not engage in a hedging program for index-based interest Indexed Credits, the assumed annual earned interest rate underlying the disciplined current scale for the policy shall not exceed the annual net investment earnings rate of the general account assets allocated to support the policy.

B-C. These experience limitations shall be included when testing for self-support and lapse-support under Model #582, accounting for all Indexed Credits and all other illustrated benefits and including illustrated bonuses.

D. If more than one Benchmark Index Account is used for an illustrated policy, each set of Index Accounts that correspond to each Benchmark Index Account, and all Indexed Credits that apply to an Indexed Account, must independently pass the self-support and lapse-support tests under Model #582, subject to the limitations in 5 (A), (B), and (C). All experience assumptions that do not directly relate to the Index Accounts and Indexed Credits as to expenses, mortality, investment earnings rate of the general account assets, lapses, and election of any Fixed Account shall equal the assumptions used in the testing for the entire policy.

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<tr>
<th></th>
<th>Example 1</th>
<th>Example 2</th>
<th>Example 3</th>
<th>Example 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Net Investment Earnings Rate</td>
<td>4.5%</td>
<td>4.5%</td>
<td>4.5%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Supplemental Option Budget (as % of Indexed Account Value)</td>
<td>0%</td>
<td>2.5%</td>
<td>3.5%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Maximum Annual Earned Interest Rate underlying the Disciplined Current Scale</td>
<td>6.53% = 1.45 * .045 + 1.45 * min (.025, .025)</td>
<td>10.15% = 1.45 * .045 + 1.45 * min (.035, .025)</td>
<td>10.15% = 1.45 * .045 + 1.45 * min (.075, .025)</td>
<td>10.15% = 1.45 * .045 + 1.45 * min (.025, .025)</td>
</tr>
<tr>
<td>Maximum Annual Earned Interest Rate minus Supplemental Option Budget</td>
<td>6.53%</td>
<td>7.65%</td>
<td>6.65%</td>
<td>2.65%</td>
</tr>
</tbody>
</table>

6. Policy Loans

If the illustration includes a loan, the illustrated rate credited to the loan balance, including Index Credits and all other illustrated benefits and bonuses that impact the policy’s account value, shall not exceed the charge rates, including those from illustrated loan charges and other charges that impact the policy’s account value, by more than 100 basis points.

6.7. Additional Standards

The basic illustration shall also include the following:

A. A ledger using the Alternate Scale shall be shown alongside the ledger using the illustrated scale with equal prominence.

B. A table showing the minimum and maximum of the geometric average annual credited rates calculated in 4 (A).

C. For each Index Account illustrated, a table showing actual historical index changes and corresponding hypothetical interest rates using current index parameters for the most recent 20-year period.

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October 16, 2019

Mr. Mike Boerner, Chairperson, Life Actuarial (A) Task Force  
Mr. Fred Andersen, Chairperson, IUL Illustration (A) Subgroup  
National Association of Insurance Commissioners

Re: Illustration of Index Multipliers under AG 49

Mr. Boerner and Mr. Andersen,

In advance of the October 17 Life Actuarial Task Force call to discuss the illustration of index multipliers, Allianz would like to submit the following comments in support of a compromise approach and enhanced disclosures. Thank you for the opportunity to provide these comments.

Innovative products provide value to consumers

In this historically low interest rate environment, insurers are limited in the value they can provide through traditional insurance products, so insurers are developing innovative products that have the opportunity to provide more value to consumers. One example of a product innovation that provides value to consumers is the index multiplier.

Index multipliers offer policyholders more upside potential. In a traditional IUL product, the insurer has an option budget that is used to buy hedges that support index credits. When a multiplier is added, the option budget is increased by policy charges, which enable the insurer to purchase more units of the same hedges.

<table>
<thead>
<tr>
<th>Original option budget</th>
<th>Multiplier charge</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0%</td>
<td>1.0%</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

Since the charges are used to purchase the same hedges that are used to support the base index credits, the options have the same level of risk premium. However, the additional policy charges result in a different risk profile for the policy as a whole.

We support limits in the illustration of index multipliers

Although index multipliers can provide value to consumers who want more upside potential, the additional policy charges increase the risk profile in the policy. Therefore, we support a limit to the amount that is shown in illustrations. We believe the proposed 2.5% limit to the illustrated option budget in excess of the annual net investment earned rate (NIER) reflects a reasonable balance between consumer value and consumer protection.

Example of the 2.5% limit

<table>
<thead>
<tr>
<th>NIER charge</th>
<th>Multiplier charge</th>
<th>Actual option budget</th>
<th>Maximum illustrated option budget</th>
<th>Maximum DCS illustrated rate</th>
<th>Net DCS illustrated rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0%</td>
<td>3.0%</td>
<td>7.0%</td>
<td>min (7.0, 4.0 + 2.5) = 6.5%</td>
<td>6.5 * 1.45 = 9.4%</td>
<td>9.4 – 3.0 = 6.4%</td>
</tr>
</tbody>
</table>
In addition, we also support clarification that the 100 basis point limit on the illustrated loan credit is inclusive of multiplier credits and net of the loan charges and multiplier charges.

### Example of the 100 basis point limit

<table>
<thead>
<tr>
<th>Loan charge</th>
<th>Multiplier charge</th>
<th>Maximum illustrated loan credit (including multiplier credit)</th>
<th>Net illustrated loan credit (net of charges)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.0%</td>
<td>3.0%</td>
<td>5.0 + 3.0 + 1.0 = 9.0%</td>
<td>9.0 − 5.0 − 3.0 = 1.0%</td>
</tr>
</tbody>
</table>

**Allianz supports enhanced disclosure requirements within AG 49**

Allianz recognizes that value-adding product features such as index multipliers can increase product complexity, so we believe it is critical that illustrations are designed to educate consumers and empower them to make informed decisions. Therefore, we recommend two enhancements to the AG 49 disclosure requirements that would illuminate the risks associated with these index multiplier features as well as the risks associated with IUL products in general.

First, Allianz recommends adding a requirement in AG 49 that all credits and charges must be disclosed in the illustration using a year-by-year ledger. A year-by-year ledger showing all credits and charges would ensure that the consumer can clearly see the costs and benefits of the policy. Most carriers provide this type of ledger as an option to include in the illustration; we believe the ledgers should be mandatory because of the valuable information they provide.

Second, Allianz recommends adding a requirement in AG 49 for the illustration of a sequence of credits (i.e., non-level credited rates). Since 2015, we have included a demonstration of the impact of sequencing in our illustrations using a four year repeating pattern – 0%, x%, x%, x% – where the average of the four credits is equal to the illustrated rate.1

As a result of the sequencing, the demonstration shows that either the maximum loan must decrease or the policy will lapse earlier than what was shown in the illustrated scale. As the risk of an option increases, the impact also increases.

### Example Demonstration ²

<table>
<thead>
<tr>
<th></th>
<th>Option A: no index multiplier</th>
<th>Option B: index multiplier</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Maximum annual loan</td>
<td>Maximum annual loan</td>
</tr>
<tr>
<td>Illustrated scale</td>
<td>$14,654</td>
<td>$19,998</td>
</tr>
<tr>
<td>Sequenced scale</td>
<td>$14,261 (-2.7%)</td>
<td>$18,726 (-6.6%)</td>
</tr>
<tr>
<td>Lapse year with $14,654 annual loan</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Lapse year with $19,998 annual loan</td>
<td>50</td>
<td>42</td>
</tr>
</tbody>
</table>

This sequencing demonstration has strongly resonated with our distribution force because it highlights risks using the same average credit as the illustrated scale. Although these risks are also shown to some degree in the guaranteed scale and the alternate scale, these illustrations are less effective because they are perceived to be “unrealistic” or “too conservative.” One of the most frequent requests we receive from our distribution force is the ability to illustrate the impact of volatile credits on policy values.

It is important to note that a sequencing demonstration can be added to AG 49 without opening the model because a pattern can be constructed such that the values shown in the sequenced demonstration never exceed the values shown in the illustrated scale.

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1 Because the pattern starts with 0%, the values shown in the sequenced demonstration never exceed the values shown in the illustrated scale; thus, the pattern complies with Model 582. We chose a four-year pattern because the S&P 500 has historically been negative approximately one out of every four years. We are open to other patterns where the average equals the illustrated rate.

2 Assumes a 45-year-old at issue with a $250,000 death benefit. Option B assumes a hypothetical 2.5% multiplier charge.
Conclusion

Product innovations such as index multipliers provide consumers the opportunity for value in today's historically low interest rate environment. It is important to find a way to illustrate these benefits in a way that balances consumer value and consumer protection; without illustration of these benefits, consumer education will decrease. Thus, we support the compromise proposal of a 2.5% limit and the clarification of loan rules.

We also support enhanced disclosure requirements to highlight the risks associated with these index multiplier features as well as the risks associated with IUL products in general. The illustration of all charges and credits along with a demonstration of the impact of sequence of credits will provide consumers meaningful product education and enable them to make informed decisions.

Thank you for the opportunity to provide these comments.

Regards,

Austin Bichler, FSA, MAAA
Senior Director Actuary & Illustration Actuary
Allianz Life Insurance Company of North America
The Life Actuarial (A) Task Force met via conference call Oct. 3, 2019. The following Task Force members participated: Kent Sullivan, Chair, represented by Mike Boerner (TX); Jillian Froment, Vice Chair, represented by Peter Weber (OH); Lori K. Wing-Heier represented by Jacob Lauten (AK); Jim L. Ridling represented by Steve Ostlund (AL); Ricardo Lara represented by Ted Chang (CA); Andrew N. Mais represented by Wanchin Chou (CT); Robert H. Muriel represented by Bruce Sartain (IL); Stephen W. Robertson represented by Karl Knable (IN); Steve Kelley represented by Fred Andersen and John Robinson (MN); Marlene Caride represented by Seong-min Eom (NJ); Linda A. Lacewell represented by Bill Carmello (NY); Glen Mulready represented by Andrew Schallhorn (OK); Todd E. Kiser represented by Tomasz Serbinowski (UT); and Scott A. White represented by Craig Chupp (VA).

1. **Adopted the Joint Committee Recommendation for AG 38/VM-20 Mortality Improvement**

Mr. Boerner said the Individual Life Insurance Mortality Improvement Scale Recommendation—for Use with AG 38 and VM-20 (see Sept. 26 Task Force minutes) is referenced in Section 9.C.3.g of VM-20, Requirements for Principle-Based Reserves for Life Products. He said VM-20 states that the mortality improvement factors are to be determined by the Society of Actuaries (SOA). He added that the Valuation Manual does not require nor provide for Task Force adoption of the mortality improvement factors. Reggie Mazyck (NAIC) agreed and said that the mortality improvement factors have not been subject to Task Force adoption in the past. Mr. Ostlund argued that the mortality improvement factors should be subject to Task Force adoption. Mr. Sartain said discussion of whether the mortality improvement factors should be approved by the Task Force is worthwhile, but requiring Task Force adoption of the proposed factors breaks the precedent. Mr. Chang noted that Task Force disapproval would not prevent the SOA from publishing the mortality improvement factors.

Brian Bayerle (American Council of Life Insurers—ACLI) discussed the ACLI comments (Attachment Two-A) on the proposed mortality improvement factors. He agreed that a future discussion of whether Task Force approval of the mortality improvement factors should be required is worthwhile. He suggested that an earlier release of the mortality improvement factors should also be considered. He said releasing the mortality improvement factors in October makes it challenging for companies to apply the factors to their year-end analysis. Marianne Purushotham (American Academy of Actuaries [Academy] Life Experience Committee and the SOA Preferred Mortality Oversight Group Valuation Basic Table Team—Joint Committee) said the Joint Committee has considered publishing the recommendation at the beginning of the year, but doing so would not allow for inclusion of the data from the most recent year. She said the SOA peer review process determines whether the calculation methodology, which was last changed in 2013, was applied correctly and looks at the history of changes and the materiality of proposed changes to determine if the proposed change should be applied.

Mr. Ostlund made a motion, seconded by Mr. Serbinowski, to adopt the Individual Life Insurance Mortality Improvement Scale Recommendation—for Use with AG 38 and VM-20. Dan Schelp (NAIC) observed that the Valuation Manual does not require Task Force approval or adoption of the recommendation. The motion passed unanimously.

Having no further business, the Life Actuarial (A) Task Force adjourned.
October 2, 2019

Mr. Mike Boerner
Chair, NAIC Life Actuarial Task Force

Re: Individual Life Insurance Mortality Improvement Scale Recommendation

Dear Mike:

The American Council of Life Insurers (ACLI)\(^1\) appreciates the opportunity to comment on the exposed Individual Life Insurance Mortality Improvement Scale Recommendation for Use with AG 38 and VM-20 on behalf of our member companies.

ACLI appreciates the diligent work of the SOA in the development of the updated mortality improvement scale. ACLI recognizes there has been mortality deterioration in certain segments of the general population; however, it is not clear that such deterioration has occurred in the insured population. Member companies are not reporting the level of deterioration in their blocks of business that have been recognized in the general population. However, a 7-day exposure period for this scale does not allow enough time for companies to reconcile the differences between their results and the SOA study. Furthermore, we don’t believe that the automatic table updates allowed by the Valuation Manual extend to the mortality improvement scale, as the tables that are automatically updated follow a documented methodology in the Valuation Manual and are not subject to discretionary judgement. That is clearly not the case for the mortality improvement factors.

In addition to the process concerns, ACLI is greatly concerned about the limited time for companies to implement and assess the impact to their reserve levels. While the impact is likely small for PBR, the impact on AG 38 could be quite significant. The current process of adopting changes to the mortality improvement scale during the Fall, with only three months to understand and implement the change, has been problematic for some time. This concern is magnified when the scale reflects a deterioration.

Our other concerns regarding the scalars are as follows:

**Additional analysis is necessary**

More work needs to be done to understand differences between the insured and population mortality data. To date, the mortality improvement scale has been developed using purely population mortality due to limitations in available insured data. However, Kansas and New York data calls have existed for several years expressly for the purpose of updating mortality tables. In fact, this data was contemplated in a recent SOA report on individual life mortality experience:

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\(^1\) ACLI is a Washington, D.C.-based trade association with approximately 290 member companies operating in the United States and abroad. ACLI advocates in state, federal, and international forums for public policy that supports the industry marketplace and the 75 million American families that rely on life insurers’ products for financial and retirement security. ACLI members offer life insurance, annuities, retirement plans, long-term care and disability income insurance, and reinsurance, representing 95 percent of industry assets, 93 percent of life insurance premiums, and 98 percent of annuity considerations in the United States. Learn more at [www.acli.com](http://www.acli.com).
The most recent SOA research on population mortality (https://www.soa.org/globalassets/assets/Files/resources/research-report/2019/us-population-mortality-observations.pdf) provides some indication of the drivers of the deterioration. COD analysis indicates the primary drivers for the mortality deterioration are a slowdown in improvements in outcomes related to heart diseases and increases in death associated with opioids and suicide. Among these CODs, the magnitude of the impact associated with opioids and suicide on the insured population is not clear due to known demographic factors associated with those CODs. It would be extremely beneficial for analysis to be performed as more insured data emerges to broadly assess the impacts of the CODs to determine if these trends are as pronounced in the insured population.

Industry, the SOA, and regulators should take the time to further study and develop methods to reflect these differences, as appropriate.

**Methodology introduces volatility into the reserve framework**

We believe the methodology for updating the mortality improvement scale can introduce volatility into reserves, especially as a change to reflect insured mortality within the improvement factors is implemented. Even under the current methodology, we may see some volatility due to the need for judgment in the updating of the scale. The prior scale report recognized the trend of deterioration in the prior year, but it was not significant enough to justify changing the scale. Now that the trend has continued, the update results in a more significant impact, given the cumulative effect of the changes. While some volatility is inevitable, ACLI believes that there be a process to mitigate volatility with changing factors, such as a grade-in or smoothing of results. This would dampen some of the peaks and valleys of the volatility.

**Impact of the worsened scalars hurts smaller companies**

Both the AG 38 and VM-20 mortality methodologies recognize a company's own experience in setting of the mortality assumption. Because the mortality improvement factors only impact the industry mortality tables, we are concerned that the update to the scalars penalizes companies with lower credibility. This creates some potential playing field concerns, particularly if the general population mortality continues to deteriorate, but the insured population does not.

**Potential harm to consumers**

ACLI is concerned about how the current methodology ultimately impacts consumers. If erroneous conclusions are drawn from population data, this may lead to harm to consumers vis a vis affordability of insurance.

ACLI would also like to comment on the work to develop product-neutral mortality improvement scales. It’s not clear this would be appropriate, given that life underwritten products have significant information on the insured populations, as opposed to annuity products. While there is inherently some overlap between these two populations, the disparity in availability data regarding underwriting suggests some valid reasons for separate scales.
In summary, ACLI believes it is appropriate to reflect deterioration if it is indicative of the mortality trends of the underwritten population. To avoid such late changes in the future, we encourage regulators to update the Valuation Manual to introduce a lag in implementation of the mortality improvement scale if it is exposed so late in the year, such as explicitly stating in the Valuation Manual that the mortality scale to be used is the named yearly report on the SOA website, as adopted by LATF.

We are optimistic we can work with LATF to develop a reasonable solution that appropriately reflects mortality trends while limiting potential hardship to companies.

We look forward to a discussion of these issues.

Sincerely,

cc Reggie Mazyck, NAIC
The Life Actuarial (A) Task Force met via conference call Sept. 26, 2019. The following Task Force members participated:
Kent Sullivan, Chair, represented by Mike Boerner (TX); Jillian Froment, Vice Chair, represented by Peter Weber (OH); Lori K. Wing-Heier represented by Jacob Lauten (AK); Ricardo Lara represented by Perry Kupferman (CA); Andrew N. Mais represented by Wanchin Chou (CT); Doug Ommen represented by Mike Yanacheak (IA); Robert H. Muriel represented by Bruce Sartain (IL); Stephen W. Robertson represented by Karl Knable (IN); Vicki Schmidt represented by Nicole Boyd (KS); Steve Kelley represented by Fred Andersen and John Robinson (MN); Chlora Lindley-Myers represented by William Leung (MO); Bruce R. Ramege represented by Derek Wallman (NE); Marlene Caride represented by Seong-min Eom (NJ); Linda A. Lacewell represented by Bill Carmello (NY); Glen Mulready represented by Andrew Schallhorn (OK); Todd E. Kiser represented by Tomasz Serbinowski (UT); and Scott A. White represented by Craig Chupp (VA).

1. **Heard an Update on the YRT Reserve Credit Field Test**

Jason Kehrberg (American Academy of Actuaries—Academy) said the pre-survey for the Yearly Renewable Term (YRT) Reserve Credit field test was distributed to 187 companies. Thus far, 47 companies have responded, with five companies agreeing to participate, 13 companies saying they cannot participate due to resource limitations, and the remaining 29 companies declining to participate. The survey response period closes on Oct. 1. Mr. Kehrberg said the required level of effort for participants has been lessened. He said one-on-one discussions with the companies expressing resource limitations may be warranted to make them aware of the lightened requirements. He briefly reviewed the scaled back requirements for model information that participants will be asked to provide. He said the requirements are limited to information related to model preparation.

In response to questions submitted prior to the conference call, Mr. Kehrberg provided the following information:

- With input from industry, the consultant will consider whether YRT treaties with fully guaranteed premiums will need to be modeled.
- Amendment proposal form (APF) 2019-JR will not be field tested; APF 2019-39 will be the baseline for the field.
- The 2020 *Valuation Manual* will be the source of the modeling requirements.
- Future mortality improvement (FMI) sensitivities will not be included until focused modeling instructions are distributed in November.

2. **Exposed the Joint Committee Recommendation for AG 38/VM-20 Mortality Improvement**

Marianne Purushotham (Academy Life Experience Committee and the Society of Actuaries’ [SOA] Preferred Mortality Oversight Group Valuation Basic Table Team—Joint Committee) said the Individual Life Insurance Mortality Improvement Scale Recommendation—for Use with AG 38 and VM-20 (Attachment Three-A) is reviewed annually for any recommended revisions for use with Actuarial Guideline XXXVIII—The Application of the Valuation of Life Insurance Policies Model Regulation (AG 38) and VM-20, Requirements for Principle-Based Reserves for Life Products, of the *Valuation Manual*. She said the methodology for developing the recommendation includes a historical mortality component and a future mortality component, which are averaged to produce the recommended table. The methodology is consistent with the methodology used to develop the mortality improvement for the 2016 Valuation Basic Table (VBT) and the 2017 Commissioners’ Standard Ordinary (CSO) Table. To reduce volatility, the historical mortality component uses 10-year average annual historical mortality improvement levels implied from general population mortality data published by the U.S. Social Security Administration (SSA). The future mortality component uses the 20-year average annual mortality improvement levels based on the most recent SSA Trustees’ report intermediate assumption data. Ms. Purushotham said a decrease in the mortality improvement scale is recommended. She said the decrease is reflective of the mortality trends observed over the last few years. Given the decrease in mortality improvement, the Joint Committee wanted to inform and discuss with the Life Actuarial (A) Task Force. Prior to this year, the usual process was to have the recommended scale approval process limited to peer review.

Mr. Boerner agreed to expose the Individual Life Insurance Mortality Improvement Scale Recommendation—for Use with AG 38 and VM-20 for a seven-day public comment period ending Oct. 2.

Having no further business, the Life Actuarial (A) Task Force adjourned.
Individual Life Insurance Mortality Improvement Scale Recommendation—for Use with AG 38 and VM-20
September 2019

This report outlines the 2019 individual life insurance mortality improvement recommendation.

Background

As part of the work done by the American Academy of Actuaries’1 Life Experience Committee and the Society of Actuaries’2 Preferred Mortality Oversight Group Valuation Basic Table Team (“Joint Committee”) that developed the 2015 Valuation Basic Table (VBT), the Mortality Improvement subgroup was tasked with reviewing recent mortality improvement levels based on available data for the individual life insurance policyholder population.

As a result of this work, the subgroup presented a recommendation for the development of a set of improvement factors that differ by gender and attained age to be used in conjunction with the 2015 VBT. This recommended methodology was accepted and has been used for year-end 2013–2018 in conjunction with Actuarial Guideline (AG) 38 and Valuation Manual section 20 (VM-20). See Appendix A of this report for additional background on the development of the current methodology.

Since year-end 2014, a Mortality Improvements Life Working Group (MILWG) has been tasked with studying and annually recommending updates to the mortality improvement scales for use with AG 38 and VM-20 work (specific to the individual life insurance product lines).

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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 Society of Actuaries (SOA) is an educational, research and professional organization dedicated to serving the public, its members and its candidates. The SOA's mission is to advance actuarial knowledge and to enhance the ability of actuaries to provide expert advice and relevant solutions for financial, business and societal problems. The SOA's vision is for actuaries to be the leading professionals in the measurement and management of risk.
The Society of Actuaries (SOA) Mortality and Longevity Steering Committee is simultaneously working on a general framework for developing product-neutral mortality improvement scales, which will subsequently be used as a guide by the MILWG to revisit the current approach for creating these scales each year.

The recommended scales are intended to be applied to update (“improve”) valuation basic table mortality rates to the end of the current valuation year. As an example, for year-end 2019, the 2015 VBT table mortality would be improved from July 1, 2015, through Dec. 31, 2019 (4.5 years) using the current recommended scale outlined in this document.

### Example application:

<table>
<thead>
<tr>
<th>Attained Age</th>
<th>2019 Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>0.0064 (Males - 2019)</td>
</tr>
<tr>
<td>31</td>
<td>0.0064</td>
</tr>
<tr>
<td>32</td>
<td>0.0064</td>
</tr>
<tr>
<td>33</td>
<td>0.0064</td>
</tr>
<tr>
<td>34</td>
<td>0.0064</td>
</tr>
<tr>
<td>35</td>
<td>0.0064</td>
</tr>
<tr>
<td>36</td>
<td>0.0064</td>
</tr>
<tr>
<td>37</td>
<td>0.0064</td>
</tr>
<tr>
<td>38</td>
<td>0.0064</td>
</tr>
<tr>
<td>39</td>
<td>0.0064</td>
</tr>
<tr>
<td>40</td>
<td>0.0064 (Males - 2019)</td>
</tr>
<tr>
<td>41</td>
<td>0.0064</td>
</tr>
<tr>
<td>42</td>
<td>0.0064</td>
</tr>
<tr>
<td>43</td>
<td>0.0064</td>
</tr>
</tbody>
</table>

#### 2019 Mortality Improvement Scale Methodology

The raw, unsmoothed mortality improvement factors are equal to the average of a historical component and a future-looking component as described below:

- **Historical component:**
  The historical component is represented by the 10-year average annual historical mortality improvement levels implied from general population mortality data published by the Social Security Administration (SSA). For each calendar year of data, the SSA results are published more than a year after the Centers for Disease Control and Prevention (CDC) results are available (so for example, for 2019 the published SSA historical data is only available through 2016 even though CDC data is available through 2017). In order to provide the subgroup with as much information as possible for this yearly update process, the SOA applies the SSA methodology to produce a preliminary set of SSA-consistent mortality rates for use in this calculation for attained ages 20 to 100. For the 2019 recommendation, the 2017 historical rates were estimated by the
SOA for ages 20 to 100. For ages under 20 and over 100, the SSA Alternative (Alt) 2 projected rates for 2017 were used as a proxy for actual historical rates.

Although a 5-year period more closely aligns with the period over which mortality rates are improved for the current purpose, a 10-year historical period was selected for use as it results in less volatility from year to year. The most recent 5-year averages (see Appendix B) were examined as part of the update process and have been considered in developing the final recommendation. Although these results indicate negative improvement for certain age groups (specifically 20-45) over the 5-year period, preliminary data for 2018 from the Vital Statistics Rapid Release Reports indicates potential improvements returning in 2018.

- **Future-looking component:**
  The future component is represented by the 20-year average annual mortality improvement levels (for 2019, this covers the period from 2017 to 2037), based on the most recent Social Security Administration Trustees’ report intermediate assumption (Alt 2). The SSA mortality projection is based on historical data and assumes ultimate average annual percentage reductions in future mortality rates by age and cause of death. These assumptions are used to estimate future central death rates by age, sex, and cause of death. From these estimated central death rates, probabilities of death by single year of age and sex are determined.

  For AG 38/VM-20 purposes, the “future projected” component is relatively short (for 2019, historical data exists through 2017, so the “unknown” future component is 2 years). However, applying the 20-year period for averaging (rather than a shorter period) generally results in smoother patterns by age and calendar year. It also provides greater stability in year-over-year results as the longer period lessens the tendency to over-react to short-term fluctuations in historical experience. The determination of the future component will also be reviewed as part of the full methodology update to apply the recommended consistent framework from the SOA Mortality and Longevity Steering Committee work.

The average annual rates calculated as above are then smoothed using simple linear interpolation to produce a final scale by gender and age.

Historical data from the Human Mortality Database (HMD) was also considered in determining the 10-year historical averages, which provided a perspective from multiple sources in examining recent population mortality trends.

**Recommendation**

Based on a review of the improvement factors resulting from application of the methodology to include the 2019 data updates, it is recommended that the mortality improvement scale be revised for 2019 to reflect mortality deterioration trends that have emerged over the past several years in population mortality. The current methodology does not include an adjustment to reflect differences between the target insured population and the general population on which mortality data is based. From limited data from reinsurers and other sources, there is some indication that insured mortality is generally lower than general population mortality (possibly due to the generally higher socioeconomic status of those buying life insurance). However, there is not yet sufficient consistent, long-range insured data on which to
measure mortality improvement specific to the insured population. Several potential options to reflect adjustments in a future review of the current methodology are under consideration.

This revision will result in a reduction in mortality improvement levels from the 2018 scale of approximately 0.25 percentage points for males and 0.15 percentage points for females.

This decision is supported by an examination of the most recent 5-year historical averages, which show a smaller improvement in mortality than the earlier 5-year period. See Appendix B for historical averages by age and gender for these two historical 5-year periods.

The 2019 recommended improvement rates can be found in the accompanying spreadsheet.

**Applicability of Improvement Scale**

The above recommendation represents a view of reasonable mortality improvement factors for short- and medium-term projections and is intended to be applied solely for the purposes of updating the mortality assumption from the time of the valuation table publication to the beginning of the current valuation period.
APPENDIX A:

Considerations in developing mortality improvement factors for application with AG 38 and VM-20.

- **Period of Experience Used**—The desire for a methodology that weights the impact of recent historical rates of improvement with a longer-term assumption (i.e., SSA intermediate mortality projections) in determining projected improvement rates. This approach is (at a very high level) consistent with the current U.K. Continuous Mortality Investigation (“CMI”) projection models, as well as methods commonly used to develop other insured mortality projection scales. These methods basically project rates based on past experience, but trend toward a long-term assumed average annual improvement level.

- **Insured Data**—Aggregate insurance company data for the period 2002–2009 from the Society of Actuaries’ regular studies of individual life insurance mortality was initially examined. It was eventually decided that, given (1) the relatively short period over which historical insured experience is available and (2) the year-over-year volatility of results (likely in part the result of both industry-specific factors and changes in underlying mortality rates), general population data is a preferable source for determining both an improvement scale for use in VBT table development efforts and as annual AG 38/VM-20 scale recommendations, at least for the near term.

- **General Population Data Source**—The subgroup examined several sources of general population data, including data from the U.S. Vital Statistics, the Human Mortality Database (HMD), and the SSA. The SSA data was selected as the source for general population analysis for several reasons:
  - The data and reports are strongly vetted.
  - The SSA uses mortality statistics from the Centers for Medicare and Medicaid Services rather than the National Center for Health Statistics for ages 65 and older. A number of studies have questioned the validity of age reporting in the CDC National Statistics data.
  - Using the SSA data allows for consistency in applying the current methodology’s historical and future components (Trustees Report historical data is used as well as the projections of future estimated mortality).

- **Additional Factors Considered (Gender, Attained Age, Smoker Status, Socioeconomic Status, Differences in Cause of Death for Insured vs. General Population)**—In addition to data sources discussed above, the subgroup also researched and considered additional factors that could impact mortality improvement experience. The decision was made to regularly review the use of alternative or further adjustments to population mortality to eliminate potential basis risk at the same time any changes for consistent framework recommendations are incorporated.
APPENDIX B:


Males

Females

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The Life Actuarial (A) Task Force met via conference call Sept. 19, 2019. The following Task Force members participated: Kent Sullivan, Chair, represented by Mike Boerner (TX); Jillian Froment, Vice Chair, represented by Peter Weber (OH); Lori K. Wing-Heier represented by Mayumi Gabor (AK); Jim L. Ridling represented by Steve Ostlund (AL); Ricardo Lara represented by Rachel Hemphill and Perry Kupferman (CA); Andrew N. Mais represented by Wanchin Chou (CT); Robert H. Muriel represented by Bruce Sartain (IL); Stephen W. Robertson represented by Karl Knable (IN); Vicki Schmidt represented by Nicole Boyd (KS); Steve Kelley represented by Fred Andersen and John Robinson (MN); Chlora Lindley-Myers represented by William Leung (MO); Bruce R. Ramge represented by Derek Wallman (NE); Marlene Caride represented by Seong-min Eom (NJ); John G. Franchini represented by Mark Hendrick (NM); Linda A. Lacewell represented by Bill Carmello and Amanda Fenwick (NY); Glen Mulready represented by Andrew Schallhorn (OK); Todd E. Kiser represented by Tomasz Serbinowski (UT); and Scott A. White represented by Craig Chupp (VA).

1. **Adopted its 2020 Proposed Charges**

The Task Force’s 2020 proposed charges remain consistent with its 2019 charges, except for the removal of the charge related to the implementation of the Variable Annuity Framework to recognize its completion.

Mr. Ostlund made a motion, seconded by Mr. Andersen, to adopt the Task Force’s 2020 proposed charges (Attachment Four-A). The motion passed unanimously.

2. **Heard an Update on the YRT Reserve Credit Field Test**

Jason Kehrberg (American Academy of Actuaries—Academy) discussed the draft of the General Modeling Instructions for Yearly Renewable Term (YRT) (Attachment Four-B). He said the draft is targeted toward non-reinsurer participants in the Academy’s YRT Reserve Credit field test. The instructions will be modified for participants that are reinsurers. Amendment proposals 2019-40, 2019-41 and 2019-42—as well as the interim solution, amendment 2019-39—will be appended to the draft for participant consideration. Mr. Kehrberg said the background information from the pre-survey will be included in Section A of the draft. He said Section C identifies the reinsurance treaty types and noted that only YRT reinsurance treaties are to be modeled. He said the design group is requesting results split by the five treaty types listed in the draft. He said to minimize the amount of work involved, the design group will attempt to collect only the treaty splits that are necessary to provide the Task Force with the data and analysis needed to make a good decision. Leonard Mangini (Academy) said the reserves are calculated at an aggregate level. Therefore, companies would combine multiple treaty types within the same VM-20 reserving category. Mr. Kehrberg said asking for splits will not allow the stochastic reserve offsets to be calculated correctly. He said the group is still considering whether the splits are necessary and would welcome feedback on the issue. He indicated that companies elected to participate in the study will receive a survey requesting information on product mix and treaty types. The information collected will be used to determine whether the splits are necessary. Mr. Kehrberg said the design group is considering whether to separate the information by product type within VM-20 reserving categories. He said the design group is recommending to separate business by term and universal life with secondary guarantees (ULSG) only. Field test participants will be asked to follow the requirements of the 2020 Valuation Manual and use year-end 2018 as the valuation date. Section K provides guidance on how to project cash flows and reserves.

Mr. Mangini discussed the output template (Attachment Four-C) to be used for documentation of the modeling results. He said the template represents a single treaty for one year of issues on a specific valuation date. He noted that this particular template is designed specifically for amendment proposal 2019-41.

Having no further business, the Life Actuarial (A) Task Force adjourned.
2020 PROPOSED CHARGES  
LIFE ACTUARIAL (A) TASK FORCE

The mission of the Life Actuarial (A) Task Force is to identify, investigate and develop solutions to actuarial problems in the life insurance industry.

Ongoing Support of NAIC Programs, Products and Services

1. The **Life Actuarial (A) Task Force** will:
   A. Work to keep reserve, reporting, and other actuarial-related requirements current. This includes principle-based reserving (PBR) and other requirements in the *Valuation Manual*, actuarial guidelines, and recommendations for appropriate actuarial reporting in blanks. Respond to charges from the Life Insurance and Annuities (A) Committee and to referrals from other groups or committees as appropriate.
   B. Report progress on all work to the Life Insurance and Annuities (A) Committee and provide updates to the Financial Condition (E) Committee on matters related to life insurance company solvency. This work includes the following:
      1. Work with the American Academy of Actuaries (Academy) and the Society of Actuaries (SOA) to develop new mortality tables for valuation and minimum nonforfeiture requirements as appropriate for life insurance and annuities.
      2. Provide recommendations for guidance and requirements for accelerated underwriting, as needed.
      3. Evaluate and provide recommendations regarding the VM-21/AG 43 Standard Projection Amount, which may include continuing as a required floor or providing as disclosure. This evaluation is to be completed prior to yearend 2023.
      4. Monitor the work of the Variable Annuity Issues (E) Working Group, and work with any recommendations from the **Variable Annuities Capital and Reserve (E/A) Subgroup**.
      5. Work with the SOA on the annual development of the Generally Recognized Expense Table (GRET) factors.
      6. Provide recommendations and changes, as appropriate, to other reserve and nonforfeiture requirements to address issues, and provide actuarial assistance and commentary to other NAIC committees relative to their work on actuarial matters.
      7. Monitor international developments regarding life and health insurance reserving, capital and related topics. Compare and benchmark with PBR requirements.

2. The **Variable Annuities Capital and Reserve (E/A) Subgroup**, a joint subgroup of the Life Risk-Based Capital (E) Working Group and the Life Actuarial (A) Task Force, will:
   A. Monitor the impact of the changes to the variable annuities reserve framework and RBC calculation and determine if additional revisions need to be made.
   B. Develop and recommend appropriate changes including those to improve accuracy and clarity of variable annuity (VA) capital and reserve requirements.

3. The **Experience Reporting (A) Subgroup** will:
   A. Continue development of the experience reporting requirements within the *Valuation Manual*. Provide input, as appropriate, for the process regarding the experience reporting agent, data collection, and subsequent analysis and use of experience submitted.

4. The **IUL Illustration (A) Subgroup** will:
   A. Consider enhancements to *Actuarial Guideline XLIX—The Application of the Life Illustrations Model Regulation to Policies with Indexed-Based Interest* (AG 49). Provide recommendations for modifications to AG 49 to the Life Actuarial (A) Task Force.

5. The **Longevity Risk (A/E) Subgroup**, a joint subgroup of the Life Actuarial (A) Task Force and the Life Risk-Based Capital (E) Working Group, will:
   A. Provide recommendations for recognizing longevity risk in statutory reserves and/or risk-based capital (RBC), as appropriate. Complete by the 2020 Spring National Meeting.

6. The **VM-22 (A) Subgroup** will:
   A. Recommend requirements as appropriate for non-variable (fixed) annuities in the accumulation and payout phases for consideration by the Life Actuarial (A) Task Force. A PBR methodology will be considered as appropriate.

NAIC Support Staff: Reggie Mazyck/Eric King

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General Modeling Instructions for Non-Reinsurer Participants in the PBR Yearly Renewable Term (YRT) Reinsurance Field Test

*(draft framework)*

A. Background

*(insert background from pre-survey)*

B. Goals for the Field Test

1. Compare Yearly Renewable Term (YRT) reinsurance reserve/credit differences by company, cedant/reinsurer perspective, product type, and treaty type for each Amendment Proposal Form (APF) and the one half of the one year mean reserve using the valuation mortality table (½ Cx) baseline.

2. Confidence in the reasonability of assumptions used and YRT premiums/claims projected.

3. Insight into the sources of deviation between ½ Cx and the reinsurance reserve/credit for each APF.

4. Better understand modeling complexities, intended/unintended outcomes, and differences due to company size/credibility/inforce and interpretation/implementation for each of the proposed APFs.

5. Insight into the impact of treaty types on cedant mortality margins, including the explicit credibility-linked margin, and the implicit margin from prohibiting future mortality improvement (FMI).

C. YRT Reinsurance Treaty Types

1. Model each of the company’s YRT reinsurance treaties.

2. Do not model non-YRT reinsurance treaties, e.g. coinsurance.

3. Classify each of the company’s YRT reinsurance treaties and produce results split by the five following treaty types:

<table>
<thead>
<tr>
<th>Type</th>
<th>Name</th>
<th>Initial guarantee period (GP) when rates can’t change</th>
<th>Restricted reinsurer ability to change rates after GP</th>
<th>Reinsurer pays experience refund</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y1</td>
<td>1-Year Guarantee with Unrestricted Language</td>
<td>1 policy year or less</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Y2</td>
<td>1-Year Guarantee with Restricted Language</td>
<td>1 policy year or less</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Y3</td>
<td>[N]-Year Guarantee with Unrestricted Language</td>
<td>[N] policy years</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Y4</td>
<td>[N]-Year Guarantee with Restricted Language</td>
<td>[N] policy years</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Y5</td>
<td>1-Year Guarantee with Unrestricted Language and Experience Refund</td>
<td>1 policy year or less</td>
<td>No</td>
<td>Yes, [X%] * (YRT premium - YRT claims - Risk charge)</td>
</tr>
</tbody>
</table>

| All types | * Reinsurer shall provide prior written notice not less than [n] days prior to the effective date of any change in premium rates. |

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• In no event shall the reinsurance premium rates exceed the guaranteed rates.

*Design Subgroup to consider adding additional categories described by responses in the pre-survey, including whether there should be an "Other" category

D. Product Splits

At a minimum, split by VM-20 reserving category | Ideally, further split by product type
---|---
Term | [N]-year level term, ART, etc.
ULSG | ULSG, IULSG, VULSG, etc.
Other | WL, Accumulation-type UL, IUL, VUL, etc.

1. Separate out term field testing results by 10 year term, 20 year term, and 30 year term.

E. APFs for Calculating the Reserve Credit

<table>
<thead>
<tr>
<th>APF #</th>
<th>Short Name</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019-39</td>
<td>( \frac{1}{2} ) Cx baseline</td>
<td>Interim solution in 2020 VM.</td>
</tr>
<tr>
<td>2019-40</td>
<td>Up to actuarial judgement</td>
<td>Subject to clarified principles for modeling. 4 cedant sensitivities on counterparty action.</td>
</tr>
<tr>
<td>2019-41</td>
<td>Remove YRT claim margins</td>
<td>3 cedant sensitivities on mortality improvement.</td>
</tr>
<tr>
<td>2019-42</td>
<td>Add YRT premium margins</td>
<td>4 cedant sensitivities on mortality improvement.</td>
</tr>
</tbody>
</table>

1. See appendices for specific APF language and detail on instructions and sensitivities.

F. Valuation Manual

1. Follow the 2020 Valuation Manual unless directed otherwise in the APF-specific instructions.
2. Note any areas where the company’s field testing methodology is not in compliance.

G. Time Zero Valuation Date

12/31/18

H. Time Zero Inforce Population

1. Include policies issued during the last 12 months subject to the YRT treaty(ies) being tested.
2. Include plan codes that have been valued under PBR or are contemplated to be valued under PBR.
3. Use a mix of PBR pricing cells based on 12 months of issues if such an actual inforce population is not available.

I. Time Zero Yield Curve

<table>
<thead>
<tr>
<th>Maturity (years)</th>
<th>0.25</th>
<th>0.5</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>5</th>
<th>7</th>
<th>10</th>
<th>20</th>
<th>30</th>
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<tbody>
<tr>
<td>Treasury Yield</td>
<td>2.45%</td>
<td>2.56%</td>
<td>2.63%</td>
<td>2.48%</td>
<td>2.46%</td>
<td>2.51%</td>
<td>2.59%</td>
<td>2.69%</td>
<td>2.87%</td>
<td>3.02%</td>
</tr>
</tbody>
</table>

(above is for 12/31/18)
J. Model Type
   1. Use a model that can project reserves at future periods over the contract life for the modeled block.
   2. If such a model is not available, consider basing on pricing model, business forecasting projection model, or cash flow testing model.

K. Inner Loop Projections
   1. An inner loop projection projects cashflows forward from a valuation date, and those cashflows are only used to determine the deterministic reserve (DR) and stochastic reserve (SR) on that valuation date.
   2. If possible, for each inner loop projection project cashflows until no liabilities remain.
   3. Use VM-20 prescribed and prudent estimate assumptions.
   4. A separate inner loop projection is required for each valuation date in the outer loop (t = 0, 1, 2, ...).
      a. For each valuation date, use assumptions that comply with VM-20 and are consistent with the “state of the world” on that valuation date as defined by the outer loop at that point in time.
      b. Prudent estimate assumptions for each inner loop projection reflect increases in the credibility of company experience from one valuation date to the next.
      c. VM-20 scenarios for each inner loop projection are consistent with the outer loop yield curve on the valuation date.
      d. Current spreads for each inner loop projection are equal to spreads in the outer loop on the valuation date.
   5. Optional sensitivity – FMI allowed for in the direct mortality experience
      a. While this sensitivity will not impact the YRT reinsurance premium modeling issue, there is interest in collecting some data on relaxing the prohibition of FMI in direct mortality experience. Time permitting, please calculate two sensitivities for the pre-reinsurance DR with FMI set to 0.5% and 1.0%, respectively.

L. Outer Loop Projections
   1. Three outer loop projections
      a. Baseline of 0.5% FMI
      b. Sensitivities of 0% and 1% FMI
   2. Outer loop experience assumptions
      a. Set equal to unmargined (i.e. anticipated) experience assumptions from the time zero inner loop projection.
      b. Assume 2% expense inflation in the outer loop.
   3. Outer loop economic and reinvestment assumptions
      a. Assume the initial yield curve remains constant throughout the outer loop projection. This means the inner loop Stochastic Exclusion Ratio Test (SERT) 16 scenarios and stochastic reserve scenarios will be the same for time zero and every future valuation date.
      b. Use VM-20 prescribed current spreads and baseline defaults from the time zero inner loop projection. For the outer loop, keep spreads constant, i.e. do not grade to ultimate spreads as you do for the inner loop. For outer loop defaults, ignore the spread related factor and max net spread adjustment.
c. Use the inforce portfolio mix from the time zero inner loop projection.
d. Use the anticipated company experience reinvestment strategy from time zero.

4. Use separate inner loop projections to calculate reserves at time zero and each year-end in the outer loop projection.
a. Can interpolate for month-end reserves in the outer loop projection.

M. Numerical output template
1. Instructions – Instructions for the numerical output template are included in the template itself.
2. Comments – Please use the provided output template to capture all numerical input. Space is provided in the output template for comments. Comments in a Microsoft Word document will also be accepted, but please make comments on numerical output in the output template if possible.
3. (Note – A survey is being developed to capture additional non-numerical output. There are already some requests for non-numerical output in the APF-specific instructions.)

N. If cuts must be made due to resource constraints and/or modeling limitations
1. Try these approximations and simplifications first:
   a. Outer Loop Projections: Project reserves at years 1-5 and every five years afterward (instead of annually)
   b. Starting Assets: Scale starting assets within +/-10% (instead of 2% collar)
   c. Product Types: Only provide field test results for the Term and ULSG reserving categories, with Term split by level term period and USLG split by UL/IUL/VUL
   d. Stochastic Scenarios: Reduce the number of stochastic scenarios to 100 (or even 50)
   e. Asset Portfolio: Use a simplified asset mix (e.g., ignore externally projected assets and reduce types of assets in portfolio)
   f. Inner Loop Projection Period: For Term, limit each inner loop to a 40-year projection period (or less as deemed appropriate)
   g. Expense Inflation: Use company-specific assumption expense inflation rate instead of 2% if needed (as long as both pre & post reinsurance are consistent)

2. Try these if still experiencing resource constraints and/or modeling limitations:
   a. Outer Loop Projections: Project reserves at years 1, 5, 10, 20, 30
   b. ULSG Product Types: Only provide field test results 20-year Term and ULSG (no IUL/VUL)
   c. Pre-Reinsurance DR with FMI: Do not provide results
   d. Stochastic Reserves: Only produce NPR and DR, but not SR
   e. Outer Loop Improvement Scenarios: Only provide results for the baseline FMI scenario of 0.5%

3. Only perform these if unable to complete field testing without them:
   a. Net Premium Reserve: Only produce DR and ½ Cx, not NPR
   b. Outer Loop Projections: Only provide projected reserves at timing of expected reserve peak
   c. Restrict Treaties: Only select key treaties that are more predominate on Term and ULSG business
   d. Forgo Nested Modeling: Forgo nested modeling by just projecting the inner loop and changing the valuation date (only recommended as a last resort)
* In the comments your company provides on field test modeling, please list and describe the shortcuts, approximations and/or simplifications used in your company’s modeling.
## Sub-Total Results for VM-20 Section 2.A.3 "Other Group"

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### Scaled Unitized Results

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### Ceded "Loss ratio" by Duration

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### Scenario Reserves in $1

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<td>Post-Reinsurance Balance Sheet Impact</td>
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</table>

### Explanations

- **APF 2019-41 Output Reporting Template**
- **Baseline - One Year Issue: Time Zero Un-Projected Reserves**
- **1.0% Future Mortality Improvement on Reinsurance Recoveries**
- **Model Duration Cash Flows**
- **Gross Net Amount At Risk Inforce in $1 Units - End of Period**
- **Ceded NAAR in $1 Units - End of Period**
- **Net of Reinsurance NAAR in $1 Units - End of Period**
- **Direct Gross Premiums in $1 Units**
- **Direct Gross Claims in $1 Units**
- **YRT Premiums to Reinsurer in $1 Units**
- **Reinsurance Claims Recoveries in $1 Units**
- **Scaled Unitized Results**
- **APV of Non-Guaranteed Reinsurance Claim Recoveries**
- **APV of Non-Guaranteed YRT Reinsurance Premiums**
- **Non-Guaranteed Premium Loss Ratio for Treaty**
- **APV of Guaranteed Reinsurance Claim Recoveries**
- **APV of Guaranteed YRT Reinsurance Premiums**
- **Guaranteed Premium Loss Ratio for Treaty**
- **Company Credibility Method**
- **Company Credibility Level**
- **Prescribed Mortality Credibility Margin**
- **SDP**
- **Duration of Start of Grading Period**
- **Duration End Grading to Industry Table**
- **Additional Mortality Margin (Explain Next Row)**
- **Explanation for Extra Margin**
- **Scenario Reserves in $1**
- **Pre-Reinsurance Balance Sheet Impact**
- **Post-Reinsurance Balance Sheet Impact**
- **NPR**
- **DDPA - Due and Deferred Premium**
- **NPR - DDPA**
- **DR**
- **SR**
- **Maximum of these “Winner”**
- **Implied Reserve Credit in $1 Units**
- **Utilized Reserve Credit per Time 0 Ceded NAAR**
- **1/2 Cx in $1**
- **Utilized by Time 0 Ceded NAAR**
- **Utilized Reserve Credit > Utilized 1/2 Cx ?**
The Life Actuarial (A) Task Force met via conference call Sept. 12, 2019. The following Task Force members participated:

Kent Sullivan, Chair, represented by Mike Boerner (TX); Jillian Froment, Vice Chair, represented by Peter Weber (OH); Lori K. Wing-Heier represented by Mayumi Gabor (AK); Jim L. Ridling represented by Steve Ostlund (AL); Ricardo Lara represented by Rachel Hemphill and Perry Kupferman (CA); Andrew N. Mais represented by Wanchin Chou (CT); Robert H. Muriel represented by Bruce Sartain (IL); Stephen W. Robertson represented by Karl Knable (IN); Vicki Schmidt represented by Nicole Boyd (KS); Steve Kelley represented by Fred Andersen and John Robinson (MN); Chlora Lindley-Myers represented by William Leung (MO); Marlene Caride represented by Seong-min Eom (NJ); John G. Franchini represented by Mark Hendrick (NM); Linda A. Lacewell represented by Bill Carmello and Amanda Fenwick (NY); Glen Mulready represented by Andrew Schallhorn (OK); Todd E. Kiser represented by Tomasz Serbinowski (UT); and Scott A. White represented by Craig Chupp (VA).

1. **Adopted its Summer National Meeting Minutes**

Mr. Ostlund made a motion, seconded by Mr. Weber, to adopt the Task Force’s Aug. 1–2 minutes (see NAIC Proceedings – Summer 2019, Life Actuarial (A) Task Force). The motion passed unanimously.

2. **Adopted the 2020 GRET**

Mr. Weber made a motion, seconded by Mr. Chou, to adopt the 2020 Generally Recognized Expense Tables (GRET) (Attachment Five-A). The motion passed unanimously.

2. **Heard an Update on the YRT Reserve Credit Field Test**

Jason Kehrberg (American Academy of Actuaries—Academy) said the Academy’s YRT Field Test Project Group is comprised of an oversight group and a design group. He presented PowerPoint slides (Attachment Five-B) showing the timeline, the field test pre-survey, yearly renewable term (YRT) treaty classification, risk transfer rules and proposed Task Force field test goals. He noted that amendment proposals 2019-40, 2019-41 and 2019-42 are to be assessed during the field test, with amendment proposal 2019-39 serving as a baseline. He emphasized that company information will be kept confidential. The timeline assumes the field test will be facilitated by a consultant. Mr. Kehrberg noted that the target date may not be met if the consultant is not hired prior to Sept. 30.

The results of the field test will inform the Task Force selection of a long-term solution for the methodology for the determination of the YRT reinsurance reserve credit. Mr. Kehrberg said the solution the Task Force chooses may require the Statutory Accounting Principles (E) Working Group to modify risk transfer rules. Mr. Boerner said the Working Group has been alerted that coordination with the Task Force to address risk transfer rules may be necessary.

Alice Fontaine (Fontaine Consulting) discussed the draft principles for YRT treaty/cash flow modeling (Attachment Five-C) to be used as a tool for comparing the amendment proposals assessed during the field test. She said the principles cover the environment surrounding the modeling of the reinsurance cash flows, provisions within the reinsurance treaty and consideration of the reinsurer’s potential reactions. Ms. Fontaine also discussed revisions to amendment proposal 2019-40 (Attachment Five-D). The document includes: 1) four counterparty scenarios under which the revised amendment proposal will be tested; and 2) tables for disclosing possible outcomes.

Mr. Robinson discussed amendment proposal 2019-JR (Attachment Five-E). He said the three basic hypotheses in the amendment proposal are: 1) the ceding company and the assuming company can have different perspectives on the future; 2) the reserve credit must bear a reasonable relation to the reserve set up by the reinsurer; and 3) the statement of statutory accounting principles (SSAP) should defer to the *Valuation Manual* as the single source of guidance on reserve credits.

Dave Neve (Global Atlantic) discussed amendment proposal 2019-41 (Attachment Five-F). He said the proposal calls for calculation of the reserve for 15 years under three mortality improvement scenarios to determine projected reinsurance claim settlements.
Ms. Hemphill said amendment proposal 2019-42 (Attachment Five-G) requires the company to set its reinsurance premium margins at the same percentage as the margins for mortality. Both the explicit and the implicit margins are to be included in the assessment. Testing is to be completed using 5-year, 10-year, 15-year and 20-year scenarios of mortality improvement to approximate the implicit margin.

Having no further business, the Life Actuarial (A) Task Force adjourned.
TO: Reggie Mazyck, NAIC
FROM: Dale Hall, Managing Director of Research, Society of Actuaries (SOA)
Leon Langlitz, Chair, SOA Committee on Life Insurance Company Expenses
DATE: July 16, 2019
RE: 2020 Generally Recognized Expense Table (GRET) – SOA Analysis

As in previous years, the Society of Actuaries expresses its thanks to NAIC staff for their assistance and responsiveness in providing Annual Statement expense and unit data for the 2020 GRET analysis for use with individual life insurance sales illustrations. The analysis is based on expense and expense related information reported on companies' 2017 and 2018 Annual Statements. This project has been completed to assist the Life Actuarial Task Force (LATF) in its consideration of potential revisions to the GRET that could become effective for calendar year 2020. This memo describes the analysis and resultant findings.

NAIC staff provided Annual Statement data for life insurance companies for calendar years 2017 and 2018. This included data from 707 companies in 2017 and 722 companies in 2018. This increase breaks the trend of small decreases over the previous few years. Of the total companies, 326 were in both years and passed the outlier exclusion tests and were included as a base for the GRET factors (361 companies passed similar tests last year).

Approach Used

The methodology for calculating the recommended GRET factors based on this data is similar in broad outline to that followed the last several years. The methodology was last altered in 2015. The changes which were made at that time can be found in the recommendation letter sent on July 30, 2015.

To calculate updated GRET factors, the average of the factors from the two most recent years (2017 and 2018 for those with data available for both years) of Annual Statement data was used. For each company an actual to expected ratio was calculated. Companies with ratios that fall outside predetermined parameters are excluded and this process is competed three times in order to stabilize the average rates. The boundaries of the exclusions are modified from time to time and there was a slight adjustment this year to increase the number of companies in the final study. Unit expense seed factors (the seeds for all distribution channel categories are the same), as given in Appendix B, were used to compute total expected expenses. Thus, these seed factors were used to implicitly allocate expenses between acquisition and maintenance expenses, as well as among the three acquisition expense factors (on a direct of ceded reinsurance basis).

Companies were categorized by their reported distribution channel (four categories were used as described in Appendix A of this memo). There remain a significant number of companies for which no distribution channel was available, as no responses to the annual surveys have been received from those companies. The characteristics of these companies vary significantly, including companies not currently writing new business or whose major line of business is not individual life insurance. Any advice or assistance from LATF in future

1 https://www.soa.org/Files/Research/Projects/research-2016-gret-recommendation.pdf
years to increase the response rate to the surveys of companies that submit Annual Statements in order to reduce the number of companies in the “Other” category would be most welcomed.

Prior to 2014, when responding to the survey if a company indicated they used multiple channels to distribute their individual life sales, the percentage weights provided to us were applied to that company’s reported results in the tabulations of each of the distribution channel’s unit expense results. In 2015 this was changed so that all expenses for a company will go to the channel with the highest percentage weight. This approach was changed because: (1) as fewer channel types were used, it was expected that fewer companies would have multiple channels as currently defined and (2) an insufficient number of multiple distribution responses were provided in that year’s survey to result in a significantly different outcome. The intention is to continue surveying the companies in future years to enable enhancement of this multiple distribution channel information.

Companies were excluded from the analysis if (1) their actual to expected ratios were considered outliers, often due to low business volume, (2) the average first year and single premium per policy was more than $40,000, (3) they are known reinsurance companies or (4) companies were not in both years of the data supplied by the NAIC. To derive the overall GRET factors, the unweighted average of the remaining companies’ actual-to-expected ratios for each respective category was calculated. The resulting factors were rounded, as shown in Table 1.

The Recommendation

Employing the above methodology results in the proposed 2020 GRET values shown in Table 1. To facilitate comparisons, the current 2019 GRET factors are shown in Table 2.

Further characteristics of the type of companies represented in each category are included in the last two columns in Table 1, including the average premium per policy issued and the average face amount ($000s) per policy issued.

TABLE 1

PROPOSED 2020 GRET FACTORS, Based on Average of 2017/2018 Data

<table>
<thead>
<tr>
<th>Description</th>
<th>Acquisition Per Policy</th>
<th>Acquisition Per Unit</th>
<th>Acquisition Per Premium</th>
<th>Maintenance Per Policy</th>
<th>Companies Included*</th>
<th>Average Premium Per Policy Issued During Year</th>
<th>Average Face Amt (000) Per Policy Issued During Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent</td>
<td>$168</td>
<td>$0.90</td>
<td>42%</td>
<td>$50</td>
<td>118</td>
<td>3,263</td>
<td>200</td>
</tr>
<tr>
<td>Career</td>
<td>214</td>
<td>1.20</td>
<td>54%</td>
<td>64</td>
<td>63</td>
<td>2,661</td>
<td>217</td>
</tr>
<tr>
<td>Direct Marketing</td>
<td>217</td>
<td>1.20</td>
<td>54%</td>
<td>65</td>
<td>20</td>
<td>2,489</td>
<td>213</td>
</tr>
<tr>
<td>Niche Marketing</td>
<td>125</td>
<td>0.70</td>
<td>32%</td>
<td>38</td>
<td>21</td>
<td>757</td>
<td>13</td>
</tr>
<tr>
<td>Other*</td>
<td>140</td>
<td>0.80</td>
<td>35%</td>
<td>42</td>
<td>104</td>
<td>876</td>
<td>34</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>326</td>
<td></td>
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</tbody>
</table>
In previous recommendations, an effort was made to reduce volatility in the GRET factors from year-to-year by limiting the change in GRET factors between years to about ten percent of the prior value. The changes from the 2019 GRET were reviewed to ensure that a significant change was not made in this year’s GRET recommendation. Only the Niche Marketing distribution channel category experienced a change greater than ten percent so the factors for this line were capped at the ten percent level (the Acquisition per unit factor changed more than 10% because of rounding) from the corresponding 2019 GRET values. The change occurred due to the change in the composition of the companies in this category where there is a small number of companies included.

**Usage of the GRET**

Also asked in this year’s survey, responded to by companies’ Annual Statement correspondent, was a question regarding whether the 2018 GRET table was used by the company. Last year, 28% of the responders indicated their company used the GRET for sales illustration purposes, with similar percentage results by size of company; this contrasted with about 30% in the prior year. This year, 26% of responding companies indicated that they used the GRET in 2018 for sales illustration purposes, with similar results for each of the distribution channels with a significant number of responders. Based on the information received over the last several years, the variation in GRET usage appears to be in large part due to the relatively small sample size and different responders to the surveys.

We hope LATF finds this information helpful and sufficient for consideration of a potential update to the GRET. If you require further analysis or have questions, please contact Dale Hall at 847-273-8835.

Kindest personal regards,

Dale Hall, FSA, MAAA, CERA, CFA
Managing Director of Research
Society of Actuaries

Leon Langlitz, FSA, MAAA
Chair, SOA Committee on Life Insurance Company Expenses
Appendix A -- Distribution Channels

The following is a description of distribution channels used in the development of recommended 2020 GRET values:

1. **Independent** – Business written by a company that markets its insurance policies through an independent insurance agent or insurance broker not primarily affiliated with any one insurance company. These agencies or agents are not employed by the company and operate without an exclusive distribution contract with the company. These include most PPGA arrangements.

2. **Career** – Business written by a company that markets insurance and investment products through a sales force primarily affiliated with one insurance company. These companies recruit, finance, train, and often house financial professionals who are typically referred to as career agents or multi-line exclusive agents.

3. **Direct Marketing** – Business written by a company that markets its own insurance policies direct to the consumer through methods such as direct mail, print media, broadcast media, telemarketing, retail centers and kiosks, internet or other media. No direct field compensation is involved.

4. **Niche Marketers** – Business written by home service, pre-need, or final expense insurance companies as well as niche-market companies selling small face amount life products through a variety of distribution channels.

5. **Other** – Companies surveyed were only provided with the four options described above. Nonetheless since there were many companies for which we did not receive a response (or whose response in past years’ surveys confirmed an “other” categorization (see below), values for the “other” category are given in the tables in this memo. It was also included to indicate how many life insurance companies with no response (to this survey and prior surveys) and to indicate whether their exclusion has introduced a bias into the resulting values.

Appendix B – Unit Expense Seeds

The expense seeds used in the 2014 and prior GRETs were differentiated between branch office and all other categories, due to the results of a relatively old study that had indicated that branch office acquisition cost expressed on a per Face Amount basis was about double that of other distribution channels. Due to the elimination of the branch office category in the 2015 GRET, non-differentiated unit expense seeds have been used in the current and immediately prior studies.

The unit expense seeds used in the 2019 GRET and the 2020 GRET recommendation were based on the average of the 2006 through 2010 Annual SOA expense studies. These studies differentiated unit expenses by type of individual life insurance policy (term and permanent coverages). As neither the GRET nor the Annual Statement data provided differentiates between these two types of coverage, the unit expense seed was derived by judgment based this information. The following shows the averages derived from the Annual SOA studies and the seeds used in this study. Beginning with the 2019 Annual Statement submission this information may become more readily available.
### 2006-2010 (average) CLICE Studies:

<table>
<thead>
<tr>
<th>Term</th>
<th>Acquisition/Policy</th>
<th>Acquisition/Face Amount (000)</th>
<th>Acquisition/Premium</th>
<th>Maintenance/Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighted Average</td>
<td>$149</td>
<td>$0.62</td>
<td>38%</td>
<td>$58</td>
</tr>
<tr>
<td>Unweighted Average</td>
<td>$237</td>
<td>$0.80</td>
<td>57%</td>
<td>$76</td>
</tr>
<tr>
<td>Median</td>
<td>$196</td>
<td>$0.59</td>
<td>38%</td>
<td>$64</td>
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</table>

### Permanent

<table>
<thead>
<tr>
<th>Term</th>
<th>Acquisition/Policy</th>
<th>Acquisition/Face Amount (000)</th>
<th>Acquisition/Premium</th>
<th>Maintenance/Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighted Average</td>
<td>$167</td>
<td>$1.43</td>
<td>42%</td>
<td>$56</td>
</tr>
<tr>
<td>Unweighted Average</td>
<td>$303</td>
<td>$1.57</td>
<td>49%</td>
<td>$70</td>
</tr>
<tr>
<td>Median</td>
<td>$158</td>
<td>$1.30</td>
<td>41%</td>
<td>$67</td>
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</table>

### Current Unit Expense Seeds:

<table>
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<tr>
<th>Term</th>
<th>Acquisition/Policy</th>
<th>Acquisition/Face Amount (000)</th>
<th>Acquisition/Premium</th>
<th>Maintenance/Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>All distribution channels</td>
<td>$200</td>
<td>$1.10</td>
<td>50%</td>
<td>$60</td>
</tr>
</tbody>
</table>
Revised Timeline

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Target Date</th>
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<tbody>
<tr>
<td>1. Pre-Survey approved on Design Group call</td>
<td>Tue Aug 27, 2019</td>
</tr>
<tr>
<td>2. Target list of companies approved on Design Group call</td>
<td>Thu Aug 29, 2019</td>
</tr>
<tr>
<td>3. Participant instructions - full draft provided to Design Group</td>
<td>Tue Sep 3, 2019</td>
</tr>
<tr>
<td>4. Pre-Survey distributed to target list of companies</td>
<td>Mon Sep 9, 2019</td>
</tr>
<tr>
<td>5. Participant instructions - Design Group approves full draft for LATF call</td>
<td>Tue Sep 10, 2019</td>
</tr>
<tr>
<td>6. LATF call on YRT Field Test (additional discussion may be required on 9/19 and 9/26 LATF calls)</td>
<td>Thu Sep 12, 2019</td>
</tr>
<tr>
<td>7. Final participant instructions - approved on Design Group call for legal review</td>
<td>Thu Sep 19, 2019</td>
</tr>
<tr>
<td>8. Pre-Survey closed</td>
<td>Mon Sep 23, 2019</td>
</tr>
<tr>
<td>9. Pre-Survey results presented to Design Group; begin confidential follow up with “No’s”</td>
<td>Tue Sep 24, 2019</td>
</tr>
<tr>
<td>10. Design group signs off on initial list of participants to distribute instructions to</td>
<td>Thu Sep 26, 2019</td>
</tr>
<tr>
<td>11. Instructions distributed to initial list of participants</td>
<td>Mon Sep 30, 2019</td>
</tr>
<tr>
<td>12. Target date for participants to send in their results (data and disclosures)</td>
<td>Thu Dec 31, 2019</td>
</tr>
<tr>
<td>13. Final date for participants to send in their results (data and disclosures)</td>
<td>Fri Jan 31, 2020</td>
</tr>
<tr>
<td>14. LATF at NAIC Spring Meeting</td>
<td>March 19-20, 2020</td>
</tr>
<tr>
<td>15. Draft field test results (cleaned, aggregated, anonymized) presented to Design Group</td>
<td>Tue Apr 14, 2020</td>
</tr>
<tr>
<td>16. Final field test results exposed by LATF (open for analysis by individual organizations)</td>
<td>Thu May 14, 2020</td>
</tr>
<tr>
<td>17. LATF call to adopt long-term solution/APF</td>
<td>Thu Jul 9, 2020</td>
</tr>
<tr>
<td>18. LATF at NAIC Summer Meeting</td>
<td>August 6-7, 2020</td>
</tr>
<tr>
<td>19. LATF at NAIC Fall Meeting</td>
<td>December 11-12, 2020</td>
</tr>
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Meeting this timeline hinges on having a consultant plugged in by the end of September.

Pre-Survey

- Summary of questions asked
  - Willing to participate? If "No" due to resources, please describe.
  - If "Yes", okay to disclose company name?
  - Indicate types of YRT reinsurance treaties in use: Excess, Quota share, Quota share with attachment point, Other hybrid, Experience refund.
- Methodology for list of target companies (187 in total)
  - All companies that have implemented PBR as of 12/31/18
  - Additional companies expected to be subject to PBR in 2020 (based on premium volume), if they have YRT reinsurance ceded or assumed.
- Distribution targeted for Monday, September 9
  - Responses due by Monday, September 23
  - Confidential regulator/consultant follow up with selected "No’s"

YRT Treaty Classification

<table>
<thead>
<tr>
<th>Type</th>
<th>Name</th>
<th>Initial guarantee period (GP)</th>
<th>Restricted reinsurer ability to change rates after GP</th>
<th>Reinsurer pays experience refund</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5-Year Guarantee with Unrestricted Language</td>
<td>5 policy year or less</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td>5-Year Guarantee with Restricted Language</td>
<td>5 policy year or less</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>[N]-Year Guarantee with Unrestricted Language</td>
<td>[N] policy years</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>4</td>
<td>[N]-Year Guarantee with Restricted Language</td>
<td>[N] policy years</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>5</td>
<td>5-Year Guarantee with Unrestricted Language and Experience Refund</td>
<td>5 policy year or less</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

*Participants will classify each modeled treaty as one of these 5 types.

Consultant will model one or more specimen treaties for each of these 5 types (from perspective of both ceding company and assuming reinsurer).
Risk Transfer Rules

- The long-term solution ultimately chosen by LATF could have implications requiring SAPWG to modify risk transfer rules.
  - APPM Appendix A-791 specifies the risk transfer rules a treaty must satisfy in order to qualify for reinsurance accounting, but exempts YRT treaties that do not provide surplus relief in the first year greater than the first year's statutory COI.
  - SSAP 61R paragraph 19 states that YRT treaties (even if they meet the exemption criteria in A-791) must still comply with some of the risk transfer rules in A-791, including 2.b.
  - In order to qualify for reinsurance accounting, A-791 2.b states that the ceding insurer cannot be deprived of surplus at the reinsurer's option, such as could occur by raising reinsurance premiums.

Proposed LATF Goals for Field Test

- Field test results that allow for:
  - Comparisons across companies given differences in interpretation, implementation, inforce and company size/credibility
  - Splits by product type, treaty type and APF tested
  - Confidence in the reasonableness of assumptions and YRT premiums/claims
  - Analysis of reserve amounts/geography on both sides of a treaty, w/ & w/o NPR
  - Analysis of impact of treaty types on ceding insurer mortality margin
    - Implicit margin due to prohibition of future mortality improvement
    - Explicitly prescribed, credibility-linked margin
### Draft list of specific Principles for YRT treaty/cash flow modeling that have been proposed:  
*Check boxes added to the right indicate which APF incorporates these draft Principles*

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>APF</th>
<th>APF 40</th>
<th>APF 41</th>
<th>APF 42</th>
<th>APF JR</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>There is already prescription with respect to recognizing or not recognizing future mortality improvement in the direct/gross model cash flows. To the extent pricing assumes some level of improvement will materialize, but is not allowed to be fully incorporated due to guidance in VM-20, PBR creates reserve strain that must be priced for. That reserve strain is created with respect to all life products and its existence should not vary between direct writers on fully retained risk and reinsurers on assumed risk.</td>
<td>☐ ½ Cx</td>
<td>☑ APF 40</td>
<td>☑ APF 41</td>
<td>☑ APF 42</td>
<td>☐ APF JR</td>
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<tr>
<td></td>
<td>Comments: applies to APF 41 if future mortality improvement is included</td>
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<td>2</td>
<td>The assumed actions are based on the prescribed industry moderately adverse mortality environment as if they are occurring industry wide for the applicable product.</td>
<td>☐ ½ Cx</td>
<td>☑ APF 40</td>
<td>☐ APF 41</td>
<td>☑ APF 42</td>
<td>☐ APF JR</td>
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<tr>
<td>3</td>
<td>In general, there is limited or no relevant company or industry experience currently available on which to base the anticipated experience assumption (as to company/reinsurer action) resulting from this adverse mortality environment.</td>
<td>☐ ½ Cx</td>
<td>☑ APF 40</td>
<td>☐ APF 41</td>
<td>☑ APF 42</td>
<td>☐ APF JR</td>
</tr>
<tr>
<td>4</td>
<td>Ex ante, the company/reinsurer would not know if adverse experience is a random fluctuation or a trend. Counterparty actions should reflect expected assessment and implementation timeframes vs. immediate reactions to adverse mortality.</td>
<td>☐ ½ Cx</td>
<td>☑ APF 40</td>
<td>☐ APF 41</td>
<td>☑ APF 42</td>
<td>☐ APF JR</td>
</tr>
<tr>
<td>5</td>
<td>There is potential economic value to a guarantee or lack of guarantee, and the principle based reserve (PBR) valuation should reflect the value of such contract terms.</td>
<td>☐ ½ Cx</td>
<td>☑ APF 40</td>
<td>☑ APF 41</td>
<td>☑ APF 42</td>
<td>☐ APF JR</td>
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<tr>
<td>6</td>
<td>Treaty provisions should support any assumed changes to current treaty rates, expenses and benefits. Similarly, any limits placed upon either party’s ability to exercise contractual options in the reinsurance treaty should be assessed.</td>
<td>☐ ½ Cx</td>
<td>☑ APF 40</td>
<td>☑ APF 41</td>
<td>☑ APF 42</td>
<td>☐ APF JR</td>
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</table>
| 7 | Although YRT treaties permanently transfer mortality risk to the assuming company, the assuming company shall not be assumed to incur indefinite losses if treaty terms allow adjustment of the underlying economics.  
Comment: Applies to 41 & 42 with regards to counterparty risk |
| 8 | Projected treaty profitability to the reinsurer (as part of both ceding company and reinsurer PBR calculations) with the profitability being assessed in terms of how the reinsurer would view it & react to it should be part of the model. Subject to provisions of the treaty(ies), it is reasonable to assume some increase in rates if the industry experiences adverse mortality. The combination of both the time frame of losses and the renewal level of rates should be considered in tandem, and without reflecting the recoupment of the prior losses. Modeled results should reflect an assessment of the a) likelihood of reinsurer changing rates; b) magnitude of any assumed rate change; and c) timing of any assumed rate change.  
Comment: Applies to 42 with regards to Section 8.18.c, and reflection of best estimate actions in APF41 |
| 9 | Counterparty risk: The longer the period that losses are projected for the reinsurer, the greater the counterparty risk and/or probability of recapture. The model should reflect margin (either implicit or explicit) such that the longer the projection period, and greater uncertainty, the margin has a larger impact on the positive reinsurer cash flows. (per VM-20, Section 9B.2 on margins) |
| 10 | There should be a “reasonable” relationship between the reported reserve credit vs. the reported assumed reserve  
Comment: ½ Cx prescribes the same credit; APF JR establishes a comparison; APF 40, 41 and 42 may be viewed as providing this through use of consistent methodology for both ceding and assuming companies, but testing may demonstrate otherwise. |
| 11 | YRT rates between affiliated assuming and ceding companies must be the same;  
Comment: ½ Cx APF 40 APF 41 |
<table>
<thead>
<tr>
<th></th>
<th>Corollary: Considerations for modeling counterparty actions should be the same for assuming and ceding companies</th>
<th>☒ APF 42</th>
<th>☐ APF JR</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Reinsurance reserve credit is in compliance with APPM Risk transfer rules.</td>
<td>☒ ½ Cx</td>
<td>☐ APF 40</td>
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<td></td>
<td></td>
<td>☐ APF 41</td>
<td>☐ APF 42</td>
</tr>
<tr>
<td></td>
<td>Comment: Other APF do not have prescription that would definitively meet this requirement.</td>
<td>☒ APF JR</td>
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</tr>
<tr>
<td>13</td>
<td>Approaches should be straightforward from a conceptual and auditability perspective.</td>
<td>☒ ½ Cx</td>
<td>☒ APF 40</td>
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<td></td>
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<td>☒ APF 41</td>
<td>☒ APF 42</td>
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<tr>
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<td></td>
<td>☒ APF JR</td>
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Section 12 of SVL: Requirements of a Principle-Based Valuation

A. A Company must establish reserves using a principle-based valuation that meets the following conditions for policies or contracts as specified in the valuation manual:

1. Quantify the benefits and guarantees, and the funding, associated with the contracts and their risks at a level of conservatism that reflects conditions that include unfavorable events that have a reasonable probability of occurring during the lifetime of the contracts. For policies or contracts with significant tail risk, reflects conditions appropriately adverse to quantify the tail risk.

2. Incorporate assumptions, risk analysis methods and financial models and management techniques that are consistent with, but not necessarily identical to, those utilized within the company’s overall risk assessment process, while recognizing potential differences in financial reporting structures and any prescribed assumptions or methods.

3. Incorporate assumptions that are derived in one of the following manners:

   (a) The assumption is prescribed in the valuation manual.

   (b) For assumptions that are not prescribed, the assumptions shall:

      (i) Be established utilizing the company’s available experience, to the extent it is relevant and statistically credible; or

      (ii) To the extent that company data is not available, relevant, or statistically credible, be established utilizing other relevant, statistically credible experience.

4. Provide margins for uncertainty including adverse deviation and estimation error, such that the greater the uncertainty the larger the margin and resulting reserve.

B. A company using a principle-based valuation for one or more policies or contracts subject to this section as specified in the valuation manual shall:

   (1) Establish procedures for corporate governance and oversight of the actuarial valuation function consistent with those described in the valuation manual.

   (2) Provide to the commissioner and the board of directors an annual certification of the effectiveness of the internal controls with respect to the principle-based valuation. Such controls shall be designed to assure that all material risks inherent in the liabilities and associated assets subject to such valuation are included in the valuation, and that valuations are made in accordance with the valuation manual. The certification shall be based on the controls in place as of the end of the preceding calendar year.

   (3) Develop, and file with the commissioner upon request, a principle-based valuation report that complies with standards prescribed in the valuation manual.

C. A principle-based valuation may include a prescribed formulaic reserve component.
**Principles in APPM:**

- **Conservatism:** Conservative valuation procedures provide protection to policyholders against adverse fluctuations in financial condition or operating results. Statutory accounting should be reasonably conservative over the span of economic cycles and in recognition of the primary responsibility to regulate for financial solvency.

- **Recognition:** The ability to meet policyholder obligations is predicated on the existence of readily marketable assets available when both current and future obligations are due. Assets having economic value other than those which can be used to fulfill policyholder obligations, or those assets which are unavailable due to encumbrances or other third party interests should not be recognized on the balance sheet by rather should be charged against surplus when acquired or when availability otherwise becomes questionable.

- **Consistency:** The regulators’ need for meaningful, comparable financial information to determine an insurer’s financial condition requires consistency in the development and application of statutory accounting principles.

**Other Principles in VM:**

**“Overview of Reserve Concepts” in the Introduction Section of the VM”: (with emphasis added – may need refinement to reflect decisions on reinsurance modeling)**

Reserve requirements prescribed in the Valuation Manual are intended to support a statutory objective of **conservative valuation** to provide protection to policyholders and **promote solvency of companies against adverse fluctuations** in financial condition or operating results pursuant to requirements of Model #820.

A principle-based valuation must only reflect risks that are:
1. Associated with the policies or contracts being valued, or their supporting assets.
2. Determined to be capable of materially affecting the reserve.

**Risks not to be included** in reserves are those of a general business nature, those that are not associated with the policies or contracts being valued, or those that are best viewed from the company perspective as opposed to the policy or contract perspective. These risks may involve the need for a liability separate from the reserve or may be provided for in capital and surplus.
APF 2019-40 Field Testing Instructions

Unique components to this APF are highlighted in Yellow

Testing of this APF Includes:

1. The company should perform a VM-20 reserve calculation, and if possible projection of future reserve results, using the 2020 Valuation Manual, except modified by APF 2019-40 under four counterparty action scenarios.

   a. Model current YRT rates for all projection years; Apply the APF only with regards to other counterparty actions such as default, recapture or other terminations.
   b. Model a prudent estimate of all counterparty actions; Apply the APF with no additional restrictions or guidance.
   c. Model prudent estimate of rate changes only after reaching the Loss ratio trigger. The Loss ratio is calculated by reviewing cumulative projected reinsurance cash flows from the assuming company perspective. When the Loss ratio exceeds 115% a rate change should be modeled;
   d. Model prudent estimate of rate changes only after reaching Consecutive Years of Loss trigger. The Losses are calculated by reviewing annual projected reinsurance cash flows from the assuming company perspective. When Losses are observed in 5 consecutive years, a rate change should be modeled;

   APF 40 Sections 8.C.8 through 12 require a review of the reinsurance treaty cashflows, and subsequent assumptions regarding counterparty actions.

2. The only difference between the pre-YRT-reinsurance and post-YRT-reinsurance results should be YRT reinsurance. This can be handled in either of two options: model no reinsurance or retrocessions for the pre-YRT-reinsurance results and only model YRT reinsurance or retrocessions for the post-YRT-reinsurance results or 2) model other types of reinsurance or retrocessions for both the pre-YRT-reinsurance and the post-YRT-reinsurance results.

3. When reviewing output for this APF, ensure to look at how results vary for the pre-reinsurance reserve for assuming companies with no modeled rate increases.

Testing of this APF should Produce Disclosures:

1. Provide reserve results per $1000 of NAAR. If possible, projected reserves should be provided on an annual basis for the company’s full projection horizon. These results should be provided separately for Term, ULSG, and Other, as applicable. That is, for each projection year, provide the following reserve results:

<p>| Term (results per $1000) |</p>
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<thead>
<tr>
<th>Counterparty</th>
<th>Pre-Reinsurance-Ceded</th>
<th>Post-Reinsurance-Ceded</th>
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<tr>
<td>Action</td>
<td>DR</td>
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**ULSG (results per $1000)**

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<th>Counterparty</th>
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<th>Post-Reinsurance-Ceded</th>
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**Other (results per $1000)**

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<th>Counterparty</th>
<th>Pre-Reinsurance-Ceded</th>
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<td>Action</td>
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2. For each scenario result (a, b, c, d), disclose for the DR the individual annual reinsurance cash flows (e.g., reinsurance premiums paid, ceded benefits) for the time zero valuation projection.

3. For each scenario result (b, c, d), disclose whether YRT rates were modeled to change, by how much and/or how often as well as (in the case of scenario b) the trigger for such action. Disclose sensitivity test results and rationale for selecting modeled rate change assumptions.

4. For each scenario result (a, b, c, d), disclose whether, and if so in what time period, the company assumed recapture/contract termination would occur. Disclose sensitivity test results and rationale for selecting modeled assumption.

5. If any actions are modeled with respect to Sections 8.C.8, 14, 15 or 16 please disclose.

6. If there are features of the YRT reinsurance treaty or rates that you believe make the trigger outlined in scenario c or d unreasonable, please describe.

7. Disclose any material modeling simplifications and/or approximations applied.

See Modified APF 2019-40 Below:
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:**
   YRT Field Test Design Group
   **Title of the Issue:**
   VM-20 Treatment for YRT Cash Flows in Modeled Reserves

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:
   January 1, 2019 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.)
   The current language of Section 8 has resulted in a wider variety of approaches in modeling YRT reinsurance cashflows than expected by regulators. More specific definition of principles is expected to narrow the range of practice but still allow companies to model the specific circumstances of their reinsurance agreements.
   This proposal accomplishes this by expanding the general considerations section; removing the comparison to modeling of policy form NGE; and clarifying the need for establishing prudent estimate assumptions for company and counterparty actions that are at the conservative end of the plausible range of behavior.

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

NAIC Staff Comments:

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<th>Dates: Received</th>
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<th>Distributed</th>
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Notes:

W:\National Meetings\2010\...\TF\LHA\
VM-20 Section 8: Reinsurance

A. General Considerations

1. In this section, reinsurance includes retrocession, and assuming company includes retrocessionaire.

   **Guidance Note:** In determining reserves, one party to a reinsurance transaction may make use of reserve calculations of the other party. In this situation, if the company chooses assumptions that differ from those used by the other party, the company must either rerun the reserve calculation or be prepared to demonstrate that appropriate adjustments to the other party’s calculations have been made.

2. The company shall assume that the laws and regulations in place as of the valuation date regarding credit for reinsurance remain in effect throughout the projection period.

3. A company shall include a reinsurance agreement or amendment in calculating the minimum reserve if, under the terms of the AP&P Manual, the agreement or amendment qualifies for credit for reinsurance.

4. If a reinsurance agreement or amendment does not qualify for credit for reinsurance but treating the reinsurance agreement or amendment as if it did so qualify would result in a reduction to the company’s surplus, then the company shall increase the minimum reserve by the absolute value of such reductions in surplus.

   **Guidance Note:** Section 8.A.3 provides that, in general, if a treaty does not meet the requirements for credit for reinsurance, it should not be allowed to reduce the reserve. Thus, it should not be allowed a reinsurance credit to the NPR, and its cash flows should not be included in the cash-flow models used to calculate the deterministic or stochastic reserve. Section 8.A.4 introduces the exception that if allowing a net premium credit and including the treaty cash flows in the cash-flow models would produce a more conservative result, then that more conservative result should prevail.

5. The company shall base its company and counterparty action assumptions relating to YRT reinsurance consistent with the moderately adverse environment as applicable to the valuation of all life policyholders.

   **Guidance Note:** This consideration is intended to preclude assuming that other reinsured blocks have positive experience that would offset the statutory conservatism prescribed in the mortality assumption.

6. The company shall base its company and counterparty action assumptions relating to YRT reinsurance treaty changes reflecting that, in general, there is no relevant company or industry experience currently available upon which to base the anticipated experience assumption.

   **Guidance Note:** Although some companies may have experience with adverse mortality on particular reinsured blocks, this would not be directly relevant to the scenario where industry mortality is adverse, as per the prescribed scenario. Assumptions and margins related to treaty provisions are therefore subject to Sections 9.A.6.c and 9.B.2 and the
sensitivity tests required in Section 9.A.6.d. With respect to Section 9.B.2 “margin” should be interpreted to mean the degree of conservatism reflected in predicting future counterparty actions.

7. Although YRT treaties permanently transfer mortality risk to the assuming company, the assuming company shall not be assumed to incur indefinite losses if treaty terms allow adjustment of the underlying economics.

8. The relationship between assuming companies and the company is between knowledgeable counterparties, and should be expected to result in negotiated contractual changes, subject to provisions of the treaty(ies), and after reflecting the output of modeled policyholder cashflows.

9. In addition, it should not be assumed that assuming reinsurers would take rate increase actions that are not a realistic reflection of the likely timing and magnitude of the rate actions that would unfold under the prescribed mortality scenario, based solely on the reinsurer’s foreknowledge that the prescribed mortality assumption does not allow mortality improvement beyond the valuation date.

B. Determination of a Credit to the NPR to Reflect Reinsurance Ceded

1. Determination of the credit to the NPR to reflect reinsurance shall be done in accordance with SSAP No. 61R—Life, Deposit-Type and Accident and Health Reinsurance in the AP&P Manual.

Guidance Note: The credit taken under a coinsurance arrangement shall be calculated using the same methodology and assumptions used in determining its NPR, but only for the percentage of the risk that was reinsured. If the reinsurance is on a YRT basis, the credit shall be calculated using the assumptions used in determining the NPR, but for the net amount at risk.

2. If a company cedes a portion of a policy under more than one reinsurance agreement, then the company shall calculate a credit separately for each such agreement. The credit for reinsurance ceded for the policy shall be the sum of the credits for all such agreements.

3. The credit for reinsurance ceded applied to a group of policies shall be the sum of the credit for reinsurance ceded for each of the policies of the group.

C. Reflection of Reinsurance Cash Flows in the Deterministic Reserve or Stochastic Reserve

In calculations of the deterministic reserve or stochastic reserve pursuant to Section 4 and Section 5:

1. The company shall use anticipated experience assumptions and margins that are appropriate for each company pursuant to a reinsurance agreement. In such instance, the ceding and assuming companies are not required to use the same assumptions and margins for the reinsured policies unless they are affiliated.
2. To the extent that a single deterministic valuation assumption for risk factors associated with certain provisions of reinsurance agreements will not adequately capture the risk, the company shall do one of the following:

a. Stochastically model the risk factors directly in the cash-flow model when calculating the stochastic reserve.

b. Perform a separate stochastic analysis outside the cash-flow model to quantify the impact on reinsurance cash flows to and from the company. The company shall use the results of this analysis to adjust prudent estimate assumptions or to determine an amount to adjust the stochastic reserve to adequately make provision for the risks of the reinsurance features.

Guidance Note: An example of reinsurance provisions where a single deterministic valuation assumption will not adequately capture the risk is stop-loss reinsurance.

3. The company shall determine cash flows for reinsurance ceded subject to the following:

a. The company shall include the effect of projected cash flows received from or paid to assuming companies under the terms of ceded reinsurance agreements in the cash flows used in calculating the deterministic reserve in Section 4 and stochastic reserves in Section 5.

b. If cash flows received from or paid to assuming companies under the terms of any reinsurance agreement are dependent upon cash flows received from or paid to assuming companies under other reinsurance agreements, the company shall first determine reinsurance cash flows for reinsurance agreements with no such dependency and then use the reinsurance cash flows from these independent agreements to determine reinsurance cash flows for the remaining dependent agreements.

c. The company shall use prudent estimate assumptions to project cash flows to and from assuming companies that are consistent with other assumptions used by the company in calculating the deterministic or stochastic reserve for the reinsured policies and that reflect the terms of the reinsurance agreements.

4. The company shall determine cash flows for reinsurance assumed subject to the following:

a. The company shall include the effect of cash flows projected to be received from and paid to ceding companies under the terms of assumed reinsurance agreements in the cash flows used in calculating the deterministic reserve in Section 4 and the stochastic reserve in Section 5.

b. If cash flows received from or paid to ceding companies under the terms of any reinsurance agreement are dependent upon cash flows received from or paid to ceding companies under other reinsurance agreements, the company shall first determine reinsurance cash flows for reinsurance agreements with no such dependency and then use the reinsurance cash flows from these independent agreements to determine reinsurance cash flows for the remaining dependent agreements.
5. If a company assumes a policy under more than one reinsurance agreement, then the company may treat each agreement separately for the purposes of calculating the reserve.

6. An assuming company shall use assumptions to project cash flows to and from ceding companies that reflect the assuming company’s experience for the business segment to which the reinsured policies belong and reflect the terms of the reinsurance agreement.

7. The company shall assume that the counterparties to a reinsurance agreement are knowledgeable about the contingencies involved in the agreement and likely to exercise the terms of the agreement to their respective advantage, taking into account the context of the agreement in the entire economic relationship between the parties. In setting assumptions for the reinsurance cash flows, the company shall include, but not be limited to, the following:

   a. The usual and customary practices associated with such agreements.
   b. Past practices by the parties concerning the changing of terms, in an economic environment similar to that projected.
   c. Any limits placed upon either party’s ability to exercise contractual options in the reinsurance agreement.
   d. The ability of the direct-writing company to modify the terms of its policies in response to changes in reinsurance terms.
   e. Actions that might be taken by a party if the counterparty is in financial difficulty.

   **Guidance note:** It should be assumed that if any treaty produces a pattern of projected losses to the counter party, that the risk of financial difficulty will increase commensurate with the magnitude of projected losses. The risk of default by the assuming company is addressed in item 15 below. The risk of default by the ceding company is addressed in item 16 below.

8. The company shall account for any actions that the ceding company and, if different, the direct-writing company have taken or are likely to take that could affect the expected cash flows of the reinsured business in determining prudent estimate assumptions for the modeled reserve. Note that these assumptions are in addition to, rather than in lieu of, assumptions as to the behavior of the underlying policyholders.

   **Guidance Note:** Examples of NGE actions the direct-writing company could take include: 1) instituting internal replacement programs or special underwriting programs, both of which could change expected mortality rates; or 2) changing NGE in the reinsured policies, which could affect mortality, policyholder behavior, and possibly expense and investment assumptions. Examples of actions the ceding company could take include: 1) the exercise of contractual options in a reinsurance agreement to influence the setting of NGEs in the reinsured policies; or 2) the ability to participate in claim decisions.

9. The company shall account for any actions that the assuming company has taken or is likely to take that could affect the expected cash flows of the reinsured business in determining
prudent estimate assumptions. Appropriate assumptions for these elements may depend on the scenario being tested. The company shall take into account all likely consequences of the assuming company changing an element of the reinsurance agreement, including any potential impact on the probability of recapture by the ceding company.

**Guidance Note:** Examples of such actions include, but are not limited to, changes to the current scale of reinsurance premiums and changes to expense allowances.

10. In addition to exercising the terms of the agreement and implementing changes to an agreement, it is appropriate for the actuary to assume that knowledgeable counterparties may renegotiate terms of the agreement to the mutual benefit of both parties or to reflect risk sharing of adverse experience. To the extent that experience is limited in deriving the terms of a renegotiated agreement, or the timing of such renegotiation, the sensitivity tests required in Section 9.A.6.d are required to inform the selection of the assumption set at the conservative end of the plausible range.

11. The company shall take into account any ceding company option to recapture reinsured business. Appropriate assumptions may depend on the scenario being tested (analogous to interest-sensitive lapses).

**Guidance Note:** Cash flows associated with recapture include recapture fees or other termination settlements.

**Guidance Note:** To the extent that experience is limited in determining the timing of recapture, the sensitivity tests required in Section 9.A.6.d are required to inform the selection of the assumption set at the conservative end of the plausible range.

**Guidance Note:** The actions assumed by counterparties with respect to exercising treaty provisions need not all be modeled as some will be mutually exclusive. Exercise of treaty provisions shall be considered and discussed in the PBR actuarial Report.

12. The company shall take into account an assuming company’s right to terminate in-force reinsurance business. In the case in which the assuming company’s right to terminate is limited to cases of non-payment of amounts due by the ceding company or other specific, limited circumstances, the company may assume that the termination option would be expected to have insignificant value to either party and, therefore, may exclude recognition of this right to terminate in the cash-flow projections. However, if a reinsurance agreement contains other termination provisions with material impact, the company shall set appropriate assumptions for these provisions consistent with the particular scenario being tested.

**Guidance Note:** To the extent that experience is limited in determining the timing of contract termination, the sensitivity tests required in Section 9.A.6.d are required to inform the selection of the assumption set at the conservative end of the plausible range.
13. If, under the terms of the reinsurance agreement, some of the assets supporting the reserve are held by the counterparty or by another party, the company shall:

a. Consider the following in order to determine whether to model such assets for purposes of projecting cash flows:

i. The degree of linkage between the portfolio performance and the calculation of the reinsurance cash flows.

ii. The sensitivity of the valuation result to the asset portfolio performance.

b. If the company concludes that modeling is unnecessary, document the testing and logic leading to that conclusion.

c. If the company determines that modeling is necessary, comply with the requirements in Section 7.E and Section 9.F, taking into account:

i. The investment strategy of the company holding the assets, as codified in the reinsurance agreement or otherwise based on current documentation provided by that company.

ii. Actions that may be taken by either party that would affect the net reinsurance cash flows (e.g., a conscious decision to alter the investment strategy within the guidelines).

Guidance Note: In some situations, it may not be necessary to model the assets held by the other party. An example would be modeling by an assuming company of a reinsurance agreement containing provisions, such as experience refund provisions, under which the cash flows and effective investment return to the assuming company are the same under all scenarios.

Guidance Note: Special considerations for modified coinsurance:
Although the modified coinsurance (ModCo) reserve is called a reserve, it is substantively different from other reserves. It is a fixed liability from the ceding company to the assuming company in an exact amount, rather than an estimate of a future obligation. The ModCo reserve is analogous to a deposit. This concept is clearer in the economically identical situation of funds withheld. Therefore, the value of the modified coinsurance reserve generally will not have to be determined by modeling. However, the projected ModCo interest may have to be modeled. In many cases, the ModCo interest is determined by the investment earnings of an underlying asset portfolio, which, in some cases, will be a segregated asset portfolio or in others the ceding company’s general account. Some agreements may use a rate not tied to a specific portfolio.

14. If a ceding company has knowledge that an assuming company is financially impaired, the ceding company shall establish a margin for the risk of default by the assuming company. In the absence of knowledge that the assuming company is financially impaired, the ceding
company shall review the projected future profitability (after consideration of the assuming and ceding company actions modeled) of each group of reinsurance agreements by assuming company and establish a margin for the risk of default by the assuming company that is a function of the profitability of those agreements.

15. If an assuming company has knowledge that a ceding company is financially impaired, the assuming company shall establish a margin for the risk of default by the ceding company. Such margin may be reduced or eliminated if the assuming company has a right to terminate the reinsurance upon non-payment by the ceding company. In the absence of knowledge that a ceding company is financially impaired, the assuming company is not required to establish a margin for the risk of default by the ceding company.

16. In setting any margins required by Section 8.C.14 and Section 8.C.15 to reflect potential uncertainty regarding the receipt of cash flows from a counterparty, the company shall take into account the ratings, RBC ratio or other available information related to the probability of the risk of default by the counterparty, as well as any security or other factor limiting the impact on cash flows.

Additional Disclosures for VM-31 would likely be required, but are not included in this Draft APF.
YRT Reinsurance Reserve Credit: A New Framework

In presenting the original APF 2018-58, NYL and NWM argued “we believe it is inappropriate to reflect reserve differences due to differing expectations of increases to future non-guaranteed premiums.”

Since that first presentation, there have been at least three different proposals concerning the proper way to model YRT premium increases in the DR and SR. Regulators were asked to choose the one that we felt is the “best”.

The approach taken then has the following weaknesses:
1. The guidance offered in all the proposals would only apply to the ceding company. This cannot resolve an issue of differing expectations, as described by NYL and NWM.

2. Contrary to the view tacitly underlying these discussions, the relationship between cedants and reinsurers is not one-to-one; rather, it is many-to-many: cedant may have more than one reinsurer on a block of business and the reinsurer can base its pricing decisions on the experience of multiple cedants.

3. By looking only at the DR and SR, we are not necessarily producing an outcome that is satisfactory when the final reserve credit is determined.

4. It is limited to YRT premiums. The problem of differing perspectives exists in other areas of reinsurance, such as COIs for UL (consider the perspective of an assuming company under coinsurance).

5. It goes against the grain of a principle-based approach, under which a company should have the freedom to select its approach, provided such approach is acceptable to its regulator. This must apply equally to cedants and reinsurers.

In my APF 2019-30, I proposed that concern over the DR and/or SR is misplaced, and that regulators should rather be concerned with the resulting reserve credit. Most recently, APF 2019-39, which was accepted by regulators in a close vote, limits the reserve credit to Cx/2 on an interim basis, pending a long-term solution.

The reserve credit is the difference between the pre-reinsurance reserve, which is the maximum of three reserves (NPR, DR and SR) and the post-reinsurance reserve, which is also a maximum of three reserves. As demonstrated by examples provided by Pat Allison, there is no rhyme or reason as to which of the three reserves will be the highest. Every year-end, a new issue year is added to the in-force, which changes its profile; so inferences from one year to the next are not possible. Therefore, a long-term solution based on consideration of each or any of the NPR, DR and SR will not be fruitful. On the other hand, regulators seem to be arriving at the conclusion that governing the reserve credit will produce a more satisfactory result.

It is debatable whether Cx/2 is an appropriate formula for the YRT Reinsurance NPR, in light of the multi-year nature of modern reinsurance treaties.

The primary purpose of this document is to propose a long-term solution, based on the principle that the reserve credit taken by cedant should bear a reasonable relationship to the reserve established by the assuming insurer. As discussed in my APF 2019-30, the proposed long-term solution is that the reserve credit taken by cedant shall not exceed the NPR established by the assuming company. I also propose a new formula for the NPR for YRT Reinsurance, based on existing guidance for the Term VM-20 Reserving Category.
In order to implement this guidance, there will need to be changes to both the Valuation Manual and the SSAP as follows:

1. Changes to SSAP:
   Revise
   (i) SSAP 61R, paragraph 37 (determination of YRT reserve credit); and
   (ii) SSAP 61R, paragraph 19, and the related Appendix A-791,
so that the reserve credit for policies issued after on or after a specified date is determined in accordance with the provisions of the Valuation Manual. (I think (ii) is harder.)

2. Changes to Valuation Manual:
   Introduce in VM-20 Section 3 the calculation of the NPR for YRT Reinsurance based on the following guidance, applicable to cedant and reinsurer:

   **Methodology:** Follow the guidance in VM-20, Section 3.B.4, ignoring shock lapse provision.

   **Assumptions:**
   - **Interest:** Follow VM-20, Section 3.C.2.b.
   - **Mortality:** Follow the NPR guidance for the reinsured contract.
   - **Lapsation:** Follow the NPR guidance for the reinsured contract.
   - **Net Amount At Risk:** Follow the NPR guidance for the reinsured contract and the terms of the reinsurance treaty.

   Then, stipulate that the YRT reserve credit for a group of policies is capped at the sum of the corresponding YRT Reinsurance NPRs, as follows:

   a. Calculate the pre-reinsurance-ceded minimum reserve, here referred to as C.
   b. Calculate the post-reinsurance-ceded minimum reserve, here referred to as D.
   c. Calculate the NPR for the YRT reinsurance (Section 3.B.xx), as if it were a block of stand-alone policies each of which is mapped to a reinsured contract, here referred to as E.
   d. Determine an amount A, floored at 0, such that \( C - (D+A) \leq E \).
   e. Report the pre-reinsurance-ceded minimum reserve as C and the post-reinsurance-ceded minimum reserve as D+A.
APF 2019-41 Field Testing Instructions

Unique components to this APF are highlighted in Yellow

Testing of this APF Includes:

1. The company should perform a VM-20 reserve calculation, and if possible projection of future reserve results, using the 2020 Valuation Manual, except modified by APF 2019-41 under three mortality improvement scenarios: 0%, 0.5%, and 1% of future mortality improvement for 15 years.

2. When determining whether recapture would occur or whether changes to the current reinsurance premium scale are modeled or expected, the company should follow the principles developed in APF 2019-40.

3. The future mortality improvement assumptions of 0%, 0.5%, 1% for 15 years should only be applied for projected reinsurance claim settlements, not the actual pre-reinsurance death claims.

4. The only difference between the pre-YRT-reinsurance and post-YRT-reinsurance results should be YRT reinsurance. This can be handled in either of two options: model no reinsurance or retrocessions for the pre-YRT-reinsurance results and only model YRT reinsurance or retrocessions for the post-YRT-reinsurance results or 2) model other types of reinsurance or retrocessions for both the pre-YRT-reinsurance and the post-YRT-reinsurance results.

5. When reviewing output for this APF, ensure to look at how results vary for companies with low credibility. Base this using indicator for low credibility (below 80%) for testing APF 2019-42/17.

Testing of this APF should Produce Disclosures:

1. Provide reserve results per $1000 of NAAR. If possible, projected reserves should be provided on an annual basis for the company’s full projection horizon. These results should be provided separately for Term, ULSG, and Other, as applicable. That is, for each projection year, provide the following reserve results:

<table>
<thead>
<tr>
<th>Term (results per $1000)</th>
<th>Mort</th>
<th>Pre-Reinsurance-Ceded</th>
<th>Post-Reinsurance-Ceded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improv</td>
<td>DR</td>
<td>SR</td>
<td>DR</td>
</tr>
<tr>
<td>0%</td>
<td></td>
<td></td>
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<tr>
<td>0.5%</td>
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<td>1%</td>
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<table>
<thead>
<tr>
<th>ULSG (results per $1000)</th>
<th>Mort</th>
<th>Pre-Reinsurance-Ceded</th>
<th>Post-Reinsurance-Ceded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improv</td>
<td>DR</td>
<td>SR</td>
<td>DR</td>
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<tr>
<td>0%</td>
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<tr>
<td>1%</td>
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</table>

<table>
<thead>
<tr>
<th>Other (results per $1000)</th>
<th>Mort</th>
<th>Pre-Reinsurance-Ceded</th>
<th>Post-Reinsurance-Ceded</th>
</tr>
</thead>
</table>
2. For each scenario result (0%, 0.5%, 1.0% improvement for 15 years), disclose for the DR the individual annual reinsurance cash flows (e.g., reinsurance premiums paid, ceded benefits) for the time zero valuation projection.

3. For each scenario result (0%, 0.5%, 1.0% improvement for 15 years), disclose whether, and if so in what time period, the company assumed recapture would occur.

4. Disclose any material modeling simplifications and/or approximations applied.

5. For each scenario result (0%, 0.5%, 1.0% for 15 years), disclose whether the improvement is higher or lower than that assumed by the company for the same block of business as part of CFT. In addition, disclose the “company’s best estimate of mortality improvement” (both the improvement level and length) if such wording were kept in APF 2019-41, as currently written below.

6. For both Term and ULSG, disclose the mix of business by Product Type (e.g., Term length), Issue Age, Gender, and Policy Year.

See Exposed APF 2019-41 Below:

<table>
<thead>
<tr>
<th>Mort Improv</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Reinsurance-Ceded</td>
</tr>
<tr>
<td>DR</td>
</tr>
<tr>
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<tr>
<td>0.5%</td>
</tr>
<tr>
<td>1%</td>
</tr>
</tbody>
</table>

© 2019 National Association of Insurance Commissioners  2
1. Identify yourself, your affiliation and a very brief description (title) of the issue.

Identification:
David E. Neve, Vice President, Regulatory and Government Affairs, Global Atlantic Financial Group

Title of the Issue:
VM-20 Treatment for YRT Cash Flows in Modeled Reserves

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-20 Section 8.C
January 1, 2019 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.)

Developing an appropriate margin for YRT reinsurance premiums has proven to be very difficult, given the margins in mortality assumptions that are used to determine YRT reinsurance claim settlements. Several proposals have been made that define the margin for reinsurance premiums to be somewhat consistent with the mortality margin that is used to determine YRT claim settlements. In effect, these proposals attempt to offset the two margins so that they largely cancel out. These proposals, while conceptually sound, are complex and difficult to implement.

This proposal accomplishes the same goal of having offsetting margins, but does so using a straightforward and simple approach. It defines the margin for both reinsurance premiums and reinsurance claim settlements to be zero, so that the prudent estimate assumptions for YTR reinsurance premiums and YRT reinsurance claims are the company’s best estimate assumptions. Reinsurance premiums are projected using the premiums rates from the reinsurance treaties along with the company’s best estimate of future rate increases and recaptures. Projected reinsurance claim settlements are based on mortality rates that exclude the VM-20 prescribed margins, exclude the grading to an industry table, and include the company’s best estimate of mortality improvement.

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

NAIC Staff Comments:

<table>
<thead>
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<th>Dates: Received</th>
<th>Reviewed by Staff</th>
<th>Distributed</th>
<th>Considered</th>
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</thead>
<tbody>
<tr>
<td>4/18/19</td>
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</tbody>
</table>

Notes: VM APF 2019-41
7. The company shall assume that the counterparties to a reinsurance agreement are knowledgeable about the contingencies involved in the agreement and likely to exercise the terms of the agreement to their respective advantage, taking into account the context of the agreement in the entire economic relationship between the parties. In setting assumptions for the NGE in reinsurance cash flows, the company shall include, but not be limited to, the following:

a. The usual and customary practices associated with such agreements.

b. Past practices by the parties concerning the changing of terms, in an economic environment similar to that projected.

c. Any limits placed upon either party’s ability to exercise contractual options in the reinsurance agreement.

d. The ability of the direct-writing company to modify the terms of its policies in response to changes in reinsurance terms.

e. Actions that might be taken by a party if the counterparty is in financial difficulty.

8. The company shall use best estimate assumptions with no implicit or explicit margins, except margins pursuant to Section 8.C.16 through Section 8.C.18, as the prudent estimate assumptions for YRT reinsurance premiums paid and YRT reinsurance claim settlements received, using the following procedure:

a. Use the reinsurance rates and provisions from the relevant reinsurance agreement as the initial prudent estimate assumption for YRT reinsurance premiums paid, and project future reinsurance rate increases and recaptures using what the company actually expects will occur, based on treaty provisions, past reinsurance rate increase experience, and ongoing relationship with the reinsurer.

b. The mortality rates used to determine the prudent estimate assumptions for YRT reinsurance claim settlements shall equal the company’s anticipated experience assumptions adjusted to reflect the company’s best estimate of mortality improvement.

98. The company shall account for any actions that the ceding company and, if different, the direct-writing company have taken or are likely to take that could affect the expected cash flows of the reinsured business in determining assumptions for the modeled reserve.

[Renumber following sections accordingly]
### APF 2019-42 Field Testing Instructions

**Testing of this APF Includes:**

1. The company should perform a VM-20 reserve calculation, and if possible projection of future reserve results, using the 2020 *Valuation Manual*, except modified by APF 2019-42 under four mortality improvement scenarios: 5, 10, 15, and 20 years of future mortality improvement.

2. For the purposes of the field testing reserve calculations, the company should not make any modification to the standard assumption based on Section 8.C.18.c. Instead, the impact of Section 8.C.18.c will be assessed through narrative response.

3. The only difference between the pre-YRT-reinsurance and post-YRT-reinsurance results should be YRT reinsurance. This can be handled in either of two options: model no reinsurance or retrocessions for the pre-YRT-reinsurance results and only model YRT reinsurance or retrocessions for the post-YRT-reinsurance results or 2) model other types of reinsurance or retrocessions for both the pre-YRT-reinsurance and the post-YRT-reinsurance results.

**Testing of this APF should Produce Disclosures:**

1. **Direct Writers or Reinsurers assuming on a Coinsurance Basis:** Provide reserve results per $1000 of NAAR. If possible, projected reserves should be provided on an annual basis for the company’s full projection horizon. These results should be provided separately for Term, ULSG, and Other, as applicable. The results should be provided pre-YRT-reinsurance and post-YRT-reinsurance. That is, for each projection year, provide the following reserve results:

<table>
<thead>
<tr>
<th>Term (results per $1000)</th>
<th>Pre-YRT-Reinsurance-Ceded</th>
<th>Post-YRT-Reinsurance-Ceded</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NPR</td>
<td>DR</td>
</tr>
<tr>
<td>5 Years</td>
<td></td>
<td></td>
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<tr>
<td>10 Years</td>
<td></td>
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<tr>
<td>15 Years</td>
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<tr>
<td>20 Years</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>ULSG (results per $1000)</th>
<th>Pre-YRT-Reinsurance-Ceded</th>
<th>Post-YRT-Reinsurance-Ceded</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NPR</td>
<td>DR</td>
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<tr>
<td>5 Years</td>
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<td>10 Years</td>
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<td>15 Years</td>
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<tr>
<td>20 Years</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Other (results per $1000)</th>
<th>Pre-YRT-Reinsurance-Ceded</th>
<th>Post-YRT-Reinsurance-Ceded</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NPR</td>
<td>DR</td>
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<tr>
<td>5 Years</td>
<td></td>
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<tr>
<td>10 Years</td>
<td></td>
<td></td>
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</tbody>
</table>
2. **Reinsurers Assuming on a YRT Basis Only**: Provide reserve results per $1000 of NAAR. If possible, projected reserves should be provided on an annual basis for the company’s full projection horizon. That is, for each projection year, provide the following reserve results:

<table>
<thead>
<tr>
<th>Term – YRT Only (results per $1000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-YRT-Reinsurance-Ceded</td>
</tr>
<tr>
<td>Post-YRT-Reinsurance-Ceded</td>
</tr>
<tr>
<td>NPR</td>
</tr>
<tr>
<td>5 Years</td>
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<tr>
<td>10 Years</td>
</tr>
<tr>
<td>15 Years</td>
</tr>
<tr>
<td>20 Years</td>
</tr>
</tbody>
</table>

Note that if a reinsurer assumes on both a coinsurance and YRT basis, they are requested to report their Term results separately for non-YRT and YRT, so that the modeling of business assumed on a YRT basis can be reviewed in isolation.

3. For each scenario result (5, 10, 15, and 20 years), disclose for the DR the individual annual reinsurance cash flows (e.g., reinsurance premiums paid/received, ceded benefits) for the time zero valuation projection.

4. Separately for each scenario (5, 10, 15, and 20 years), disclose whether, and if so in what time period, the company would assume recapture would occur if the company were to follow Section 8.C.18.c.

5. Separately for each scenario (5, 10, 15, and 20 years), if the company were to follow Section 8.C.18.c, disclose whether a different variation in the reinsurance premium assumption under VM-20 Section 8.C.18.c would be applied, and if so describe the variation and reasoning. Also disclose whether this treatment has been discussed with the domiciliary commissioner and their response to the treatment.

6. Disclose whether the minimum credibility (80%) and/or the minimum SDP (10 years) were applied due to being higher than the company’s calculated credibility and SDP under VM-20. If possible, results with and without these minimums should be provided, to ensure that they are functioning as intended, which was to avoid unfair and unrealistic high reinsurance premium margins on small companies or new blocks of business. If a full retesting is not possible, a qualitative assessment of the impact of these minimums is requested.

7. For each scenario result (5, 10, 15, and 20 years), disclose whether the length of time is longer or shorter than that assumed by the company for the same block of business as part of CFT.

8. Disclose whether the mortality improvement rates of Section 9.C.3.g are higher or lower annual rates overall than those assumed by the company for the same block of business as part of CFT. [For the purposes of this response, compare annual rates only – disregarding the length of time that mortality improvement is applied.]

9. Disclose any material modeling simplifications and/or approximations applied.

10. For both Term and ULSG, disclose the mix of business by Product Type (e.g., Term length), Issue Age, Gender, and Policy Year.

11. Are any policies in the Other category UL? For UL in the Other category, describe the mix of funding levels among low, medium, or high, where:
a. Low describes funding that is roughly designed to ensure term to age X or N-year term,
b. Medium describes funding that is roughly designed to mimic permanent insurance and endow at 100/unit at the valuation tables terminal (omega) age, and
c. High describes funding as dump-in products (whether single premium, MECs, etc., designed to maximize tax-sheltering and mature with much more than 1000/unit)
18. When projecting non-guaranteed future reinsurance features, the company shall use prudent estimate reinsurance premiums in projecting the reinsurance cash flows. The company shall project reinsurance cash flows pursuant to all provisions within a reinsurance agreement and shall determine the prudent estimate reinsurance premiums using the following procedure:

a. Use the reinsurance rates and provisions from the relevant reinsurance agreement as the anticipated experience assumption for reinsurance, subject to any modifications in Section 8.C.18.c. No margin is required for years in which the reinsurance features are guaranteed. For years when reinsurance features are not guaranteed, Section 8.C.18.b below sets forth the prescribed reinsurance premium margin.

Guidance Note: While the most commonly considered non-guaranteed reinsurance feature is future YRT premium rates, other non-guaranteed features are also to be considered, such as non-guaranteed expense allowances.

b. Set the reinsurance premium margin equal to $\lambda$ times the reinsurance premium rate, where $\lambda = \frac{(i) - (ii)}{(ii)}$ divided by (ii), in which (i) and (ii) are described below.

i. “Baseline credibility” prudent estimate mortality, i.e., prudent estimate mortality following Section 9.C.1 through Section 9.C.6, but recalculated (1) with the margins determined under Section 9.C.5.b modified to reflect a credibility percentage equal to the greater of the one originally determined pursuant to Section 9.C.4 and 80% and (2) with grading modified to reflect a sufficient data period equal to the greater of the one originally determined pursuant to Section 9.C.6.b.ii and 10 years.

ii. Company experience mortality as provided in Section 9.C.2, but recalculated including mortality improvement for [Separately test 5, 10, 15 and 20] years beyond the valuation date. Mortality improvement rates shall equal the mortality improvement rates of Section 9.C.3.g, whether or not the company chose to apply mortality improvement to the industry basic mortality table.
Guidance Note: Simplifications or approximations to estimate the effect of the “baseline credibility” prudent estimate mortality in Section 8.C.18.b.i are permissible if they comply with VM-20 Section 2.G.

For example, in situations where the sufficient data period originally determined pursuant to Section 9.C.6.b.ii was greater than or equal to 10 years, there is a simple approximation. Separately for the 2008 VBT limited underwriting, the 2015 VBT using Limited Fluctuation, and the 2015 VBT using Bühlmann, for a given credibility percentage, X%, the ratio of the margin with X% credibility to the margin with 80% credibility is fairly stable across all attained ages. Thus, the effect of the baseline credibility can be approximated by calculating λ' by following Section 8.C.18.b using prudent estimate mortality rather than “baseline credibility” prudent estimate mortality and then obtaining λ by multiplying λ', by Θ/100 in durations prior to when grading begins, by (100 + Θ)/200 in the grading durations, and by 1.0 in durations after grading is complete, where Θ is:

<table>
<thead>
<tr>
<th>Credibility</th>
<th>Industry Table = 2015 VBT</th>
<th>Industry Table = 2008 VBT LU</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bühlmann</td>
<td>Limited Fluctuation</td>
</tr>
<tr>
<td>20%−22%</td>
<td>50</td>
<td>33</td>
</tr>
<tr>
<td>23%−27%</td>
<td>51</td>
<td>37</td>
</tr>
<tr>
<td>28%−32%</td>
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<td>76</td>
<td>76</td>
</tr>
<tr>
<td>68%−72%</td>
<td>82</td>
<td>83</td>
</tr>
<tr>
<td>73%−77%</td>
<td>89</td>
<td>92</td>
</tr>
<tr>
<td>78%−79%</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>80%+</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Guidance Note: In the case where applicable industry tables are used in lieu of company experience, Section 8.C.18.b.i would be the industry tables, but using company experience margins corresponding to the baseline 80% credibility and grading corresponding to a sufficient data period of 10, graded into that same industry table with industry margins. Similarly, Section 8.C.18.b.ii would be the industry tables, with future mortality improvement applied using the mortality improvement rates in Section 9.C.3.g.
c. Reinsurance premium prudent estimate assumptions may be modified if, in the company’s judgment, the prescribed reinsurance premium prudent estimate assumptions do not appropriately reflect the expected reinsurance premium experience under a moderately adverse scenario. In cases where the reinsurance premium prudent estimate assumptions are modified, the modifications must not result in reinsurance premium anticipated experience assumptions that are lower than those prescribed in Section 8.C.18.a or reinsurance premium margins that are lower than those prescribed in Section 8.C.18.b without prior approval by the domiciliary commissioner. Note that if the reinsurance agreement allows for the ceding company to recapture the ceded business if the reinsurer raises rates, the ceding company may model this explicitly or limit prudent estimate reinsurance premiums such that they do not exceed the prudent estimate mortality following Section 9.C.1 through Section 9.C.6, and this modification would not require commissioner approval.

Guidance Note: Examples of reasons to modify the reinsurance premium prudent estimate assumptions include, but are not limited to, counterparty default concerns, reinsurance contract language that contains particularly restrictive or permissive provisions regarding reinsurance rate increases, and potential recapture of the reinsured business.

VM-31 Section 3.C.8.b

b. Assumptions – Description of reinsurance assumptions used to determine the cash flows included in the model, including the anticipated experience assumptions and margins for future reinsurance premiums reflecting non-guaranteed reinsurance features. For future reinsurance premiums, describe any adjustments made pursuant to VM-20 Section 8.C.18.c and provide the rationale for such adjustments.
YRT Field Test Update
Timeline (workstreams/milestones) as of 11/20/2019

Jason Kehrein, MAAA, FSA
Chairperson, YRT Field Test Project Oversight Group

Life Actuarial (A) Task Force – NAIC 2019 Fall National Meeting
LONG-TERM SOLUTION (YRT & VM-20)  
OVERVIEW AND INITIAL ANALYSIS

DECEMBER 5, 2019

NAIC 2019 FALL NATIONAL MEETING  
LIFE ACTUARIAL (A) TASK FORCE

QUALIFICATIONS, ASSUMPTIONS AND LIMITING CONDITIONS

Oliver Wyman was requested by the American Council of Life Insurers, the American Academy of Actuaries and the National Association of Insurance Commissioners to support an industry field test being conducted to aid the NAIC Life Actuarial (A) Task Force in the selection of a long-term solution for the treatment of non-guaranteed reinsurance under PBR.

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Contents

1. Executive summary
2. Background
3. Analysis design
4. Initial analysis and insights
5. Next steps

Appendix A: Supplementary results
Appendix B: Model design and assumptions
Appendix C: Analysis and validation tools
Appendix D: Project team and governance

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Executive summary

Long-term solution for modeling non-guaranteed reinsurance

BACKGROUND
A wide range of practice was observed from early adopters of RRR in regards to the modeling of non-guaranteed reinsurance and a formulaic solution was adopted on an interim basis for the 2020 Valuation Manual. A field test is being performed to aid the NAIC Life Actuarial (A) Task Force (“LATF”) in the selection of a longer-term solution that is more principles-based.

ANALYTICAL SUPPORT
Oliver Wyman was selected to support and supplement the industry field test. The scope of our support is summarized below and further outlined in the remaining slides in this section of the presentation.

1 – Analyze and Insights
Using generic industry models, Oliver Wyman will perform analysis that will be provided in advance of field test results and provide additional insights beyond those provided by field test participants, informed by a survey on broader industry practices. As needed, analysis outside of the scope of the field test may be performed.

2 – Field test support
Oliver Wyman will lead calls with field test participants and assist in the preparation and interpretation of results. Additionally, analysis will be performed to better understand the range of variation in participant results (e.g., company and reinsurance structure, field test interpretations, modeling simplifications/ limitations).

The purpose of today’s presentation is to share details on the design of the analysis models as well as initial insights.

Oliver Wyman will support the stages of the field test depicted below

Deliverables for the stages of work shown on the prior slide are described below

<table>
<thead>
<tr>
<th>Stage</th>
<th>Deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis and insights</td>
<td>• AXS models, documentation and Testware which will be made available to the LATF.</td>
</tr>
</tbody>
</table>
| | • Initial analysis and associated model design, with capabilities to analyze the impact field tested proposals across a range of product types, reinsurance structures and reinsurance
| | • “Range of interpretation survey” intended to further understand the scope of the field test (if desired by LATF to allow an informed decision to take place)
| | • Confidence calls with field test participants to ensure consistent understanding of field testing assumptions and interpretations (pre- or on-site calls with participants will be used as needed)
| | • Reserve assumptions results from survey experience, with additional analysis to further understanding of these results
| | • Additional analysis performed in light of importance to “range of interpretation” survey, and beyond the scope of the field test designed by LATF to allow an informed decision to take place |
| Field test support | • Field test participants will produce projected reserves for the various solutions, while Oliver Wyman assists with the interpretation and presentation of results. Oliver Wyman’s analysis will be performed to better understand the range of variation in participant results (e.g., company and reinsurance structure, field test interpretations, modeling simplifications and/or limitations)
| | • Additional analysis performed in light of importance to “range of interpretation” survey and beyond the scope of the field test designed by LATF to allow an informed decision to take place

Deliverables for the stages of work are described on the next slide.

Initial analysis and insights

Assumptions and modeling methodology* underlying the results shown today are summarized below

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>• GOV AXS</td>
</tr>
<tr>
<td></td>
<td>• 60 year projection horizon (30 for Term)</td>
</tr>
<tr>
<td>Best estimate assumptions</td>
<td>Liability assumptions are intended to reflect industry averages and are based on analysis from recent SOA experience studies</td>
</tr>
<tr>
<td></td>
<td>• Future mortality improvement is 75% per six years</td>
</tr>
<tr>
<td></td>
<td>• Current scale at IRR rate equal to best-estimate mortality</td>
</tr>
<tr>
<td>Product estimate assumptions</td>
<td>Mortality is improved to each valuation date to reflect historic mortality improvement</td>
</tr>
<tr>
<td></td>
<td>• Initial sufficient data period equal to 15 years and increased by one year at each future valuation date</td>
</tr>
<tr>
<td></td>
<td>• Future mortality improvement is 75% per six years</td>
</tr>
<tr>
<td>Reserve assumptions</td>
<td>The NAIC uses the 2017 official interest rate of 4.5% for calculations subject to VM-20 Sections 3.5, 3.6 and 3.7.5 for calculations subject to VM-20 Section 3.4.2 and 3.5.3.5 for calculations subject to VM-20 Sections 3.9.4 and 3.9.5.</td>
</tr>
<tr>
<td></td>
<td>• The valuation scenario for the OR follows the 12/31/2016 scenario at each valuation date</td>
</tr>
<tr>
<td></td>
<td>• Rising assets at each valuation date use the “direct version” approach</td>
</tr>
</tbody>
</table>

Analysis is intended to align with industry field test instructions and the products and assumptions are intended to be broadly representative of the industry.

*See page 9 for further details

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This section explores the relationship between mortality margin and the impact that reinsurance has on reserves under PBR.

1. Mortality and PBR prescribed margins
2. Impact of mortality margins
3. Projected reinsurance credit
4. Formulaic reserve credit

Results are presented for two sets of boundary reinsurer reactions under PBR mortality margins, and an analytical benchmark (10% mortality margin).

---

**Mortality and PBR prescribed margin**

Level of margin by VM-20 mortality assumption component is illustrated below.

The mortality assumption under VM-20 contains both direct sources of margin and an indirect source of margin (lack of future mortality improvement).

---

**Impact of mortality margins (1/2)**

The impact of a 50% first dollar YRT reinsurance agreement with the current scale of rates equal to best estimate mortality is shown below.

Rates are increased annually, on policy anniversary, by an amount equal to the difference between PBR mortality and the current scale of YRT rates.

YRT Scenario 1: No change in rates
YRT Scenario 2: Increase rates to equal PBR mortality

The impact of reinsurance depends largely on the modeled reinsurer reaction.
Impact of mortality margins (2/2)
The impact of the 50% reinsurance agreement is re-evaluated below after updating the PBR mortality assumption to use a level 10% margin.

The impact of reinsurance depends largely on the modeled reinsurer reaction.

Projected reinsurance credit
The reinsurance reserve credit (difference between pre- and post-reinsurance reserve) under the two sets of margins is shown below.

The impact of reinsurance on PBR margins gets closer to the analytical benchmark over time because of mortality assumption unlocking at future valuation dates.

Key takeaways

<table>
<thead>
<tr>
<th>Takeaway</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Reinsurer reaction scenarios case produce reserve credits in excess of ½ Cx.</td>
</tr>
<tr>
<td></td>
<td>• ½ Cx represents the cost of reinsurance that corresponds to the period for which the reinsurance premium has been paid, but not yet earned by the reinsurer, with no provision for reinsurance beyond the paid to date.</td>
</tr>
<tr>
<td></td>
<td>• Full reinsurer reaction scenario tested above for:</td>
</tr>
<tr>
<td></td>
<td>- Reinsurer reaction that reflects differences between evolution of mortality margin and reinsurance premium payment dates.</td>
</tr>
<tr>
<td></td>
<td>- Contractual provisions around the return of future unearned reinsurance premiums on death and lapse.</td>
</tr>
<tr>
<td></td>
<td>- Other mechanical differences due to VA-26 requirements (e.g., differences in starting assets and the resulting earned rate).</td>
</tr>
<tr>
<td>2</td>
<td>It is important to look at long-term projections of reserves when evaluating the impact of reinsurance modeling approaches.</td>
</tr>
<tr>
<td></td>
<td>• The level of margin in mortality as compared to best estimate changes at future valuation dates, due to unlocking of mortality improvement and extending the sufficient data period.</td>
</tr>
<tr>
<td></td>
<td>• As the business ages, higher mortality and shorter projection horizons will change the impact of reinsurance on reserves at future valuation dates.</td>
</tr>
</tbody>
</table>
Overview

Proposed granularity for the analysis and modeling is outlined below:

Methodology analysis dimensions

<table>
<thead>
<tr>
<th>Properties of the reinsurance</th>
<th>Sensitivity</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Significant variability in the amount of reinsurance and relationship between rates and best estimate mortality is required to provide coverage of treaty types, provisions and the range of company usage of VST reinsurance.</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>Different starting levels of mortality credibility and years of sufficient data will provide insights into impacts for a range of company sizes.</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>Reduced valuation functionality is needed to provide projected long-term impacts in support of a 5-year valuation window. Forecasts of reserves are expected to be conservative for field test participants.</td>
<td></td>
</tr>
</tbody>
</table>

This section contains the results of sensitivities performed to confirm this level of granularity. See Appendix B for further details on the analysis design.

Reinsurer reaction scenarios

Proposed coverage is shown below. As needed, these results will be produced for the methodology analysis dimensions (e.g., product, company size, reinsurance attributes):

<table>
<thead>
<tr>
<th>Reinsurer reaction</th>
<th>Change to non-guaranteed VST rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A: Informational</td>
<td>NA: Allow future mortality improvement in reserves</td>
</tr>
<tr>
<td>Immediate</td>
<td>NA: Best estimate assumptions / economic reserve</td>
</tr>
<tr>
<td>None</td>
<td>NA: Interest rate (1.5% credit)</td>
</tr>
</tbody>
</table>

Reinsurance sensitivity

Increase by 100% of prescribed mortality margin, including:

- Increases by 10% of prescribed mortality margin, excluding future mortality improvement.
- Same as previous, except assuming 5% of best estimate mortality improvement.
- Same as previous, except assuming 1% of best estimate mortality improvement.
- Increase by the difference between current scale and PBR mortality.

Reinsurance sensitivity

Increase by 110% of prescribed mortality margin, excluding:

- Increases by 10% of prescribed mortality margin, excluding future mortality improvement.
- Same as previous, except assuming 5% of best estimate mortality improvement.
- Increase by 110% of prescribed mortality margin, excluding future mortality improvement.
- Increase by 110% of prescribed mortality margin, excluding future mortality improvement.

Impact analysis | High granularity

The following summarizes the impact reinsurance on PBR reserves for the sensitivities on model components with high granularity:

Mortality sensitivity

- Increase by 100% of the difference between current scale and mortality.
- Increase by 110% of the difference between current scale and mortality.

Product sensitivity

- Increase all points of outer loop yield curve by 100bps.
- Increase product cost by increasing premium loads by 5% in all years.

Impact analysis | Low-medium granularity

The following summarizes the impact reinsurance on PBR reserves for the sensitivities on model components with low-medium granularity:

Mortality sensitivity

- Increase by 100% of the difference between current scale and mortality.
- Increase by 110% of the difference between current scale and mortality.

Product sensitivity

- Increase all points of outer loop yield curve by 100bps.
Scope of field test
The scope of the industry field test is focused on the "field test modified" APFs discussed on the September 12th LATF call and summarized below

<table>
<thead>
<tr>
<th>APP</th>
<th>Description</th>
<th>Field testing variations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019-40</td>
<td>Actuarial judgement with clarified modeling principles/guidance</td>
<td>• Prudent estimate of all counterparty actions&lt;br&gt;• Prudent estimate of rate changes only after reaching 115% reinsurer loss ratio&lt;br&gt;• Model prudent estimate of rate changes only after reaching 5 consecutive years of reinsurer losses</td>
</tr>
<tr>
<td>2019-41</td>
<td>Reinsurance margin such that the difference between best estimate mortality and the current scale of YRT rates is maintained</td>
<td>• Best estimate mortality (for the purposes of calculating reinsurance margin) contains future mortality improvement for 15 years at a rate of 0%, .5%, and 1% per year&lt;br&gt;• Increase reinsurance rates by reinsurance premium margin, equal to the difference between PBR and best estimate mortality&lt;br&gt;• Judgment modifications are allowed if these are less conservative, other than recapture, then they require commissioner approval</td>
</tr>
<tr>
<td>2019-42</td>
<td>Judgment modifications are allowed (if these are less conservative, other than recapture, then they require commissioner approval)</td>
<td>• Future mortality improvement included in best estimate mortality used for the purpose of calculating reinsurance margin for 5, 10, 15 and 20 years</td>
</tr>
</tbody>
</table>

The field test submission calls for two baselines: the interim solution (½ Cx) and a scenario where no change from the current scale of YRT rates is assumed.

Initial insights and analysis
The remainder of this section focuses on representative impacts for the field-tested APFs, as summarized in the table below. In addition the impact is provided for the two baselines described on the prior slide.

<table>
<thead>
<tr>
<th>APP</th>
<th>Field testing variations</th>
<th>Initial analysis parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019-40</td>
<td>• Prudent estimate of all counterparty actions&lt;br&gt;• Prudent estimate of rate changes only after reaching 115% reinsurer loss ratio&lt;br&gt;• Model prudent estimate of rate changes only after reaching 5 consecutive years of reinsurer losses</td>
<td>• YRT rates are increased by 100% of the difference between VM-20 and PBR mortality, until recapture in 2084&lt;br&gt;• No change in YRT rates until 2024 if at which point YRT rates are increased by an additional 0% of the difference between VM-20 and PBR mortality, for the purpose of calculating reinsurance margin) contains future mortality improvement for 15 years at a rate of 0%, .5%, and 1% per year&lt;br&gt;• Reinsurance margin such that the difference between best estimate mortality and the current scale of YRT rates is maintained&lt;br&gt;• Best estimate mortality (for the purposes of calculating reinsurance margin) contains future mortality improvement for 15 years at a rate of 0%, .5%, and 1% per year&lt;br&gt;• Increase reinsurance rates by reinsurance premium margin, equal to the percentage difference between PBR and best estimate mortality&lt;br&gt;• Judgment modifications are allowed if these are less conservative, other than recapture, then they require commissioner approval</td>
</tr>
<tr>
<td>2019-41</td>
<td>• Best estimate mortality (for the purposes of calculating reinsurance margin) contains future mortality improvement for 15 years at a rate of 0%, .5%, and 1% per year&lt;br&gt;• Increase reinsurance rates by reinsurance premium margin, equal to the percentage difference between PBR and best estimate mortality&lt;br&gt;• Judgment modifications are allowed if these are less conservative, other than recapture, then they require commissioner approval</td>
<td></td>
</tr>
<tr>
<td>2019-42</td>
<td>• Future mortality improvement included in best estimate mortality used for the purpose of calculating reinsurance margin for 5, 10, 15 and 20 years</td>
<td></td>
</tr>
</tbody>
</table>

The purpose of these results is to foster dialogue around these APFs, the format results are presented in, and any desired follow-up analysis.

Impact analysis | Baseline
½ Cx and no change to current scale of YRT rates

There is no margin on reinsurance premiums under the baseline results because the first is formulaic and the second assumes that YRT rates are unchanged.

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Impact analysis | APF 2019-40
YRT rates are increased by 105% of the difference between the current scale and PBR mortality, until recapture in 2044

Mortality and reinsurance margins
40-year-old male, preferred non-tobacco, 2019 valuation

The reinsurer reaction (5% over mortality margin) produces a reserve credit in excess of \( \frac{1}{2} C_x \) (See Background section for explanation) until recapture in 2044

Future mortality improvement included in the best estimate component of reinsurance margin for 15 years at a rate of .75% per year

Mortality and reinsurance margins
40-year-old male, preferred non-tobacco, 2019 valuation

The impact of APFs 2019-41 and 2019-42 are equal due to the selection of mortality improvement parameters and the method used to calculate the reinsurance margin
Listed below are next steps for the analysis and field test:

<table>
<thead>
<tr>
<th>Next Step</th>
<th>Target Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>February 2020</td>
<td>Oliver Wyman to confirm and share results of industry field test for point-in-time reserves as well as additional consultant analysis at a LATF call in February.</td>
</tr>
<tr>
<td>2</td>
<td>March 2020</td>
<td>Oliver Wyman to share APF specific results informed by industry range of practice survey at the March LATF meeting.</td>
</tr>
<tr>
<td>3</td>
<td>April 2020</td>
<td>Oliver Wyman to work alongside companies to develop projected reserves and share results with LATF at an April call. Academy working group will work with LATF to draft an amendment and expose for comment. Oliver Wyman will perform additional analysis as needed.</td>
</tr>
<tr>
<td>4</td>
<td>May - June 2020</td>
<td>Range of interpretation survey.</td>
</tr>
</tbody>
</table>

Appendix A  Supplementary results

Impact analysis | gross reserves (1 of 2)
Pre-reinsurance reserves are shown below for the sensitivities on model components with high granularity.

<table>
<thead>
<tr>
<th>Variance</th>
<th>Results from Section 1</th>
<th>Reinsurance sensitivity Reduce portion of business reinsured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>90,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100,000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mortality sensitivity Reduced mortality and years of sufficient data.

Impact analysis | gross reserves (2 of 2)
Pre-reinsurance reserves are shown below for the sensitivities on model components with low-medium granularity.

<table>
<thead>
<tr>
<th>Variance</th>
<th>Results from Section 1</th>
<th>Reinsurance sensitivity Reduce portion of business reinsured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>90,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100,000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Assets sensitivity 10bps increase in outer loop yield curve.

Product sensitivity 5% decrease in premium loads (pre-retail premiums).
Impact analysis | net reserves (1 of 2)
Post-reinsurance reserves are shown below for the sensitivities on model components with high granularity.

- **Baseline Results from Section 1**
- **Reinsurance sensitivity**
  - Reduce portion of business reinsured
  - Reserve ($) MM
  - Year
  - 0 250 500 750 1000 1250
  - 2019 2024 2029 2034 2039 2044 2049 2054 2059 2064 2069
  - NPR
  - DR

- **Mortality sensitivity**
  - Reduced credibility and years of sufficient data
  - Reserve ($) MM
  - Year
  - 0 250 500 750 1000 1250
  - 2019 2024 2029 2034 2039 2044 2049 2054 2059 2064 2069
  - NPR
  - DR

Impact analysis | net reserves (2 of 2)
Post-reinsurance reserves are shown below for the sensitivities on model components with low-medium granularity.

- **Baseline Results from Section 1**
- **Assets sensitivity**
  - 100bps increase to outer loop yield curve
  - Reserve ($) MM
  - Year
  - 0 250 500 750 1000 1250
  - 2019 2024 2029 2034 2039 2044 2049 2054 2059 2064 2069
  - NPR
  - DR

- **Product sensitivity**
  - 5% increase in premium loads (and retail premiums)
  - Reserve ($) MM
  - Year

Methodology analysis dimensions
The proposed coverage for the analysis is summarized below.

<table>
<thead>
<tr>
<th>Component</th>
<th>Granularity</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reinsurance</td>
<td>Very high</td>
<td>• Amount of reinsurance (None, 10% and 50%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Attachment point (First-dollar and excess of retention)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Relationship between the current scale of YRT rates and best estimate mortality (i.e., equal to, less than and greater than)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Default/company-acceptance and various reinsurer reaction scenarios (See next section)</td>
</tr>
<tr>
<td>Mortality</td>
<td>High</td>
<td>• Different best-estimate mortality improvement rates (0%, 2%, 5%, 10%, 1% per year) and levels of credibility &amp; years of sufficient data</td>
</tr>
<tr>
<td>Reserves</td>
<td>Medium</td>
<td>• Projected reserves will be calculated based on the 2020 Valuation Manual and set to the Max(NPR, DR) with the SR enabled for select runs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Reserves will be re-valued annually</td>
</tr>
<tr>
<td>Products and</td>
<td>Medium</td>
<td>• Mix of business by issue age, risk class, gender and band for Term (T10 and T20), ULSG (Limited account lifetime guarantee) and CAUL (5-year specified/premium guarantee)</td>
</tr>
<tr>
<td>population</td>
<td></td>
<td>• Mix of business by issue age, risk class, gender and band for Term (T10 and T20), ULSG (Limited account lifetime guarantee) and CAUL (5-year specified/premium guarantee)</td>
</tr>
<tr>
<td>Assets</td>
<td>Low</td>
<td>• Reinvestments only, level yield curve</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• GSIS mix of A44 assets with 15-year duration in both inner and outer loop (Note: Credit spread and yields will vary by inner and outer loop)</td>
</tr>
</tbody>
</table>
Liability assumptions (ULSG)
The assumptions used in the analysis are below, including assumed PBR margins:

<table>
<thead>
<tr>
<th>Assumption</th>
<th>Anticipated experience assumption</th>
<th>Prudent estimate assumption (e.g. margin)</th>
</tr>
</thead>
</table>
| Mortality        | • 2015 VBT gender distinct, smoker distinct ANB
                | • Relative Risk varies by risk class
                | • A/E factors vary by high/low band
                | • 7.5% annual future mortality improvement |
|                  | • Prescribed margin applied to company mortality
                | • Industry table: 2015 VBT with prescribed margins and mortality improvement scale
                | • Grading and margins assumes 10% LF credibility |
| Lapse            | • 3% annual lapse rate             | • 2% annual lapse rate                   |
| Expenses         | • $530 per policy (annual)        | • 107% margin on expenses               |
                | • 2.5% premium tax                | • 3.5% inflation                        |

Appendix C | Analysis and validation tools

Suite of modeling tools
Overview (1 of 2)

<table>
<thead>
<tr>
<th>Item</th>
<th>Details</th>
</tr>
</thead>
</table>
| AXIS Dataset       | • AXIS pricing/new business model equipped with ALM and PBR functionality, representative policies from generic product types and the flexibility to run various reinsurance reaction and PBR revaluation scenarios
                   | • DataLink functionality allowing for automated updates to product features and assumptions |
| Model documentation| • Self-contained documentation of model requirements, design, and testing |
| Detailed user guide| • Comprehensive guide showing the model setup for product features, assumptions and batches
                   | • Instructions on how to use the Testware and perform updates to the model |

Suite of modeling tools
Overview (2 of 2)

<table>
<thead>
<tr>
<th>Item</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Testware</td>
<td>• Comprehensive testing workbook which validates all calculations (premium information, investment gain/loss on hedge and interpolated reserves taken as a given)</td>
</tr>
<tr>
<td>Analysis tool</td>
<td>• Suppresses, confirm, and provide meaningful metrics for the model office results</td>
</tr>
<tr>
<td></td>
<td>• Graphs of reserve balances, distributable earnings, and the earned rate on general account assets</td>
</tr>
<tr>
<td></td>
<td>• Provides high level check on outer and inner loop decrements and other implied values</td>
</tr>
<tr>
<td>Input builders</td>
<td>• User-friendly Excel tools in which assumptions and other required model values are translated from user friendly “source information” into AXIS formatted tables</td>
</tr>
<tr>
<td></td>
<td>• These tools are embedded in the Dataset in order to enhance controls and governance</td>
</tr>
</tbody>
</table>
Documentation
Details the requirements, design, documentation, and testing of the model in a modular and expandable structure.

Documentation is centralized into a single, all-inclusive report to facilitate future maintenance. Appendices summarize future improvements and other key project deliverables.

User guide
Supplements the model documentation and provides additional detail on the AXIS model structure.

Testware
Replicates model calculations while supporting version management, increasing transparency, and augmenting documentation.

Analysis tool
Aggregates results under pre-PBR and PBR setups and provides financial metrics and implied rate analysis.
Input builders
Document and generate assumptions and product features in Excel with a process to import into AXIS

Appendix D | Project team and governance

The consultant analysis will be overseen by NAIC Staff, the Academy, and the ACLI, as depicted in the following chart.

The report and the findings herein are subject to the reliances and limitations outlined at the beginning of this report. This report is considered a statement of actuarial opinion under the guidelines promulgated by the American Academy of Actuaries. Chris Whitney, Dylan Strother and Katie van Ryn of Oliver Wyman developed this report and meet the qualification requirements of the American Academy of Actuaries to render the opinion contained herein.
Oliver Wyman was requested by the American Council of Life Insurers, the American Academy of Actuaries and the National Association of Insurance Commissioners to support an industry field test being conducted to aid the NAIC Life Actuarial (A) Task Force in the selection of a long-term solution for the treatment of non-guaranteed reinsurance under PBR.

Oliver Wyman shall not have any liability to any third party in respect of this report or any actions taken or decisions made as a consequence of the results, advice or recommendations set forth herein. This report does not represent investment advice or provide an opinion regarding the fairness of any transaction to any and all parties. Oliver Wyman and its representatives make no representation that the advice and opinions expressed herein are necessarily accurate, up-to-date or in accordance with applicable laws, regulations, or industry standards.

Information furnished by others, upon which all or portions of this report are based, is believed to be reliable but has not been verified. No warranty is given as to the accuracy of such information. Public information and industry and statistical data are from sources Oliver Wyman deems to be reliable; however, Oliver Wyman makes no representation as to the accuracy or completeness of such information and has not assumed any responsibility for changes in market conditions or laws or regulations and no obligation is assumed to revise this report to reflect changes, events or conditions, which occur subsequent to the date hereof.
Preliminary Framework Elements for Non-Variable Annuity PBR

American Academy of Actuaries Annuity Reserves Work Group (ARWG)

Objective

1) Propose a new statutory reserve methodology for fixed annuities that can be utilized framework to determine reserves based on the level and type of risk inherent in the contract.

ARWG Pillars of Objective:

1. Appropriate Reflection of Risk - All risks equal greater risk in moderately adverse conditions requires greater statutory reserves, and vice versa.
2. Compliance - The statutory reserve accounts for all material risk covered in the Valuation Manual, product features, and potential management actions associated with the policies or contracts being valued.
3. Consistency Across Products - Statutory reserves between two contracts with similar features and risk are consistent given the same anticipated experience, regardless of product type.
4. Practicality and Appropriateness - Balance principles above with an approach that is practical, auditable, and able to be implemented.

Vision and Need

Why Fixed Annuity PBR now?

- Pricing methodology: As new products introduce greater optionality, there is greater need for a reserve methodology that appropriately reflects the risk in these products, as well as future products that emerge.
- General Coating PBR framework: Seek consistency between fixed annuities and life/variable annuities (VM-20/VM-21).

Path Forward

- Aug - Dec 2019:
  - Develop proposed fixed annuity PBR framework deck
  - Begin initial modeling assessment for general FI reserve

- Spring 2020:
  - ARWG to present framework deck proposal to LATF
  - Seek LATF endorsement of PBR framework deck (w/feedback addressed)
  - Valuation Manual language drafting efforts

- Fall 2020:
  - Begin industry field testing using draft (specific TBD)

- Spring 2021:
  - Target adoption of fixed annuity PBR (potentially VM-21)
  - Target 7/1/2023 effective date (monitor as progress develops)

- Spring 2022:
  - Review and finalize proposed PBR framework deck

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Topics for LATF Discussion

1) Net Assets and Reinvestment
   - Primary driver for fixed annuity modeled reserves is general account
   - Therefore, explore devoting from VM-20 with the following
     - Company-specific spreads/deadline for 1 year or less
     - And to prescribed assumptions over time
     - Consider consistency with AAT and certifications?
   - Exclusion assumptions, including the VM-20/VM-21 certifications from an
     investment office?
   - Scope – Any concerns with proposed product scope or potential retrospective application?

Preliminary Framework Methodology Elements

1) Product Scope
2) Hedging Requirements
3) Discount Rate and Starting Assets
4) Exclusion Test Methodology
5) Preliminary Modelling Efforts
6) Topics for LATF Discussion

1 – Product Scope

<table>
<thead>
<tr>
<th>Products In-Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account Value Based Annuities</td>
</tr>
<tr>
<td>- Deferred Annuities (SPDA &amp; FFDAs)</td>
</tr>
<tr>
<td>- Multi-Year Guarantee Annuities (MYGA)</td>
</tr>
<tr>
<td>- Fixed Indexed Annuities (FIAs)</td>
</tr>
<tr>
<td>- Market Value Adjustments (MVAs)</td>
</tr>
<tr>
<td>- Targeted Annuities</td>
</tr>
<tr>
<td>- GISC and other Guarantees/Riders</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payments</td>
</tr>
<tr>
<td>- Single Premium Immediate Annuities (SPIAs)</td>
</tr>
<tr>
<td>- Deferred Income Annuities (DIAs)</td>
</tr>
<tr>
<td>- Pension Risk Transfer Annuities (PRT)</td>
</tr>
<tr>
<td>- Structured Settlements</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Products Out-of-Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guaranteed Investment Contracts (GICs)</td>
</tr>
<tr>
<td>Funding Agreements</td>
</tr>
<tr>
<td>Mortality-linked Securities</td>
</tr>
<tr>
<td>Longevity Reinsurance</td>
</tr>
</tbody>
</table>

VM-21 or Fixed Annuity PBR (TBD)
- Modified Guaranteed Annuity (MGA)
- Structured Annuities
- Hybrid Variable and Fixed Annuities

Retrospective Application? (TBD)
- Propose for both current and new business

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2 – Hedging Requirements

Recommendation: Allow future hedging programs to be modeled and priced directly to control whether CDT or not. Use VM-21 hedging requirements for GMxB’s, with alternative approach permitted if hedging indexed credits.

Preliminary Fixed Annuity PBR Methodology (consistent with VM-21 except for indexed credits and CDT)

a) No Discounting
   - Set index rate to a spread above the Palmo rate.
   - Define an index option x
   - The index option x = [(PBR option x) / (CDT option x)]
   - Value of index option x = [1 – (PBR option x) / (CDT option x)]
   - Index equity/hedge layers stipulated in PBR instruments.
   - Set index options for index options.

b) Laid-off Hedging
   - Over-recovery by a hedging error term, set it as an error factor (5% to 10%) based on backtesting methodology.
   - Reduce CDT obligations before adjusting CDT to layers, with optional method for indexed credit hedges.
   - For hedges on indexed credits, reflect a hedge tolerance in adjusting CDT to layers, sufficient to hedge any level of exposure.
   - For indexed credit hedges, use a separate index to hedge.

3 – Discount Rate and Starting Assets

Recommendation: Use the same methodology as VM-21 for fixed annuity PBR.

Preliminary Fixed Annuity PBR Methodology (consistent with VM-21)

a) Discount Net Asset Value Rate (NAV) (same as VM-21)
   - Calculate present value of accumulated assets at end of projection.
   - Adjust for present value of future net assets at end of projection.
   - Allow "forward valuation" to value for starting assets resulting in "defeasement" of future benefits/forwards.

b) Project the Additional Assets (Value as VM-21)
   - Project additional assets, regardless of starting asset portfolio.
   - If there are accumulated deficiencies at end of year, then increase assets.
   - On separate account plus hedges, book value general account assets, inclusive of pre-tax NAV.

4 – Exclusion Test Methodology

Recommendation: Use VM-20 exclusion testing methodology with modifications, consisting of three option: capability test, demonstration test, and certification. If pass, use pre-PBR GMxB. The not recommended following VM-21 alternative methodologies.

Preliminary Fixed Annuity PBR Methodology (consistent with VM-20)

a) Exclusion for GMxB Test – Use same methodology as VM-21, for same 16-prepared scenarios. The difference is the performance of the underlying index for less than a 1% of the exposure.
   - Set the threshold on a fixed deferred annuity with no or a minimal index.
   - Propose an adjustment to greater than 2% on a 2019 set to pass.
   - Use amortized scenario reserves or leverage AAA to pass.
   - Similar to VM-20, purpose is to quantify asset volatility and AAA risk.

b) Exclusion for GMxB Test – Demonstrate that the stochastic reserve is less than AG33/35.
   - Adjust for pre-PBR forward values.
   - Demonstrate that the stochastic reserve is greater than principles-based reserve under the NY7 or 22-revised scenarios.
   - May use qualification risk assumptions, showing documentation that supports analysis.
   - Not allowed for material guarantees (need to define "material").
5 – Preliminary Modeling Efforts

- Develop a reserve models for a prototype fixed indexed annuity (FIA) product with a guaranteed living benefit (GLB) to project a preliminary non-variable annuity PRR
- Include sensitivity tests on various product features, profitability levels, economic conditions, reinsurance strategies, and liability assumptions
- Objectives are the following:
  - Compare projected reserves for stochastic PRR reserves at CTE20 on FIA with and without GLB and with and without enhancements to current statutory requirements
  - Interpret and inform ARWG recommendations for framework elements
  - Set potential placeholder for percentage threshold on stochastic exclusion ratio test

6 – Topics for LATF Discussion

1) Cash Flows and Reserves
   - Primary driver for fixed annuity modeled reserves is general account investments. Therefore, Academy wants to explore deviating from VM-20 with the following:
     - Company-specific spreads/algorithms for 4 years (e.g., 4-year and grade to prescribed assumptions over time (e.g., by year 35). Consider consistency with IIF and certifications.
     - Company-specific reinsurance assumptions, including the VM-20/VM-21 certification from an investment officer?

2) ETV: Test Methodology
   - Agree with Academy’s preference to use an exclusion test to ease implementation in the future. Are there any hurdles related to economic risk? Thoughts on discussed approach?

3) Group – Academy members expressed interest in researching retrospective application, including policies issued prior to 1984, between 1977 and FIA effective date, and prospectively. Any concerns or consideration with retrospective applications?

Appendix I: Product Descriptions

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deferred Annuity – SPIA</td>
<td>An annuity with an account value established with a single premium amount that grows with a guaranteed interest rate for the duration of the payment period. At maturity, the account value is paid directly to an internal account.</td>
</tr>
<tr>
<td>Deferred Annuity – SPIA</td>
<td>An annuity with an account value established with a premium amount that allows for additional amounts to be paid in to the annuity over time, resulting in an increase in the account value. The annuity with an account value that the contractholder can elect the option for a portion of the account value to grow at a rate linked to an external index.</td>
</tr>
<tr>
<td>Deferred Annuity – SPIA</td>
<td>An annuity with an account value that provides a predetermined and contractually guaranteed interest rate for a specified period of time, after which time is typically based on an external index or a multiple year guaranteed interest period. The annuity with an account value that allows for the accumulation of the account value to grow at a rate linked to an external index.</td>
</tr>
<tr>
<td>Single-Term Annuity</td>
<td>An annuity with an account value that is subject to adjustments based on interest rates. It is common to pay the interest rate on the account value based on the amount of the Market Value Adjustment (MVA).</td>
</tr>
<tr>
<td>Two-Term Annuity</td>
<td>An annuity with an account value that the contractholder can elect the option for a portion of the account value to grow at a rate linked to an external index.</td>
</tr>
</tbody>
</table>

Notes:
- The descriptions contained in these tables are not recommendations of additions to any existing regulation or guidelines. In addition, these descriptions are not definitive definitions under the Academy or any other formal body. Such descriptions are intended to provide a neutral and definitional framework to aid in understanding the product and should not be treated as an endorsement of the product or a recommendation for adoption.
Appendix I: Product Descriptions\(^1\) (cont’d)

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Premium Annuity</td>
<td>An annuity purchased with a single premium amount which guarantees a periodic payment for life of the annuitant or for a term certain and payment begins one year or later (or from) the issue date.</td>
</tr>
<tr>
<td>Immediate Life Annuity</td>
<td>An annuity which guarantees a periodic payment for the life of the annuitant or a term certain and payment begins one year or later (or from) the issue date.</td>
</tr>
<tr>
<td>Deferred Annuity</td>
<td>An annuity which guarantees a periodic payment for the life of the annuitant or a term certain and payment begins one year or later (or from) the issue date.</td>
</tr>
<tr>
<td>Premium Risk Transfer Annuity</td>
<td>An annuity typically purchased by insurance company to issue participants in a retirement plan that guarantees periodic payments to retirement participants. The insurance company holds the assets (or an equivalent account) and has not only longevity risk but also asset risk (capital and investment).</td>
</tr>
<tr>
<td>Structured Settlements</td>
<td>An annuity where periodic benefits arise from settlements of various forms of annuities, the settlement or not of court settlements from tort actions, such as arising from accidents or medical requisition.</td>
</tr>
<tr>
<td>Variable Annuity</td>
<td>An annuity where benefits vary according to the investment experience of one or more separate accounts or accounts maintained by the insurer.</td>
</tr>
<tr>
<td>Term Certain Annuity</td>
<td>A contract issued by an insurance company that offers guaranteed periodic payments for a specified period of time, not exceeding attorney’s or mortality of the annuitant.</td>
</tr>
</tbody>
</table>

\(^1\) The descriptions contained in these tables are not recommendations of any life insurance company or sponsor, but are intended to acquaint the reader with the current terminology in the field, and are not guidelines or legal definitions. They are intended to be understood as the anatomy and terms intended to be encompassed by the definitions, and not for permission.

Appendix I: Product Descriptions\(^1\) (cont’d)

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guaranteed Investment Contract</td>
<td>Insurance contract typically issued to a retirement plan (defined contribution) under which the employer deposits a defined contribution. The contract guarantees payment of a specified amount or a specified rate of return.</td>
</tr>
<tr>
<td>Funding Agreement</td>
<td>A contract issued by an insurance company to an individual or individuals that guarantees to pay a specified amount of interest or a specified rate of return.</td>
</tr>
<tr>
<td>Mortality Indexed Instruments</td>
<td>Mortality indexed instruments that are sold to investors whose value is affected by a mortality event for an individual or group of individuals.</td>
</tr>
<tr>
<td>Longevity Reinsurance</td>
<td>Reinsurance contract where the underwriter agrees to indemnify the insured against the risk of death of the insured.</td>
</tr>
<tr>
<td>Guaranteed Annuity</td>
<td>An annuity contract where the insurer guarantees to pay a specified amount of interest or a specified rate of return.</td>
</tr>
<tr>
<td>Structured Annuity</td>
<td>A contract issued by an insurance company to an individual or group of individuals that guarantees payment of a specified amount of interest or a specified rate of return.</td>
</tr>
</tbody>
</table>

\(^1\) The descriptions contained in these tables are not recommendations of any life insurance company or sponsor, but are intended to acquaint the reader with the current terminology in the field, and are not guidelines or legal definitions. They are intended to be understood as the anatomy and terms intended to be encompassed by the definitions, and not for permission.
Non-SPIA Valuation Rates

- Must coordinate with the Annuity Reserves Work Group (ARWG)
- Working plan is to develop valuation rates for products which pass under-development exclusion test
- Current Plan: Refresh current valuation rates using similar methodology as was used to develop current rates
- Generally, calculate the weighted average yield over the life of the business, taking into account the time value of money
- Specifically, calculate the present value of benefits and expenses using portfolio book yields (including realized gains and losses)
  - Determine single rate that will produce the same present value as described above.
  - Consistent with VM-20 Deterministic Reserve

Contemplated Changes to Current Framework

- New Reference Index: Treasuries + VM-20 Spreads
- Potential Differentiators:
  - Surrender Charge Period
  - Market Value Adjustment
  - Partial Free Withdrawals
  - Single Premium vs. Flexible Premium
  - Multi-Year Guarantee vs. Annual Reset
- Work Continues on Multi-Year Guarantee and Annual Reset Annuities
- Proposed Effective Date: 1/1/23 (Consistent with ARWG)
  - May be part of field test

Current Plan (cont.):
- Examining three interest rate scenarios: level, rising, falling
- Open issues:
  - How to use valuation rates produced from the three scenarios.
  - Whether to retain single locked-in valuation rate at issue or require future unlocking
- Same scope as current regime: produce valuation rates for all non-SPIA annuities
  - So as to cover any annuities that pass the under-development exclusion test
Questions?

- Chris Conrad, MAAA, FSA
  Chairperson, SVL Interest Rate Modernization Work Group
- Ben Slutsker, MAAA, FSA
  Vice Chairperson, SVL Interest Rate Modernization Work Group

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 Agenda

- Purpose of Individual Life Mortality Improvement (MI) Recommended Scale
- Current methodology for annual recommendations
- Application of recommended scale
- Next steps

Purpose of the Individual Life MI Recommended Scale

- Used in conjunction with AG38 and VM20 reserve development
- Updated each year to account for an additional year of mortality improvement
- Applied to improve Valuation Basic Table mortality from the table date (e.g., 2015 for the 2015 VBT) to current valuation date

Current methodology for annual recommendations

- In use since year-end 2013 for AG38
- Approach is consistent with development process for the MI scale used in the 2015 VBT and 2017 Commissioners Standard Ordinary table development work
Current Methodology for annual recommendations

- Mortality improvement scales for US insured mortality tables
  - Varies by use and product but none use actual insured data

### Mortality improvement scales for US insured mortality tables

<table>
<thead>
<tr>
<th>Scale</th>
<th>Use</th>
<th>Last updated</th>
<th>Use Period</th>
<th>Underlying Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP-2019</td>
<td>Revision</td>
<td>2019</td>
<td>2014+</td>
<td>SSA with assumed LTR = 1.0%</td>
</tr>
<tr>
<td>AG38-MI</td>
<td>AG38 + VM-20</td>
<td>2019**</td>
<td>2013+</td>
<td>SSA actual + SSA (Alt. II)</td>
</tr>
<tr>
<td>MI-2017</td>
<td>Canadian projections</td>
<td>2017</td>
<td>2017+</td>
<td>HMD (1967-2013) + OAS (2005-2015), graduated to long term rate over 10-20 years; LTR varies between 0% and 1%</td>
</tr>
</tbody>
</table>

Limitations of current scale

- One-dimensional (age/gender only)
- Basis risk due to use of population data
- Not intended for long-term projections

Current methodology considerations

1. Strive to limit volatility in year-to-year recommendations unless warranted by emerging trends
2. Provide for a repeatable and data-based methodology with minimal actuarial judgement
Next Steps
Develop a consistent framework for producing MI scales

Objective: Develop a common tool, which would be made available to SOA members, to be used by practitioners from individual life, individual and group annuity, and pension/retirement (Target: 2020)
- Tool, currently in development, will use 2-dimensional approach
- Similar to CMI and RPEC MP table development, with some modifications
- For life tables, intent is to use gender specific SSA data for the US population and SOA non-smoker and smoker experience with consideration to eventually allow users to input their own data
- Will allow practitioner decisioning to convergence period
- Requires significant testing from multiple practitioners across practice areas

Suggested Next Steps

- Revise prescribed methodology to remove any material actuarial judgement – Develop a threshold level of change to indicate update to the scale in any given year (Timeline: for 2020 scale update)
- Include a description of the methodology used each year to updated the life MI scale in the current valuation manual (Timeline: TBD)
- Scale updates would be made each year without required formal approval by LATF as long as no changes are made to the prescribed methodology (next change: expected only after recommended MI framework is released by SOA Mortality and Longevity Steering Committee)

Contact Information
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Chairperson, Life MI Subgroup
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Trepanier@actuary.org
PBR Treatment for Individually Underwritten Group Insurance

Life Reserve Working Group

The VM, Section II.B and Section II.D state minimum reserve requirements for individual life contracts, thus excluding group life contracts

- Section II.B* – states the minimum reserve requirements for variable and nonvariable individual life contracts, with certain exceptions, are subject to PBR requirements and VM-20 and is silent on the treatment of individually underwritten group life insurance
- Section II.D.1* – provides for the PBR exemption in terms of premiums for ordinary life insurance, which, by definition, excludes group life contracts

* See Appendix J for rich language

Discussion topic

- Certain group life certificates are solicited, acquired, managed, and have policy provisions consistent with individual ordinary life policies.
- These types of group life certificates should be subject to the same reserve requirements and other reporting within the Valuation Manual (VM) as other ordinary life insurance contracts of the same product type.

SSAP No. 50 Paragraph 33 defines group life characteristics*

- Insurance is on the lives of a group of persons under a single master contract;
- Customarily written on a yearly renewable term basis, though permanent products are sold;
- The terms are based on a master policy, which:
  - Usually precludes or disallows individual selection;
  - Is for the benefit of persons other than the policyholder;
- Individual insured members are issued certificates of insurance rather than an insurance policy; and
- Contract is between the policyholder and the insurer—there is no contract of insurance between the policyholder and the members.

* Separate from fraternal insurance, which is defined as individual policies offered to all persons in a general class (usually a work profession) who are related in some way such as belonging to a certain association
Certain contracts issued under a master group contract or franchise contract reflect the characteristics of ordinary individual life contracts

- To qualify for issuance of a group insurance certificate, certain group contracts:
  - Require individual risk selection in order to qualify for issuance of the group insurance certificate; and
  - Do not require continued membership in the group in order to maintain coverage.
- These certificates have similar acquisition approaches, provisions, certificate-holdert rights, pricing, and risk classification as individual ordinary life insurance contracts.
- These certificates are managed in a similar manner to individual ordinary life insurance contracts.
- These individual certificates should follow the same reserve requirements as other individual life contracts of the same product type.

VM-51 scope excludes individually solicited group life

- VM-51 scope for individual ordinary life insurance and currently excludes separate lines of business such as:
  - SI/GI
  - Worksite
  - Individually solicited group life
  - Direct response
  - Final expense
  - Pre-need
  - Home service
  - Credit life
  - CDU/ BOU/charity-owned life insurance (CHDL).

LRWG recommends seven clarifying changes to the VM and one referral for change to the NAIC Blanks, PBR Supplemental Report

- Changes to the VM are recommended to clarify that group certificates meeting certain requirements should follow the same reserve requirements as other individual ordinary life contracts:
  1. Change the minimum reserve requirements (Section II) to also apply to group life which, other than the difference between issuing a policy and issuing a certificate, have the same or mostly similar contract provisions, risk selection process, and underwriting as individual ordinary life contracts;
  2. Add language in Section II to allow application of VM-A and VM-C for these group life certificates prior to 1/1/2024;
  3. Add language to Reserve Requirements Section II, Subsection 1.D and the corresponding footnote to include premiums from group life contracts which have individual certificates that utilize a similar risk selection process, data elements, and group risks with similar classification factors as the VM-A and VM-C; and
  4. Add new paragraph, VM-20, Section 1.B, to clarify group life certificates issued using individual risk selection processes, including a definition for individual risk selection process, are subject to the requirements of VM-20;

LRWG recommends seven clarifying changes to the VM and one referral for change to the NAIC Blanks, PBR Supplemental Report (continued)

- Add guidance note after first sentence in VM-20, Section 2.A.1, to clarify applicability to group life insurance certificates that meet the individual risk selection process definition;
- Modify VM-51 to no longer exempt individually solicited group life contracts which meet the requirements and definitions under items (1) and (2) above; and
- Modify VM-51, Appendix 4, to no longer exempt individually solicited group life contracts which meet the requirements under items (1) and (2) above.
- Refer to NAIC Blanks (E) Working Group, modifications to the VM-20 Reserves Supplement, Part 3 to report premiums for total Group Life and Group Life with an individual risk selection process as defined in VM-20 Section 1.B separately.

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Attachment Eleven
Life Actuarial (A) Task Force
12/5-6/19
Individual insured risk selection process for group life insurance certificates

Proposed definition:
The risk selection process is based on characteristics of the insured(s) beyond sex, gender, age, and membership in a particular group. This may include, but is not limited to, completion of an application, questionnaire(s), or tele-interview (beyond acknowledgement of membership to the group master policyowner, sex, gender, and age); the use of non-medical information, medical or health history information, prescription history information, avocations, usage of tobacco, family history, or submission of fluids such as blood, Home Office Specimens (HOS), or oral fluid. The resulting risk classification is determined based on the characteristics of the individual insured(s) rather than the group, if any, of which it is a member (e.g., employer, affinity, etc.).

Recommend a three-year transition period

- Recommend changes required for group certificates issued on or after 1/1/2024
- Need to allow companies with certificates meeting the definition of group certificates, which utilize an individual risk selection process, sufficient time to incorporate PBR
  - Especially if previously met PBR exemption

Recommendation to include the premiums for group life subject to an individualized risk selection process in the PBR Exemption

Appendix: VM, Section II. Reserve Requirements for Life Insurance Products

Section II.A.
This subsection establishes reserve requirements for all contracts issued on and after the operative date of the valuation manual that are classified as life contracts as defined in Exhibit SSAP 2019, Valuation Manual, with the exception of annuities and deferred income contracts. This subsection does not apply to contracts that are described in Section II.B. Reserve requirements for Variable Annuity contracts and other contracts not required to be valued using the methods described in this subsection are provided in subsections 5 and 6, respectively.

Section II.B.
Minimum reserve requirements for variable and nonvariable individual life contracts—excluding guaranteed issue life contracts, prepaid life contracts, industrial life contracts, and policies of companies exempt pursuant to the life risk exemption in paragraph 7.b.1 of Section II.C. —are provided in VM-20, Requirements for Principle-Based Reserves for Life Products, except for reversion of the transition period in paragraph 7.c.3.b. For this purpose, joint life policies are considered individual life products.

For variable contracts, the reserves of VM-20 are considered principal-based valuation requirements for purposes of the valuation manual.

Minimum reserve requirements for life contracts not subject to VM-20 or those pursuant to applicable requirements in VM-4 and VM-C, for guaranteed issue life contracts issued after Dec. 31, 2018, mortality tables are defined in VM Appendix M - Mortality Tables (VM-4), and the same tables may be used for reserve requirements as is used for minimum nonforfeiture requirements as defined in VM-02, Minimum Nonforfeiture Mortality and Interest.
Section II.D

1. A company meeting the condition in D.2 below may file a statement of exemption for ordinary life insurance policies, except for policies in D.3 below, issued directly or assumed during the current calendar year, that would otherwise be subject to VM-20. Such a statement must be filed with the domiciliary commissioner prior to July 1 of that year certifying that condition D.2 was met based on premiums from the prior calendar year annual statement. The statement of exemption must also be included with the NAIC filing for the second quarter of that year.

The domiciliary commissioner may reject such statement prior to Sept. 1 and require the company to follow the requirements of VM-20 for the ordinary life policies covered by the statement.

Condition for Exemption:

a. The company has less than $300 million of ordinary life premiums, and if the company is a member of an NAIC group of life insurers, the group has combined ordinary life premiums of less than $300 million.

Footnote:

Premiums are measured as direct plus reinsurance assumed from an unaffiliated company from the ordinary life line of business reported in the prior calendar year life/health annual financial statement, Exhibit 1, Part 1, Column 3, “Ordinary Life Insurance” excluding premiums for guaranteed issue policies and preneed life contracts and excluding amounts that represent the transfer of reserves in force as of the effective date of a reinsurance assumption transaction and are reported in Exhibit 1 Part 1, Column 3 as ordinary life insurance premium. Preneed is as defined in VM-01.
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.

American Academy of Actuaries, Life Reserves Work Group

Addition of language to clarify the definition of individually underwritten life insurance and the applicability of Principle-Based Reserve (PBR) requirements for group insurance contracts with individual risk selection issued under insurance certificates.

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:

January 1, 2020, version of the Valuation Manual used.

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 Appendix.

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

Individual insurance certificates issued under a group contract which utilize an individual risk selection process, pricing, premium rate structures and product features are similar to individual life insurance policies. They are currently excluded from VM-20 because they are filed under a group contract, but they should be subject to VM-20 due to this similarity. See Appendix.

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

NAIC Staff Comments:

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Notes: APF 2019-33

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Appendix

Issue

Certain contracts issued under a master group contract require individual risk selection in order to qualify for issuance of the group insurance certificate and do not require continued membership in the group in order to maintain coverage. The certificates have similar acquisition approaches, provisions, certificate-holder rights, pricing and risk classification, and are managed in a similar manner as individual ordinary life insurance contracts. These individual certificates should follow the same reserve requirements as other individual life contracts of the same product type. Therefore, a change is needed within the Valuation Manual to bring these individual certificates into scope of VM-20.

Eight Seven changes are recommended:

1) Within the Reserve Requirements section (Section II), change the minimum reserve requirements to also apply to group life contracts which, other than the difference between issuing a policy and issuing a group certificate, have the same or mostly similar contract provisions, risk selection process and underwriting as individual ordinary life contracts;

2) Within the Reserve Requirements section (Section II), add a transition period for individual group certificates issued on or before 1/1/2024;

2) Add language to Subsection 1.D and the corresponding footnote to include premiums from group life contracts which have individual certificates that were issued using individual risk selection processes;

4) Add new paragraph, VM-20 Section 1.B and reformat to make current paragraph Section 1.A to clarify group life certificates issued using individual risk selection processes, including a definition for individual risk selection process, are subject to the requirements of VM-20;

4) Add guidance note after first sentence in VM-20 Section 2.A.1 that group life certificates that meet the definition for individual risk selection process use the same VM-20 Reserving Categories as defined in Section 2;

5) Modify VM-51 Section 2.B to no longer exempt individually solicited group life which meet the requirements and definitions under items (1) and (2) above; and

7) Modify VM-51, Appendix 4, Item 17 to no longer exempt individually solicited group life contracts which meet the requirements under items (1) and (2) above.

Referral to the NAIC Blanks (E) Working Group, to revise the PBR Supplemental Report VM-20 Reserves Supplement, Part 3 to report premiums, reserves, claims, etc. for total Group Life and Group Life with an individual risk selection process as defined in VM-20 Section 1.B separately.
II. Reserve Requirements

This section provides the minimum reserve requirements by type of product, as set forth in the seven subsections below, as follows:

1. Life Insurance Products
2. Annuity Products
3. Deposit-Type Contracts
4. Health Insurance Products
5. Credit Life and Disability Products
6. Riders and Supplemental Benefits
7. Claim Reserves

All reserve requirements provided by this section relate to business issued on or after the operative date of the Valuation Manual. All reserves must be developed in a manner consistent with the requirements and concepts stated in the Overview of Reserve Concepts in Section I of the Valuation Manual.

Guidance Note: The terms “policies” and “contracts” are used interchangeably.

Subsection 1: Life Insurance Products

A. This subsection establishes reserve requirements for all contracts issued on and after the operative date of the Valuation Manual that are classified as life contracts as defined in SSAP No. 50 in the AP&P Manual, with the exception of annuity contracts and credit life contracts. Minimum reserve requirements for annuity contracts and credit life contracts are provided below in subsection 2 and subsection 5, respectively.

B. Minimum reserve requirements for variable and nonvariable individual life contracts—excluding guaranteed issue life contracts, preneed life contracts, industrial life contracts, and policies of companies exempt pursuant to the life PBR exemption in paragraph D below—are provided by VM-20, Requirements for Principle-Based Reserves for Life Products, except for election of the transition period in paragraph C below. For this purpose, joint life policies are considered individual life.

   1. Minimum reserve requirements for group life contracts in which the individual certificate holders were subjected to an individual risk selection process as described in VM-20 Section 1.B to obtain the insurance coverage are provided by VM-20, except for election of the transition period in paragraph C below.

   2. Minimum reserve requirements of VM-20 are considered principle-based valuation requirements for purposes of the Valuation Manual.

   3. Minimum reserve requirements for life contracts not subject to VM-20 are those pursuant to applicable requirements in VM-A and VM-C. For guaranteed issue life contracts issued after Dec. 31, 2018, mortality tables are defined in VM Appendix M – Mortality Tables (VM-M), and the same table shall be used for reserve requirements as is used for minimum nonforfeiture requirements as defined in VM-02, Minimum Nonforfeiture Mortality and Interest.
C. A company may elect to establish minimum reserves pursuant to applicable requirements in VM-A and VM-C for:

1. **Business described in Section B.1 above and issued on or after the operative date of the Valuation Manual and prior to 1/1/2022.**

2. **Business not described Section B.1 otherwise subject to VM-20 requirements and issued during the first three years following the operative date of the Valuation Manual.**

A company electing to establish reserves using the requirements of VM-A and VM-C may elect to use the 2017 Commissioners’ Standard Ordinary (CSO) Tables as the mortality standard following the conditions outlined in VM-20 Section 3. If a company during the three years elects to apply VM-20 to a block of such business, then a company must continue to apply the requirements of VM-20 for future issues of this business.

D. **Life PBR Exemption**

1. A company meeting the condition in D.2 below may file a statement of exemption for ordinary life insurance policies and group life contracts individually underwritten life insurance policies, except for policies in D.3 below, issued directly or assumed during the current calendar year, that would otherwise be subject to VM-20. Such a statement must be filed with the domiciliary commissioner prior to July 1 of that year certifying that condition D.2 was met based on premiums from the prior calendar year annual statement. The statement of exemption must also be included with the NAIC filing for the second quarter of that year.

   The domiciliary commissioner may reject such statement prior to Sept. 1 and require the company to follow the requirements of VM-20 for the ordinary life policies covered by the statement.

2. **Condition for Exemption:**

   a. The company has less than $300 million of ordinary life premiums, and if the company is a member of an NAIC group of life insurers, the group has combined ordinary life premiums of less than $600 million.

3. **Policies Excluded from the Life PBR Exemption:**

   a. Universal life with secondary guarantee (ULSG) policies with a secondary guarantee that does not meet the VM-01, Definitions for Terms in Requirements, definition of a “non-material secondary guarantee.”

4. Each exemption, or lack of an exemption, applies only to policies issued or assumed in the current year, and it applies to all future valuation dates for those policies. The minimum reserve requirements for the ordinary life policies subject to the exemption are those pursuant to applicable methods required in VM-A and VM-C using the mortality as defined in VM-20 Section 3.C.1 and VM-M Section 1.H.

---

**Footnote change**

1Premiums are measured as direct plus reinsurance assumed from an unaffiliated company from the ordinary life line of business reported in the prior calendar year life/health annual financial statement, Exhibit 1, Part 1, Column 3, “Ordinary Life Insurance”. For exemptions after 1/1/2024, premiums should also include the premiums from group life insurance certificates that were subject to an individual risk selection process as defined in VM-20 Section 1.B and included in the group life certificates subject to an individual risk selection process line of business reported in the prior calendar year life/health annual financial statement, VM-20 Reserves Supplement/Exhibit 1, Part 1, Column 4. Premiums should exclude premium for guaranteed issue policies and preneed life contracts and excluding amounts that represent the transfer of reserves in force as of the effective date of a reinsurance assumed transaction and are...
VM Change 4 – VM-20: Requirements for Principle-Based Reserves for Life Products

VM-20: Requirements for Principles-Based Reserves for Life Products

Section 1: Purpose

A. These requirements establish the minimum reserve valuation standard for individual life insurance policies issued on or after the operative date of the Valuation Manual and subject to a principle-based valuation with an NPR floor under Model #820. These requirements constitute the Commissioners Reserve Valuation Method (CRVM) for policies of individual life insurance.

B. These requirements establish the minimum reserve valuation standard for group life insurance certificates in which an individual risk selection process is used to obtain group life insurance coverage, and which are issued on or after the operative date of the Valuation Manual and subject to a principle-based valuation with an NPR floor under Model #820. An individual risk selection process is based on characteristics of the insured(s) beyond sex, gender, age, and membership in a particular group. This may include, but is not limited to, completion of an application, questionnaire(s) or tele-interview (beyond acknowledgement of membership to the group master policyowner, sex, gender and age), the use of non-medical information, medical or health history information, prescription history information, avocations, usage of tobacco, family history, or submission of fluids such as blood, Home Office Specimens (HOS), or oral fluid. The resulting risk classification is determined based on the characteristics of the individual insured(s) rather than the group, if any, of which it is a member (e.g., employer, affinity, etc.).
VM Change 5 - VM-20: Requirements for Principle-Based Reserves for Life Products

Section 2: Minimum Reserve

A. All policies subject to these requirements shall be included in one of the VM-20 Reserving Categories, as specified in Section 2.A.1, Section 2.A.2 and Section 2.A.3 below.

Guidance Note: Since Group Insurance subject to an individual risk selection process, as defined by Section 1.B, is subject to VM-20 requirements, Section 2.A shall apply—meaning that any such contracts will be included in one of the VM-20 Reserving Categories defined by Section 2.A.1, Section 2.A.2, and 2.A.3. All requirements in VM-31 which apply to a VM-20 Reserving Category shall apply to any group insurance subject to Individual Underwriting Selection that has been included in that VM-20 Reserving Category.

The company may elect to exclude one or more groups of policies from the stochastic reserve calculation and/or the deterministic reserve calculation. When excluding a group of policies from a reserve calculation, the company must document that the applicable exclusion test defined in Section 6 is passed for that group of policies. The minimum reserve for each VM-20 Reserving Category is defined by Section 2.A.1, Section 2.A.2 and Section 2.A.3, and the total minimum reserve equals the sum of the Section 2.A.1, Section 2.A.2 and Section 2.A.3 results below, defined as:
VM Change 6–VM-51: Experience Reporting Formats, Section 1.B.2

VM-51: Experience Reporting Formats

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Section 2: Statistical Plan for Mortality

A. Type of Experience Collected Under This Statistical Plan

The type of experience to be collected under this statistical plan is mortality experience.

B. Scope of Business Collected Under This Statistical Plan

The data for this statistical plan is the individual ordinary life line of business. Such business is to include direct written business issued in the U.S., and all values should be prior to any reinsurance ceded. Therefore, reinsurance assumed from a ceding company shall be excluded from data collection to avoid double-counting of experience submitted by an issuer and by its reinsurers; however, assumption reinsurance of an individual ordinary life line of business, where the assuming company is legally responsible for all benefits and claims paid, shall be included within the scope of this statistical plan. The ordinary life line of business does not include separate lines of business, such as SI/GI, worksite, individually solicited group life that did not use an individual risk selection process as defined in VM-20 Section 1.B, direct response, final expense, pre-need, home service, credit life and COLI/BOLI/charity-owned life insurance (CHOLI).

C. Criteria to Determine Companies That Are Required to Submit Experience Data

Companies with less than $50 million of direct individual life premium shall be exempted from reporting experience data required under this statistical plan. This threshold for exemption shall be measured based on aggregate premium volume of all affiliated companies and shall be reviewed annually and be subject to change by the Experience Reporting Agent. At its option, a group of nonexempt affiliated companies may exclude from these requirements affiliated companies with less than $10 million direct individual life premium provided that the affiliated group remains nonexempt.

Additional exemptions may be granted by the Experience Reporting Agent where appropriate, following consultation with the domestic insurance regulator, based on achieving a target level of approximately 85% of industry experience for the type of experience data being collected under this statistical plan.
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<td>1</td>
<td>1–5</td>
<td>5 NAIC Company Code</td>
<td>Your NAIC Company Code</td>
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<tr>
<td>2</td>
<td>6–9</td>
<td>4 Observation Year</td>
<td>Enter Calendar Year of Observation</td>
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<tr>
<td>3</td>
<td>10–29</td>
<td>20 Policy Number</td>
<td>Enter Policy Number. For Policy Numbers with length less than 20, left justify the number, and blank fill the empty columns. Any other unique identifying number can be used instead of a Policy Number for privacy reasons.</td>
</tr>
<tr>
<td>4</td>
<td>30–32</td>
<td>3 Segment Number</td>
<td>If only one policy segment exists, enter segment number ’1.’ For a single life policy, the base policy is to be put in the record with segment number ‘1.’ Subsequent policy segments are in separate records with information about that coverage and differing segment numbers. For joint life policies, the base policy of the first life is to be put in a record with segment number ‘1,’ and the base policy of the second life is to be put in a separate record with segment number ‘2.’ Joint life policies with more than two lives are not to be submitted. Subsequent policy segments are in separate records with information about that coverage and differing segment numbers. Policy segments with the same policy number are to be submitted for: a) Single life policies; b) Joint life policies; c) Term/paid up riders; or d) Additional amounts of insurance including purchase through dividend options.</td>
</tr>
<tr>
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<td>33–34</td>
<td>2 State of Issue</td>
<td>Use standard, two-letter state abbreviation codes (e.g., NY for New York)</td>
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<td>6</td>
<td>35</td>
<td>1 Gender</td>
<td>0 = Unknown or unable to subdivide 1 = Male 2 = Female 3 = Unisex – Unknown or unable to identify 4 = Unisex – Male 5 = Unisex – Female</td>
</tr>
<tr>
<td>7</td>
<td>36–43</td>
<td>8 Date of Birth</td>
<td>Enter the numeric date of birth in YYYYMMDD format</td>
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<td>44</td>
<td>1 Age Basis</td>
<td>0 = Age Nearest Birthday 1 = Age Last Birthday 2 = Age Next birthday Drafting Note: Professional actuarial organization will need to develop either age next birthday mortality tables or procedure to adapt existing mortality tables to age next birthday basis.</td>
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<td>45–47</td>
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<tr>
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<td>59</td>
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<td>Nonsmoker Preferred Class</td>
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### Number of Classes in Smoker Preferred Class Structure

If Preferred Class Structure Indicator is 0 or if Smoker Status is 0, 1 or 2, or if preferred information is unknown, leave blank.

For smoker or tobacco user policies that could have been issued as one of multiple preferred and standard classes, enter the number of smoker preferred and standard classes available at time of issue.

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<th>DESCRIPTION</th>
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</table>
| 16   | 61     | 1 | Smoker Preferred Class | If Preferred Class Structure Indicator is 0 or if Smoker Status is 0, 1 or 2, or if preferred information is unknown, leave blank. For smoker policy segments that could have been issued as one of multiple preferred and standard classes:  
1 = Best preferred class  
2 = Next Best preferred class after 1  
3 = Next Best preferred class after 2  
4 = Next Best preferred class after 3  
5 = Next Best preferred class after 4  
6 = Next Best preferred class after 5  
7 = Next Best preferred class after 6  
8 = Next Best preferred class after 7  
9 = Next Best preferred class after 8  
Note: The policy segment with the highest Smoker Preferred Class number should have that number equal to the Number of Classes in Smoker Preferred Class Structure. |

| 17   | 62–63  | 2 | Type of Underwriting Requirements | If underwriting requirement of ordinary business is reliably known, use code other than “99.” Ordinary business does not include separate lines of business, such as simplified issue/guaranteed issue, worksite, individually solicited group life that did not use an individual risk selection process as defined in VM-20, Section 1.B, direct response, final expense, pre-need, home service and COLI/BOLI/CHOLI.  
01 = Underwritten, but unknown whether fluid was collected  
02 = Underwritten with no fluid collection  
03 = Underwritten with fluid collected  
06 = Term Conversion  
07 = Group Conversion  
09 = Not Underwritten  
99 = For issues where underwriting requirement is unknown or unable to subdivide |

---
Substandard Indicator

- 0 = Policy segment is not substandard
- 1 = Policy segment is substandard
- 2 = Policy segment is uninsurable

Note:
- All policy segments that are substandard need to be identified as substandard or uninsurable.
- Submission of substandard policies is optional.
- If feasible, identify substandard policy segments where temporary flat extra has ceased as substandard.

<table>
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<th>DATA ELEMENT</th>
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| 18   | 64     | 1 | Substandard Indicator | Exclude from contribution: spouse and children under family policies or riders. If Form for Additional Plan Codes was submitted for this policy, enter unique three-digit plan number(s) that differ from the plan numbers below:
- 000 = If unable to distinguish among plan types listed below
- 100 = Joint life plan unable to distinguish among joint life plan types listed below

Permanent Plans:
- 010 = Traditional fixed premium fixed benefit permanent plan
- 011 = Permanent life (traditional) with term
- 012 = Single premium whole life
- 013 = Econolife (permanent life with lower premiums in the early durations)
- 014 = Excess interest whole life
- 015 = First to die whole life plan (submit separate records for each life)
- 016 = Second to die whole life plan (submit separate records for each life)
- 017 = Joint whole life plan – unknown whether 015 or 016 (submit separate records for each life)
- 018 = Permanent products with non-level death benefits
- 019 = Permanent plans 010, 011, 012, 013, 014, 015, 016, 017, 018 combined (i.e. unable to separate)

Term Insurance Plans:
- 020 = Term (traditional level benefit and attained age premium)
- 021 = Term (level death benefit with guaranteed level premium for five years and anticipated level term period for five years)
- 211 = Term (level death benefit with guaranteed level premium for five years and anticipated level term period for 10 years)
- 212 = Term (level death benefit with guaranteed level premium for five years and anticipated level term period for 15 years)
- 213 = Term (level death benefit with guaranteed level premium for five years and anticipated level term period for 20 years)
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<td>Term (level death benefit with guaranteed level premium period not equal to anticipated level term period, where the periods are other than five, 10, 15, 20, 25 or 30 years)</td>
</tr>
<tr>
<td>028</td>
<td>Term (decreasing benefit)</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>040</td>
<td>Select ultimate term (premium depends on issue age and duration)</td>
</tr>
<tr>
<td>041</td>
<td>Return of Premium Term (level death benefit with guaranteed level premium for 15 years)</td>
</tr>
<tr>
<td>042</td>
<td>Return of Premium Term (level death benefit with guaranteed level premium for 20 years)</td>
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<td>043</td>
<td>Return of Premium Term (level death benefit with guaranteed level premium for 25 years)</td>
</tr>
<tr>
<td>044</td>
<td>Return of Premium Term (level death benefit with guaranteed level premium for 30 years)</td>
</tr>
<tr>
<td>045</td>
<td>Return of Premium Term (level death benefit with guaranteed level premium for period other than 15, 20, 25 or 30 years)</td>
</tr>
<tr>
<td>046</td>
<td>Economatic term</td>
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<tr>
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<td>Term plan, unable to classify</td>
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<tr>
<td>101</td>
<td>First to die term plan (submit separate records for each life)</td>
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<tr>
<td>102</td>
<td>Second to die term plan (submit separate records for each life)</td>
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<tr>
<td>103</td>
<td>Joint term plan – unknown whether 101 or 102 (submit separate records for each life)</td>
</tr>
<tr>
<td>061</td>
<td>Single premium universal life</td>
</tr>
<tr>
<td>062</td>
<td>Universal life (decreasing risk amount)</td>
</tr>
<tr>
<td>063</td>
<td>Universal life (level risk amount)</td>
</tr>
<tr>
<td>064</td>
<td>Universal life – unknown whether code 062 or 063</td>
</tr>
<tr>
<td>065</td>
<td>First to die universal life plan (submit separate records for each life)</td>
</tr>
<tr>
<td>066</td>
<td>Second to die universal life plan (submit separate records for each life)</td>
</tr>
<tr>
<td>067</td>
<td>Joint life universal life plan – unknown whether code 065 or 066 (submit separate records for each life)</td>
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<tr>
<td>068</td>
<td>Indexed universal life</td>
</tr>
<tr>
<td>071</td>
<td>Single premium universal life with secondary guarantees</td>
</tr>
<tr>
<td>072</td>
<td>Universal life with secondary guarantees (decreasing risk amount)</td>
</tr>
<tr>
<td>073</td>
<td>Universal life with secondary guarantees (level risk amount)</td>
</tr>
<tr>
<td>074</td>
<td>Universal life with secondary guarantees – unknown whether code 072 or 073</td>
</tr>
<tr>
<td>075</td>
<td>First to die universal life plan with secondary guarantees (submit separate records for each life)</td>
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<tr>
<td>076</td>
<td>Second to die universal life plan with secondary guarantees (submit separate records for each life)</td>
</tr>
<tr>
<td>077</td>
<td>Joint life universal life plan with secondary guarantees unknown whether code 075 or 076 (submit separate records for each life)</td>
</tr>
<tr>
<td>078</td>
<td>Indexed universal life with secondary guarantees</td>
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Universal Life Plans (Other than Variable) issued without a Secondary Guarantee:

Universal Life Plans (Other than Variable) with Secondary Guarantees:

Variable Life Plans issued without a Secondary Guarantee:
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<th>Description</th>
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<tbody>
<tr>
<td>080</td>
<td>Variable life</td>
</tr>
<tr>
<td>081</td>
<td>Variable universal life (decreasing risk amount)</td>
</tr>
<tr>
<td>082</td>
<td>Variable universal life (level risk amount)</td>
</tr>
<tr>
<td>083</td>
<td>Variable universal life – unknown whether code 081 or 082</td>
</tr>
<tr>
<td>084</td>
<td>First to die variable universal life plan (submit separate records for each life)</td>
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<tr>
<td>085</td>
<td>Second to die variable universal life plan (submit separate records for each life)</td>
</tr>
<tr>
<td>086</td>
<td>Joint life variable universal life plan – unknown whether 084 or 085 (submit separate records for each life)</td>
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**Variable Life Plans with Secondary Guarantees:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>090</td>
<td>Variable life with secondary guarantees</td>
</tr>
<tr>
<td>091</td>
<td>Variable universal life with secondary guarantees (decreasing risk amount)</td>
</tr>
<tr>
<td>092</td>
<td>Variable universal life with secondary guarantees (level risk amount)</td>
</tr>
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<td>093</td>
<td>Variable universal life with secondary guarantees – unknown whether code 091 or 092</td>
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<td>First to die variable universal life plan with secondary guarantees (submit separate records for each life)</td>
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<tr>
<td>095</td>
<td>Second to die variable universal life plan with secondary guarantees (submit separate records for each life)</td>
</tr>
<tr>
<td>096</td>
<td>Joint life variable universal life plan with secondary guarantees – unknown whether code 094 or 095 (submit separate records for each life)</td>
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**Nonforfeiture:**

<table>
<thead>
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<td>098</td>
<td>Extended term</td>
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<td>099</td>
<td>Reduced paid-up</td>
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<tr>
<td>198</td>
<td>Extended term for joint life (submit separate records for each life)</td>
</tr>
<tr>
<td>199</td>
<td>Reduced paid-up for joint life (submit separate records for each life)</td>
</tr>
</tbody>
</table>
VM Change 8 – VM-20 Reserves Supplement, Part 3: Life PBR Exemption

Refer to NAIC Blanks (E) Working Group, request for modification to the supplemental report for the Life PBR Exemption, to show the premiums for the group life that utilized an individual risk selection process as these premiums are currently grouped together with other Group Insurance in Exhibit 1. As there are other instances where the ordinary life premiums are not included in the determination of the Life PBR Exemption (e.g., for guaranteed issue policies), it may be useful to request addition of the breakdown of premiums used to determine the exemption.

Commented [A2]: Made “exemption” uppercase in text box below left

Possible insertion between questions 1 and 2 for disclosure of premiums used in the determination of eligibility for the Life PBR Exemption, split by ordinary life and group subject to an individual risk

Formatted: Font: 12 pt
Formatted: Normal, Indent: Left: 2.38", Space After: 0 pt
Identify yourself, your affiliation and a very brief description (title) of the issue.
American Academy of Actuaries’ Life Reserves Work Group.

Identify the document, including the date if the document is “released for comment,” and the location in the document where the amendment is proposed:
January 1, 2020, edition of the Valuation Manual with NAIC adoptions through August 6, 2019
Locations with proposed changes : VM-20 and VM-31

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.

State the reason for the proposed amendment? (You may do this through an attachment.)
The Valuation Manual already requires that if there is additional risk arising from the conversion of term life insurance, whether group or individual, it must be reserved for. The purpose of this APF is to emphasize this requirement and to provide guidance on what must be included in the Life PBR Actuarial Report with respect to conversions.

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

NAIC Staff Comments:

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</table>

Notes: VM APF 2019-62
Add Guidance Note related to converted policies at the end of the section.

Guidance Note: The company must ensure that excess mortality associated with policies issued via conversion from term policies or from group life contracts is appropriately reflected in the anticipated experience mortality rates. This can be accomplished through the use of a separate segment for converted policies, through inclusion of conversion experience with the experience of a group of similar directly issued policies, by adjustment of anticipated experience rates for such group of similar directly issued policies, or through other methods.

3. **Policies** — A summary of the base policies within each VM-20 reserving category. Include information necessary to fully describe the company's distribution of business. For direct business, use PBR Actuarial Report Template A located on the NAIC website ([https://www.naic.org/pbr_data.htm?tab_3](https://www.naic.org/pbr_data.htm?tab_3)) to provide descriptions of each base policy product type and underwriting process (including a description of the process, the time period in which it was used, and the level of any additional margin), with a breakdown of policy count and face amount by base policy product type and underwriting process. Also include the target market, primary distribution system, and key product features that affect risk, including conversion privileges.

d. **Assumption and Margin Development** — The following information for each risk factor: description of the methods used to determine anticipated experience assumptions and margins, including the sources of experience (e.g., company experience, industry experience, or other data); how changes in such experience are monitored; any adjustments made to increase mortality margins above the prescribed margin (such as to reflect increased uncertainty with due to newer underwriting approaches; and any other considerations, such as conversion features, helpful in or necessary to understanding the rationale behind the development of assumptions and margins, even if such considerations are not explicitly mentioned in the Valuation Manual.

Commented [A1]: Since the intent is to determine the range of company practices, it may be better not to give examples.

Commented [A2]: The conversion features have been moved away from the margins sentence because conversions should inform anticipated experience and the general requirement for uncertainty margins covers conversions. Not sure if we should just delete this.
x. Mortality for Converted Policies – Description of the treatment of mortality for policies issued under group or term conversion privileges including:

i. A description of the method(s) by which any excess conversion mortality was taken into account in the development of company experience mortality rates (e.g., through the use of separate mortality segments for policies issued upon conversion, through aggregation of claim experience, or through use of other methods), the rationale for the method(s) used, and any changes in the method(s) from those used in previous years.

ii. The source(s) of the data used in the method(s) employed.

VM-31 Section 3.D.4.x and y (new sections) [Life Report – Policyholder Behavior]

x. Term Conversions – Description of how the company reflects the impact of any term conversions privilege contained in the policy when setting reserves.

y. Lapse Rates for Converted Policies – Description of and rationale for lapse rates used for policies issued under any group or term conversion privilege.


a. Agreements – For those reinsurance agreements included in the calculation of the minimum reserve as per VM-20 Section 8.A, a description of each reinsurance agreement, including, but not limited to, the type of agreement, the counterparty, the risks reinsured, any provisions related to converted policies, the portion of business reinsured, identification of both affiliated and non-affiliated, as well as captive and non-captive, or similar relationships, and whether the agreement complies with the requirements of the credit for reinsurance under the terms of the AP&P Manual.
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:
Rachel Hemphill, Texas Department of Insurance
Mary Bahna-Nolan, Pacific Life

Title of the Issue:
VM-20 restriction on using different credibility methods for significantly different blocks of business

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-20 Sections 9.C.5.a and 9.C.7.b.ii
January 1, 2020 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.)

Currently, a company must select a single credibility methodology, Limited Fluctuation or Bühlmann, for all business that company has that is subject to VM-20 and requires credibility percentages. The Bühlmann methodology is technically allowed for Simplified Issue business within the Valuation Manual; however, at present, it is not practically possible since there are no industry factors available for Simplified Issue. Therefore, only the Limited Fluctuation method can currently be used for determining credibility for Simplified Issue business. The factors in VM-20 for the Bühlmann were developed to only be used in conjunction with the 2015 VBT. Thus, currently, a company with any Simplified Issue business subject to VM-20 that requires credibility calculations must use the Limited Fluctuation method for all of their business subject to VM-20 that requires credibility calculations, including the fully underwritten business. We do not see this as a reasonable restriction. VM-20 already requires that companies not change their credibility method once selected unless they receive commissioner approval for the change, and we believe that that constraint is sufficient to avoid any significant gaming of the credibility method selection.

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NAIC Staff Comments:

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<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: APF 2019-60
VM-20 Section 9.C.5.a

5. Credibility of Company Experience

a. For valuations in which the industry basic mortality table is the 2008 VBT, determine an aggregate level of credibility over the entire exposure period using a methodology to determine the level of credibility that follows common actuarial practice as published in actuarial literature (for example, but not limited to, the Limited Fluctuation Method or Bühlmann Empirical Bayesian Method).

For valuations in which the industry basic mortality table is the 2015 VBT, determine an aggregate level of credibility following either the Limited Fluctuation Method by amount, such that the minimum probability is at least 95% with an error margin of no more than 5% or Bühlmann Empirical Bayesian Method by amount. Once chosen, the credibility method must be applied to all business subject to VM20 and requiring credibility percentages.

Not all blocks of a company’s business subject to VM-20 necessarily need to use the same credibility method. However, a company seeking to change the credibility methods for a given block of business must request and subsequently receive the approval of the insurance commissioner. The request must include the justification for the change and a demonstration of the rationale supporting the change.

VM-20 Section 9.C.7.b.ii

7. Process to Determine Prudent Estimate Assumptions

a. If applicable industry basic tables are used in lieu of company experience as the anticipated experience assumptions, or if the level of credibility of the data as provided in Section 9.C.5 is less than 20%, the prudent estimate assumptions for each mortality segment shall equal the respective mortality rates in the applicable industry basic tables as provided in Section 9.C.3, including any applicable improvement pursuant to Section 9.C.3.g, plus the prescribed margin as provided in Section 9.C.6.c, plus any applicable additional margin pursuant to Section 9.C.6.d.v and/or Section 9.C.6.d.vi.

b. If the company uses company experience mortality rates as the anticipated experience assumptions, the following process shall be used to develop prudent estimate assumptions:

i. Determine the values of A, B and C from the Grading Table below, based on the level of credibility of the data as provided in Section 9.C.5.

<table>
<thead>
<tr>
<th>Credibility of company data (as defined in Section 9.C.5 above) rounded to nearest %</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>20% - 30%</td>
<td>10</td>
<td>2</td>
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<td>31%–32%</td>
<td>11</td>
<td>3</td>
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<td>33%–34%</td>
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<td>35%–36%</td>
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<td>41%–42%</td>
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© 2019 National Association of Insurance Commissioners
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<th>Percentage Range</th>
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<tr>
<td>94%–100%</td>
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<td>25</td>
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</table>

ii. Determine the value of D, which represents the last policy duration that has a substantial volume of claims, using the chosen data source(s) as specified in Section 9.C.2.b. D is defined as the last policy duration at which there are 50 or more claims (not the first policy duration in which there are fewer than 50 claims), not counting riders. This may be determined at either the mortality segment level or at a more aggregate level if the mortality for the individual mortality segments was determined using an aggregate level of mortality experience pursuant to Section 9.C.2.d.
Guidance Note: The same level of aggregation is used in Section 9.C.2.d for determining company experience mortality rates, Section 9.C.5.b for determining credibility, and Section 9.C.7.b.ii for determining the value of D. Thus, when determining the value of D, all claims being aggregated will have used the same credibility method in Section 9.C.5.
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:
Rachel Hemphill, Texas Department of Insurance

Title of the Issue:
The Life PBR Exemption restriction is intended to apply to ULSG with material secondary guarantees regardless of whether the secondary guarantee is an embedded guarantee or is a separate rider.

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 Section II, Subsection 1.D.3
January 1, 2020 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.)

ULSG policies with material secondary guarantees are intended to be excluded from the Life PBR Exemption, regardless of whether the secondary guarantee is embedded in the base policy or is a separate rider. The VM does say that non-ULSG base policies with secondary guarantee riders follow the reserving requirements for ULSG policies in Section II, Subsection 6.C: “ULSG and other secondary guarantee riders shall be valued with the base policy and follow the reserve requirements for ULSG policies under VM-20, VM-A and/or VM-C, as applicable.” It should be made clear that following the reserve requirements for ULSG includes exclusion from the Life PBR Exemption, when the secondary guarantee is material.

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</table>

Notes: APF 2019-61

W:\National Meetings\2010\...\TF\LHA\
3. Policies Excluded from the Life PBR Exemption:
   a. Universal life with secondary guarantee (ULSG) policies with a secondary guarantee, or policies — other than
      ULSG — that contain a rider with a secondary guarantee, in which the secondary guarantee that does not meet the
      VM-01, Definitions for Terms in Requirements, definition of a “non-material secondary guarantee.”
<table>
<thead>
<tr>
<th>Project Name</th>
<th>Objective</th>
<th>Expected Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016 Variable Annuity Guaranteed Living Benefit Utilization Study</td>
<td>Examine the utilization of guaranteed living benefit options on variable annuity policies under a Joint SOA/LIMRA project and release Tableau visualizations with the observations from the study.</td>
<td>Complete. On SOA web site. 2</td>
</tr>
<tr>
<td>2019 Life Mortality Improvement</td>
<td>Develop AG38 mortality improvement assumptions for year end 2019.</td>
<td>Complete. On SOA web site. 3</td>
</tr>
<tr>
<td>2013-2015 Fixed Index Annuity Experience Study</td>
<td>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.</td>
<td>Complete. On SOA web site. 4</td>
</tr>
<tr>
<td>GRET for 2020</td>
<td>Develop a recommendation for Generally Recognized Expense Table (GRET) for 2020 purposes.</td>
<td>Complete. On SOA web site. 5</td>
</tr>
<tr>
<td>US Population Mortality Observations: Preview of 2018 Experience</td>
<td>Explore observations from the release of the 2018 U.S. Population estimated mortality data and release a report with the findings.</td>
<td>Complete. On SOA web site. 6</td>
</tr>
<tr>
<td>2009-2015 Individual Life Large Amount Study</td>
<td>Study mortality experience for large life insurance amounts and release a report with the findings.</td>
<td>12/31/2019</td>
</tr>
<tr>
<td>2005-2017 Structured Settlement Mortality Study</td>
<td>Examine the mortality experience from 2005-17 in structured settlements arising from personal injury claims and release a report with the findings and a database with the experience data.</td>
<td>12/31/2019</td>
</tr>
<tr>
<td>Experience Studies Methods, Variance, and Credibility</td>
<td>Describe variance and credibility calculations for experience studies in a report that can be used as an educational reference.</td>
<td>1/31/2020</td>
</tr>
<tr>
<td>US Population Mortality Observations: Updated with 2018 Experience</td>
<td>Explore observations from the full release of the 2018 U.S. Population mortality data and release a report and Tableau visualizations with the findings.</td>
<td>1/31/2020</td>
</tr>
<tr>
<td>Mortality Improvement Survey</td>
<td>Complete a survey to learn how companies are reacting to the slowdown in the level of mortality improvement within the general population.</td>
<td>1/31/2020</td>
</tr>
<tr>
<td>Emerging Issues in Underwriting Survey</td>
<td>Complete a survey to give insight into emerging issues in underwriting and their impact on processes and practices.</td>
<td>2/28/2020</td>
</tr>
<tr>
<td>2011-2015 Deferred Annuity Mortality Study</td>
<td>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.</td>
<td>3/31/2020</td>
</tr>
<tr>
<td>2017 Variable Annuity Guaranteed Living Benefit Utilization Study</td>
<td>Examine the utilization of guaranteed living benefit options on variable annuity policies under a Joint SOA/LIMRA project and release Tableau visualizations with the observations from the study.</td>
<td>3/31/2020</td>
</tr>
<tr>
<td>2009-2015 Individual Life Experience Committee Lapse and Mortality Study</td>
<td>Study mortality and lapse experience in the database of 2009-2015 individual life experience data and release a report with the findings.</td>
<td>3/31/2020</td>
</tr>
</tbody>
</table>

5. [https://www.soa.org/resources/research-reports/2019/2020-gret-recommendations/](https://www.soa.org/resources/research-reports/2019/2020-gret-recommendations/)
<table>
<thead>
<tr>
<th>Project Name</th>
<th>Objective</th>
<th>Expected Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Impact of Opioid Abuse</td>
<td>Estimate associated economic and financial cost of opioid crisis in U.S.</td>
<td>Complete. On SOA web site. 1</td>
</tr>
<tr>
<td>Simplified Methodologies</td>
<td>Investigate simplifications, approximations, and modeling efficiency techniques allowed under VM-20 for determining reserves.</td>
<td>12/31/2019</td>
</tr>
<tr>
<td>Life Insurance Accelerated Underwriting Survey-Phase 2: Full Report</td>
<td>Examine life insurance accelerated underwriting programs and practices.</td>
<td>12/31/2019</td>
</tr>
<tr>
<td>Modelling and Forecasting Cause-of-Death Mortality</td>
<td>Develop mortality projection models and produce cause of death mortality forecasts.</td>
<td>12/31/2019</td>
</tr>
<tr>
<td>Negative Interest Rates</td>
<td>Examine the potential impact of a sustained negative interest rate environment on the insurance industry.</td>
<td>12/31/2019</td>
</tr>
<tr>
<td>Public Perception of Longevity and its Drivers</td>
<td>Examine the public perceptions of longevity.</td>
<td>12/31/2019</td>
</tr>
<tr>
<td>Reinsurance Treaty Recapture</td>
<td>Compile an inventory of life reinsurance recapture treaty provisions and terms across industry.</td>
<td>1/31/2020</td>
</tr>
</tbody>
</table>

1[https://www.soa.org/resources/research-reports/2019/econ-impact-non-medical-opioid-use/]
Proposed GI Life Valuation (A) Subgroup

Proposed Charge for 2020:

Provide recommendations regarding valuation requirements for Guaranteed Issue Life business including any appropriate mortality table(s) for valuation as well as nonforfeiture. Initial recommendations are to be provided to LATF by the 2020 Summer National Meeting.

Establishment of this subgroup is consistent with the following LATF charges:

1.A. - keep reserve requirements current
1.B.1 - work with the Academy of Actuaries and the Society of Actuaries to create, update and revise mortality tables that are necessary for valuation purposes
1.B.6 – provide recommendations for changes necessary for reserving and nonforfeiture standards and interact with other NAIC groups to comment on their work and assist in addressing actuarial matters

Preliminary Agenda for early 2020 Subgroup open meetings and calls

1. Recap GI Life valuation concerns and explain issues with maintaining the current interim solution which includes reverting to the 2001 CSO table.
   a. A GI Life specific mortality table was created and adopted to ensure that an assumed higher mortality rate compared to underwritten business was being appropriately reflected in GI Life reserves.
   b. The newly adopted table created a deficiency reserve issue that had not been identified when the table was established. Instead it was discovered as companies prepared for implementation of the new table. There may have been some issues with the low number of companies participating in the SOA study and an attempt to cover mortality for X% of those companies while the experience of the companies was wide in range.
   c. The 2001 CSO table may not appropriately reflect the slope of mortality for GI Life and could result in reserves developing into a deficient position over time. Discuss potential issues with maintaining the current interim solution of going back to the 2001 CSO table.

2. Consider the short term solution and problems that could arise from deficient reserves for some or all companies if the mortality is understated by the 2001 CSO table.
   a. Can VAWG, or another NAIC group, under LATF charge 1.B.6 be asked to determine the exposure to reserve inadequacies under the interim solution, standalone AAT for GI Life blocks, etc?
   b. Should the short-term solution be modified?

3. The Subgroup may need more time to formulate a long-term solution, but could design one by Summer National Meeting 2020. A long-term solution may contemplate the following:
   a. Establishment of a better table or a decision to utilize more than one table as well as company specific experience in establishing valuation mortality for a company. How does this work with nonforfeiture and the taxability of life insurance benefits?
   b. Establishment of a method that can be used to combine more than one table or combine tables with company experience such that the appropriate valuation mortality is used by each company.
   c. Data collection requirements under the VM that will allow updates to the set of tables used in the new valuation and nonforfeiture process for GI Life.

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GI Life Valuation (A) Subgroup

This subgroup is needed to provide recommendations to improve valuation requirements for guaranteed issue (GI) life insurance. Recent attempts by LATF to improve valuation requirements were lacking sufficient data to produce a mortality valuation table tailored for the types of guaranteed issue business in the marketplace. The subgroup will focus on possible alternative methods in the short term in addition to a possible longer term effort for the data needed to develop an improved valuation table.

The recommended charge for this subgroup is as follows:

2020 Charge:

Provide recommendations regarding valuation requirements for Guaranteed Issue Life business including any appropriate mortality table(s) for valuation as well as nonforfeiture. Initial recommendations are to be provided to LATF by the 2020 Summer National Meeting.
Principle-Based Reserves (PBR) Resources From the Life Practice Council of the American Academy of Actuaries

Donna Claire, MAAA, FSA, CERA
Chairperson, PBR Governance Work Group

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Academy PBR Toolkit

ACADEMY PBR TOOLKIT

- PBR Checklist
- The Details Behind PBR Implementation
- Model Governance Checklist
- Model Governance Practice Note
- VM-20 Practice Note
- ASOP No. 52: Principle-Based Reserves for Life Products
- Economic Scenario Generators
- Life PBR Assumptions Resource Manual

NAIC RESOURCES

- Valuation Manual 2019–2020 Comparison
- Valuation Manual, published January 2020
- Valuation Manual Versions and Amendments
- SVL Model Law
- VM-20 / VM-22 Tables
- NAIC Impact Study of VM-20 on PBR for Life Insurance
- Life Actuarial (A) Task Force of the NAIC-2017 PBR Review Report

PBR Page on Academy Website

- Go to actuary.org and click on Principle-based Reserving (navigation bar on right or bottom)
- www.actuary.org/content/pbr-practice
- Page includes a PBR Toolkit

Academy PBR Toolkit (cont.)

PBR-RELEVANT ASOPS

- ASOP No. 52: Principle-Based Reserves for Life Products under the NAIC Valuation Manual
- More ASOPs

PBR QUALIFICATION STANDARDS

Qualification Standards Response on PBR
What are the minimum requirements an actuary should consider to be qualified to render opinions related to PBR under the U.S. Qualification Standards? This question and answer came from the Academy’s Committee on Qualifications, which developed a list of frequently asked questions for actuaries.
5

**Seminars/Webinars**

- Academy is having a 2½-day seminar here in Austin December 9–11; first ever to also include variable annuities
- Will have another if demand warrants it
- Also conducting webinars: e.g., plan on webinars on VM-21 changes for variable annuities

6

**Practice Note on PBR Projections**

- Contains questions and answers related to projecting future principle-based reserve and capital calculations
- Focuses on VM-20, but also applicable to other frameworks

7

**Four-Page “PBR Checklist”**

- The PBR Checklist Task Force is has prepared a short reference of important characteristics to consider for PBR valuations
- Can act as a reminder to actuaries as to all the tasks as well as letting senior management know the extent of issues that need to be considered
- Released in October 2019

8

**PBR Analysis Template**

- Academy group under Pat Allison is developing ways to display PBR (and other) data:
  - Examples: waterfalls, trend analysis graphs
  - Advantages: one picture is worth a 1,000 words
- Goal is to have this done the middle of next year
**Update to VM-20 Practice Note**

- Work on updates to VM-20 practice note to reflect changes effective in the 2020 Valuation Manual is in process
- Target release for this update is December 2019

**Questions/Suggestions**

- Anything else the Academy can do to help you with PBR?

**Contact**

- Donna Claire, MAAA, FSA, CERA
  Chairperson, PBR Governance Work Group
  American Academy of Actuaries

- Ian Trepanier
  Life Policy Analyst
  American Academy of Actuaries
  Trepanier@actuary.org

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Update on the Request for Proposal for the Economic Scenario Generator (ESG)

Pat Allison, MAAA, FSA
12/5/2019

RFP for a New ESG

- An RFP is being developed to select a vendor to provide a new ESG to be prescribed for life and annuity reserves and capital (VM-20, VM-21, C-3 Phase I, and C-3 Phase II)
- The group drafting the RFP includes regulators, NAIC staff, the Academy, the ACLI, and industry subject-matter experts.
- The targeted completion date for the RFP is Q1 2020
- The new ESG is expected to be implemented no earlier than 2022
Cessation of the London Interbank Offered Rate (LIBOR)

Pat Allison, MAAA, FSA
12/5/2019

Agenda

- LIBOR Background
- Transition to Secured Overnight Financing Rate (SOFR)
  - Alternative Reference Rates Committee
  - Reasons for Selection of SOFR
- Risks
- Actions Needed
- Useful Links

LIBOR Background

- LIBOR is a global benchmark interest rate calculated daily representing the cost of short-term unsecured borrowing by banks
- LIBOR is used to set interest rates on about $200 trillion of assets, including corporate bonds, home mortgages, business loans, and derivatives contracts.
- The UK’s Financial Conduct Authority is responsible for regulating LIBOR and has indicated that publication of LIBOR is not guaranteed beyond 2021
- LIBOR has become less suitable as a benchmark because:
  - Banks have substantially reduced this type of borrowing
  - Banks typically must submit rates based on judgment instead of actual transactions, and many are reluctant to continue doing so

Transition to SOFR: Alternative Reference Rates Committee

- The Alternative Reference Rates Committee (AARC) was formed in 2014 by the Federal Reserve Board and the NY Fed
- AARC was formed in response to recommendations and objectives from the Financial Stability Board and the Financial Stability Oversight Council to address risks related to USD LIBOR
- In 2017, the AARC identified the Secured Overnight Financing Rate (SOFR) as the rate that represents best practice for use in certain new USD derivatives and other financial contracts
Transition to SOFR: Alternative Reference Rates Committee

- AARC members include:
  - Banks
  - Asset managers
  - Industry trade associations
  - Insurers

- The AARC has 10 working groups to help ensure a successful transition from USD LIBOR to SOFR, e.g.:
  - Outreach/Communications Working Group
  - Regulatory Issues Working Group
  - Accounting/Tax Working Group

- In April 2018, the NY Fed began publishing SOFR daily

Reasons for Selection of SOFR

The AARC selected SOFR for the following reasons:

- As an overnight secured rate, SOFR better reflects the way financial institutions fund themselves today.
- SOFR is fully based on actual transactions and does not rely on judgment.
- SOFR references multiple segments of the US Treasury repurchase agreement market. The transactions underlying SOFR regularly exceed $800 billion in daily volumes.
- SOFR's underlying market is resilient and robust.
- SOFR is a true “risk-free” rate suitable as a reflection of interest rates overall.
- SOFR is produced by the public sector using a transparent methodology.

Source: Government Finance Officers Association - Guide for Municipal Issuers

Risks

- Many contracts linked to LIBOR continue past 2021, when LIBOR may no longer be available
- Industry readiness – A significant effort may be needed to prepare for the transition
- Many contracts contain fallback provisions describing what happens if LIBOR is not produced.
  - Many were written to address temporary unavailability of LIBOR. There may be unintended consequences (e.g. floating rate products become fixed, interest rates for a borrower increase substantially).
  - Amending old fallback language may be difficult.

Actions Needed

- Insurance companies will need to take inventory of existing products and processes that use LIBOR, which may include:
  - Investments (e.g. floating rate debt, where the interest rate is reset periodically based on LIBOR; derivatives linked to LIBOR)
  - Contracts with policyholders (e.g. annuities with credited rates linked to LIBOR)
  - Reinsurance treaties
  - IT feeds
- Take action where required to move toward SOFR or another rate
- Study tax, accounting, and actuarial impacts
Actions Needed

Make Valuation Manual and other updates as needed:

  Interest rate swap spreads over Treasuries shall be prescribed by the NAIC for use throughout the cash-flow model wherever appropriate for transactions and operations including, but not limited to, purchase, sale, settlement, cash flows of derivative positions and reset of floating rate investments. A current and long-term swap spread curve shall be prescribed for year one and years four and after, respectively, with yearly grading in between. The three-month and six-month points on the swap spread curves represent the corresponding London Interbank Offered Rate (LIBOR) spreads over Treasuries.

- **Accounting Practices & Procedures Manual** – various citations where LIBOR is mentioned

- **Others?**

Useful Links: Sources used for this presentation

- **ARRC website**
  https://www.newyorkfed.org/arrc

- **Government Finance Officers Association - Guide for Municipal Issuers**
  https://www.gfoa.org/news/31036

- **Oliver Wyman Report – LIBOR Fallbacks in Focus: A Lesson in Unintended Consequences**

- **NAIC – Capital Markets Bureau Market Buzz: The Rise in LIBOR**
  https://www.naic.org/capital_markets_archive/buzz_180522.pdf

Questions?
Update on Life Insurance Mortality Experience Reporting for 2020

Pat Allison, MAAA, FSA
12/5/2019

Agenda

- Data collection timeline
- Recap of company selection process
- Communication with companies and regulators
- NAIC Preparation
  - Resources for companies
  - Data checks
  - Legal agreements
  - Security
- Reports to be produced
- FAQs

Data Collection Timeline

Q4, 2019
- Companies may begin 1) requesting exemptions or communicating exclusions, and 2) testing data submissions using the Regulatory Data Collection (RDC) tool

Q2, 2020
- Call for companies to submit data for 2018 observation year using 2020 Valuation Manual requirements

9/30/2020
- Deadline for companies to submit data using the RDC tool

12/31/2020
- Deadline for companies to make corrections

5/31/2021
- Deadline for NAIC to submit aggregate experience data to SOA

Company Selection Process

Scope: VM-51 Section 2.B

- Individual ordinary life line of business, excluding SI/GI, worksite, individually solicited group life, direct response, final expense, pre-need, home service, credit life, COLI, BOLI, CHOLI
- Direct written business, prior to reinsurance ceded (exception: assumption reinsurance is in scope)

Selection Criteria: VM-51 Section 2.C

- Achieve target level of approximately 85% of industry experience
- Individual companies or groups of affiliated companies with less than $50 million of direct individual life premium are exempt
**Company Selection Process**

**Additional criteria used:**
- Focus on groups of affiliated companies and individual companies that are large enough to be subject to PBR in 2020, to enable regulators to receive reports and monitor experience
- Achieve a reasonable distribution of large and small companies across states of domicile

**Results:**
- 176 companies selected, across 31 states of domicile
- 69 of these companies are new to this process (the other 107 have participated in the KS or NY data calls)

**Communication with Companies**

- Sent notifications to 176 companies selected for data collection
  - Requested that each of the selected companies identify primary and secondary contacts to receive future communications regarding data collection
  - Requested notification to the NAIC as soon as possible if the company plans to request an exemption for any reason
- Sent notifications to the remaining 513 companies to let them know they were not selected for data collection

---

**Communication with Regulators: Exclusions and Exemptions**

**Exclusions**
- Business out of scope
- A group may elect to exclude data for an affiliate with < $10 million premium
  - No regulator decision needed

**Exemptions**

VM-51 Section 2.C: “Additional exemptions may be granted by the Experience Reporting Agent where appropriate, following consultation with the domestic insurance regulator, based on achieving a target level of approximately 85% of industry experience for the type of experience data being collected under this statistical plan.”
- NAIC will consult with domestic regulator prior to granting or disallowing exemptions

**Company Selection Status**

<table>
<thead>
<tr>
<th>176</th>
<th>Companies initially selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>-10</td>
<td>Group affiliate companies that elected exclusion due to small premium amount</td>
</tr>
<tr>
<td>-4</td>
<td>Companies that identified all business as out of scope</td>
</tr>
<tr>
<td>162</td>
<td>Companies selected at this point</td>
</tr>
<tr>
<td>-12</td>
<td>Companies claiming out of scope but more info is needed from the company to confirm</td>
</tr>
<tr>
<td>-2</td>
<td>Companies requesting an exemption - pending regulator approval</td>
</tr>
<tr>
<td>148</td>
<td>Companies selected if all pending exclusions / exemptions are approved</td>
</tr>
</tbody>
</table>
NAIC Preparation: Resources for Companies

https://www.naic.org/pbr_data.htm

VM-50 / VM-51 EXPERIENCE REPORTING

- Company Training on Mortality Experience Data Reporting
- Company Training on Mortality Experience Data Reporting Powerpoint
- Mortality Statistical Plan Company Selection Memo
- RDC File Submission Instructions (PDF)
- Contact experience_reporting@naic.org with questions.

Submission Beta testing – Companies have the ability to test their submissions using RDC and make adjustments prior to the 2020 data call

More to come: FAQs, Control files, RDC form and format checks

NAIC Preparation: Data Checks

Control Files
- Control totals – VM-50 Section 4.B.2 requires each data submission to be balanced against a set of control totals provided by the company.
- Data reconciliation – VM-50 Section 4.B.3 requires companies to provide a reconciliation between submitted experience data and its statistical and financial data, along with an explanation of differences.

Reasonability Checks
- RDC form and format screening (Ready)
- Actuarial data review (In development)

NAIC Preparation: Legal Agreements

- The NAIC will be entering into agreements with a small number of states
- The agreements between these states and the NAIC will cover data collection and confidentiality, and will consider state procurement requirements in the data collection process
- “Click-through agreements” are nearly final

NAIC Preparation: Security

- Internal and External Data Security Audits
  - Annually, the NAIC will undertake a Service Organization Control (SOC) 2 external data security audit and internally assess their data security practices through a Standardized Information Gathering (SIG) questionnaire.
  - The 2019 reports have been completed for both the SOC 2 external data security audit and the internal SIG process
- Policies and procedures are in place to ensure confidentiality, including defined RDC user roles, secure logins, and data encryption
Reports

- VM-51 Section 2.F requires the NAIC to provide an experience data report of aggregated experience to the SOA for development of industry and valuation mortality tables. A report has been programmed to match SOA specifications.

- After data is collected, reports will be provided to state insurance departments
  - VM-50 Section 5.E requires the NAIC to provide a list of companies whose data is included, and a list of those whose data was excluded because it fell outside the tolerances set for missing or invalid data, or for any other reason.

FAQs

Will there be a cost for the 2020 Mortality Experience Data Call?

No. The NAIC will not be charging companies a fee for the 2020 data collection.

Will New York and/or Kansas continue with their own data calls? Will MIB continue to be involved in data collection?

KS – No
NY – Yes

States may implement their own data calls and choose another Experience Reporting Agent (e.g. MIB).

- VM-50 Section 6.B.3.b: "Use of the Experience Reporting Agent by the contracting state insurance departments does not preclude those state insurance departments or any other state insurance departments from contracting independently with another Experience Reporting Agent for similar data required under this Valuation Manual or other data purposes."

FAQs

My company is the direct writer for a block of business in scope, but the business is covered by a 100% coinsurance arrangement and is now administered by the assuming company. The policies were not legally novated. Does my company need to submit mortality experience data for this business?

Yes. This is not assumption reinsurance. Unless the policies were legally novated, the original direct writer of the life insurance will be required to submit the mortality experience data.
Mortality Aggregation Examples

NAIC National Meeting Summer 2019
Rachel Hemphill, MAAA, FSA, FCAS
Pat Allison, MAAA, FSA

Key Concepts for Mortality Aggregation

- Mortality segments subject to the same or similar underwriting processes may be aggregated to calculate credibility

- Using separate mortality segment experience to set each corresponding assumption and then simply grouping the segments together to calculate credibility is not mortality aggregation under VM-20

- The aggregate experience must inform the mortality segment assumptions; two approaches are allowed under VM-20

Agenda

- Key Concepts and Applicable VM-20 Language
- Examples and Comparison of Approaches
- Next Steps

Applicable VM-20 Language

VM-20 Section 9.C.2.d

vi. If the company uses the aggregate company experience for a group of mortality segments when determining the company experience mortality rates for each of the individual mortality segments in the group, the company shall either:

a. Use techniques to further subdivide the aggregate experience into the various mortality segments (e.g., start with aggregate non-smoker then use the conservation of total deaths principle, normalization or other approach to divide the aggregate mortality into super preferred, preferred and residual standard non-smoker class assumptions), or

b. Use techniques to adjust the experience of each mortality segment in the group to reflect the aggregate company experience for the group (e.g. by credibility weighting the individual mortality segment experience with the aggregate company experience for the group).
**Disclaimer:**

The examples presented are for illustrative purposes to demonstrate acceptable approaches. They are not intended to cover all complexities that may arise in practice. Additional variations and other methods may be appropriate. These examples are intended to illustrate general principles, not to be an exhaustive presentation of acceptable methods.

**Mortality Aggregation Examples**

**Approach:**

“Bottom Up”

**Level of Aggregation:** All Segments

**Identify Segments for Aggregation**

<table>
<thead>
<tr>
<th>Groups of Policies</th>
<th>Segment Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segment 1</td>
<td>MNS Ultra Preferred</td>
</tr>
<tr>
<td>Segment 2</td>
<td>MNS Super Preferred</td>
</tr>
<tr>
<td>Segment 3</td>
<td>MNS Preferred</td>
</tr>
<tr>
<td>Segment 4</td>
<td>MNS Standard</td>
</tr>
<tr>
<td>Segment 5</td>
<td>MSM Preferred</td>
</tr>
<tr>
<td>Segment 6</td>
<td>MSM Standard</td>
</tr>
<tr>
<td>Segment 7</td>
<td>FNS Ultra Preferred</td>
</tr>
<tr>
<td>Segment 8</td>
<td>FNS Super Preferred</td>
</tr>
<tr>
<td>Segment 9</td>
<td>FNS Preferred</td>
</tr>
<tr>
<td>Segment 10</td>
<td>FNS Standard</td>
</tr>
<tr>
<td>Segment 11</td>
<td>FSM Preferred</td>
</tr>
<tr>
<td>Segment 12</td>
<td>FSM Standard</td>
</tr>
</tbody>
</table>

Aggregate All Segments Combined

**Calculate Expected Claims and A/E Ratios**

<table>
<thead>
<tr>
<th>Groups of Policies</th>
<th>Mortality Tables: 2015 VBT ALB</th>
<th>Expected Claim Amounts Using (3)</th>
<th>Actual Claim Amounts</th>
<th>A/E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segment 1</td>
<td>MNS RR 70</td>
<td>64</td>
<td>50</td>
<td>78.1%</td>
</tr>
<tr>
<td>Segment 2</td>
<td>MNS RR 80</td>
<td>343</td>
<td>300</td>
<td>87.5%</td>
</tr>
<tr>
<td>Segment 3</td>
<td>MNS RR 90</td>
<td>510</td>
<td>400</td>
<td>78.4%</td>
</tr>
<tr>
<td>Segment 4</td>
<td>MNS RR 110</td>
<td>617</td>
<td>500</td>
<td>81.0%</td>
</tr>
<tr>
<td>Segment 5</td>
<td>MSM RR 75</td>
<td>800</td>
<td>600</td>
<td>75.0%</td>
</tr>
<tr>
<td>Segment 6</td>
<td>MSM RR 125</td>
<td>833</td>
<td>700</td>
<td>84.0%</td>
</tr>
<tr>
<td>Segment 7</td>
<td>FNS RR 70</td>
<td>32</td>
<td>25</td>
<td>78.1%</td>
</tr>
<tr>
<td>Segment 8</td>
<td>FNS RR 80</td>
<td>226</td>
<td>200</td>
<td>88.5%</td>
</tr>
<tr>
<td>Segment 9</td>
<td>FNS RR 90</td>
<td>445</td>
<td>350</td>
<td>78.7%</td>
</tr>
<tr>
<td>Segment 10</td>
<td>FNS RR 110</td>
<td>545</td>
<td>450</td>
<td>82.6%</td>
</tr>
<tr>
<td>Segment 11</td>
<td>FSM RR 75</td>
<td>733</td>
<td>550</td>
<td>75.0%</td>
</tr>
<tr>
<td>Segment 12</td>
<td>FSM RR 125</td>
<td>756</td>
<td>650</td>
<td>86.0%</td>
</tr>
</tbody>
</table>

Aggregate 5904 4775 80.9%
### Calculate Credibility and Credibility-Weighted (CW) A/E

<table>
<thead>
<tr>
<th>(1)</th>
<th>(7)</th>
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<td>Credibility *</td>
<td>A/E</td>
<td>Credibility Complement *</td>
<td>Aggregate A/E</td>
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<tr>
<td>Segment 1</td>
<td>15%</td>
<td>78.1% + 85%</td>
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</tr>
<tr>
<td>Segment 2</td>
<td>62%</td>
<td>87.5% + 38%</td>
<td>80.9%</td>
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<tr>
<td>Segment 3</td>
<td>78%</td>
<td>78.4% + 22%</td>
<td>80.9%</td>
<td>79.0%</td>
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<tr>
<td>Segment 4</td>
<td>89%</td>
<td>81.0% + 11%</td>
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<td>81.0%</td>
<td></td>
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<tr>
<td>Segment 5</td>
<td>85%</td>
<td>75.0% + 5%</td>
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<td>75.3%</td>
<td></td>
</tr>
<tr>
<td>Segment 6</td>
<td>100%</td>
<td>84.0% + 0%</td>
<td>80.9%</td>
<td>84.0%</td>
<td></td>
</tr>
<tr>
<td>Segment 7</td>
<td>5%</td>
<td>78.1% + 95%</td>
<td>80.9%</td>
<td>87.5%</td>
<td></td>
</tr>
<tr>
<td>Segment 8</td>
<td>33%</td>
<td>88.5% + 67%</td>
<td>80.9%</td>
<td>83.4%</td>
<td></td>
</tr>
<tr>
<td>Segment 9</td>
<td>66%</td>
<td>78.7% + 34%</td>
<td>80.9%</td>
<td>79.4%</td>
<td></td>
</tr>
<tr>
<td>Segment 10</td>
<td>75%</td>
<td>82.6% + 25%</td>
<td>80.9%</td>
<td>82.1%</td>
<td></td>
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<tr>
<td>Segment 11</td>
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<td>75.0% + 8%</td>
<td>80.9%</td>
<td>75.5%</td>
<td></td>
</tr>
<tr>
<td>Segment 12</td>
<td>98%</td>
<td>86.0% + 2%</td>
<td>80.9%</td>
<td>85.9%</td>
<td></td>
</tr>
<tr>
<td>Aggregate</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Perform Calculations to Maintain Conservation of Deaths

<table>
<thead>
<tr>
<th>(1)</th>
<th>(4)</th>
<th>(5)</th>
<th>(11)</th>
<th>(12)</th>
<th>(13)</th>
<th>(14)</th>
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</thead>
<tbody>
<tr>
<td>Groups of Policies</td>
<td>Expected Claim Amounts</td>
<td>Actual Claim Amounts</td>
<td>CW A/E</td>
<td>Normalized CW A/E</td>
<td>Normalized Expected Claim Amounts</td>
<td></td>
</tr>
<tr>
<td>Segment 1</td>
<td>64</td>
<td>50</td>
<td>80.5%</td>
<td>51</td>
<td>80.6%</td>
<td>52</td>
</tr>
<tr>
<td>Segment 2</td>
<td>343</td>
<td>300</td>
<td>85.0%</td>
<td>291</td>
<td>85.1%</td>
<td>292</td>
</tr>
<tr>
<td>Segment 3</td>
<td>510</td>
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<td>81.0%</td>
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<td>81.2%</td>
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<td>Segment 4</td>
<td>800</td>
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<td>75.3%</td>
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<td>75.4%</td>
<td>603</td>
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<tr>
<td>Segment 5</td>
<td>833</td>
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<td>84.0%</td>
<td>700</td>
<td>84.2%</td>
<td>701</td>
</tr>
<tr>
<td>Segment 6</td>
<td>32</td>
<td>25</td>
<td>80.7%</td>
<td>26</td>
<td>80.9%</td>
<td>26</td>
</tr>
<tr>
<td>Segment 7</td>
<td>226</td>
<td>200</td>
<td>83.4%</td>
<td>188</td>
<td>83.6%</td>
<td>189</td>
</tr>
<tr>
<td>Segment 8</td>
<td>445</td>
<td>350</td>
<td>79.4%</td>
<td>353</td>
<td>79.6%</td>
<td>354</td>
</tr>
<tr>
<td>Segment 9</td>
<td>545</td>
<td>450</td>
<td>82.1%</td>
<td>448</td>
<td>82.3%</td>
<td>449</td>
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<tr>
<td>Segment 10</td>
<td>733</td>
<td>550</td>
<td>75.5%</td>
<td>553</td>
<td>75.6%</td>
<td>554</td>
</tr>
<tr>
<td>Segment 11</td>
<td>756</td>
<td>650</td>
<td>85.9%</td>
<td>649</td>
<td>86.0%</td>
<td>650</td>
</tr>
<tr>
<td>Aggregate</td>
<td>5904</td>
<td>4775</td>
<td>4766</td>
<td>4775</td>
<td>4775</td>
<td>4775</td>
</tr>
<tr>
<td>Normalization Ratio (NR) = 4775 / 4766: 1.001905</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

### Set the Assumption for Company Experience Mortality Rates

<table>
<thead>
<tr>
<th>(1)</th>
<th>(3)</th>
<th>(13)</th>
<th>(15)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups of Policies</td>
<td>Mortality Tables: 2015 VBT ALB</td>
<td>Normalized CW A/E</td>
<td>Company Experience Mortality Rates</td>
</tr>
<tr>
<td>Segment 1</td>
<td>MNS RR 70</td>
<td>80.6%</td>
<td>80.6% of 2015 VBT MNS RR 70 ALB</td>
</tr>
<tr>
<td>Segment 2</td>
<td>MNS RR 80</td>
<td>85.1%</td>
<td>85.1% of 2015 VBT MNS RR 80 ALB</td>
</tr>
<tr>
<td>Segment 3</td>
<td>MNS RR 90</td>
<td>79.1%</td>
<td>79.1% of 2015 VBT MNS RR 90 ALB</td>
</tr>
<tr>
<td>Segment 4</td>
<td>MNS RR 110</td>
<td>81.2%</td>
<td>81.2% of 2015 VBT MNS RR 110 ALB</td>
</tr>
<tr>
<td>Segment 5</td>
<td>MSM RR 75</td>
<td>75.4%</td>
<td>75.4% of 2015 VBT MSM RR 75 ALB</td>
</tr>
<tr>
<td>Segment 6</td>
<td>MSM RR 125</td>
<td>84.2%</td>
<td>84.2% of 2015 VBT MSM RR 125 ALB</td>
</tr>
<tr>
<td>Segment 7</td>
<td>FNS RR 70</td>
<td>80.9%</td>
<td>80.9% of 2015 VBT FNS RR 70 ALB</td>
</tr>
<tr>
<td>Segment 8</td>
<td>FNS RR 80</td>
<td>83.6%</td>
<td>83.6% of 2015 VBT FNS RR 80 ALB</td>
</tr>
<tr>
<td>Segment 9</td>
<td>FNS RR 90</td>
<td>79.6%</td>
<td>79.6% of 2015 VBT FNS RR 90 ALB</td>
</tr>
<tr>
<td>Segment 10</td>
<td>FNS RR 110</td>
<td>82.3%</td>
<td>82.3% of 2015 VBT FNS RR 110 ALB</td>
</tr>
<tr>
<td>Segment 11</td>
<td>FSM RR 75</td>
<td>75.6%</td>
<td>75.6% of 2015 VBT FSM RR 75 ALB</td>
</tr>
<tr>
<td>Segment 12</td>
<td>FSM RR 125</td>
<td>86.0%</td>
<td>86.0% of 2015 VBT FSM RR 125 ALB</td>
</tr>
</tbody>
</table>

### Applicable VM-20 Language

**VM-20 Section 9.C.2.d**

vi. If the company uses the aggregate company experience for a group of mortality segments when determining the company experience mortality rates for each of the individual mortality segments in the group, the company shall either:

a. Use techniques to further subdivide the aggregate experience into the various mortality segments (e.g., start with aggregate non-smoker then use the conservation of total deaths principle, normalization or other approach to divide the aggregate mortality into super preferred, preferred and residual standard non-smoker class assumptions), or

b. Use techniques to adjust the experience of each mortality segment in the group to reflect the aggregate company experience for the group (e.g. by credibility weighting the individual mortality segment experience with the aggregate company experience for the group).
Mortality Aggregation Example

Approach: “Top Down”

2 Levels of Aggregation: Smoker Segments, Non-Smoker Segments

Identify Segments for Aggregation

<table>
<thead>
<tr>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups of Policies</td>
<td>Segment Description</td>
</tr>
<tr>
<td>Segment 1</td>
<td>MNS Ultra Preferred</td>
</tr>
<tr>
<td>Segment 2</td>
<td>MNS Super Preferred</td>
</tr>
<tr>
<td>Segment 3</td>
<td>MNS Preferred</td>
</tr>
<tr>
<td>Segment 4</td>
<td>MNS Standard</td>
</tr>
<tr>
<td>Segment 5</td>
<td>MSM Preferred</td>
</tr>
<tr>
<td>Segment 6</td>
<td>MSM Standard</td>
</tr>
<tr>
<td>Segment 7</td>
<td>FNS Ultra Preferred</td>
</tr>
<tr>
<td>Segment 8</td>
<td>FNS Super Preferred</td>
</tr>
<tr>
<td>Segment 9</td>
<td>FNS Preferred</td>
</tr>
<tr>
<td>Segment 10</td>
<td>FNS Standard</td>
</tr>
<tr>
<td>Segment 11</td>
<td>FSM Preferred</td>
</tr>
<tr>
<td>Segment 12</td>
<td>FSM Standard</td>
</tr>
</tbody>
</table>

Aggregate NS All Non-Smoker Segments Combined
Aggregate SM All Smoker Segments Combined

Calculate Relativity Structure (here based on RR Tool output)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Segment 1</td>
<td>MNS RR 70</td>
<td>200</td>
<td>187</td>
<td>93.5%</td>
</tr>
<tr>
<td>Segment 2</td>
<td>MNS RR 80</td>
<td>484</td>
<td>495</td>
<td>102.3%</td>
</tr>
<tr>
<td>Segment 3</td>
<td>MNS RR 90</td>
<td>533</td>
<td>520</td>
<td>97.6%</td>
</tr>
<tr>
<td>Segment 4</td>
<td>MNS RR 110</td>
<td>582</td>
<td>563</td>
<td>98.7%</td>
</tr>
<tr>
<td>Segment 5</td>
<td>MSM RR 100</td>
<td>525</td>
<td>545</td>
<td>103.8%</td>
</tr>
<tr>
<td>Segment 6</td>
<td>MSM RR 125</td>
<td>833</td>
<td>850</td>
<td>102.0%</td>
</tr>
<tr>
<td>Segment 7</td>
<td>FNS RR 70</td>
<td>175</td>
<td>182</td>
<td>104.0%</td>
</tr>
<tr>
<td>Segment 8</td>
<td>FNS RR 80</td>
<td>335</td>
<td>320</td>
<td>95.5%</td>
</tr>
<tr>
<td>Segment 9</td>
<td>FNS RR 90</td>
<td>425</td>
<td>384</td>
<td>90.4%</td>
</tr>
<tr>
<td>Segment 10</td>
<td>FNS RR 110</td>
<td>542</td>
<td>531</td>
<td>98.0%</td>
</tr>
<tr>
<td>Segment 11</td>
<td>FSM RR 100</td>
<td>490</td>
<td>500</td>
<td>102.0%</td>
</tr>
<tr>
<td>Segment 12</td>
<td>FSM RR 150</td>
<td>725</td>
<td>745</td>
<td>102.8%</td>
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<tr>
<td>Aggregate NS</td>
<td></td>
<td>2573</td>
<td>2640</td>
<td>97.1%</td>
</tr>
</tbody>
</table>

Aggregate Non-Smoker Credibility: 100%
Aggregate Smoker Credibility: 85%

Set the Assumption for the Company Experience Mortality Rates

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Segment 1</td>
<td>MNS RR 70</td>
<td>Non-Smoker</td>
<td>97.1%</td>
<td>97.1% of 2015 VBT MNS RR 70 ALB</td>
</tr>
<tr>
<td>Segment 2</td>
<td>MNS RR 80</td>
<td>Non-Smoker</td>
<td>97.1%</td>
<td>97.1% of 2015 VBT MNS RR 80 ALB</td>
</tr>
<tr>
<td>Segment 3</td>
<td>MNS RR 90</td>
<td>Non-Smoker</td>
<td>97.1%</td>
<td>97.1% of 2015 VBT MNS RR 90 ALB</td>
</tr>
<tr>
<td>Segment 4</td>
<td>MNS RR 110</td>
<td>Non-Smoker</td>
<td>97.1%</td>
<td>97.1% of 2015 VBT MNS RR 110 ALB</td>
</tr>
<tr>
<td>Segment 5</td>
<td>MSM RR 100</td>
<td>Smoker</td>
<td>102.6%</td>
<td>102.6% of 2015 VBT MSM RR 100 ALB</td>
</tr>
<tr>
<td>Segment 6</td>
<td>MSM RR 125</td>
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<td>102.6%</td>
<td>102.6% of 2015 VBT MSM RR 125 ALB</td>
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<td>Non-Smoker</td>
<td>97.1%</td>
<td>97.1% of 2015 VBT FNS RR 70 ALB</td>
</tr>
<tr>
<td>Segment 8</td>
<td>FNS RR 80</td>
<td>Non-Smoker</td>
<td>97.1%</td>
<td>97.1% of 2015 VBT FNS RR 80 ALB</td>
</tr>
<tr>
<td>Segment 9</td>
<td>FNS RR 90</td>
<td>Non-Smoker</td>
<td>97.1%</td>
<td>97.1% of 2015 VBT FNS RR 90 ALB</td>
</tr>
<tr>
<td>Segment 10</td>
<td>FNS RR 110</td>
<td>Non-Smoker</td>
<td>97.1%</td>
<td>97.1% of 2015 VBT FNS RR 110 ALB</td>
</tr>
<tr>
<td>Segment 11</td>
<td>FSM RR 100</td>
<td>Smoker</td>
<td>102.6%</td>
<td>102.6% of 2015 VBT FSM RR 100 ALB</td>
</tr>
<tr>
<td>Segment 12</td>
<td>FSM RR 150</td>
<td>Smoker</td>
<td>102.6%</td>
<td>102.6% of 2015 VBT FSM RR 150 ALB</td>
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</table>
Comparison of Approaches

<table>
<thead>
<tr>
<th>Methodology</th>
<th>“Top Down” Example</th>
<th>“Bottom Up” Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uses relativities to subdivide the aggregate experience into mortality segments.</td>
<td>Uses credibility weighting to adjust the experience of each mortality segment to reflect the aggregate experience.</td>
<td></td>
</tr>
</tbody>
</table>

Source of experience data

<table>
<thead>
<tr>
<th>“Top Down” Example</th>
<th>“Bottom Up” Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uses a company experience study A/E for the aggregate class(es), along with pre-defined expected relativities between mortality segments determined from a reliable and applicable external source.</td>
<td>Uses company experience study A/E and credibility results for all individual mortality segments and for the aggregate class.</td>
</tr>
</tbody>
</table>

Updates based on new experience studies

<table>
<thead>
<tr>
<th>“Top Down” Example</th>
<th>“Bottom Up” Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>The aggregate class A/E ratios(s) and aggregate credibility must be updated based on each new company experience study. The relativities would not change unless the external source (e.g. RR Tool, reinsurer) indicates that relationships between segments have changed or the external source data is no longer representative of the company experience.</td>
<td>The aggregate class and individual mortality segment credibilities and A/E ratios must be updated based on each new company experience study.</td>
</tr>
</tbody>
</table>

Conservation of deaths

<table>
<thead>
<tr>
<th>Conservation of deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservation of deaths is maintained using the normalization process, such that the total amount of expected claims is not less than the aggregate.</td>
</tr>
</tbody>
</table>

Prudent estimate assumptions

<table>
<thead>
<tr>
<th>Prudent estimate assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anticipated experience assumptions are likely to be different by approach, but prescribed margins would be the same if the same level of aggregation is used to determine credibility.</td>
</tr>
</tbody>
</table>
Next Steps

- Consider exposing examples for public comment
- Review comments and revise accordingly
- Post examples to the Industry Tab on the NAIC website
IIPRC Report to LATF December 6, 2019

Management Committee & Commission Meeting: Monday, December 9, 3:00 to 4:30

- The full agenda is available on the compact website
- Management Committee and Commission will consider approval/adoptions of the following Uniform Standards
  - Group Policyholder Application
  - Group Annuity Certificate for Employer Groups
  - Group Guaranteed Interest Contracts for Non-Variable Annuities for Employer Groups
- Consider approval of Proposed Strategic Plan, 2020 Annual Budget, and 2020 Schedule of Fees
- Hear reports of the Audit Committee, Product Standards Committee, and Rulemaking Committee
- Form Compact Member Committees
- Form Management Committee
- Appointments to the Industry Advisory Committee
- Election of 2019/2020 Officers

Uniform Standards Development—See IIPRC website: insurancecompact.org

- PSC has finalized its work on group annuity Uniform Standards. The Commission adopted the Single Premium Group Fixed Annuity Contract Standards (used for pension risk transfer) and they will be effective for filing January 14th. As noted above, the Commission will consider the remaining group annuity Uniform Standards for adoption during Monday’s Management Committee and Commission meeting.
- PSC continues to address the priority list for filling in gaps in existing individual life and annuity uniform standards. This includes a referral to the Actuarial Working Group to consider developing standards for index-linked variable annuity products. The AWG requested more information about these products and SEC registration requirements from industry trades and is continuing its discussions on developing new standards for these products.
- The PSC will be recommending amendments to the Additional Standards for Waiver of Premium and Additional Standards for Waiver of Monthly Deduction to the Management Committee on Monday to add qualifying events triggers other than the current total disability. They will also recommend a new standard for Waiver of Surrender Charge Benefit for life insurance, similar to the standard on the annuity side.
- Reminder: You can follow the progress of both the PSC and the AWG by reviewing the Call Summaries that are posted under the Committee links on the About the Compact section of the Compact’s website and the Docket (Uniform Standards Under Construction) and participating in the Public Calls that are posted on our events calendar.

Product Operations

- To Be Provided Later
- With respect to 2017 CSO filings, the large increase in the number of life filings the compact has received this year can in part be explained by the change to 2017 CSO. From BOY 2019 through June 2019 we received over 450 life filings compared to 295 filings for the same period last year. We’re receiving more complete filings instead of revisions/amendments and more UL and VUL in 2019.
• The Compact implemented a pilot program to allow companies to pay additional fees to receive an expedited review of their filing. The program has been extended to the end of the year.

**LTC Annual Rate Certification and Triennial Memos**

• The Compact completed the review of the certifications/memos that were due May 1 of this year.
• The Compact has prepared a public report summarizing the review, common compliance issues, and outstanding issues.
• The report will be released at the Commission meeting Monday and will be available on the Compact website.
• The public report will be sent to Commissioners along with a confidential addendum with a summary of the LTC products filed for use in their state.

**Other Activities**

• Monitoring IUL Illustration Subgroup conference calls as well as the LTC Executive Task Force work stream calls
• Webinars
  o The Compact recently completed a series of webinars for regulators.
  o The Compact plans to offer a webinar for regulatory actuaries in the spring of 2020.
  o The Compact plans to offer a webinar for LTC company actuaries on the LTC annual certification requires in the spring of 2020

**Additional Resources**

• Added a full-time actuary, Naomi Kloepersmith, in July and a new full-time form reviewer, Yada Horace, in August.

What types of product information regarding Compact filings and review would be helpful for LATF to receive, if any?
Draft: 11/27/19

IUL Illustration (A) Subgroup
Conference Call
November 14, 2019

The IUL Illustration (A) Subgroup of the Life Actuarial (A) Task Force met via conference call Nov. 14, 2019. The following Subgroup members participated: Fred Andersen, Chair (MN); Ted Chang (CA); Andrew Greenhalgh (CT); Vincent Tsang (IL); Rhonda Ahrens (NE); Bill Carmello (NY); Peter Weber (OH); Mike Boerner and John Carter (TX); and Craig Chupp (VA). Also participating was: Rachel Hemphill (TX).

1. **Discussed Comments on the IUL Illustration Questions Exposed on Nov. 1**

Mr. Andersen said nine comment letters were received in response to the Nov. 1 exposure. He suggested discussing the issues question by question instead of sequentially discussing each commenter’s letter. On the question related to the effective date of the proposed changes, he recommended that the changes be effective the later of five months after adoption by the Life Actuarial (A) Task Force or three months after adoption by the Executive (EX) Committee and Plenary. There was opposition to the recommendation.

The second question exposed was related to the application of the recommended changes to in-force illustrations. Mr. Andersen discussed his summary of feedback received from commenters (Attachment Twenty-Five-A). He noted that commenters supported positions for and against application of the changes to in-force illustrations. A few Subgroup members expressed desires to find a compromise solution. One member advocated strongly for application of the changes to in-force illustrations. Brian Bayerle (American Council of Life Insurers—ACLI) said the ACLI comment letter (Attachment Twenty-Five-B) did not specifically address this question. Birny Birnbaum (Center for Economic Justice—CEJ) said the CEJ comment letter (Attachment Twenty-Five-C) points to the applicability of Actuarial Guideline XLIX—The Application of the Life Illustrations Model Regulation to Policies with Index-Based Interest (AG 49) to in-force policies. He said the issue was discussed and settled years ago. He said the application is not retroactive because it applies only to new illustrations. Mr. Andersen asked Mr. Birnbaum to address a commenter’s question related to a consumer purchased multiplier option, the value of which has increased with the market but would no longer be illustratable under the proposed changes to AG 49. Mr. Birnbaum responded that the company should explain that the illustration can no longer illustrate the multiplier, but the consumer is still able to see the historical performance of the multiplier.

Chris Kite (Financial Independence Group) said, while in-force illustrations are used in policy replacement comparisons, the original intent was to demonstrate how policies work. Sheryl J. Moore (Moore Market Intelligence) concurred that in-force illustrations help manage the consumers expectations of their policy’s performance. Tom Doruska (Global Atlantic) said the Global Atlantic comment letter (Attachment Twenty-Five-D) encourages the Subgroup to apply the proposed changes on a going forward basis. Scott Harrison (Harrison Law Office) said the comment letters written (Attachment Twenty-Five-E and Attachment Twenty-Five-F) on behalf of Lincoln Financial Group, Pacific Life, Sammons Financial Group, and John Hancock Insurance support the grandfathering of in-force illustrations from the proposed AG 49 changes. Gary A. Sanders (National Association of Insurance and Financial Advisors—NAIFA) said the NAIFA comment letter (Attachment Twenty-Five-G) states its opposition to application of the proposed changes to in-force illustrations. Ata Azarshahi (National Life) said the National Life comment letter (Attachment Twenty-Five-H) recommends not applying the proposed changes to in-force policies, as doing so may cause consumer confusion. Gayle Donato (Nationwide) said the Nationwide comment letter (Attachment Twenty-Five-I) suggests that, if the changes are applied to in-force policies, a one-year phase-in would allow time for customer and producer education. Ernest Armijos (Pacific Life) said the Pacific Life comments (Attachment Twenty-Five-J) support prospective application of the proposed changes to AG 49. Seth Detert (Securian Life) said the Seucrion Life comments (Attachment Twenty-Five-K) support the application of the proposed changes to policies regardless of when they are sold. Mr. Boerner said further clarification of the treatment of hedges for indexed-based credits may be necessary. He recommended deferring the vote until the Fall National Meeting to allow time for additional information to be provided.

The third question in the exposure requested comments on the Task Force decision to not allow multiplier products to illustrate more favorably or no worse than non-multiplier products. The Nationwide comment letter proposes two methods of addressing the issue. Ms. Donato said changes are needed to Section 4 and Section 5 of AG 49 to implement the Task Force decision. She noted the Section 4 changes can be addressed later. The changes to Section 5 are to ensure that it is not more or less difficult for a product with a multiplier to pass disciplined current scale (DCS) testing. Method One uses investment returns net of investment expenses when determining the maximum net investment return for DCS testing. Method Two inputs gross

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investment returns and reflects investment expenses, including hedge costs, as negative cashflow. Ms. Donato said the Nationwide recommendation is to revise Section 5, noting that it provides a net limit on the annual earned rate, and exclude the supplemental option budget from Section 5.A.iii. Mr. Andersen asked if a sentence could be added to further define the use of the term “net.” Ms. Donato said clarity will be added. Mr. Chupp said he is concerned that there is double counting in Section 4 based on how the multiplier is determined. Laura Hanson (Allianz Life) suggested moving the “145 percent rule” to Section 4 and taking a principled approach in Section 5 as a way to avoid the double counting. She noted that there are different approaches to DCS testing, which makes a formulaic approach to addressing the issue difficult. Mr. Andersen said he prefers making revisions under the current structure of AG 49 and addressing other issues at a later date. Donna Megregian (Reinsurance Group of America—RGA) agreed with the Subgroup direction, but she suggested the addition of a guidance note to address the double counting issue. As discussion continued, a number of concerns about Section 4.E were raised.

Having no further business, the IUL Illustration (A) Subgroup adjourned.
1. Should the effective date for new policies be the later of 5 months after LATF adoption or 3 months after NAIC Executive/Plenary adoption?

**ACLI:** Yes - if revisions are substantively consistent with those in 11/1 version

**GlobalAtl:** Yes - acceptable if the approved version is materially consistent with the 11/1 version

**IUL Coalit.:** Yes - acceptable if the NAIC-adopted version is materially consistent with LATF-adopted version

**NAIFA:** Response not provided

**Nat'L Life:** Yes - acceptable if the approved version is materially consistent with the 11/1 version

**N'Wide:** Yes - if revisions are substantively consistent with those in 11/1 version

**Pac Life:** Response not provided (comments reflected in IUL Coalition letter)

**Securian:** Yes - expects Exec / Plenary version to match LATF version

2. Should the revised guidelines be in place for inforce illustrations for policies sold before the effective date for new policies?

**ACLI:** Response not provided

**CEI:** Yes - decided by NAIC in 2016 that AG 49 changes would apply to inforce policies

**GlobalAtl:** Yes - assuming sufficient time is provided; fulfills a goal of uniform practice & prevents confusion when comparing policies

**IUL Coalit.:** No - consumer benefit is not clear & compelling and inforce illustration serves different purpose than illustration at time of sale

**NAIFA:** No - Retroactively applying revisions made to NAIC models to inforce business/products is likely to confuse consumers and adversely impact the consumer/producer relationship

**Nat'L Life:** No - it could cause undue consumer confusion and disruption

**N'Wide:** If revisions are put in place for inforce policies, apply to inforce one year after the effective date of the revised AG 49 to new policies; this would allow time for customer & producer education

**Pac Life:** No - consumer confusion and loss of confidence will result if feature purchased is not illustrated

**Securian:** Yes - otherwise unrealistic expectations will be reinforced

3a. Does the approach of having the disciplined current scale earned rate including or excluding the Supplemental Option Budget lead to the result of the multiplier product illustrating about the same as a non-multiplier product?

**ACLI:** Since charges for a multiplier reduce policy values, both the crediting of interest and the funding of option credits need to consider not only the rate but also the balance against which that rate is applied

**CEI:** No charges or benefits from interest crediting enhancements are permitted. No variation in the illustration is permitted for differences in asset charges, multipliers, etc.

**GlobalAtl:** Pay attention to Sections 3 through 6; to attain the desired result, the return of the Supplemental Option Budget, not its inclusion or exclusion, is required

**IUL Coalit.:** Response not provided

**NAIFA:** Response not provided

**Nat'L Life:** The cost of the hedge should be offset with the hedge payoff

**N'Wide:** Depends on how a company reflects hedge cash flows in DCS testing; Add “net” to 5A wording; update Section 4 & 6B, also;

**Pac Life:** Response not provided

**Securian:** Recent revisions do reasonable job; If Supplemental Option Budget included, need to define what constitutes cash flows from DCS testing standpoint

3b. If neither of the approaches mentioned in 3a leads to this result, is there an alternative approach that leads to this result such as providing explicit guidance in Section 4?

**ACLI:** Contained in 3A response

**CEI:** Contained in 3A response

**GlobalAtl:** Need to align 4E and 4A/4B; 6B creates unintended consequences

**IUL Coalit.:** Response not provided

**NAIFA:** Response not provided

**Nat'L Life:** In the absence of an explicit charge, the funding for the multiplier could come from the company’s net earned rate and may result in different total index credits.

**N'Wide:** Investment returns are net of investment expenses; or Investment expenses are treated separately as expenses

**Pac Life:** Response not provided

**Securian:** Alternate: introduce new definitions; Add language to 4C, agrees with 4E

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November 12, 2019

Mr. Fred Andersen  
Chair, NAIC IUL Illustration (A) Subgroup

Re: Indexed Universal Life (IUL) Illustration Subgroup Questions

Dear Mr. Andersen:

The American Council of Life Insurers (ACLI) appreciates the opportunity to submit the following responses to several of the questions posed by the IUL Illustration Subgroup on its November 1st call.

**Question 1:** Should the effective date for new policies be the later of 5 months after LATF adoption or 3 months after NAIC Executive/Plenary adoption?

**ACLI Response to 1:** If the revisions to Actuarial Guideline 49 are substantially consistent with the version circulated on the November 1st call, ACLI would be supportive of the 5 month/3 month recommendation. If modifications are made to the exposure, that timeframe may not be appropriate depending on the extent and significance of those changes.

**Question 3a:** Does the approach of having the disciplined current scale earned rate including or excluding the Supplemental Option Budget lead to the result of the multiplier product illustrating about the same as a non-multiplier product?

**Question 3b:** If neither of the approaches mentioned in 3a leads to this result, is there an alternative approach that leads to this result such as providing explicit guidance in Section 4?

**ACLI Response to 3a/3b:** The language in the current exposure appears to create a discrepancy in the requirements, and as such it’s unclear if this approach meets the desired regulatory outcome. Section 3.C.vi. provides for more than one benchmark account when a product has different levels of account charges. The language in Sections 4.a and 4.b provide for a separate illustrated rate for each benchmark account. The account charges that generated separate benchmark accounts seem to meet the definition of a Supplemental Option Budget. Applying the language in Section 4.e, however, seems to produce a different answer than that derived within 4.a and 4.b.

1 The American Council of Life Insurers (ACLI) advocates on behalf of 280 member companies dedicated to providing products and services that promote consumers’ financial and retirement security. 90 million American families depend on our members for life insurance, annuities, retirement plans, long-term care insurance, disability income insurance, reinsurance, dental and vision and other supplemental benefits. ACLI represents member companies in state, federal and international forums for public policy that supports the industry marketplace and the families that rely on life insurers’ products for peace of mind. ACLI members represent 95 percent of industry assets in the United States. Learn more at www.acli.com.
Regarding deciding if a product with a multiplier should be illustrated the same as a product without a multiplier, there are two issues at work: one being how the interest is being credited, and how the option crediting is funded. Since charges for a multiplier reduce policy values, both the crediting of interest and the funding of option credits need to consider not only the rate but also the balance against which that rate is applied. To have consistent results between a product with a multiplier and one without, different rates would need to be applied due to differences in the account values.

As regulators contemplate clarification of the drafted language, we would note that care needs to be taken to where the option budget is added in the text to avoid unfairly advantaging or disadvantaging multiplier products through potentially doubling counting of credits or charges.

We look forward to a discussion of these questions on a future Subgroup call. Thank you.

Sincerely,

B. Barfeeli

cc Reggie Mazyck, NAIC
Comments for the Center for Economic Justice

To the Indexed Universal Life Subgroup of the NAIC Life Actuarial Task Force

Proposed Revisions to AG 49

November 12, 2019

In response to questions posed by the subgroup and the exposed draft revisions to AG 49, CEJ submits the following comments to the IUL subgroup. The following questions were exposed for comment:

1. Should the effective date for new policies be the later of 5 months after LATF adoption or 3 months after NAIC Executive/Plenary adoption?

2. Should the revised guidelines be in place for in-force illustrations for policies sold before the effective date for new policies?

3a. Does the approach of having the disciplined current scale earned rate including or excluding the Supplemental Option Budget lead to the result of the multiplier product illustrating about the same as a non-multiplier product?

3b. If neither of the approaches mentioned in 3a leads to this result, is there an alternative approach that leads to this result such as providing explicit guidance in Section 4?

Application to In-force policies – Question 2

It is unclear why the question of application of AG 49 to new illustrations for in-force policies is being presented as an issue for discussion. LATF, the A Committee and the NAIC Executive Committee and Plenary decided in 2016 that AG 49 would apply to in-force policies. There is no evidence that any of rationale for this decision was misplaced or needs to be revisited.

A lengthy debate regarding application of AG 49 to in-force policies occurred throughout 2016 and the NAIC settled the debate with a decision in 2016 to adopt the revisions to AG 49 that included:
i. Effective March 1, 2017, Section 4 and Section 5 shall be effective for all in-force life insurance illustrations on policies within the scope of this actuarial guideline, regardless of the date the policy was sold.

LATF recommended this change to the Life Insurance and Annuities (A) Committee with a proposed effective date of July 1. The A Committee revised the effective date to March 1, 2017 when adopting the provision on December 11, 2019. The Executive Committee and Plenary adopted the revision to AG 49 from the A Committee on December 13, 2016.

The arguments in favor of application of AG 49 to new illustrations for in-force policies include:  

- Consistent application of the consumer protection of AG 49 for all consumer receiving an illustration on or after the effective date;
- Realistic illustrated interest rates for consumers receiving an updated illustration for a policy issued before the effective date;
- Ease of compliance for insurers and regulatory oversight by regulators compared to a system of multiple interest rate regimes depending upon the date of policy issuance;
- Reduced expenses for insurers from elimination of multiple systems of interest rate calculations.

The arguments against application of AG 49 to new illustrations for in-force policies were that consumers would be confused when a new illustration used a different crediting rate than an older illustration and that application to in-force policies was retroactive application of AG49.

Regarding “consumer confusion,” no evidence was ever presented to support this claim and examination of the argument proved it was without merit. First, crediting rates for updated illustrations can already vary from crediting rates for prior illustrations based on changes in the calculation prescribed in Section 4 of AG 49. Second, failure to apply AG 49 – or the most current version of AG 49 – to new illustrations for in-force policies will cause disparate treatment of consumers, including:

- Two consumers purchasing the same product a day before and a day after the effective date of the revisions would receive different illustration crediting rates;
- Two consumers receiving updated illustrations of the same product would receive different illustration crediting rates if one purchased the product before the effective date and one purchased the product after the effective date.
- Consumers purchasing an IUL product before the effective date do not receive the same consumer protections as consumers who purchased the product after the effective date.

1 AXA letter of July 31, 2016; AAA letter of August 1, 2016, CEJ letters of July 31, 2016 and August 19, 2016. CEJ’s comment letters are attached.
Similarly, the argument that application of AG49 to new illustrations for in-force policies was a “retroactive” change to IUL policies was without merit. Application to new illustrations for in-force policies did not and will not require any insurer to revise or replace any illustration provided before the effective date. Rather, the proposed change applies to all illustrations provided on or after the effective date and, consequently, will not impact previously-issued illustrations or any features of the IUL contract.

**Effective Date – Question 1**

The effective date should be the first day of the month 11 to 12 weeks after adoption by the NAIC Executive Committee and Plenary.

In 2016, LATF adopted revisions to AG 49, including application to in-force policies, on November 17. The A Committee and Exec/Plenary adopted the revisions with a March 1, 2017 effective date on December 11 and December 13, 2016, respectively. The March 1, 2017 effective date was 78 days after adoption by Exec/Plenary.

An effective date for the proposed revisions to AG 49 no greater than 11 to 12 weeks following adoption by Exec/Plenary is reasonable. First, industry has shown itself capable of implementing changes to AG 49 within an 11 to 12 week time frame. The NAIC determined – and there is no evidence to contradict – that insurers could both revise illustration software and prepare any necessary information for existing customers within that time frame. Second, changes to illustration parameters in illustration software are routine and do not require lengthier lead times. Insurers and their intermediaries and vendors tweak parameters in illustration software when crediting rates change – due to a change in the cap or a change in the illustrated scale crediting rate calculation – and when new products are introduced.

The Effective Date section should be simplified to simply state “This version of the Actuarial Guideline is effective [date].” The current effective date section contains 3 subsections with three different effective dates to reflect a phased-in approach for AG 49. All those dates have passed and there is no longer a need for an updated AG 49 to retain these provisions. Just as the new versions of the Valuation Manual do not include effective dates for all provisions, so are multiple past effective dates in AG 49 unnecessary. If an insurer or regulator wishes to see the AG 49 provisions in effect prior to the effective date of the proposed revisions to AG 49, they can refer to that earlier version of AG 49.

**What Revisions Are Needed to Ensure a Non-Multiplier Product Illustrates Like a Multiplier Product, All Other Things Equal – Question 3**

There are structural problems with the Life Insurance Illustrations Model Regulation and with AG 49 such that there is no technical solution to problems in AG 49 caused by insurers’ use of multipliers and bonuses to game the current provisions of AG 49. The goal should be to revise AG 49 to stop current abuses and ask the A Committee to review illustrations more broadly to fix structural problems, such as permitting back-testing of indexes as the basis for projecting future performance.
CEJ suggests the following approach to ensure non-multiplier products illustrate the same as a multiplier product, all other things equal. The concept is to include a specific prohibition against including any interest-crediting enhancements beyond the cap and 0% floor in the development of the Benchmark Index Account. In addition to the specific prohibition, the proposal deletes most of current vi and vii to eliminate the gaming that would otherwise occur with multiple accounts used in the illustration.

We understand our proposal will limit illustration of some of the features of some IUL products. However, the subgroup has already acknowledged this with the decision to require products with bonuses and multipliers to illustrate the same as products without, all other things equal. The deletion of vi and vii is consistent with this concept and necessary to avoid the gaming of AG49 that would occur if these sections remain.

We reiterate that the framework of the illustration regulation and AG49 cannot eliminate the problems with and potential for misleading life insurance illustrations. The revisions to AG49 should be seen as the first step to protecting consumers followed quickly by a thorough review of illustrations generally to develop a meaningful approach to empowering consumers to understand the key aspects of increasingly complex life insurance products.

B. Benchmark Index Account: An Index Account with the following features:

i. The interest calculation is based on the percent change in S&P 500® Index value only, over a one-year period using only the beginning and ending index values. (S&P 500® Index ticker: SPX)

ii. An annual cap is used in the interest calculation.

iii. The annual floor used in the interest calculation shall be 0%.

iv. The participation rate used in the interest calculation shall be 100%.

v. Interest is credited once per year.

vi. No charges or benefits from interest crediting enhancements are permitted. While an illustration may vary based on the cap and floor and non-hedging costs, no variation in the illustration is permitted for differences in asset charges, multipliers, bonuses or other interest-crediting enhancement benefits or costs.

vi.vii. Account charges, other than any charges for interest crediting enhancements, are the highest of any do not exceed the account charges for any corresponding Index Accounts within the policy in any policy year. If Index Accounts with different levels of account charges are offered with the illustrated policy, more than one Benchmark Index Account may be used in determining the maximum illustrated crediting rates for the policy’s Index Accounts, subject to the requirements of 5.D.. However, for each Index Account within the policy, only one Benchmark Index Account shall apply. Any rate calculated in 4 (B) shall not apply for an Index Account if the account charges for the applicable
Benchmark Index Account exceed the account charges for that Index Account in any policy year. Account charges include all charges applicable to an Index Account, whether deducted from policy values or from premiums or other amounts transferred into such Index Account.

vii. Additional amounts credited are not less than the additional amounts credited for any corresponding Index Accounts within the policy in any policy year. Any rate calculated in 4 (B) shall not apply for an Index Account if the additional amounts credited for the applicable Benchmark Index Account are less than the additional amounts credited for that Index Account in any policy year. Additional amounts include all credits that increase policy values, including but not limited to experience refunds or bonuses.

viii. There are no limitations on the portion of account value allocated to the account
Comments of the Center for Economic Justice

to the
NAIC Life Insurance and Annuities (A) Committee

In Support of LATF-Adopted Revisions to AG 49 to
Create Consistent Consumer Protections for Indexed Universal Life Illustrations

December 9, 2016

Summary of Comments

The Center for Economic Justice (CEJ) supports adoption by the A Committee of the LATF-adopted changes in Actuarial Guideline 49 (AG 49) to apply the requirements of Sections 4 and 5 of AG 49 to indexed universal life (IUL) illustrations for new business and in-force policies on or after the effective date. These changes create consistent consumer protections by applying the AG49 protections for non-guaranteed crediting rates in IUL illustrations to avoid unreasonable and unrealistic illustrations. The changes also promote efficiency and cost-savings for insurers and regulatory oversight. The arguments against the proposed change – “retroactive application” and “consumer confusion” – are glaringly inaccurate, without any evidentiary support, highly illogical and profoundly anti-consumer.

CEJ urges a change in the effective date to March 1, 2017. The proposed effective date of July 1, 2017 is much longer than needed for industry to implement this needed consumer protection for updated illustrations for in-force policies. AG 49 has been effective for new business for over a year which means that the industry has the infrastructure in place to produce AG49-compliant crediting rates. There is no need to provide industry with over six months lead time simply to utilize a crediting rate based on a methodology industry is already using. Delaying the implementation date to July 1, 2017 extends the period in which existing IUL policyholders may continue to receive updated illustrations with unreasonable and unrealistic illustrations.
Discussion

The purpose of AG 49 is to protect consumers from the use of unrealistic non-guaranteed crediting (interest) rates in illustrations for indexed universal life insurance. AG 49 was developed and adopted on an expedited basis to stop the use of abusive and unreasonable projected returns for the policy. It is useful to recall the purpose of AG 49 – a fundamental consumer protection guideline to ensure consumers presented with IUL illustrations received useful information to assist in their decision-making.

Because of the expedited nature of the development and adoption of AG 49, LATF committed to the Life A Committee to continue work on AG 49 after initial adoption to address ongoing issues. One of those issues is now before LATF – whether to apply the non-guaranteed illustration crediting rate calculation and capping requirements of Sections 4 and 5 of AG 49 to all illustrations on or after a future effective date. Stated differently, the proposal is to apply the crediting rate requirements of AG 49 for both new business illustrations and for updated illustrations on or after the effective date for in force policies.

It is important to state clearly what the proposed change is not doing – the proposal will not require revision of an illustration provided prior to the effective date.

It is also important to be clear what aspect of an IUL illustration is affected by this change – the crediting rate and the methodology for the illustrating insurer to calculate the crediting rate for the non-guaranteed scale. The proposal does not change any aspect of the IUL policy. The proposed change may impact the crediting rate the insurer uses for an updated illustration – in those instances in which the crediting rate would be higher than permitted by AG 49.

A crediting rate for the non-guaranteed scale of an illustration is already subject to change. The crediting rate for an updated illustration for an in-force policy may change from the crediting rate used in a prior illustration under pre-AG 49 methodologies because the performance of the underlying index has changed. ACLI has confirmed this during the August 2016 LATF meeting in San Diego, explaining that an insurer offering an illustration for a replacement policy will use the same crediting rate assumptions for an updated illustration of the existing policy as used for the replacement policy illustration to ensure a fair comparison of the products. Changing the crediting rate in an updated illustration from that used in a prior illustration is neither a retroactive change to the existing policy or a structurally-difficult endeavor for insurers.
The benefits of the proposed change are many and obvious:

1. Consistent consumer protection

   The proposal will ensure consistent consumer protection regarding crediting rates for the non-guaranteed illustration by applying AG 49 to all illustrations on or after the effective date – regardless of whether that illustration is for new business or an updated illustration of an in-force policy. It would be illogical to provide different consumer protection for two consumers evaluating the same policy, but differing only by a few months in the date of purchase.

2. Better information for consumers reviewing their IUL products

   As discussed above, the purpose of AG49 was to stop the use of unrealistic and unreasonable crediting rates for illustrations of future earnings with an IUL policy. The application of AG49 requirements for the development of a maximum crediting rate provides consumers with better information and, consequently, empowers consumers to make better decisions for themselves.

3. Easier and less costly compliance for insurers

   Under the current AG49, an insurer must calculate AG49-compliant crediting rates for new business IUL policies on or after September 1, 2015. But AG49 does not currently apply to updated illustrations on IUL policies issued before September 1, 2015. This means that insurers must maintain and utilize the non AG 49 compliant crediting rate methodologies and be able to demonstrate to regulators which of perhaps many methodologies were used in calculating the crediting rate for illustrations on or after September 1, 2015 depending on when the policy was issued. Clearly, it will be far easier for insurers to maintain compliance with a single set of requirements for crediting rate methodologies on or after an effective date than to maintain compliance for multiple methodologies.

4. Easier and less costly oversight for regulators

   The same logic applies to ease of regulatory oversight of crediting rate methodologies and calculations as for insurer compliance. It will be far easier – and, consequently, less costly for regulators and insurers – to have a single set of requirements for crediting rate methodology and calculations on or after the effective date.
The arguments against the proposal are without merit and include the following:

1. “Retroactive application of a rule or regulation”

Some industry commenters claim the proposal is an impermissible retroactive change to a contract. This is clearly incorrect. The proposed change to AG 49 will not change any contractual feature of an existing IUL policy. Opponents of the proposal have not – and cannot – point to any contractual feature of the IUL policy that would be “retroactively” changed by the proposed change to AG 49.

We suggest that it is an abuse of process at LATF for opponents of the proposed change to AG 49 to claim “retroactive” application and seek to delay a LATF decision by demanding NAIC legal review without identification of any contract feature that could be changed by the proposal.

2. “Consumer confusion”

Opponents of the proposed change have claimed that consumers will be confused if they receive an updated illustration with a lower, more realistic crediting rate for the non-guaranteed scale illustration. Putting aside that, despite months of opportunity to support this claim, no evidence – or logic – has been presented in support of this claim of consumer confusion.

We assert that the claim of consumer confusion is patently absurd – that a consumer who purchased an IUL policy with unrealistically-high crediting rates for the non-guaranteed scale illustration acted rationally – despite bad information – and these same consumers when presented with more realistic information – better information for an informed evaluation – will become irrational and make bad decisions with their policies. This argument is profoundly anti-consumer – asserting that consumers are better off without the illustration protections of AG 49.

The logical extension of the opponents’ “consumer confusion” argument – that when provided more realistic non-guaranteed illustrations, the consumer will irrationally replace the IUL policy – is that consumers are better off continuing to get unrealistic illustrations and be surprised to learn that they have to pay additional premiums because the policy did not perform as illustrated. Surely, consumers are in a better position to discuss these issues with their producer or insurer based on realistic illustration than to be surprised.
Finally, we note that “consumer confusion” argument is based on the premise that when faced with AG49 compliant non-guaranteed crediting rates, consumers will react by cancelling or replacing their policies. Yet, opponents offer no evidence to support this claim. The available evidence suggests this will not be the case. If opponents were correct, then we would have expected to see a sharp drop in IUL sales following implementation of AG49. That has not occurred. According to a company that tracks IUL sales, IUL sales have remained strong since AG49 became effective at the end of third quarter of 2015:

Third quarter indexed universal life (IUL) sales were $452.9 million, compared with sales of $478.6 million for the third quarter of 2015. When evaluating third quarter IUL sales, results were up nearly 3.0% when compared with the previous quarter, and down over 5.0% when compared to the same period last year. “It is amazing to see that indexed life sales continue to thrive in a post-AG49 environment,” professed Sheryl J. Moore, President and CEO of both Moore Market Intelligence and Wink, Inc. She added “This is the second-largest third quarter sales have been, in the history of the product line. IUL continues to thrive!”

The 2016Q3 results are not an aberration. Wink reported the following for 2016Q2 sales:

Second quarter indexed universal life (IUL) sales were $441.0 million, compared with sales of $458.0 million for the second quarter of 2015. When evaluating second quarter IUL sales, results were up over 2.0% when compared with the previous quarter, and down nearly 4.0% when compared to the same period last year. “Many projected that AG49 would not only limit illustrated rates on indexed life, but that it would kill the product line,” protested Sheryl J. Moore, President and CEO of both Moore Market Intelligence and Wink, Inc. She added “Not if the IUL industry has anything to do with it! Sales are already nearly at 2015’s levels, before the regulation took effect.”

In summary, the “consumer confusion” argument is without empirical or logical support and must not be a reason to stop this important consumer protection.

3. “Conflict with another NAIC model”

During the October 20, 2016 LATF call, one LATF member asked if the proposed change to AG49 creates conflicts for producers in the Life Insurance and Annuities Replacement Model Regulation. We would again suggest that it is an abuse of process at LATF to broadly suggest conflict with other rules or statutes without referencing some specific “conflict.” Nevertheless, we have reviewed the model in question and find no reference to any requirements for the crediting rate for the non-guaranteed scale in an updated illustration for the existing policy. For example, the model defines “policy summary” for universal life insurance products:

1 “WINK releases third quarter 2016 indexed life sales.”
For universal life policies, means a written statement that shall contain at least the following information: the beginning and end date of the current report period; the policy value at the end of the previous report period and at the end of the current report period; the total amounts that have been credited or debited to the policy value during the current report period identifying each by type (e.g., interest, mortality, expense and riders); the current death benefit at the end of the current period on each life covered by the policy; the net cash surrender value of the policy as of the end of the current period; and the amount of outstanding loans, if any, as of the end of the current report period.

As for alleged problems or conflicts for the producer, there are none. Section 4A states:

A producer who initiates an application shall submit to the insurer, with or as part of the application, a statement signed by both the applicant and the producer as to whether the applicant has existing policies or contracts.

If the answer is yes, then the producer and applicant must sign a disclosure described in Appendix A of the model. That disclosure includes the following:

Make sure you know the facts. Contact your existing company or its agent for information about the old policy or contract. If you request one, an in-force illustration, policy summary or available disclosure documents must be sent to you by the existing insurer.

Clearly, the consumer protections of AG 49 applied to an in-force illustration, as referenced in the paragraph above, is consistent with the purposes of the replacement model regulation and with consumer protection, generally.

Effective Date

CEJ urges a change in the effective date to March 1, 2017. The proposed effective date of July 1, 2017 is much longer than needed for industry to implement this needed consumer protection for updated illustrations for in-force policies. AG 49 has been effective for new business for over a year which means that the industry has the infrastructure in place to produce AG49-compliant credit rates. There is no need to provide industry with over six months lead time simply to utilize a crediting rate based on a methodology industry is already using. Delaying the implementation date to July 1, 2017 extends the period in which existing IUL policyholders may continue to receive update illustrations with unreasonable and unrealistic illustrations.
Comments of the Center for Economic Justice

to the NAIC IUL Illustration (A) Subgroup

Amending the Effective Date Provision of AG 49

July 31, 2016

The Center for Economic Justice submits the following comments regarding the effective date provisions of AG 49.

When originally adopted by LATF, AG 49 staggered implementation by phasing in the requirements for the “illustrated scale” and the “disciplined scale,” effective September 15, 2015, and, then later, requirements for policy loan illustrations and additional standards, effective March 1, 2016. The actuarial guideline applies the requirements to policies sold on or after these dates and not to policies in-force on or after these dates.

CEJ urges the effective date provisions be changed deleting the word “sold” as follows:

1. Effective Date

   This Actuarial Guideline shall be effective for all new business and in force life insurance illustrations on or after September 1, 2016, as follows:

   i. Sections 4 and 5 shall be effective for all new business and in force life insurance illustrations on policies sold on or after September 1, 2015.

   ii. Sections 6 and 7 shall be effective for all new business and in force life insurance illustrations on policies sold on or after March 1, 2016.

   Since March 1, 2016 has come and gone, there is no longer a need for two effective dates and setting the date into the near future will reduce confusion without harming consumer protection.

   The effect of this change is that all illustrations produced after the effective dates will be subject to the consumer protections of AG 49. Under the current language, illustrations produced after the effective dates for policies sold prior to the effective date are not subject to the guideline. There are several compelling reasons for this change.
1. **Consistent consumer protections for all IUL illustrations after the effective dates.** Under the current language some consumers receiving new illustrations will receive protection against inflated and misleading crediting rates while other consumers will not. For example, assume two consumers with the identical IUL policy. One purchased the policy (“was sold”) on July 1, 2015 and the other purchase the policy on October 1, 2015. Both consumers request an update illustration in July 2016. The first consumer continues to get an illustration without the AG 49 protections while the second consumer does receive the protection – even though both are receiving an illustration of the same policy on the same day. This is unfair, deceptive and misleading to the first consumer.

2. **The proposed change is not a retroactive change to the policy.** The proposed change has no impact on illustrations already provided to the consumer – only to illustrations provided after the proposed change to remove “sold” is enacted.

3. **The proposed change will reduce illustration expenses for insurers.** Under the current guideline, the insurer must maintain at least two methods of calculating the crediting rates used in the illustrations and the documentation to support the two or more methods. Under the proposed change, the insurer will only need to maintain the AG-49 compliant method of calculating crediting rates and associated documentation for that one method.

4. **The proposed change will simplify regulatory oversight of illustration crediting rates.** Under the current guideline, market conduct regulators will need to examine multiple crediting calculation methods for illustrations after the effective date because the crediting calculations will vary on current illustrations depending on when the policy was sold. The proposed change will greatly simplify market regulation review of compliance with AG 49.

5. **The proposed change will simplify the implementation of the recent changes to AG 49 regarding multiple scales within a policy.** The changes to AG 49, adopted this year, did not include any effective date changes to AG 49 or effective dates specific to the changed provisions. The result is that AG 49 will provide guidance applicable to policies sold between 2015 and 2016, but before the guidance was adopted in 2016. Our proposed changes to the effective date provision eliminate this issue because AG 49 will apply – in its entirety – to new illustrations regardless of the sold-by date.

During an earlier meeting in which the effective date issue was discussed, an industry representative suggested, among other things, that LATF should consider the impact on insurer solvency resulting from policyholder behavior significantly different than originally estimated if the proposed change in the effective date provision was enacted. The comment was startling, as it implied that illustrations under AG 49 would be so radically different for policyholders sold IUL policies before the effective date that large numbers of policyholders would now drop their policies. If this is true, the consumer protection afforded by the proposed change is hugely important to allow consumers to make informed decisions based on reasonable and not misleading information.
Supplemental Comments of the Center for Economic Justice

to the NAIC IUL Illustration (A) Subgroup

Amending the Effective Date Provision of AG 49

August 19, 2016

The Center for Economic Justice submits the following responses to the comments submitted by ACLI, AAA and ALIA regarding the effective date provisions of AG 49.

CEJ supports application of AG 49 for illustrations provided for new and in-force policies as set out in our July 31, 2016 letter. We suggested the following revision to the Effective Date section:

1. Effective Date

   This Actuarial Guideline shall be effective for all new business and in force life insurance illustrations on or after September 1, 2016, as follows:

   i. Sections 4 and 5 shall be effective for all new business and in-force life insurance illustrations on policies sold on or after September 1, 2015.

   ii. Sections 6 and 7 shall be effective for all new business and in-force life insurance illustrations on policies sold on or after March 1, 2016.

The proposed language makes clear that previously-provided illustrations are not implicated by the guideline nor is there a requirement to re-issue an illustration. The effect of this change is that all illustrations produced after the effective dates will be subject to the consumer protections of AG 49.

ALIA and ACLI: “Retroactive” Application

The ACLI and ALIA mischaracterize the proposed change as “retroactive” application of the guideline to existing policies and then criticize their mischaracterization as “unprecedented.” The proposal is not “retroactive” application. The proposed change will not require any insurer to revise or replace any illustration provided before the effective date. Rather, the proposed change applies to all illustrations provided on or after the effective date and, consequently, will not impact previously-issued illustrations.
AAA, ACLI and ALIA: “Confusion for Consumers”

The purpose of AG49 is to ensure the use of reasonable – and not unrealistic – crediting rates for IUL illustrations. The basic premise behind the “consumer will be confused” comment is bizarre: When presented with an updated illustration showing a lower illustrated crediting rate, consumers will be confused because the crediting rate has gone down. Given that even under pre-AG49 credit rate methodologies the crediting rate can change over time, it is unclear why an updated illustration with a lower crediting rate will confuse consumers. More importantly, it is absurd to argue that consumers should continue to receive illustrations with unrealistic crediting rates because providing the realistic illustrated crediting rate – necessary for a rational consumer to make an informed judgment – will somehow confuse the consumer.

The ALIA comments raise concern about IUL sales and the role of illustrations. ALIA writes:

We are very concerned about the negative impact on existing policyholders. Policyholders with in-force policies that were previously illustrated at a higher rate than the AG 49 maximum would be required to be informed that a reduced rate for their in-force projections must now be used. For example, a policyholder that had received an illustration using a rate of 7% would be told that the premium to achieve their objective must be increased because the carrier is now required to impose a maximum illustration rate of 6%. That policyholder would also be told that a premium increase will be necessary to meet their goals - even if the actual experienced performance to date was better than the originally illustrated 7%.

First, a consumer with a policy issued before the effective date would receive an updated illustration either because of a request by the consumer or because the insurer already periodically provides updated illustrations to the policyholder. There is no requirement to inform policyholders “that a reduced rate for their in-force projects must now be used.” If the consumer does request or receive an updated illustration with a significantly-lower illustrated crediting rate, it is reasonable for the consumer to ask why illustrated crediting rate has changed. A reasonable response by the insurer would be: Insurance regulators were concerned about unrealistic crediting rates used for illustrations and have established guidelines for insurers to use more realistic crediting rates. The new crediting rates were developed using the new guidelines established by regulators.”

Second, the example provided by ALIA indicates that premium charges are based on illustrated crediting rates and that changes in illustrated crediting rates will alter the premium requirements of the insurer. If this is the case, there are far bigger problems with IULs than simply inflated crediting rates. But, if ALIA has accurately explained the role of illustrated crediting rates in determining IUL premiums, then it is even more important for a consumer to receive updated illustrations with realistic crediting rate illustrations.
ACLI also asserts consumers will be confused, though offers no evidence or logic for the assertion. ACLI writes:

Providing an illustration on a different basis than prior illustrations can cause confusion and will give the perception that the product has changed, or is not the same as was originally sold, even if the product has had no changes. Such confusion could provide improper incentive for lapse or replacement.

As noted above, updated illustrations may contain a different illustrated crediting rate than the one used in the original illustration even using the insurer’s pre-AG 49 methodology because the performance of the index has changed. But, the ACLI comment implies that a consumer who purchased a policy with an unrealistic illustrated credit rate was rational and not confused, but a consumer presented with an illustration using a realistic crediting rate would become hapless, confused and irrational. At best, the ACLI proposition is illogical. At worse, it is a cynical effort to prevent consumers from having the accurate information needed to make an informed decision.

ACLI has provided no empirical evidence or academic research for either the “consumers will be confused” argument or its assertion that AG 49 was only intended for pre-sale illustrations and “will have limited impact” in post-sale illustrations. ACLI’s argument is contradictory – on the one hand, application of AG 49 to updated illustrations will have limited impact, but, on the other hand, it will lead consumers to irrationally abandon policies. The reasoning for applying AG 49 requirements consistently to all illustrations issued on or after an effective date is clear – regardless of whether the illustration is pre-sale or post-sale, regardless of whether a consumer is using the illustration to decide on purchasing a new policy or evaluating the suitability of an existing policy, the consumer will receive the most realistic information needed to make an informed decision.

AAA also asserts consumer confusion without any empirical support for the claim. AAA writes:

Changing the format, content, and disciplined current scale from previous illustrations may cause confusion for consumers, since the perception could be that the policy’s nonguaranteed elements have changed when, in fact, they have not. As a result, customers could react in ways that may not be in their best interest.

As with ACLI and ALIA, the AAA comments are premised on the assertion that the prior illustration was crystal clear and the consumer was sufficiently informed to make an informed and rational decision, but presented with more realistic illustrated crediting rates and clearer content and format, this same consumer will transmogrify into an irrational, confused being. Whatever the degree of rationality exhibited by a consumer, we find no excuse for continuing to use unrealistic crediting rates for IUL illustrations.
ACLI: “Industry Expenses”

ACLI writes:

Illustration systems are often developed specific to the product. Once that product is no longer being sold, those systems are no longer actively maintained. Being required to modify numerous systems that have been set aside, for a very limited purpose, with no demonstrated benefits seems to be a waste of industry resources.

The ACLI comment implies that once a product is no longer sold, the insurer no longer maintains the system that generated the illustrations for that product. This seems implausible because, if true, an insurer would not be able to provide updated illustrations requested by consumers for IULs continuing in force after product sales ended. The comment is also inconsistent with the prior ACLI comment about illustrations for replacements.

As set out in our July 31, 2016 comments and the AAA comment letter, applying AG 49 to all illustrations for sales and in-force policies issued on or after a future effective date will clearly reduce insurer costs by eliminating the need to maintaining multiple illustration systems and reduce compliance costs for insurers and regulators.

In summary, the arguments against the proposal to revise the Effective Date section of AG 49 are without empirical support or logic.
Supplemental Comments of the Center for Economic Justice
to the NAIC IUL Illustration (A) Subgroup

Amending the Effective Date Provision of AG 49

October 10, 2016

The Center for Economic Justice (CEJ) submits additional analysis in support of the proposal to revise AG 49 to require AG 49-compliant interest rates be used for all illustrations on or after the effective date.

The arguments in favor of the change, submitted by CEJ, AXA and the AAA include: ¹

- Consistent application of the consumer protection of AG 49 for all consumer receiving an illustration on or after the effective date;
- Realistic illustrated interest rates for consumers receiving an updated illustration for a policy issued before the effective date;
- Ease of compliance for insurers and regulatory oversight by regulators compared to; a system of multiple interest rate regimes depending upon the date of policy issuance;
- Reduced expenses for insurers from elimination of multiple systems of interest rate calculations.

The arguments against the change, submitted by ACLI, AAA and ALIA include: ²

- Confusion for consumers receiving an updated illustration;
- More expenses for insurers to maintain multiple systems.

During the discussion of AG 49 at the LATF meeting in San Diego, both arguments in opposition were shown to be without merit.

Regarding expenses, ACLI admitted their argument was untrue. ACLI originally asserted: ³

Illustration systems are often developed specific to the product. Once that product is no longer being sold, those systems are no longer actively maintained. Being required to modify numerous systems that have been set aside, for a very limited purpose, with no demonstrated benefits seems to be a waste of industry resources.

¹ AXA letter of July 31, 2016; AAA letter of August 1, 2016, CEJ letters of July 31, 2016 and August 19, 2016
³ ACLI letter of July 31, 2016
During the LATF discussion in San Diego, however, ACLI admitted this claim had no merit. When asked about interest rates used for illustration in a replacement scenario, ACLI explained that the same interest rate was used for the replacement policy illustration and the existing policy updated illustration.

When asked about illustrations used for replacements, ACLI said:\(^4\)

> an inforce illustration is used to either review a policy’s performance or to compare against another policy in a replacement situation. He said that, in a replacement situation, the inforce illustration and the illustration for the proposed replacement product both use the same specified interest rates.

Clearly, if the insurer can utilize the same interest rate for a current (prospective) replacement policy illustration as for the existing policy illustration, the insurer has the ability to use an interest rate compliant with AG 49 for updated illustrations of policies issued before the effective date. The original ACLI argument about alleged expenses associated “modifying numerous systems that have been set aside” is without merit.

Regarding alleged confusion among consumers, neither ACLI, AAA nor ALIA offered any empirical evidence to support their consumer confusion claim. While this consumer confusion claim is without merit on its face – somehow a consumer faced with a realistic interest rate in an illustration will be confused while a consumer faced with an unrealistic interest rate would be rational – ACLI, again, contradicted its original argument during the LATF meeting.

ACLI stated that during a replacement scenario, the same interest rate was used for the replacement policy illustration and the existing policy updated illustration. Consequently, industry practice, according to the ACLI, contradicts ACLI’s claim that using a different interest rate in an updated illustration than in the original illustration or using an interest rate compliant with AG 49 rather than an interest rate produced by the original pre-AG 49 methodology is “confusing” to consumers.

In conclusion, the arguments against applying Sections 4 and 5 to all illustrations on or after the effective date have been shown to be without merit. We urge LATF to revise AG 49 to make this important and overdue change to AG 49.

\(^4\) Draft Minutes of August 24-25, 2016 LATF meeting
November 12, 2019

Mr. Fred Andersen  
Chair, NAIC IUL Illustration (A) Subgroup  
Mr. Reggie Mazyck  
Life Actuary, NAIC

Re: Questions on IUL Illustrations

Dear Mr. Andersen and Mr. Mazyck,

Global Atlantic Financial Group, and Accordia Life and Annuity Company, appreciate the continued efforts of the IUL Illustrations Subgroup regarding the illustrations of Indexed Universal Life (IUL) products under Actuarial Guideline 49 (AG49), including the most recent exposure draft released on November 1, 2019. We look forward to continued engagement on this topic in the future.

Our March 8, 2019 comment letter recommended the following key areas of focus for any AG49 update:

1. The use of leverage via implied or explicit additional charges to the policy owner,
2. How the value of leverage is illustrated, and
3. How the outcome of leverage flows into illustrations that use participating loans.

We are pleased that the proposed changes to AG49 focus on these key areas and our comments below pertain to the questions asked with the November 1, 2019 exposure draft release. The proposed changes address a complex topic. Before adopting any changes, we encourage additional time be taken to both fully understand the issues and thoroughly vet the proposed updates.

**Should the effective date for new policies be the later of 5 months after LATF adoption or 3 months after NAIC Executive/Plenary adoption?**

An effective date corresponding to the later of 5 months after LATF adoption or 3 months after NAIC Executive/Plenary adoption is acceptable provided the version approved is materially consistent with current drafts. If substantial changes are made, additional time may be needed to effect the changes within illustration systems.

**Should the revised guidelines be in place for inforce illustrations for policies sold before the effective date for new policies?**

We support making the revised guidelines applicable for inforce policies sold before the effective date for new policies, assuming sufficient time is provided to implement the changes within inforce illustration systems. While requiring such policies to illustrate per the new guidelines may create confusion in some instances, having some IUL policies illustrate differently than other IUL policies due to their issue date can cause confusion for policyholders who look to compare policies with issue dates before and after adoption of the rule changes. Having the updated guidelines applicable to
all IUL brings uniform practice, a goal of AG49. We therefore recommend applicability to all inforce policies.

**Does the approach of having the disciplined current scale earned rate including or excluding the Supplemental Option Budget lead to the result of the multiplier product illustrating about the same as a non-multiplier product?**

For a result of multiplier products illustrating about the same as non-multiplier products, attention must be given to each of Sections 3, 4, 5 and 6. For this result within the disciplined current scale earned rate, the return on the Supplemental Option Budget, not its inclusion or exclusion, is required.

**If neither of the approaches mentioned in 3a leads to this result, is there an alternative approach that leads to this result such as providing explicit guidance in Section 4?**

As indicated above, each of Sections 3, 4, 5 and 6 must be considered to enact this result. We believe further improvements to the currently exposed draft are needed to meet the goal while at the same time eliminating unintended consequences and ambiguity.

Ambiguity is created due to Section 4.E of the current draft. Section 3.C.vi provides for multiple Benchmark Index Accounts due to different levels of account charges. Sections 4.A and 4.B provide for separate maximum crediting rates for each benchmark account. These account charges seem to meet the definition of a Supplemental Option Budget. The maximum illustrated rate per Section 4.E’s use of the Supplemental Option Budget does not seem to align with that of Sections 4.A and 4.B, thereby creating ambiguity that needs to be addressed.

Unintended consequences are created due to Section 6.B. Consider a loan interest rate of 4%. The total index credits cannot exceed 5%. Products may have a Supplemental Option Budget of 150bps. In this scenario, limiting the total index credits to 5% would result in a 3.5% net credited rate after the account charge. 100bp of loan leverage allowed for non-multiplier products is not available per the proposed wording for a multiplier product. The goal is to illustrate the same, yet the current draft exposure has the unintended consequence of disadvantaging multiplier products.

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Thomas A. Doruska
Head of Life Product Development

David P. Wilken
President, Life
November 13, 2019

Fred Andersen
Chief Life Actuary
Minnesota Department of Commerce
Chair, NAIC IUL Illustration (A) Subgroup

Re: Comments to Exposure Questions 3a & 3b Regarding Actuarial Guideline 49

Fred:

This letter represents a joint response submitted on behalf of the following companies (the “Ad Hoc IUL Coalition”) responses to Questions 3a and 3b that were exposed on November 1, 2019.

Pacific Life
Lincoln Financial
Sammons Financial Group
John Hancock
National Life Group
Securian Financial

We appreciate the opportunity to provide the IUL Illustration Subgroup with our comments to these questions.

3a. Does the approach of having the disciplined current scale earned rate including or excluding the Supplemental Option Budget lead to the result of the multiplier product illustrating about the same as a non-multiplier product?

The self and lapse support tests require a comparison of accumulated policy cash flows to policyholder value (i.e. cash surrender value). The example below demonstrates the cash flows related to the index accounts that should be reflected in the self and lapse support tests. The example assumes that the
supplemental option budget is a negative cash flow when the options are purchased. The example
demonstrates that the return from the supplemental option budget (assumed to be equal to the cost) must
be included as a cash flow to offset the cost. Including this cash flow results in the policy cash flows
growing by the same amount as the cash value of the policy. If the return from the supplemental option
budget is not included as a cash flow, then the cash value grows by more than the policy cash flows,
resulting in a multiplier product illustrating worse than a non-multiplier product.

**Assumptions**
Annual net investment earnings rate = Base account option budget = 4.5%
Base account option budget = 4.5%
Base account option return = 1.45 * 4.5% = 6.525%
Multiplier = 25%
Supplemental option budget = Base account option budget * multiplier = 4.5% * 25% = 1.125%
Supplemental option budget return = 1 * 1.125% = 1.125%
Account value charge to support multiplier = 1.125%

Scenario 1 - No multiplier, no Supplemental option budget
Scenario 2 - 25% Multiplier, Supplemental Option Budget = 1.125%, Supplemental option return included = 1.125%
Scenario 3 - 25% Multiplier, Supplemental Option Budget = 1.125%, Supplemental option return not included = 0%

<table>
<thead>
<tr>
<th>Scenario</th>
<th>1</th>
<th>2</th>
<th>3</th>
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</thead>
<tbody>
<tr>
<td>Multiplier</td>
<td>0%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Supplemental Option Budget return included in cash flows</td>
<td>n/a</td>
<td>Yes</td>
<td>No</td>
</tr>
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**Policy cash flows**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
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<tbody>
<tr>
<td>Annual net investment earnings rate</td>
<td>4.500%</td>
<td>4.500%</td>
<td>4.500%</td>
</tr>
<tr>
<td>Base account option budget</td>
<td>-4.500%</td>
<td>-4.500%</td>
<td>-4.500%</td>
</tr>
<tr>
<td>Base account option return</td>
<td>6.525%</td>
<td>6.525%</td>
<td>6.525%</td>
</tr>
<tr>
<td>Supplemental Option Budget</td>
<td>0.000%</td>
<td>-1.125%</td>
<td>-1.125%</td>
</tr>
<tr>
<td>Supplemental option budget return</td>
<td>0.000%</td>
<td>1.125%</td>
<td>0.000%</td>
</tr>
<tr>
<td><strong>Net impact on policy cash flows</strong></td>
<td><strong>6.525%</strong></td>
<td><strong>6.525%</strong></td>
<td><strong>5.400%</strong></td>
</tr>
</tbody>
</table>

**Policy cash surrender value**

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<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assumed annual index interest credited rate</td>
<td>6.525%</td>
<td>7.650%</td>
<td>7.650%</td>
</tr>
<tr>
<td>Account value charge to support multiplier</td>
<td>0.000%</td>
<td>-1.125%</td>
<td>-1.125%</td>
</tr>
<tr>
<td><strong>Net impact on policy cash surrender value</strong></td>
<td><strong>6.525%</strong></td>
<td><strong>6.525%</strong></td>
<td><strong>6.525%</strong></td>
</tr>
</tbody>
</table>

Regarding the question of including the supplemental option budget in the DCS earned rate, we believe
that clarity is needed in the Section 5A of the guideline. One interpretation is that the supplemental option
budget return should be included as part of the earned rate underlying the DCS. Another interpretation is
that the return from the supplemental option budget is simply a return of the hedge cost and should not
increase the earned rate. The example below demonstrates this alternative interpretation. A solution may
be to clearly describe how the hedge return is to be included in the testing and whether it should be part

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of the earned rate. If it is not part of the earned rate, the guideline should specify how the hedge return is incorporated in the testing.

**Alternative Interpretation:**

In calculating the net earned rate, the excess of the Hedge Proceeds over the Hedge Cost is added to Investment Income.

Net Earned Rate = Annual Net Investment Earnings Rate + Gain From Hedges.

In Scenario 1 (no Multiplier), the Hedge Payout is 6.525%, and the Hedge Cost is 4.500%.

Net Earned Rate = 4.500% + (6.525% - 4.500%) = 6.525%

This is the same answer as above.

In Scenarios 2 and 3 (Multiplier), the Total Hedge Payout is (6.525% + 1.125%) for 7.650%, and the Total Hedge Cost is (4.500% + 1.125%) for 5.625%

Net Earned Rate = 4.500% + (7.650% - 5.625%) = 6.525%

As the cost of the hedge purchased with the Supplemental Option Budget is clearly deducted in the determination of the Net Earned Rate, the definition of the Maximum Earned Rate need only consider the Gain from this hedge, which is 0% *1.125%.

This approach assumes that the cost of the supplemental option budget is not a negative cash flow in the accumulation of policy cash flows.

If the cost of the hedge purchased with the Supplemental Option Budget were somehow not considered to represent a reduction in Investment Income, then the definition of the Maximum Earned Rate would need to include the full Supplemental Option Budget.

In this case, the "Net Earned Rate" would be 7.650% if we exclude the cost of the hedge purchased with the Supplemental Option Budget but include the cost of the hedge purchased with the Basic Option Budget.

This approach assumes that the cost of the supplemental option budget is a negative cash flow in the accumulation of policy cash flows.
3b. If neither of the approaches mentioned in 3a leads to this result, is there an alternative approach that leads to this result such as providing explicit guidance in Section 4?

Given the uncertainty over how Section 5A of the guideline is to be interpreted we are not prepared to say at this time whether an alternative approach is needed. Following clarification of our questions regarding interpretation we will consider whether further response to this question is required.

Respectfully Submitted,

Scott R. Harrison
Harrison Law Office, P.C.

cc: Reggie Mazyck, NAIC
November 12, 2019

Fred Andersen
Chief Life Actuary
Minnesota Department of Commerce
Chair, NAIC IUL Illustration (A) Subgroup

Re: Comments to Exposure Questions 1 & 2 Regarding Actuarial Guideline 49

Fred:

This letter is submitted on behalf of the following companies (“the Coalition”).

Lincoln Financial Group
Pacific Life
Sammons Financial Group
John Hancock Insurance

This letter serves as our response to questions 1 & 2 as set forth in the IUL Illustration Subgroup’s November 1, 2019 exposure. Our comments to questions 3a and 3b are contained in a separate letter submitted on behalf of an Ad Hoc Coalition of companies that formed to address those particular items.

We appreciate the opportunity to provide the Subgroup with our views on the November 1 exposure questions. We also appreciate the Subgroup’s recognition of the complexities associated with the proposed changes to AG 49 and the need for a timetable that allows sufficient opportunity for thoughtful review and analysis of proposed changes.
1. **Should the effective date for new policies be the later of five months after LATF adoption or three months after NAIC Executive/Plenary adoption?**

The exposure question contemplates that companies will need at least five months to implement the final changes to AG49 for new policies. We agree. Based upon our companies’ experience with the time and effort involved with making changes to policy illustration systems and related business processes, five months is a reasonable timeframe.

The question also contemplates that the implementation timeline could begin tolling before revisions are reviewed by the Life Insurance and Annuities (A) Committee and before final adoption by NAIC Exec/Plenary. The Coalition believes that the NAIC review and approval procedure for guidelines and models is essential to ensure appropriate input from all States and stakeholders. It is through this process the changes to AG49 will be considered final. Impacted companies will need to know what the final changes are before they can begin to implement them. Since there is a chance that the proposed revisions may not be the ones that are ultimately approved and adopted by the NAIC Executive/Plenary, the Coalition is extremely uncomfortable with any implementation period beginning before the full NAIC has reviewed and approved any changes to AG49.

Nonetheless, the Coalition understands that some regulators have expressed a strong desire to complete this process as soon as possible. The Coalition respectfully requests that should the implementation timeline begin tolling prior to final approval of any revisions by the NAIC Exec/Plenary that it be conditional upon the ability of companies could obtain additional time if needed should the changes to AG49 that are formally adopted by the NAIC differ from LATF’s recommendations.

2. **Should the revised guidelines be in place for inforce illustrations for policies sold before the effective date for new policies?**

As a policy matter the Coalition generally opposes the application to inforce policies of changes to existing regulatory requirements. The decision whether to apply any guideline or model to inforce business is an important policy decision that has broad impacts on consumers, producers, insurance markets, and companies. Applying model or guideline changes to inforce policies should only be done when a clear and compelling consumer benefit can be demonstrated.

No such compelling justification exists here. In fact, requiring companies to provide inforce illustrations to policyholders reflecting the proposed changes to the guideline would frustrate the purpose of the inforce illustration, create significant confusion for policyholders, and could create the conditions for unhealthy market activities such as improper replacements and churning.

Policyholders should have every expectation that inforce illustrations will provide a meaningful, accurate basis for comparison of the policy’s performance against previous illustrations. An inforce illustration serves an entirely different purpose than an illustration provided at the time of sale. With an inforce illustration, the decision to purchase has already been made and the policyowner depends upon inforce illustrations to provide a comparison of how their policy is performing from prior years. Applying the proposed revisions to inforce illustrations would deny
Policyholders critical information about their policy’s performance relative to their expectations at the time of purchase, make meaningful comparisons extremely difficult if not impossible, make premium planning decisions more difficult, and would ensure that consumers receive incomplete and even distorted information. This could also lead to the perception that the underlying product is not performing as described in the illustration provided at the time of sale - when in fact the product mechanics have not changed.

It has been suggested that the 2016 application of the crediting rates to inforce policies under AG 49 serves as precedent for LATF to follow in this instance. We respectfully disagree. The imposition of new limits on crediting rates in 2016 is not an “apples to apples” comparison with the illustration of multipliers. A crediting rate is an input to a product illustration. A multiplier, on the other hand, is an optional product feature that is selected and paid for by the policyholder. A better comparison from AG49 can be found in the treatment of Sections 6 and 7, which were not applied to illustrations of policies issued before AG49’s effective date. The treatment of policy loans is relevant precedent for a different method of illustration for policies issued before a guideline change became effective.

As noted above, applying these proposed changes to inforce policies will result in illustrations that bear little to no resemblance to as-sold illustrations provided by the company. This could incentivize replacement recommendations by those seeking to capitalize on policyholder confusion and frustration. Such replacements may expose consumers to surrender charges, higher cost of insurance rates, and new contestable periods due primarily to a prohibition against generating inforce illustrations on comparable basis as the as-sold illustration.

For each of these reasons the guideline revisions should apply only to policies sold on or after the effective date of any changes.

Thank you again for the opportunity to comment. We appreciate the chance to provide input to the Subgroup and look forward to further discussions.

Respectfully Submitted,

Scott R. Harrison
Harrison Law Office, P.C.

cc: Reggie Mazyck, NAIC
November 12, 2019

Via e mail to Reggie Mazyck (RMazyck@naic.org)

Fred Anderson, Deputy Commissioner of Insurance
Minnesota Department of Commerce
Chair, NAIC IUL Illustration (A) Subgroup

Re: IUL Illustration Subgroup Request for Comments re Proposed Revisions to AG 49

Dear Mr. Anderson:

This letter will provide the comments of the National Association of Insurance and Financial Advisors (NAIFA) regarding the IUL Illustration Subgroup’s request for comments on certain questions relating to IUL illustrations, specifically question 2: “Should the revised guidelines be in place for inforce illustrations for policies sold before the effective date for new policies?”

Founded in 1890 as The National Association of Life Underwriters (NALU), NAIFA is one of the nation’s oldest and largest associations representing the interests of insurance professionals from every Congressional district in the United States. NAIFA members assist consumers by focusing their practices on one or more of the following: life insurance and annuities, health insurance and employee benefits, multiline, and financial advising and investments. NAIFA’s mission is to advocate for a positive legislative and regulatory environment, enhance business and professional skills, and promote the ethical conduct of its members.

As a general matter, NAFIA opposes the retroactive application of laws and regulations, including NAIC guidelines or models, to existing products. Retroactively
Applying revisions made to NAIC models to enforce business/products is likely to confuse consumers and adversely impact the consumer/producer relationship and should only be considered when very compelling reasons exist.

NAIFA does not see any such compelling reasons in the current matter. If the proposed changes to AG 49 were to be applied retroactively to enforce business, it will result in consumer confusion and make it more difficult for consumers to comprehend how what is already a complex product is performing.

It is important to keep in mind that the AG 49 revisions being considered will only affect how the performance of these products is illustrated and will not change any of the terms or provisions of the IUL policy itself. Explaining to policyholders that there has been no change to the underlying product they purchased but that some of the potential benefits of the product can no longer be illustrated in the manner previously used due to changes in regulatory actuarial guidelines will be an exceedingly difficult task for the producer. Retroactive application is likely to cause confusion, erode the consumer’s confidence in his/her producer and could unfairly damage the reputation of producers who used illustrations that were in compliance with the rules in place at the time of sale.

Furthermore, retroactive application of the proposed AG 49 revisions may lead to the client’s perceiving that the policy is not performing as expected or as described in the original illustration, which could lead to inappropriate and costly surrenders and replacements of products. This would impose unnecessary costs on consumers, because they would be replacing a policy based on revised illustration requirements rather than on actual changes to the product itself.

NAIFA recognizes that regulators have concerns about some features of IUL products are illustrated and that the NAIC is therefore conducting an important review of AG 49. NAIFA members sell a wide variety of life insurance products from a broad range of companies, and NAIFA supports efforts to improve consumer understanding of these products and the important role they can play in financial planning. NAIFA does, however, request that the Subgroup be cognizant of the potential unintended impact that actions being considered by the Subgroup, such as those discussed in this letter, could have on both insurance producers and consumers.
NAIFA appreciates the opportunity to provide input to the Subgroup and thanks you for your work on this issue. If you have any questions, please feel free to contact me at gsanders@naifa.org.

Sincerely,

[Signature]

Gary A. Sanders
Counsel and Vice President, Government Relations
November 13, 2019

Fred Andersen
Chief Life Actuary
Minnesota Department of Commerce
Chair, NAIC IUL Illustration (A) Subgroup

Re: Comments to Exposure Questions Regarding Actuarial Guideline 49

We appreciate the opportunity to comment on the November 1 exposure questions.

**Question 1:** Should the effective date for new policies be the later of five months after LATF adoption or three months after NAIC Executive/Plenary adoption?

Recognizing that regulators have expressed urgency around this change, National Life Group would be supportive of the 5 month/3 month recommendation for the changes that would be required based on the draft updates to AG 49 that have been shared. Additional time may be needed if any modifications are made to the exposure. It's worth noting that beginning implementation after LATF approval, but prior to Executive/Plenary approval, is not typical.

**Question 2:** Should the revised guidelines be in place for inforce illustrations for policies sold before the effective date for new policies?

We recommend not applying revised guidelines to inforce illustrations for policies sold prior to changes made to AG49 language. If the basis of inforce illustrations are changed while the underlying product features have not changed, it could cause undue consumer confusion and disruption. This is consistent with how sections 6 and 7 are handled in the current version of the actuarial guideline for policies sold on or after the effective date.

**Questions 3a/3b:**

3a. Does the approach of having the disciplined current scale earned rate including or excluding the Supplemental Option Budget lead to the result of the multiplier product illustrating about the same as a non-multiplier product?

3b. If neither of the approaches mentioned in 3a leads to this result, is there an alternative approach that leads to this result such as providing explicit guidance in Section 4?

Our understanding of the stated objective is: if a product includes a charge to fund the multiplier, that product should illustrate the same as a comparable product design without a supplemental option budget. To accomplish this, the cost of the hedge should be offset with the hedge payoff. This is to ensure there is no double counting of the supplemental option budget or hedge payoff. In the absence of an explicit charge, the funding for the multiplier could come from the company’s net earned rate and may result in different total index credits.

We look forward to working with the rest of the industry and regulators to further clarify these questions.

Sincerely,

Ata Azarshahi
Mr. Fred Andersen  
Cc: Mr. Reggie Mazyck

Re: The NAIC IUL Illustration (A) Subgroup requested comments by November 12, 2019 on the following questions related to IUL illustrations. We also recommend a change in Section 6B on Policy Loans to more fully limit loan leverage to 100 basis points. We would be happy to discuss any questions you may have.

1. Should the effective date for new policies be the later of 5 months after LATF adoption or 3 months after NAIC Executive/Plenary adoption?

If Actuarial Guideline (AG) 49 is substantially similar to the November 1 version, we support the timeline noted here. If there are significant revisions, then we would like the opportunity to review and may suggest a longer timeline.

2. Should the revised guidelines be in place for inforce illustrations for policies sold before the effective date for new policies?

If the revisions are put in place for inforce policies, we recommend this apply one year after the effective date of the revised AG 49. This would allow time for customer and producer education.

3a. Does the approach of having the disciplined current scale earned rate including or excluding the Supplemental Option Budget lead to the result of the multiplier product illustrating about the same as a non-multiplier product?

The question of whether including or excluding the Supplemental Option Budget from Section 5A will lead to the desired result depends on how a company reflects hedge cash flows in their DCS testing.

Section 3.4.1(a) of Actuarial Standard of Practice 24: Compliance with the NAIC Life Insurance Illustrations Model Regulation states that in DCS testing, "investment return factors may be net of investment expenses or, alternately, investment expenses may be treated separately as expenses.” Below we describe these two methods for determining investment returns in DCS testing for an IUL product, and we show why the Supplemental Option Budget should be excluded from the DCS earned rate using Method 1 but included when using Method 2. We do not think that DCS testing is easier to pass under Method 1 or 2, nor do we think that either method should be preferred over the other.
Method 1: Investment Returns are Net of Investment Expenses

This method recognizes that hedge costs and general account investment earnings in the DCS cash flows approximately offset. Only the net investment return, which is the return from the hedge assets, limited to 145% times the Annual Net Investment Earnings Rate (NIER), is reflected in the DCS cash flows. Under this method, the cost of funding a multiplier is not a negative cash flow in the DCS, so it is not a cost that needs to be offset. For companies that use this method, the supplemental option budget should be excluded from Section 5A.

Maximum Net Investment Return = 145% * NIER

Method 2: Investment Expenses are Treated Separately as Expenses

Under this method, a company reflects both the gross investment returns and the corresponding investment expenses separately. This results in approximately the same net investment return as in Method 1, however there is an explicit negative cash flow to reflect hedge costs. A product with charges used to fund a multiplier will have higher hedge costs than an identical product without charges to fund a multiplier. Since these higher hedge costs are reflected in the DCS cash flows under this method, Section 5A needs a positive adjustment for the Supplemental Option Budget. This will offset the multiplier hedge costs and get to a net result that is neutral between multiplier and non-multiplier products under this interpretation.

Gross Investment Return = Gross Portfolio Earnings + Return from Hedge Assets

Investment Expenses = Core Hedge Costs + Multiplier Hedge Costs
+ Other Investment Expenses & Default Costs

Net Investment Return = Gross Investment Return – Investment Expenses

= NIER + (Return from Hedge Assets – Core Hedge Costs – Multiplier Hedge Costs)
Note: NIER and Core Hedge Costs approximately offset

= Return from Hedge Assets – Multiplier Hedge Costs

Maximum Net Investment Return = 145% * NIER – Multiplier Hedge Costs

Note: Supplemental Option Budget is needed to offset Multiplier Hedge Costs

To accommodate both methods fairly, we suggest that the word “net” be added to the currently proposed wording in 5A as follows: “If an insurer engages in a hedging program for Indexed Credits, the assumed net annual earned rate underlying the disciplined current scale...” Along with this change, we then suggest 5A(iii) read “0% times the Supplemental Option Budget.” We note that Section 5 places limits on DCS testing assumptions and does not directly limit illustrations. However, if allowance is not made appropriately for how multiplier product features can affect DCS testing, it may be more difficult or less difficult to pass DCS testing for products with a multiplier.
3b. If neither of the approaches mentioned in 3a leads to this result, is there an alternative approach that leads to this result such as providing explicit guidance in Section 4?

To limit multipliers in illustrations, Section 4 should be updated in addition to the Section 5 changes suggested above. We would also like to note that much of the discussion and proposed changes to AG 49 have centered around products with charges that are used for multipliers. There are also products with charges that are used to offer a higher cap, and how these will fit into the proposed changes to AG 49 is unclear.

Section 6B. Policy Loans

We suggest that the wording in Section 6B be adjusted as follows:

“If the illustration includes a loan, then the total amount credited as a result of the loan balance, including Indexed Credits and all other illustrated benefits and bonuses that impact the policy’s account value, shall not exceed the sum of explicit illustrated loan charges and asset-based charges applicable to the loan balance by more than 100 basis points.”

Without including “all other illustrated benefits and bonuses that impact the policy’s account value”, an IUL illustration could exceed the 100 basis point limit through other product features. Additionally, we believe that “asset-based charges” should be included to prevent products with a multiplier from illustrating worse than a product without a multiplier.

We view the actions that we have articulated above as being important preliminary steps to apply reasonable limits within IUL illustrations. We also look forward to continuing to work with the NAIC on the more holistic changes that need to be made to illustrations to provide more consumer clarity.

Again, we would welcome the opportunity to discuss our position further with you. I can be reached at (614) 249-5947.

Regards,

Pete Rothermel
VP, CFO – Individual Life
November 12, 2019

Filed Electronically

Fred Andersen
Chair, IUL Illustration (A) Subgroup
National Association of Insurance Commissioners

Re: Illustration of Index Multipliers under AG 49

Fred:

Thank you for the opportunity to respond to the questions exposed by the IUL Illustration (A) Subgroup on November 1 related to Actuarial Guideline 49 ("AG 49"). Pacific Life joins in the letter submitted by the Coalition, and submits this letter to underscore the importance of applying the currently proposed changes to AG 49 on a prospective basis only.

The primary purpose of inforce illustrations is to help consumers manage their life insurance policies into the future. Inforce illustrations allow consumers to adjust expectations based on the policy’s actual performance, relative to the assumptions contained in the as-sold illustration. To the extent actual policy performance differs from that assumed in the as-sold illustration, consumers may use inforce illustrations to help vary premium or coverage amounts. Instead, prohibiting the illustration of a multiplier feature for consumers who have already purchased the product – while the feature continues to function on these products – will lead to consumer confusion and a loss of confidence, and will frustrate the essential purpose of inforce illustrations.

The decision whether to apply any NAIC guideline retroactively is an important policy decision that has broad impacts on consumers, state insurance markets, insurance producers and companies. As such, Pacific Life respectfully requests that the Subgroup limit the proposed changes to prospective application, similar to its prior treatment of policy loans under Section 6 of AG 49.¹

Very truly yours,

Ernest R. Armijos

¹ See AG 49, Section 1.C, Effective Date.
November 13, 2019

Fred Andersen
Acting Deputy Commissioner of Insurance
Minnesota Department of Commerce
85 7th Place East, Suite 280
St. Paul, MN 55101

Dear Fred:

Thanks for your work and the Subgroup’s work to update the IUL Illustrations regulation (AG49). Below are our thoughts on the most recent exposed version of AG49 and answers to the questions proposed by the subgroup on November 1st.

General thoughts:

- Securian believes that the conversation and proposed changes to AG49 are a positive and necessary step forward and appreciate the thought and work put in by the subcommittee to get the industry to this point.
- Securian directionally agrees with the changes being made. We also believe that there are several outstanding issues that are not in relation to Section 5A of AG49 that deserve attention to assure transparency and clarity for consumers.
  - Section 4: for greatest clarity, Securian would suggest clearer language in Section C to bring consistency on how carriers illustrate non benchmark indices. We have made recommendations in the past and re-iterate them below.
  - Section 4: Securian agrees with Suggestion 4E in the most recent exposed draft of AG49- Tying the maximum total amount of crediting in any year of the illustration to the Annual Earned interest rate underlying the Disciplined Current Scale defined in Section 5 of AG49
  - Section 6: Securian agrees that Policy loans and the application of 100bps should include all credits
  - Securian believes that several of the Additional Disclosure items discussed would provide increased consumer transparency and understanding and would like the group to continue to pursue them.
    - Developing uniform policy cost and sequence of return disclosures being our top two items to focus on after AG49 gets finalized.
- Securian recognizes the process has been grueling to this point and encourages everyone to see the changes come to a conclusion by years end.

Comments to the questions posed on Nov 1st

- Q1: Should the effective date for new policies be the later of 5 months after LATF adoption or 3 months after NAIC Executive/Plenary adoption?
  - Securian believes 5 months after LATF adoption is an appropriate amount of time to make the required changes and receive final approval from the NAIC Executive/Plenary committee.
    - Securian believes that after LATF adoption the expectations for future illustrative practices will have been set for IUL illustrations.
• We believe that the NAIC Executive/Plenary adoption is going to approve the recommendation of LATF and therefore waiting for a timeframe after the NAIC adoption is unnecessary.
• We understand that it will take time for carriers (including Securian) to change their illustration systems to accommodate the new regulation.
• Based upon our experience and consulting with other carriers, 5 months seems like a reasonable amount of time to make the changes considering the amount of time that has elapsed to date.

• Q2: Should the revised guidelines be in place for Inforce illustrations for policies sold before the effective date for new policies?
  o Securian believes that the recommended changes to AG49 should be applied to inforce contracts without regard to when they were sold.
  • The existing AG49 and changes to the model illustration law have created a precedent suggesting application to inforce contracts sold prior to the regulations being updated/adopted.
  • The Subgroup’s direction indicates that greater clarity and transparency is required on all IUL contracts with multipliers.
  • Securian believes that if the adopted changes do not apply to inforce contracts two things will happen:
    • Carriers that currently have large multipliers will continue to show current illustrations, which the subgroup has already determined aren’t appropriate, till the last possible date.
    • Inforce illustrations will continue to reinforce the unrealistic expectations set by original sales illustration. It is always better to reset expectations sooner than later.
  • There would be additional work on the carrier’s part to support two sets of illustration code for policies on the same policy form that are sold before and after the effective date. This would be confusing to agents, consumers and the carriers.

• Q3a: Does the approach of having the disciplined current scale earned rate including or excluding the Supplemental Options Budget lead to the result of the multiplier product illustrating about the same as a non-multiplier product?
  o We believe that changes included in the last exposed draft of AG49 do a reasonable job in having products that have a charged for multiplier/bonus illustrate very similarly to a non-multiplier product.
  o As with the original draft of AG49 the existence of the 145% in Section 5A will allow for a “included” multiplier/bonuses to illustrate slightly better than a product without one.
  o We believe that the most recent draft including 0% of the Supplemental Options budget will be effective in limiting the benefits of charged for multipliers
  o Securian believes that if you include the Supplemental Options Budget we need to define further what constitutes cash flows from DSC testing standpoint to ensure there isn’t the ability to game the system. We are still currently thinking about what the added definitions would look like and plan to have some comments in Q3b but plan to further build them out by the next call for comments at the end of this month.

• Q3b: If neither of the approaches mentioned in 3a leads to this result, is there an alternative approach that leads to this result such as providing explicit guidance in Section 4?
  o Need to introduce new definitions
    • **Base Options Budget:** The lesser of the Annual Net Investment Earnings Rate and the portion of the Annual Net Investments Earnings Rate used to provide the Cap, Floor, and Participation Rate of the index being tested.
- **Supplemental Options Budget**: The total amount spent to generate the Index Credits of the index being tested minus the Base Options Budget of the index being tested. The amount is expressed as a percentage of the policy’s indexed account value.

- **Hedging Cash Flows**: For the purpose of DCS testing hedging cash flows will be defined as such
  - **Hedging Expense**: The expected cost of the hedging instruments used to support the Index Credits of the index being tested.
  - **Hedging Payoff**: Cannot exceed the Supplemental Options Budget of Index being tested.

- With the definition of Hedging Cash Flows then 5A could change to be
  - Base Options Budget plus
  - Base Options Budget * 45% plus
  - 100% times the Supplemental Options Budget

- Without the definition of Hedging Cash Flows I am still leaning to 5A needing to be
  - Base Options Budget plus
  - Base Options Budget * 45% plus
  - 0% times the Supplemental Options Budget

  - We believe this would make all multipliers regardless of if they are “included or charged for” illustrate the same as a non-multiplier product.

Again, if you would like to have a discussion about any of these topics please reach out to me and I would be happy to expand upon them.

Respectfully,

Seth Detert  
Director & Actuary, Life & Annuity Products
The IUL Illustration (A) Subgroup of the Life Actuarial (A) Task Force met via conference call Nov. 1, 2019. The following Subgroup members participated: Fred Andersen, Chair (MN); Ted Chang (CA); Andy Greenhalgh (CT); Mike Yanacheak (IA); Vincent Tsang (IL); Rhonda Ahrens (NE); Bill Carmello (NY); Peter Weber (OH); Mike Boerner and John Carter (TX); Tomasz Serbinowski (UT); and Craig Chupp (VA). Also participating was: Rachel Hemphill (TX).

1. **Discussed Comments on the IUL Illustration Menu of Options**

   Mr. Andersen acknowledged that the targeted timeline was aggressive. He said to avoid mistakes, the plans for addressing the changes to *Actuarial Guideline XLIX—The Application of the Life Illustrations Model Regulation to Policies with Index-Based Interest* (AG 49) are being extended. He said the immediate focus is to address the remaining major issues by Nov. 14 and clear up the technical issues in time for exposure of the revisions at the Fall National Meeting. One of the major issues identified was the impact of the effective date on in-force illustrations. A second major issue is that companies need four to five months of lead time for the implementation of new standards. Mr. Andersen said the proposed revision to AG 49 provides a May 1, 2020, effective date. Birny Birnbaum (Center for Economic Justice —CEJ) said the effective date cannot be determined until the revisions are final. He suggested an effective date that is three months after revisions are final. Mr. Andersen said members of industry have suggested five months of lead time. Mary Bahna-Nolan (Pacific Life) said five months is more realistic, given that companies tend to prohibit system changes in the month of December. Mr. Boerner clarified that the timing being discussed is in reference to adoption by the Life Actuarial (A) Task Force. Mr. Andersen said he will redraft the AG 49 revisions to reflect the discussion. Reggie Mazyck (NAIC) said the effective date of the initial version of AG 49 was five months after its adoption by the Task Force.

   Mr. Andersen asked whether the new illustration standards should apply to in-force illustrations. Ms. Hemphill said the issue of in-force policies is very different from the issue of sales illustrations. She said applying the standards to in-force policies would be somewhat problematic. Ms. Ahrens said in-force policies should be grandfathered. Mr. Tsang said he believes the new standard should apply to in-force policies being considered for replacement.

   Donna Megregian (Reinsurance Group of America—RGA) said the earned rate of the disciplined current scale (DCS) does not drive what goes into the policy. She agreed to provide a numerical example in the following weeks. Mr. Andersen suggested that Ms. Megregian could discuss the issue further at the Fall National Meeting. Mr. Yanacheak opined that Section 4 of AG 49 is the appropriate place for changes.

   Mr. Andersen said the issues on which comments will be solicited for the next conference call are:

   1) The timing of the effective date of changes to the guideline.
   2) The potential impact on in-force illustrations.
   3) Coordination of Section 4 and Section 5.
   4) Whether the supplemental option budget should be included in the DCS test.

Having no further business, the IUL Illustration (A) Subgroup adjourned.
The IUL Illustration (A) Subgroup of the Life Actuarial (A) Task Force met via conference call Sept. 16, 2019. The following Subgroup members participated: Fred Andersen, Chair (MN); Ted Chang (CA); Andy Greenhalgh (CT); Mike Yanacheak (IA); Vincent Tsang (IL); Rhonda Ahrens (NE); Bill Carmello (NY); Peter Weber (OH); Mike Boerner and John Carter (TX); Tomasz Serbinowski (UT); and Craig Chupp (VA).

1. **Discussed Comments on the IUL Illustration Menu of Options**

The Subgroup heard comments on the two questions exposed at the Summer National Meeting. The first question asked, “Should a product with a multiplier feature illustrate a higher scale than a product without multiplier features?” The second question asked, “To what extent should the 145% disciplined current scale (DCS) factor apply to charges supporting bonuses and multipliers?”

Mr. Andersen said the Subgroup will narrow the range of potential solutions. Those solutions will then be offered to the Life Actuarial (A) Task Force for consideration. He said once the Task Force decides on a direction, the task of implementing a solution will be the responsibility of the Subgroup. He provided five possible options for discussion:

1. The illustrated rate is not adjusted to offset multiplier charges, resulting in a multiplier product not illustrating, as well as a non-multiplier product.

2. The illustrated rate is adjusted to exactly offset multiplier charges, resulting in a multiplier product illustrating the same as a non-multiplier product.

3. The illustrated rate is adjusted up to 1% annually to a level that slightly more than offsets multiplier charges, resulting in a multiplier product illustrating slightly better than a non-multiplier product.

4. The illustrated rate is adjusted by 1%–2% annually, resulting in a multiplier product that illustrates significantly better than a non-multiplier product.

5. The illustrated rate is adjusted by more than 2% annually, resulting in a multiplier product that illustrates substantially better than a non-multiplier product.

Donna Megregian (American Academy of Actuaries—Academy) discussed the Academy comment letter (Attachment Twenty-Seven-A). She said because of their differing risk profiles, it may be reasonable that multiplier and non-multipliers illustrate differently. She indicated that more clarification of the possible options is necessary and that more disclosure is required.

Brian Bayerle (American Council of Life Insurers—ACLI) said the ACLI comment letter (Attachment Twenty-Seven-B) in largely consistent with the Academy letter. He said illustrations should appropriately reflect the risk profile of all the features in the policy. He noted that the mechanics of the policy should be understandable for the policyowner. Mr. Bayerle agreed that further clarification from state insurance regulators is necessary.

Birny Birnbaum (Center for Economic Justice—CEJ) said the CEJ comment letter (Attachment Twenty-Seven-C) indicates a preference for possibility #2. He suggested that the Subgroup’s actions should be focused on addressing illustration excesses, before sending the issue to the Life Insurance and Annuities (A) Committee for consideration of enhanced disclosures for all products. Mr. Birnbaum stressed the importance of consumer testing of any enhancements to disclosures.

Ernest Armijos (Pacific Life) said the comment letter from Lincoln Financial Group, Pacific Life and Sammons Financial Group (Coalition) (Attachment Twenty-Seven-D) advocates application of the 145% to all options in the disciplined current scale testing and setting guardrails to protect consumers against continually increasing charges. The comment provides an example of disclosure enhancements that displays a breakout of charges, provides information on the potential impact of index volatility on accumulated values and the downside risk of the product including the multiplier. He indicated that the Coalition preference is closer to possibility #5.
The Nationwide comment letter (Attachment Twenty-Seven-E) indicated that products with multipliers, bonuses and additional credits should be permitted to illustrate a higher scale than a non-multiplier product, with a reasonable limit. The letter recommends limiting charges to 50% of the product hedge budget. The Nationwide comments favor a proposal that is close to possibility #4.

Mr. Armijos said the Pacific Life comment letter (Attachment Twenty-Seven-F) is supportive of the Coalition letter and reiterates Pacific Life’s belief that any proposed limit on illustrations should reflect sound actuarial principles and reasonable assumptions.

Seth Detert (Securian Financial) said the comment letter (Attachment Twenty-Seven-G) jointly submitted by Securian Financial, Penn Mutual and Mutual of Omaha lays out three alternatives. The first alternative aligns with possibility #1 or possibility #2. The second and third alternatives align with possibility #3 or possibility #4. He said the letter also provides several disclosure proposals and recommends modifications to the language related to the illustration of the arbitrage limit for variable and indexed loans. In a separate comment letter (Attachment Twenty-Seven-H), Securian Financial addresses that company’s principles applicable to the illustrations and provides a demonstration (Attachment Twenty-Seven-I) of providing transparency to consumers.

Ms. Ahrens said the illustration of multipliers should be allowed, and there should be discussion about the applicability of the 145% DCS factor to all charges. Mr. Carmello said illustration disclosures should be enhanced. He expressed support for possibility #2. Mr. Weber said his preference lies between possibility #3 and possibility #4. Mr. Sartain said he supports the Securian Financial proposal. Mr. Yanacheak said he supports possibility #4 or possibility #5.

Mr. Andersen said the next discussion of the issue will occur during a Life Actuarial (A) Task Force conference call.

Having no further business, the IUL Illustration (A) Subgroup adjourned.
September 4, 2019

Mr. Fred Andersen
Chair, IUL Illustration (A) Subgroup
National Association of Insurance Commissioners

Dear Mr. Andersen,

The Life Illustrations Work Group (“the Work Group”) of the American Academy of Actuaries\(^1\) appreciates the opportunity to provide comments on the questions exposed August 2, 2019, by the IUL Illustration (A) Subgroup regarding the illustrations of Indexed Universal Life (IUL) products under Actuarial Guideline XLIX (AG 49). These comments pertain to those questions.

1. **Should a product with a multiplier feature illustrate a higher scale than a product without multiplier features?**
   The Work Group believes that products with multiplier features could reasonably illustrate differently than products without multiplier features, assuming the products with multipliers have a different risk/return profile than products without a multiplier. The different risk return profiles could cause products with multipliers to illustrate higher or lower than products without multiplier due to factors such as option costs, different market exposure, and other product features. We are also supportive of making illustrations clearer with regard to the potential higher costs associated with the multiplier features.

2. **To what extent should the 145% disciplined current scale factor apply to charges supporting bonuses and multipliers?**
   The Work Group’s response to this question is dependent on the intent of the 145% factor and what it applies to. As stated in our June 27, 2019, letter, some actuaries could interpret the 145% factor as imposing a limit on the return of the general account assets when hedging is used, while other actuaries may interpret the 145% factor as imposing a limit on the return on the assets supporting the hedge. Other interpretations may apply. Given the variety of possible interpretations, the Work Group thinks clarification is needed on the intent of the 145% factor, and what it applies to when charges are used to purchase additional assets that may enhance returns on IUL products.

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\(^1\) 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 Work Group appreciates the efforts of the IUL Illustration Subgroup to review AG 49. If you have any questions or would like further dialogue on the above topics, please contact Ian Trepanier, life policy analyst, at trepanier@actuary.org.

Sincerely,

Donna Megregian, MAAA, FSA  
Chairperson, Life Illustrations Work Group  
American Academy of Actuaries
September 6, 2019

Mr. Fred Andersen
Chair, NAIC IUL Illustration (A) Subgroup

Re: Indexed Universal Life (IUL) Illustration Subgroup Questions

Dear Mr. Andersen:

The American Council of Life Insurers (ACLI)\(^1\) appreciates the opportunity to submit the following responses to most recent questions posed by the IUL Illustration Subgroup. ACLI supports life insurance policy illustrations that help consumers determine the policy that is best suited for their needs. Consumers need to understand the risk/reward trade-offs inherent in the various policies and indices being considered. In that vein, we submit the following responses:

**Question 1:** Should a product with a multiplier feature illustrate a higher scale than a product without multiplier features?

**ACLI Response:** Consistent with our prior comments, ACLI believes that illustrations should appropriately convey to customers the risk/reward profile of all product features.

**Question 2:** To what extent should the 145% disciplined current scale factor apply to charges supporting bonuses and multipliers?

**ACLI Response:** Consistent with our prior comments, ACLI is supportive of clarification around the application of the 145% disciplined current scale (DCS) factor.

In an effort to help regulators understand the application of the 145% DCS factor under two interpretations, descriptions of the two interpretations are provided below and numeric examples of the calculation of the year one total net earnings rate are provided in Appendix One. These examples are simplified to convey the general application of the two interpretations, and do not directly correspond to any one company’s interpretation. Appendix One presents three examples: a product without a multiplier, and a product with a multiplier under the following two interpretations:

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\(^1\) The American Council of Life Insurers (ACLI) advocates on behalf of 280 member companies dedicated to providing products and services that promote consumers’ financial and retirement security. 90 million American families depend on our members for life insurance, annuities, retirement plans, long-term care insurance, disability income insurance, reinsurance, dental and vision and other supplemental benefits. ACLI represents member companies in state, federal and international forums for public policy that supports the industry marketplace and the families that rely on life insurers’ products for peace of mind. ACLI members represent 95 percent of industry assets in the United States. Learn more at www.acli.com.
Interpretation #1: The maximum interest earnings rate that applies to a multiplier’s option budget is 145% of the net investment earnings rate of the General Account assets excluding the hedges allocated to the product (4.5% * 145% = 6.525% as shown in the example).

Interpretation #2: The maximum interest earnings rate that applies to a multiplier’s option budget is 45%. We note that under this interpretation, the same results are obtained if you use the options budget x 45% or if you use the notional amount x 145% x net investment earnings rate (NIER). However, we chose not to illustrate that for ease of comparison of the two primary interpretations.

Mechanically, the calculation of the total net earnings rate of the two interpretations are similar, except for the assumed return rate on the option budget. The total net earnings rate in both interpretations can be decomposed into two components: the base policy net interest earnings (which can be further decomposed into the general account net interest earnings and the base policy options net interest earnings), and the multiplier’s net interest earnings. The calculation of these values are as follows:

A. General account net interest earnings: account value after charges times the NIER.

B. Base policy options net interest earnings: base policy option budget (notional amount after charges times option cost) times the maximum 45% return.

C. Base policy net earnings: the sum of A and B. Additionally, this could also be calculated directly as the product of the notional value after charges times the NIER times the 145% limit.

D. Multiplier net interest earnings: multiplier’s option budget times the assumed return. This return is what would vary between the two interpretations:

Under Interpretation #1, it is assumed to be the option budget times NIER times the 145% limit.

Under Interpretation #2, it is assumed to be the option budget times 45%. We note that Interpretation #2 is equivalent to the notional amount of the multiplier (the multiplier times the base notional amount) times the NIER times 145% all less the option budget.

Additional information and assumptions can be found in the appendix. We have separately provided these examples as an Excel Spreadsheet (Attachment 1) to allow regulators and interested parties to step through the calculations.

We look forward to a discussion of these questions on a future Subgroup call. Thank you.

Sincerely,

Brian Bayerle
Senior Actuary

cc Reggie Mazyck, NAIC
**Simple Examples of Section 5A Interpretations**

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Simplifying Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net investment earnings rate [NIER] (= base policy’s option budget) = 4.50%</td>
<td>1) No premiums and no charges other than multiplier charge</td>
</tr>
<tr>
<td>Multiplier = 50%</td>
<td>2) No lapses and deaths</td>
</tr>
<tr>
<td>Multiplier’s charge (= multiplier’s option budget) = 2.200%</td>
<td>3) Spans a single policy year only</td>
</tr>
</tbody>
</table>

### IUL Product with a Multiplier

<table>
<thead>
<tr>
<th></th>
<th>No Multiplier</th>
<th>Interpretation #1</th>
<th>Interpretation #2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Account Net Interest Earnings</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a Account Value @ BoY before Multiplier Charge</td>
<td>$100,000</td>
<td>$100,000</td>
<td>$100,000</td>
</tr>
<tr>
<td>b Multiplier’s Charge</td>
<td>Not Applicable</td>
<td>$2,200</td>
<td>$2,200</td>
</tr>
<tr>
<td>c = a - b Account Value @ BoY after Multiplier Charge</td>
<td>$100,000</td>
<td>$97,800</td>
<td>$97,800</td>
</tr>
<tr>
<td>d = NIER GA Net Investment Earnings Rate</td>
<td>4.50%</td>
<td>4.50%</td>
<td>4.50%</td>
</tr>
<tr>
<td>e = c x d General Account Net Interest Earnings</td>
<td>$4,500.00</td>
<td>$4,400.98</td>
<td>$4,400.98</td>
</tr>
</tbody>
</table>

| **Base Policy’s Option Net Interest Earnings** |               |                   |                   |
| f = c Base Policy’s Notional Amount | $100,000 | $97,800 | $97,800 |
| g = f x NIER Base Policy’s Options Budget | $4,500 | $4,401 | $4,401 |
| h = 45% Return on Options Budget | 45% | 45% | 45% |
| i = g x h Base Policy’s Option Net Interest Earnings | $2,025.00 | $1,980.44 | $1,980.44 |
| j = e + i Base Policy’s Not Interest Earnings | $6,525.00 | $6,381.42 | $6,381.42 |
| k = j / c 145% of net investment earnings rate (NIER) | 6.525% | 6.525% | 6.525% |

| **Multiplier’s Net Interest Earnings** |               |                   |                   |
| l = f x Multiplier Multiplier’s Notional Amount | $48,900 | $48,900 | $48,900 |
| m = b Multiplier’s Options Budget | $2,200 | $2,200 | $2,200 |
| n Return on Options Budget | 6,525% | = k 45% | = h 45% |
| o = m x n Multiplier’s Net Interest Earnings | $143.58 | $990.22 |       |
| p = j + o Total Net Interest Earnings | $6,525.00 | $6,525.00 | $7,371.64 |

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Comments for the Center for Economic Justice

To the NAIC IUL Illustration (A) Subgroup

Questions Regarding Proposed Changes to AG 49

September 6, 2019

In response to the problem of misleading illustrations associated with new products designed to game AG 49, the subgroup requested stakeholder comment on two questions

- Should a product with a multiplier feature illustrate a higher scale than a product without multiplier features? **CEJ Answer: No.**

- To what extent should the 145% disciplined current scale factor apply to charges supporting bonuses and multipliers? **CEJ Answer: The 145% scale factor should be changed to 100%**

**Discussion:**

CEJ believes there is clear evidence that new IUL product features bonuses and multipliers have been designed to create fabulous illustrations – illustrations which demonstrate extraordinary accumulation and returns for the policyholder but which are misleading and deceptive.

What is the evidence? First, AG 49 was created to stop the use of unrealistic crediting rates which produced unrealistic and misleading illustrations of product operation. After AG 49, we see product designs that, despite lower crediting rates and much greater expenses than for prior products, produce significantly greater accumulation values.

Second, we see significant amounts of premium-financed IUL – meaning that people are borrowing money to “invest” in an IUL. Why would such a sales practice ever be successful? Because the illustrations show steady crediting rates significantly greater than the loan interest rates charged and, consequently, showing a risk-free arbitrage opportunity that, in reality, doesn’t exist.
Third, we are seeing product designs that contradict the stated purposes of IULs – to protect policyholders’ assets against downside risk – by putting consumers into products that are effectively pure option bets and riskier than if the consumer invested in the index itself. And with the asset charges associated with the bonuses and multipliers, the risk of downside loss is created. The argument that these products provide “consumer choice” is a red herring. Suppose a consumer wants to buy a government bond to avoid risk. Do we now see government issuers creating bond-option combinations to give consumers a “choice” of risk return? Of course not. If a consumer wants a riskier investment, they buy something other than a bond. If a consumer wants an insurance product that includes downside risk, they buy something other than an IUL policy that promises volatility protection and lack of downside risk. It is a fundamental contradiction to suggest that consumers are seeking “risk-return choices” within a product specifically created to eliminate risk to the consumer.

Fourth, if the new multiplier/bonus products were, in fact, created to meet consumer demands, we would expect to see the same features demanded by consumers for fixed indexed annuities. Putting aside the complete absence of any evidence of such consumer demand, the use of bonuses and multipliers is generally not found with FIA products. The fact that indexed products designed with bonuses and multipliers are found in IUL and not with FIA makes clear that the new multiplier/bonus designs are not responding to consumer demands but intended to juice the sales process with fabulous illustrations.

Fifth, we see illustrations that, because of unrealistic accumulation values and sequence and loan interest rate arbitrage, indicate a policyholder can “borrow” money from the IUL and never repay the loan with little or no impact on overall accumulation or premium payments – effectively, illustrating an IUL as if it were an ATM machine.

The entire illustration regime for life insurance and annuities requires a thorough overhaul – illustrations intended to explain the operation of a product are doing the opposite. Illustrations are omitting the significant risk of return sequence, among other problems. So the question becomes, what are the best immediate actions to take as a path to the broader rehabilitation of illustrations?

For AG 49 and IUL Illustrations, that path consists of:

1. Reducing the options budget for illustrations to 100%
2. Requiring products with bonus/multiplier features to illustrate the same as products without such features.
3. Eliminating loan arbitrage by requiring loan rates be no less than crediting rates for purposes of the illustration
4. Adopting these changes as soon as possible with a recommendation to the Life Insurance Actuarial Committee that these changes are a tourniquet to stanch the bloodletting and that a broader examination of and development of a re-imagined approach to illustrations is needed to better demonstrate the operation of the product, to overcome the limitations and misleading features of current illustrations and to ensure a consistent approach across all indexed products.
With regard to the two specific questions posed by the subgroup (and the issue of loan arbitrage), we suggest than anything short of an outright ban on the practices in question will simply allow insurers to find new ways to game the requirements of AG 49. Given the absence of any requirement to show volatility of returns or impact of sequence of returns, any opportunity to game the crediting rate limitation in AG 49 will be taken to make a company’s product illustration more “competitive.” Limiting what can be illustrated does not stop an insurer from developing new product features and explaining those product features to the consumer. Rather, limiting what can be illustrated stops the use of misleading illustrations to create misleading sales.

Regulators have the opportunity to limit the damage that will inevitably occur to consumers and to the life insurance industry as a result of overly complex products marketed with misleading illustrations that will fail to perform as suggested and may leave consumers far worse off than with simpler, lower fee products. We’ve seen the scandals with vanishing premium, unexpected dramatic increases in costs of insurance for universal life and others. We urge regulators to take action before more damage is done.
September 6, 2019

Fred Andersen
Deputy Commissioner of Insurance
Minnesota Department of Commerce
Chair, NAIC IUL Illustration (A) Subgroup

Re: Comments to the IUL Illustration (A) Subgroup Questions regarding Actuarial Guideline 49

Fred:

This letter is submitted on behalf of the following companies (“the Coalition”).

Lincoln Financial Group
National Life Group
Pacific Life
Transamerica

Thank you for the opportunity to respond.

This letter provides the Coalition’s response to questions that were exposed for comment by the IUL Illustration Subgroup on August 2, 2019. In addition, this letter also (1) addresses other points raised during the Subgroup discussion at the recent NAIC Summer National Meeting in New York City, and (2) proposes a solution that enhances consumer protections and regulatory controls over IUL products containing multipliers while ensuring that IUL products can continue to evolve to meet consumer needs.

The Coalition believes multiplier features offer consumers meaningful value and are an appropriate choice for some consumers. They offer consumers the potential to meet long-term
protection and accumulation needs at a lower premium than other IUL designs. That said, we acknowledge regulatory concerns about the effect of multipliers on current product illustrations and the potential to influence consumer expectations. As discussed in more detail below, the Coalition proposal offers a three-part solution that includes new guardrails on how illustrations reflect multiplier features.

A. Responses to IUL Illustration (A) Subgroup Questions:

1. Should a product with a multiplier feature illustrate a higher scale than a product without multiplier features?

Response: Yes. A core purpose of product illustrations is to foster consumer education. Therefore, product illustrations should incorporate actual product mechanics. In the case of multiplier features, an illustration should include both the associated additional charges and credits. For at least some product designs, this would lead to a higher disciplined current scale and a lower guaranteed scale, thus demonstrating potential benefits and risks of the multiplier feature.

It has been suggested that it may be possible to describe multiplier features to customers without the benefit of including such features in product illustrations. We believe that such an approach is contrary to existing regulatory guidance and would be detrimental to consumers for the following reasons:

- It would conflict with the educational goals of both the NAIC’s Life Insurance Illustrations Model Regulation\(^1\) and AG\(49\)\(^2\) by denying consumers the illustration of actual product mechanics.

- It would leave producers on their own to determine how best to describe the effect of multipliers. Unlike riders that provide supplemental benefits (such as waiver of premium or accidental death benefit), the cost and benefits of multipliers are not easily described and must be illustrated to demonstrate the impact on the account value. We believe that consumers are best served if the information provided about multipliers has a degree of consistency across products.

- It would mislead consumers about the benefits and risks of multipliers. Even if the benefits of a multiplier are not illustrated, insurers may nonetheless be obligated to illustrate any related charges in order to comply with the Life Illustrations Model Regulation, effectively ensuring that IUL products with multiplier features would illustrate at a lower rate than IUL products without such features. Such a proposal would not help consumers understand a multiplier feature or its risks.

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\(^1\)“The purpose of this regulation is to provide rules for life insurance policy illustrations that will protect consumers and foster consumer education.” Life Insurance Illustrations Model Regulation, Sec. 1 (2001).

\(^2\)“[T]his guideline . . . [requires] additional consumer information . . . that will aid in consumer understanding. Actuarial Guideline XLIX, Background (2016).
Finally, the Coalition acknowledges that Section 5A of AG49 does not explicitly address how product illustrations should reflect multiplier features. For the following reasons, we believe that the most reasonable reading of the current language of AG49 is that the full inclusion of multipliers in product illustrations is currently allowed:

- It is widely acknowledged that multiplier features were uncommon at the time that AG49 was promulgated. The drafting of the guideline did not contemplate such features. Accordingly, the guideline is silent on how such features should be treated.

- The language in Section 5A established a principle for how purchased options should be handled in an AG49-compliant illustration. In the absence of specific guidance, it is a logical extension to apply the same principle to options supporting a multiplier that have identical economic value.

2. To what extent should the 145% disciplined current scale factor apply to charges supporting bonuses and multipliers?

Response: Options funded by any source, whether by the Net Investment Earned Rate or by policy charges (whether explicitly dedicated to a product feature or implicitly included in typical policy charges), are economically identical. As such, the 145% disciplined current scale factor should be applied to all options in the DCS testing.

It has been suggested that a way to create a guardrail on multipliers would be to reduce the assumed return on options that support multiplier-related features. Not only is this economically inconsistent, it would lead to practical challenges when applied to products where such charges for such options are not explicitly identified. Therefore, we do not believe that such a guardrail would be effective in practice, at least on a standalone basis.

B. Proposal to Add Guardrails and Enhanced Disclosure:

Acknowledging regulatory concerns, the Coalition proposes a three-part solution that would involve modifying AG49 to clarify the treatment of multipliers, impose new guardrails, and enhance consumer education through disclosure. We believe that this solution would enhance both consumer protection and education.

With respect to guardrails, as a guiding principle we believe that any proposed limit on the illustration of benefits should be derived from sound principles and reasonable assumptions. The new guardrails should ensure that illustrations of multipliers are consistent with regulatory goals. They should also avoid creating an illustration advantage to economically similar product features, which could include various designs of index accounts, including accounts with multipliers, higher caps or other parameters.
Specifically, we propose:

1. Imposing a set of guardrails that would involve some combination of the following:
   a. Allowing the illustration of benefits only up to a stated maximum percentage of implicit and explicit indexed account value-based charge;
   b. Allowing the illustration of benefits only up to a maximum indexed-based multiplier;
   c. Limiting the difference between multiplier-related benefits and charges in the DCS; and/or
   d. Allowing the application of the 145% to the hedge budget up to a stated maximum percentage of the account value.

2. Clarifying that the 145% limitation imposed by Section 5A of AG49 is applicable to all options in the DCS testing, for reasons described above. Below are two potential ways to achieve this:
   a. Revise Section 5A of AG49 to state: If an insurer engages in a hedging program for index-based interest, the assumed earned interest rate underlying the disciplined current scale shall not exceed 145% of the annual net investment earnings rate plus any explicit or implicit charges supporting the hedge budget.
   b. Revise Section 5 of AG49 to state: If an insurer engages in a hedging program for index-based interest, the ratio of the assumed hedge payout to the assumed hedge cost may not exceed 145%. Further, to ensure clarity, add the following: The cost of the hedge shall be included as a cash flow out, and the payout of the hedge shall be included as a cash flow in. Hedge cash flows and liability cash flows, including taxes, will be accumulated at the annual net investment earnings rate of the general account assets (excluding hedges for index-based credits) allocated to support the policy.

3. Providing more effective disclosure to consumers by:
   a. Requiring a mandatory breakout of charges on illustrations. These sections are typically already available but are not currently mandatory.
   b. Requiring consumers to receive clear and concise information on: (1) the potential impact on accumulated values of index volatility; and (2) downside risks of the product, including any multiplier. An example of how this could be done can be found in Appendix 1.
We appreciate the opportunity to provide input to the Subgroup and look forward to further discussions.

Respectfully Submitted,

Scott R. Harrison
Harrison Law Office, P.C.

cc: Reggie Mazyck, NAIC
Indexed Universal Life policies provide policyholders with the ability to allocate their cash value to Indexed Accounts. When placed in Indexed Accounts, their cash value will be credited based on the growth of an underlying index subject to a minimum rate (the floor) and a maximum rate (the cap).

This crediting methodology means that these accounts are unlikely to see the same return year after year. Illustrations are regularly prepared using a single illustrated rate in all years for ease of understanding and additional illustrations, such as the alternate scale illustration and the guaranteed illustration, are included to help understand potential outcomes under more conservative assumptions. However, because of the nature of the indexed accounts, showing the impact of non-linear returns helps better understand this policy.

Range of Possibilities
The graph and charts below show the cash value pattern as well as other key policy metrics under a low and high indexed return scenario and compares it to the illustrated scenario that you chose for your illustration.
The scenarios used in this analysis are based on historical experience and in accordance with Actuarial Guideline 49. More detail on how these were selected can be found on pg. Y of this illustration.

The Order of the Indexed Returns Matter

It is possible to have an average rate of return equal to the illustrated rate occur in many ways. It does not need to be the same number every year. The order in which the returns happen in a sequence of returns will impact your policy. Below is chart demonstrating how your policies performance would be impacted.
Certain features you select on your policy will impact the Range of Possibilities as well as the Order of Returns. It is important to discuss with your life insurance producer to decide what is right for you.

I have received and read a copy of this illustration and understand that any non-guaranteed elements illustrated are subject to change and could be higher or lower. The life insurance producer has told me that they are not guaranteed. I understand this is an illustration and not a contract. For full policy details, I will refer to the contract.

APPLICANT’S SIGNATURE

DATE

I certify that this illustration has been presented to the applicant and that I have explained that any non-guaranteed elements illustrated are subject to change. I have made no statements that are inconsistent with this illustration nor have I made any promises about the expected future Index Credits of this contract.

LIFE INSURANCE PRODUCER’S SIGNATURE

DATE
The Low and High scenario are based on the same historical scenarios that the maximum Ag49 lookback rate are based on. They are the 25-year sequences that result in the lowest and highest compound annual growth rate. The 25-year period is repeated for the length on the illustration period. Scenarios A and B are similar in concept.
Mr. Fred Andersen  
Acting Deputy Commissioner of Insurance  
Minnesota Department of Commerce  
Chair, NAIC IUL Illustration (A) Subgroup  
85 7th Place East, Suite 280  
St. Paul, MN 55101  

Re: The IUL Illustration Subgroup requested comments by August 30, 2019 on the following questions related to IUL illustrations. The comment due date was later extended to September 6, 2019.  
1. Should a product with a multiplier feature illustrate a higher scale than a product without multiplier features?  
2. To what extent should the 145% disciplined current scale factor apply to charges supporting bonuses and multipliers?  

Dear Mr. Andersen:  

Broadly-speaking, we feel that the objective of life insurance product illustrations should be to help consumers make informed financial decisions by adequately demonstrating the potential risk and return opportunities. Disallowing the inclusion of a multiplier does not guarantee a proper view of the risk-return tradeoff, however allowing the inclusion of a multiplier without improvements to illustration effectiveness may also not give a proper view of risk and return.  

Today’s illustrations show a level index return each year. These illustrations can span decades. A more typical pattern of returns would have returns that were positive for five to seven years followed by a year or two of zero. While we believe that sales professionals are accountable for reviewing the risks and return opportunities associated with life insurance policies with consumers, we also see an opportunity for improvement in the way these products are illustrated.  

With this broader opportunity in mind, we have also provided comments and suggestions below on the two specific questions posed on July 15, 2019. We would be happy to discuss any questions you may have.
1. Should a product with a multiplier feature illustrate a higher scale than a product without multiplier features?

Products with multipliers, bonuses, and additional credits should be permitted to illustrate, to some extent, a higher scale than the product would without these features, but with a reasonable limit. Purposes of an Indexed Universal Life policy range from providing life insurance protection to efficient wealth transfer. When charges that enhance the hedge budget to pay for multipliers, bonuses, and additional credits rival or exceed the underlying product hedge budget (approximately the annual net investment earnings rate), the emphasis of the product shifts and this may not be consistent with the purpose of this product. Therefore, applying a reasonable limit in illustrations on the charges used to enhance the hedge budget is appropriate.

We recommend limiting charges to 50% of the product hedge budget (approximately the annual net investment earnings rate), which would place a reasonable ceiling on the charges used to enhance the hedge budget. For example, a hedge budget of 4% would result in a limit of 2%.

2. To what extent should the 145% disciplined current scale factor apply to charges supporting bonuses and multipliers?

The 145% disciplined current scale factor should apply to charges supporting bonuses, multipliers, and additional credits. However, as described above, charges used to enhance the hedge budget for illustrations should have a reasonable limit.

We view the actions that we have articulated above as being important preliminary steps to apply reasonable limits within the IUL product. We also look forward to continuing to work with the NAIC on the more holistic changes that need to be made to illustrations to provide more consumer clarity.

Again, we would welcome the opportunity to discuss our position further with you. I can be reached at (614) 249-5947.

Regards,

Pete Rothermel
VP, CFO IPS – Individual Life & NBSG
September 6, 2019

Filed Electronically

Fred Andersen
Chair, IUL Illustration (A) Subgroup
National Association of Insurance Commissioners

Re: Comments to the IUL Illustration (A) Subgroup Questions regarding Actuarial Guideline 49

Fred:

Thank you for the opportunity to provide our comments with respect to the questions exposed subsequent to the Subgroup’s August 1 meeting.

Pacific Life reiterates its support for the positions contained in the letter submitted by the Harrison Law Office on behalf of Pacific Life and three other IUL carriers. We believe that the establishment of new illustration guardrails, along with enhanced information regarding volatility of credits, can help address consumer education and level expectations.

With respect to guardrails, Pacific Life believes that it is critical that any proposed limit on the illustration of benefits be derived from sound principles and reasonable assumptions. This methodology will help regulators best target changes to AG 49.

We appreciate the opportunity to provide input to the Subgroup, and look forward to further discussions.

Respectfully Submitted,

Ernest Armijos

Enclosures
August 30, 2019

Fred Andersen
Acting Deputy Commissioner of Insurance
Minnesota Department of Commerce
85 7th Place East, Suite 280
St. Paul, MN 55101

Dear Fred,

The undersigned companies present this proposal in response to the NAIC request for comments set forth by the Life and Annuity Task Force on August 5, 2019.

Respectfully,

Seth Detert, Securian Financial
Seth Harlow, Mutual of Omaha
Andrew Martin, Penn Mutual

The IUL Illustration Subgroup requested comments by August 30, 2019 on the following questions related to IUL illustrations:

• Should a product with a multiplier feature illustrate a higher scale than a product without multiplier features?
• To what extent should the 145% disciplined current scale factor apply to charges supporting bonuses and multipliers?

We categorized our comments and requests for direction into two items related to these topics. We would be happy to discuss our comments with you or the members of LATF.

Item #1 –Can charges impact assumed earned interest underlying the DCS. AG49 Section 5A

• We would like a change to AG49 Section 5A to clarify how charges within a contract that support index parameters, bonuses, multipliers, or any form of additional credits should be interpreted:
• Current AG49 wording
  • “If an insurer engages in a hedging program for index-based interest, the assumed earned interest rate underlying the disciplined current scale shall not exceed 145% of the annual net investment earnings rate (gross portfolio earnings less provisions for investment expenses and default costs) of the general account assets (excluding hedges for index-based credits) allocated to support the policy.”

• Recommended additions to the current wording
  • Alternative #1: The annual net investment earnings rate cannot include or be increased by any policy charges that are used to support index parameters, bonuses, multipliers, or any form of additional credits.
  • Alternative #2: If there are policy charges that are used to support index parameters, bonuses, multipliers, or any form of additional credits, the annual net investment earnings rate can be increased by the lesser of: (a) the amount of charges assessed; (b) a percentage of the charges assessed such that the charges as a percentage of account value does not exceed the guaranteed floor of the indexed account being tested.
• Alternative #3: If there are policy charges that are used to support index parameters, bonuses, multipliers, or any form of additional credits, the annual net investment earnings rate can be increased by the lesser of: (a) the amount of charges assessed; (b) a percentage of the charges assessed such that the charges as a percentage of account value does not exceed the guaranteed interest rate on the fixed account of the policy.

• We also recommend additional changes to AG 49 Section 5 to clarify how policies with multiple indexes should be tested. Each recommendation would be a unique sub bullet of AG 49 Section 5.
  • Recommended Addition #1: Each individually marketed product is required to be tested for self-support and lapse support individually. There cannot be aggregation of marketed products that share a single policy form.
  • Recommended Addition #2: Each indexed account needs to be tested for self-support and lapse support individually. To the extent that multiple indexed accounts produce the exact same illustrated values, they can be aggregated.

Item 2 – Variable/index loans and the 1% arbitrage limit. AG49 Section 6

• We believe that variable/index loans should continue to be illustrated, however we would support changing the language in AG49 above to make it clear that the “illustrated rate credited to the loan balance” is inclusive of all policy credits.

• Current AG49 wording
  o If the illustration includes a loan, the illustrated rate credited to the loan balance shall not exceed the illustrated loan charge by more than 100 basis points.

• Recommended changes to the wording
  o If the illustration includes a loan, the aggregate rate for all amounts credited to the loan balance (including all bonuses, multipliers, or any form of additional credits) shall not exceed the amount of loan interest charged by more than 100 basis points of the loan balance.
August 30, 2019

Fred Andersen
Acting Deputy Commissioner of Insurance
Minnesota Department of Commerce
85 7th Place East, Suite 280
St. Paul, MN 55101

Re: National Association of Insurance Commissioners – Life Actuarial (A) Task Force – IUL Illustration (A)
Subgroup Request for Comments on Actuarial Guideline 49

Dear Fred,

I want to take this opportunity to thank you again for your leadership on the critically important issue of making updates to Actuarial Guideline 49 (AG49). The entire industry wants to accomplish the same goal: providing invaluable benefits to our customers in their times of need. It is only through a partnership among carriers and the regulators that we can accomplish that worthy goal.

I would like to begin by re-iterating Securian Financial’s principles on this complex issue:

- Securian Financial believes in transparency for the consumer and the advisor; without transparency, there cannot be understanding. Today, the way the industry illustrates some product designs lacks the necessary transparency for consumers and advisors to understand how the product performs and the associated risks.
- Securian Financial believes in providing clarity for the insurance carriers with regards to satisfying AG49 and other regulations; without clarity, there is an unlevel playing field. Today, there are strong differences of opinion as to how to interpret AG49 and the Model Illustration Law.
- Securian Financial believes in product innovation and consumer choice. However, Securian Financial does not believe all product innovations need to be illustrated. There are several product innovations today (e.g. certain indices, riders such as critical illness, etc.) that are discussed and presented to the consumer every day without being illustrated.
- Securian Financial believes illustrations should set appropriate expectations for future performance. We believe that some of the multipliers and participating loans currently being illustrated are setting overly aggressive expectations for the consumers. Securian Financial does not see any logic that would suggest a year over year cash value growth of 10+ percent inside an index universal life policy is appropriate.

To assist in bringing those principles to life, there is an attachment to this letter with several pages that demonstrate further transparency to the consumer, including

- A mock-up of an additional options page. This would be an example of how a carrier could conceptually talk about the risk and reward of the consumer incurring a higher level of charges to
potentially participate in a higher level of returns. By making this option an additive page and not part of the base illustration, transparency and understanding would be significantly increased while allowing carriers the freedom to innovate in their product designs.

- A mock-up of an additional page describing variable/index loans versus fixed loans. This page could be used in the case where the base illustration does not allow for variable/index loans to illustrate more favorably than fixed loans. Much like additive charges that create the potential for additional return, variable/index loans create additional risk in exchange for the potential for additional return.
- A mock-up of a charges disclosure page.
- A mock-up of a sequence of returns page. One attribute that would assist in consumer understanding how an indexed universal life policy operates would be to show a non-level return scenario. The attachment shows one conceptual way to show the impact of non-level returns.

As you see in each of the mock-ups, Securian Financial believes the information provided is important enough to require a client and advisor signature to ensure the disclosures are understood.

Securian Financial fully realizes and appreciates that these are simply drafts of what might become part of required disclosures, but we want to put the concepts on paper to match the words we have been saying and to provide a starting point for discussion.

If the industry decides to move forward with these concepts, Securian Financial will be more than willing to dedicate our time and resources to moving quickly from draft stage to final stage in partnership with other carriers and the regulators.

In addition, Securian Financial has submitted a letter in conjunction with some other carriers articulating position statements with which we believe all carriers could be comfortable and specific recommended changes to AG49. I wanted to take this opportunity to re-iterate Securian Financial’s stance on a few of the core issues:

- Securian Financial believes there should be a tight limit as to the amount of policy level charges that can be used to increase the indexing parameters and/or bonus mechanics. There is some suggested language in the multi-carrier letter, but Securian Financial encourages you to consider a concrete limit with regard to how much of the assumed earned rate can be multiplied by the 145% factor that resides in AG49. There was a wisdom to the crafting of the current version of AG49, which uses an explicitly defined historical average of the S&P 500 to calculate the maximum illustrated rate. The corollary here would be to explicitly define a historical average of General Account-like assets to calculate the maximum earned rate that can be multiplied by the 145% factor. An example would be a 20-year average of the Moody’s Corporate Bond Index for 10-year bond instruments.
- Securian Financial believes the industry would be in a better position if variable/index loans were not allowed to be illustrated, but instead explained on a concept page as described above.
- Securian Financial believes there should be some clarification made to the illustration actuary testing and certification requirements, including:
  - Changes need to be made to eliminate the aggregation of multiple marketed products using the same base policy form; each marketed product needs to pass on its own.
  - Each separately illustrated index account needs to pass on its own.
Fred, thank you for the several instances where you have taken your valuable time to meet with me and other representatives from Securian Financial. We know there is no perfect outcome here and stand ready to assist you in any way we can.

Respectfully,

Robert J Ehren
The below is an example of what a charges disclosure page could look like.

<table>
<thead>
<tr>
<th>Year</th>
<th>Age</th>
<th>Net Outlay</th>
<th>COI Charge</th>
<th>Other Charges</th>
<th>Total Charges</th>
<th>Interest &amp; Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>45</td>
<td>$10,000</td>
<td>$1,039</td>
<td>$4,292</td>
<td>$5,331</td>
<td>$397</td>
</tr>
<tr>
<td>5</td>
<td>49</td>
<td>$50,000</td>
<td>$6,306</td>
<td>$22,257</td>
<td>$28,563</td>
<td>$6,314</td>
</tr>
<tr>
<td>10</td>
<td>54</td>
<td>$100,000</td>
<td>$16,385</td>
<td>$46,782</td>
<td>$63,167</td>
<td>$24,802</td>
</tr>
<tr>
<td>25</td>
<td>69</td>
<td>$250,000</td>
<td>$94,257</td>
<td>$95,331</td>
<td>$189,588</td>
<td>$251,598</td>
</tr>
<tr>
<td>50</td>
<td>94</td>
<td>$500,000</td>
<td>$317,685</td>
<td>$431,422</td>
<td>$749,107</td>
<td>$2,119,924</td>
</tr>
</tbody>
</table>

I have reviewed and understand the charges in the policy as presented. I understand that the charges are non-guaranteed and credits are as illustrated. Actual charges and credits may vary.

Policy Owner

Date

Agent

Date
The below is an example of Non-level return summary page could look like.

### Non-Level Return Summary

Illustrated values are based on an S&P 500 Index with a 0% floor, 10.5% Cap, 100% Participation rate.

<table>
<thead>
<tr>
<th>Year</th>
<th>Age</th>
<th>Cumulative Net Outlay</th>
<th>Guaranteed Values</th>
<th>Illustrated Values</th>
<th>Worst Scenario*</th>
<th>Best Scenario*</th>
<th>Difference between Best and Worst</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>55</td>
<td>$35,000</td>
<td>$26,508</td>
<td>$30,517</td>
<td>$31,642</td>
<td>$31,642</td>
<td>$0</td>
</tr>
<tr>
<td>5</td>
<td>60</td>
<td>$175,000</td>
<td>$131,492</td>
<td>$172,074</td>
<td>$156,732</td>
<td>$165,655</td>
<td>$(8,923)</td>
</tr>
<tr>
<td>10</td>
<td>65</td>
<td>$350,000</td>
<td>$256,884</td>
<td>$400,335</td>
<td>$387,704</td>
<td>$368,496</td>
<td>$19,208</td>
</tr>
<tr>
<td>15</td>
<td>70</td>
<td>$525,000</td>
<td>$382,483</td>
<td>$731,115</td>
<td>$611,333</td>
<td>$724,188</td>
<td>$(112,855)</td>
</tr>
<tr>
<td>20</td>
<td>75</td>
<td>$525,000</td>
<td>$309,489</td>
<td>$986,810</td>
<td>$690,043</td>
<td>$898,786</td>
<td>$(208,743)</td>
</tr>
<tr>
<td>25</td>
<td>80</td>
<td>$525,000</td>
<td>$141,029</td>
<td>$1,367,682</td>
<td>$776,248</td>
<td>$1,435,319</td>
<td>$(659,071)</td>
</tr>
</tbody>
</table>

I have reviewed and understand the credits in the policy as presented are constant every year.

Policy Owner

Agent

* To find the Best and the Worst Scenarios we calculated the geometric average annual credited rate for the S&P 500 for each daily 25-year period starting 12/31/1948 and ending with the 25-year period that ends on 12/31 of the prior calendar year.
Historical data

The 30-year historical index performance table shows past index performance along with a hypothetical crediting rate using our current growth cap, floor and participation rate. We also provide the historical compound average returns over designated periods for your illustrated indexed account options. Please keep in mind that historical performance does not represent future performance for these indexed accounts.

This product has index account options available to you that increase the charges in the contract in exchange for higher caps and/or higher credits to the policy, based upon the index return.

These are the options available on this policy:

- A is S&P 500 with 10% cap, no charge, no multiplier
- B is S&P 500 with 10% cap, 1.5% charge, 30% multiplier
- C is S&P 500 with 10% cap, 5% charge, 100% multiplier

Below is a chart of the last 30 years of S&P 500 returns to demonstrate the higher volatility of index crediting results, but also the potential for higher returns.

<table>
<thead>
<tr>
<th>Date</th>
<th>S&amp;P Growth Rate</th>
<th>Index A Segment Charge</th>
<th>Total Index Credit %</th>
<th>Index B Segment Charge</th>
<th>Total Index Credit %</th>
<th>Index C Segment Charge</th>
<th>Total Index Credit %</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/14/89</td>
<td>27.95%</td>
<td>0.00%</td>
<td>10.00%</td>
<td>1.50%</td>
<td>12.81%</td>
<td>5.00%</td>
<td>19.00%</td>
</tr>
<tr>
<td>12/20/90</td>
<td>-5.93%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>1.50%</td>
<td>-1.50%</td>
<td>5.00%</td>
<td>-5.00%</td>
</tr>
<tr>
<td>12/19/91</td>
<td>15.87%</td>
<td>0.00%</td>
<td>10.00%</td>
<td>1.50%</td>
<td>12.81%</td>
<td>5.00%</td>
<td>19.00%</td>
</tr>
<tr>
<td>12/17/92</td>
<td>13.83%</td>
<td>0.00%</td>
<td>10.00%</td>
<td>1.50%</td>
<td>12.81%</td>
<td>5.00%</td>
<td>19.00%</td>
</tr>
<tr>
<td>12/16/93</td>
<td>6.41%</td>
<td>0.00%</td>
<td>6.41%</td>
<td>1.50%</td>
<td>8.21%</td>
<td>5.00%</td>
<td>16.44%</td>
</tr>
<tr>
<td>12/15/94</td>
<td>-1.73%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>1.50%</td>
<td>-1.50%</td>
<td>5.00%</td>
<td>-4.44%</td>
</tr>
<tr>
<td>12/14/95</td>
<td>35.49%</td>
<td>0.00%</td>
<td>10.00%</td>
<td>1.50%</td>
<td>12.81%</td>
<td>5.00%</td>
<td>19.00%</td>
</tr>
<tr>
<td>12/19/96</td>
<td>20.88%</td>
<td>0.00%</td>
<td>10.00%</td>
<td>1.50%</td>
<td>12.81%</td>
<td>5.00%</td>
<td>19.00%</td>
</tr>
<tr>
<td>12/18/97</td>
<td>28.10%</td>
<td>0.00%</td>
<td>10.00%</td>
<td>1.50%</td>
<td>12.81%</td>
<td>5.00%</td>
<td>19.00%</td>
</tr>
<tr>
<td>12/17/98</td>
<td>23.52%</td>
<td>0.00%</td>
<td>10.00%</td>
<td>1.50%</td>
<td>12.81%</td>
<td>5.00%</td>
<td>19.00%</td>
</tr>
<tr>
<td>12/16/99</td>
<td>20.24%</td>
<td>0.00%</td>
<td>10.00%</td>
<td>1.50%</td>
<td>12.81%</td>
<td>5.00%</td>
<td>19.00%</td>
</tr>
<tr>
<td>12/14/00</td>
<td>-5.49%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>1.50%</td>
<td>-1.50%</td>
<td>5.00%</td>
<td>-5.00%</td>
</tr>
<tr>
<td>12/20/01</td>
<td>-14.99%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>1.50%</td>
<td>-1.50%</td>
<td>5.00%</td>
<td>-5.00%</td>
</tr>
<tr>
<td>12/19/02</td>
<td>-22.43%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>1.50%</td>
<td>-1.50%</td>
<td>5.00%</td>
<td>-5.00%</td>
</tr>
<tr>
<td>12/18/03</td>
<td>23.18%</td>
<td>0.00%</td>
<td>10.00%</td>
<td>1.50%</td>
<td>12.81%</td>
<td>5.00%</td>
<td>19.00%</td>
</tr>
<tr>
<td>12/16/04</td>
<td>10.47%</td>
<td>0.00%</td>
<td>10.00%</td>
<td>1.50%</td>
<td>12.81%</td>
<td>5.00%</td>
<td>19.00%</td>
</tr>
<tr>
<td>12/15/05</td>
<td>5.63%</td>
<td>0.00%</td>
<td>5.63%</td>
<td>1.50%</td>
<td>7.21%</td>
<td>5.00%</td>
<td>14.44%</td>
</tr>
<tr>
<td>12/14/06</td>
<td>12.16%</td>
<td>0.00%</td>
<td>10.00%</td>
<td>1.50%</td>
<td>12.81%</td>
<td>5.00%</td>
<td>19.00%</td>
</tr>
<tr>
<td>12/20/07</td>
<td>2.43%</td>
<td>0.00%</td>
<td>2.43%</td>
<td>1.50%</td>
<td>3.11%</td>
<td>5.00%</td>
<td>6.23%</td>
</tr>
<tr>
<td>12/18/08</td>
<td>-39.37%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>1.50%</td>
<td>-1.50%</td>
<td>5.00%</td>
<td>-5.00%</td>
</tr>
<tr>
<td>12/17/09</td>
<td>23.81%</td>
<td>0.00%</td>
<td>10.00%</td>
<td>1.50%</td>
<td>12.81%</td>
<td>5.00%</td>
<td>19.00%</td>
</tr>
<tr>
<td>12/16/10</td>
<td>13.39%</td>
<td>0.00%</td>
<td>10.00%</td>
<td>1.50%</td>
<td>12.81%</td>
<td>5.00%</td>
<td>19.00%</td>
</tr>
<tr>
<td>12/15/11</td>
<td>-2.18%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>1.50%</td>
<td>-1.50%</td>
<td>5.00%</td>
<td>-5.00%</td>
</tr>
<tr>
<td>12/20/12</td>
<td>18.75%</td>
<td>0.00%</td>
<td>10.00%</td>
<td>1.50%</td>
<td>12.81%</td>
<td>5.00%</td>
<td>19.00%</td>
</tr>
<tr>
<td>12/19/13</td>
<td>25.35%</td>
<td>0.00%</td>
<td>10.00%</td>
<td>1.50%</td>
<td>12.81%</td>
<td>5.00%</td>
<td>19.00%</td>
</tr>
<tr>
<td>12/18/14</td>
<td>13.91%</td>
<td>0.00%</td>
<td>10.00%</td>
<td>1.50%</td>
<td>12.81%</td>
<td>5.00%</td>
<td>19.00%</td>
</tr>
<tr>
<td>12/17/15</td>
<td>-0.94%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>1.50%</td>
<td>-1.20%</td>
<td>5.00%</td>
<td>-5.00%</td>
</tr>
<tr>
<td>12/15/16</td>
<td>10.78%</td>
<td>0.00%</td>
<td>10.00%</td>
<td>1.50%</td>
<td>12.81%</td>
<td>5.00%</td>
<td>19.00%</td>
</tr>
<tr>
<td>12/14/17</td>
<td>17.24%</td>
<td>0.00%</td>
<td>10.00%</td>
<td>1.50%</td>
<td>12.81%</td>
<td>5.00%</td>
<td>19.00%</td>
</tr>
<tr>
<td>12/20/18</td>
<td>-6.96%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>1.50%</td>
<td>-1.50%</td>
<td>5.00%</td>
<td>-5.00%</td>
</tr>
</tbody>
</table>

Important to note that in calculating the annual return we took into consideration the index charge.
What has been illustrated is a fixed policy loan, but your policy does have the option of a variable or indexed loan. Here is the description of your loan options:

Here is an example of what a fixed vs. variable loan disclosure page could look like

### Assuming illustrated indexed account return of 6.00%

<table>
<thead>
<tr>
<th>Year</th>
<th>Age</th>
<th>Policy Loan Amount</th>
<th>Loan Interest</th>
<th>Loan Balance</th>
<th>Interest Credited</th>
<th>Fixed Loan Account Value</th>
<th>Net Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>45</td>
<td>$10,000</td>
<td>$500</td>
<td>$10,500</td>
<td>$450</td>
<td>$10,450</td>
<td>($50)</td>
</tr>
<tr>
<td>2</td>
<td>46</td>
<td>$10,000</td>
<td>$1,025</td>
<td>$21,525</td>
<td>$920</td>
<td>$21,370</td>
<td>($155)</td>
</tr>
<tr>
<td>3</td>
<td>47</td>
<td>$10,000</td>
<td>$1,576</td>
<td>$33,101</td>
<td>$1,412</td>
<td>$33,782</td>
<td>($319)</td>
</tr>
<tr>
<td>4</td>
<td>48</td>
<td>$10,000</td>
<td>$2,155</td>
<td>$45,256</td>
<td>$1,925</td>
<td>$44,707</td>
<td>($549)</td>
</tr>
<tr>
<td>5</td>
<td>49</td>
<td>$10,000</td>
<td>$2,763</td>
<td>$58,019</td>
<td>$2,462</td>
<td>$57,169</td>
<td>($850)</td>
</tr>
<tr>
<td>6</td>
<td>50</td>
<td>$10,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>51</td>
<td>$10,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>52</td>
<td>$10,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>53</td>
<td>$10,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>54</td>
<td>$10,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Assuming illustrated indexed account return of 0% and 6.00% alternating

<table>
<thead>
<tr>
<th>Year</th>
<th>Age</th>
<th>Policy Loan Amount</th>
<th>Loan Interest</th>
<th>Loan Balance</th>
<th>Interest Credited</th>
<th>Fixed Loan Account Value</th>
<th>Net Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>45</td>
<td>$10,000</td>
<td>$500</td>
<td>$10,500</td>
<td>$450</td>
<td>$10,450</td>
<td>($50)</td>
</tr>
<tr>
<td>2</td>
<td>46</td>
<td>$10,000</td>
<td>$1,025</td>
<td>$21,525</td>
<td>$920</td>
<td>$21,370</td>
<td>($155)</td>
</tr>
<tr>
<td>3</td>
<td>47</td>
<td>$10,000</td>
<td>$1,576</td>
<td>$33,101</td>
<td>$1,412</td>
<td>$33,782</td>
<td>($319)</td>
</tr>
<tr>
<td>4</td>
<td>48</td>
<td>$10,000</td>
<td>$2,155</td>
<td>$45,256</td>
<td>$1,925</td>
<td>$44,707</td>
<td>($549)</td>
</tr>
<tr>
<td>5</td>
<td>49</td>
<td>$10,000</td>
<td>$2,763</td>
<td>$58,019</td>
<td>$2,462</td>
<td>$57,169</td>
<td>($850)</td>
</tr>
<tr>
<td>6</td>
<td>50</td>
<td>$10,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>51</td>
<td>$10,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>52</td>
<td>$10,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>53</td>
<td>$10,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>54</td>
<td>$10,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Please allow me to submit the following comments on behalf of Virginia regarding the following exposure:

**Actuarial Guideline 49 (AG 49) – Draft for 11/15/19 Exposure**

1. **Benchmark Index Account.** Section 3.C would seem to allow an Indexed Account with a multiplier to be a Benchmark Index Account and as such could lead to very high maximum credited rate in 4.B and possible double-counting in 4.E. For example, consider a product where only one Index Account is offered under a S&P 500 one-year point-to-point crediting rate strategy with a 5% account charge to fund an interest credit multiplier of 2.0 which doubles the option budget and the potential Indexed Credits. The Indexed Account would seem to meet all of the criteria in Section 3.C. To address this, I propose adding an additional requirement ix. for Benchmark Index Accounts in Section 3.C as follows:

   ix. The Supplemental Option Budget shall be 0%.

2. **Limits on Illustrated Bonuses or Other Enhancements.** Section 4.E is problematic in that it creates the potential for double-counting of interest credit multipliers. However, if Section 4.E is removed, then there is no explicit reference to limitations of bonuses or other enhancements in Section 4. Some actuaries have interpreted this to mean there is no explicit limit to illustrated bonuses or other enhancements in Section 4 and illustrate an index rate plus a bonus or other enhancement, so that the total credited benefits exceed the maximum illustrated rate (see Q 4.13 in the Life Illustrations Practice Note, updated February 2019 version). I propose adding a new Section 4.E, that would clarify that the maximum credited rate in Section 4.B is meant to set a bound for all types of indexed-related credits:

   E. The Indexed Credits under the illustrated scale for any policy year shall not exceed:

   i. the account or accumulation value of the policy, before any policy charges are deducted, multiplied by

   ii. the applicable rate calculated in 4(B).

If interest is credited less frequently than once per year, the limit above may be applied in total over the interest crediting period so that the total Indexed Credits over the interest crediting period do not exceed the above limit. For example, if a two-year point-to-point indexed crediting strategy is used over policy years 9 and 10, the applicable rate in 4(B) is 6.0%, and the account value in policy years 9 and 10 is $100 and $110, respectively, then the total Indexed Credits for policy years 9 and 10 shall not exceed $12.60.

Thank you for providing me the opportunity to submit this comment.

Craig Chupp, FSA, MAAA  
Life and Health Insurance Actuary  
Virginia Bureau of Insurance  
craig.chupp@scc.virginia.gov  
Phone: (804) 371-9131
Mr. Fred Andersen  
Cc: Pat Allison

Dear Fred:

The NAIC IUL Illustration (A) Subgroup requested proposals for edits to AG 49 and responses to the items below (in blue) by November 25, 2019. The attached draft AG49 provides a framework to address these items. The changes have the following goals:

- Multiplier and non-multiplier strategies will illustrate the same at the maximum illustrated rate,
- Strategies that modify the Benchmark Index Account (e.g. Cap buy-ups) will be addressed, and
- Illustrations for all types of index strategies will be subject to a consistent limit based on a company’s investment earned rate.

Given the limited timeframe for comments, we welcome the opportunity to collaborate further and discuss questions.

2. Section 4.E., to ensure relevance and consistency with Section 5 in light of changes to Section 5 and to ensure the coordination with Sections 4A and 4B to produce a clear and appropriate calculation.

The attached draft proposes language in Section 4 to create clear illustration limits that are applied across different types of index strategies. We believe the resulting illustrations will align with the regulators’ stated goals and avoid advantaging or disadvantaging any particular index strategy design. The new language covers index strategies that include charges to modify the Benchmark Index Account (such as Cap buy-ups), charges to support a multiplier bonus, both, or neither. These various index strategies will be consistently limited to a maximum net effective illustrated rate of 145% times the Annual Net Investment Earnings Rate (NIER).

To achieve this, the “Supplemental Option Budget”, as defined in the exposure draft, was replaced with two separate definitions in Sections 3G and 3H. The distinction is between charges used to support higher index crediting parameters (e.g. Cap buy-ups), which could create a new Benchmark Index Account, versus charges used to fund multipliers, which are applied outside of the maximum credited rate for the Benchmark Index. This bifurcation is
needed so that the charges can be reflected in the appropriate place in Sections 4B and 4C. Charges that affect the Benchmark Index Account, such as for Cap buy-up strategies, should not be added on top of the lookback rate in 4B(i) to prevent inappropriate double counting, but should be added in 4B(ii) to avoid disadvantaging these product designs. On the other hand, if a charge does not affect the lookback rate, such as for multipliers, it is added after the maximum credited rate is determined. This is accomplished in Section 4C in the attached draft. We believe when placing limits on illustrations which have charges deducted from the account value, defining the charges themselves rather than their relationship to a hedge budget provides more clarity, consistency in interpretation, and accuracy.

The numerical example below demonstrates how these product features will each be limited to the same net illustrated rate with the proposed language. This fits with the current wording of allowing multiple Benchmark Index Accounts, but ultimately limits all strategies to 145\% times the NIER or, if less, to the maximum credited rate for their respective Benchmark Index Account.

Examples of proposed 4 (B) and 4 (C) language:

<table>
<thead>
<tr>
<th></th>
<th>Basic Strategy</th>
<th>Multiplier Bonus</th>
<th>Cap Buy-Up</th>
<th>Multiplier &amp; Cap Buy-Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example 1</td>
<td>4.5%</td>
<td>4.5%</td>
<td>4.5%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Example 2</td>
<td>10%</td>
<td>10%</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>Example 3</td>
<td>0%</td>
<td>0%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Example 4</td>
<td>0%</td>
<td>3%</td>
<td>0%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Note: These examples demonstrate the mechanics of the formulas in the draft. They are representative, but do not show all possible strategy designs. All Indexed Credits are limited to a maximum net rate of 145\% * NIER.
3. **Section 5B (new part of Section 5), to ensure:**
   a. Inappropriate double counting of credits or charges is avoided;
   b. Clarity is added, including defining the new term "net" in 5B(A); and
   c. Cap buy-ups are appropriately addressed.

*Supplemental math examples may be provided to add clarity.*

The attached language in Section 5 was expanded to more clearly describe the rate as a net rate. The drafting note provides further clarification. The risk of inappropriate double counting resulting from Section 5 is avoided with Section 5B(A) being a net limit and specifying that the limit is 145% of the NIER which does not include additional charges. Additional edits to Section 5 are not needed for cap buy-ups, which are addressed in our proposed changes to Section 4.

4. **Section 6B to ensure the 100 basis point loan limits is applied as intended.**

The current language for Policy Loans only applies the 100 bps limit to Indexed Credits. If all types of bonuses are not included in this limit, it may be possible for the limit to be exceeded through other product features not directly tied to an index. Section 6B in the attached draft has updated language to address this concern.

*Also, the Subgroup will accept proposals on potential compromise approaches for the inforce application issue, in case the Life Actuarial Task Force decides to take a compromise route instead of a straight-forward inclusion or exclusion of the new guidance to inforce illustrations.*

If the revisions are put in place for inforce policies, we recommend this apply one year after the effective date of the revised AG 49. This would allow time for customer and producer education. Specific wording suggestions for this compromise have *not* been included in the attached draft AG49.

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We look forward to continuing discussions on ways to improve the attached language and, long term, on more holistic changes to illustrations to provide greater consumer clarity.

Regards,

Pete Rothermel  
VP, CFO - Individual Life
Actuarial Guideline XLIX – Draft to discuss on 11/1/19 subgroup call – potential basis for exposure on 11/14/19 call

THE APPLICATION OF THE LIFE ILLUSTRATIONS MODEL REGULATION TO POLICIES WITH INDEX-BASED INTEREST

Background

The Life Insurance Illustrations Model Regulation (#582) was adopted by the NAIC in 1995. Since that time there has been continued evolution in product design, including the introduction of benefits that are tied to an external index or indices. Although these policies are subject to Model #582, not all of their features are explicitly referenced in the model, resulting in a lack of uniform practice in its implementation. In the absence of uniform guidance, two illustrations that use the same index and crediting method often illustrated different credited rates. The lack of uniformity can be confusing to potential buyers and can cause uncertainty among illustration actuaries when certifying compliance with Model #582.

This guideline provides uniform guidance for policies with index-based interest. In particular, this guideline:

(1) Provides guidance in determining the maximum crediting rate for the illustrated scale and the earned interest rate for the disciplined current scale.

(2) Limits the policy loan leverage shown in an illustration.

(3) Requires additional consumer information (side-by-side illustration and additional disclosures) that will aid in consumer understanding.

Text

1. Effective Date

This Actuarial Guideline shall be effective as follows:

A. Sections 4 and 5A, except as noted in iv., shall be effective for all new business and in force life insurance illustrations on policies sold on or after September 1, 2015.

B. Effective March 1, 2017, Section 4 and Section 5A, except as noted in iv., shall be effective for all in-force life insurance illustrations on policies within the scope of this actuarial guideline, regardless of the date the policy was sold.

C. Sections 6A and 7 shall be effective for all new business and in force life insurance illustrations on policies sold on or after March 1, 2016.

C.D. Sections 4.E, 5B, and 6B shall be effective for all policies sold on or after May 1, 2020.

2. Scope

This Actuarial Guideline shall apply to any life insurance illustration that meets both (i) and (ii), below:

A. The policy is subject to Model #582.

B. Interest credits are linked to an external index or indices.

3. Definitions

A. Alternate Scale: A scale of non-guaranteed elements currently being illustrated such that:
i. The credited rate for each Index Account does not exceed the lesser of the maximum credited rate for the illustrated scale less 100 basis points and the credited rate for the Fixed Account. If the insurer does not offer a Fixed Account with the illustrated policy, the credited rate for each Index Account shall not exceed the average of the maximum credited rate for the illustrated scale and the guaranteed credited rate for that account. However, the credited rate for each Index Account shall never be less than the guaranteed credited rate for that account.

ii. If the illustration includes a loan, the illustrated rate of total amount credited as a result of the loan balance, including Indexed Credits and all other illustrated benefits and bonuses that impact the policy’s account value, shall not exceed the illustrated loan charge does not exceed the illustrated loan charge.

iii. All other non-guaranteed elements are equal to the non-guaranteed elements for the illustrated scale.

B. Annual Net Investment Earnings Rate: Gross portfolio annual earnings rate, less provisions for investment expenses and default cost, of the general account assets (excluding hedges for Indexed Credits) allocated to support the policy. Any asset-based charges or other policy charges that are used to increase the total amount spent to generate the Indexed Credits of the policy Index Parameter Charges and Index Bonus Charges are not included in Annual Net Investment Earnings Rate.

C. Benchmark Index Account: An Index Account with the following features:

i. The interest calculation is based on the percent change in S&P 500 Index value only, over a one-year period using only the beginning and ending index values. (S&P 500 Index ticker: SPX)

ii. An annual cap is used in the interest calculation.

iii. The annual floor used in the interest calculation shall be 0%.

iv. The participation rate used in the interest calculation shall be 100%.

v. Interest is credited once per year.

vi. Account charges do not exceed the account charges for any corresponding Index Accounts within the policy in any policy year. If Index Accounts with different levels of account charges are offered with the illustrated policy, more than one Benchmark Index Account may be used in determining the maximum illustrated crediting rates for the policy’s Index Accounts, subject to the requirements of 5.D. However, for each Index Account within the policy, only one Benchmark Index Account shall apply. Any rate calculated in 4 (B) shall not apply for an Index Account if the account charges for the applicable Benchmark Index Account exceed the account charges for that Index Account in any policy year. Account charges include all charges applicable to an Index Account, whether deducted from policy values or from premiums or other amounts transferred into such Index Account.

vii. Additional amounts credited are not less than the additional amounts credited for any corresponding Index Accounts within the policy in any policy year. Any rate calculated in 4 (B) shall not apply for an Index Account if the additional amounts credited for the applicable Benchmark Index Account are less than the additional amounts credited for that Index Account in any policy year. Additional amounts include all credits that increase policy values, including but not limited to experience refunds or bonuses.

viii. There are no limitations on the portion of account value allocated to the account.

D. Fixed Account: An account where the credited rate is not tied to an external index or indices.

E. Index Account: An account where the credited rate is tied to an external index or indices.

F. Indexed Credits: Any interest credit, multiplier, factor, bonus, or other enhancement to policy values that is linked directly or indirectly to an index or indices.
G. Supplemental Option Budget Index Parameter Charges: Any asset-based charges or other policy charges that are
deducted from the account value to support index parameters (e.g., cap rate, participation rate, floor rate) explicitly
used to increase the total amount spent to generate the Indexed Credits of the policy. This amount is expressed as
a percent of the policy’s indexed account value.

Drafting Note: This is intended to capture charges that modify the Benchmark Index Account lookback rate, such
as cap buy-up strategies, or cause development of a hypothetical Benchmark Index Account. Section 3(C) vii could be updated to use these defined terms.

H. Index Bonus Charges: Any asset-based charges or other policy charges that are deducted from the account value to
support bonuses, such as multipliers or other enhancements to policy values, that are linked to an index or indices.
This amount is expressed as a percent of the policy’s indexed account value.

Drafting Note: This is intended to capture charges that support multipliers or other bonuses that are applied outside
of the Benchmark Index Account lookback rate. This is the counterpart to the Index Parameter Charges. A charge
could fall under the definition in either 3G or 3H, or be split between both; however this is not intended to allow
any one charge to be double counted in both definitions.

4. Illustrated Scale

The credited rate for the illustrated scale for each Index Account shall be limited as follows:

A. Calculate the geometric average annual credited rate for each applicable Benchmark Index Account for the 25-year
period starting on 12/31 of the calendar year that is 66 years prior to the current calendar year (e.g., 12/31/1949 for
2015 illustrations) and for each 25-year period starting on each subsequent trading day thereafter, ending with the
25-year period that ends on 12/31 of the prior calendar year.

i. If the insurer offers an applicable Benchmark Index Account with the illustrated policy, the
illustration actuary shall use the current annual cap for the applicable Benchmark Index Account
in 4 (A).

ii. If the insurer does not offer an applicable Benchmark Index Account with the illustrated policy,
the illustration actuary shall use actuarial judgment to determine a hypothetical, supportable
current annual cap for a hypothetical, supportable Index Account that meets the definition of a
Benchmark Index Account, and shall use that cap in 4 (A).

B. For each applicable Benchmark Index Account, the arithmetic mean of the geometric average annual credited rates
calculated in 4 (A) shall be the maximum credited rate(s) for the illustrated scale shall be the minimum of (i) and
(ii):

i. The arithmetic mean of the geometric average annual credited rates calculated in 4 (A)

ii. The sum of (145% times the Annual Net Investment Earnings Rate), plus (any Index Parameter
Charges adjusted for timing differences between when the charges are taken out and when interest
is credited).

C. Total Indexed Credits may not exceed the sum of the maximum credited rate calculated in 4 (B) plus any Index
Bonus Charges, adjusting for timing differences between when the charges are taken out and when interest is
credited.

C.D. For other Index Accounts using other equity, bond, and/or commodity indexes, and/or using other crediting
methods, the illustration actuary shall use actuarial judgment to determine the maximum credited rate for the
illustrated scale. The determination shall reflect the fundamental characteristics of the Index Account and the
parameters shall have the appropriate relationship to the expected risk and return of the applicable Benchmark Index
Account. In no event shall the credited rate for the illustrated scale exceed the applicable rate calculated in 4 (B)
or shall the total Indexed Credits exceed the limit calculated in 4 (C).
At the beginning of each calendar year, the insurer shall be allowed up to three (3) months to update the credited rate for each Index Account in accordance with 4 (B) and 4 (C).

The table below illustrates four examples of the calculation of the maximum credited rate for the illustrated scale and the maximum illustrated Indexed Credits. Example 1 assumes Index Parameter Charges and Index Bonus Charges are zero. Example 2 assumes Index Bonus Charges are positive. Example 3 assumes Index Parameter Charges are positive. Example 4 assumes both Index Parameter Charges and Index Bonus Charges are positive.

<table>
<thead>
<tr>
<th>Example 1</th>
<th>Example 2</th>
<th>Example 3</th>
<th>Example 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Net Investment Earnings Rate (NIER)</td>
<td>4.5%</td>
<td>4.5%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Cap</td>
<td>10%</td>
<td>10%</td>
<td>13%</td>
</tr>
<tr>
<td>Index Bonus [Multiplier]</td>
<td>0%</td>
<td>50%</td>
<td>0%</td>
</tr>
<tr>
<td>Index Parameter Charges</td>
<td>0%</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>Index Bonus Charges</td>
<td>0%</td>
<td>3%</td>
<td>0%</td>
</tr>
</tbody>
</table>

4 (B) i
Historical Credited Rate for Benchmark Index Account
| | 6% | 6% | 7.4% | 7.4% |

4 (B) ii
145% * NIER + Index Parameter Charges
6.53% = 1.45 * 4.5% + 0% | 6.53% = 1.45 * 4.5% + 0% | 7.53% = 1.45 * 4.5% + 1% | 7.53% = 1.45 * 4.5% + 1% |

4 (B)
Maximum Illustrated Credited Rate
6% = Min(6%, 6.53%) | 6% = Min(6%, 6.53%) | 7.4% = Min(7.4%, 7.53%) | 7.4% = Min(7.4%, 7.53%) |

4 (C)
Maximum Indexed Credits
6% = 6% + 0% | 9% = 6% + 3% | 7% = 7.4% + 0% | 7% = 7.4% + 3% |

Maximum Indexed Credits less Index Charges
6% = 6% - 0% - 0% | 6% = 9% - 0% - 3% | 6.4% = 7.4% - 1% - 0% | 6.4% = 10.4% - 1% - 3% |

Drafting note: These examples demonstrate the mechanics of the formulas in Section 4. They are representative but do not show all possible strategy designs. Ultimately, all Indexed Credits are limited to a maximum net rate of 145% * NIER.

If charges that fund a Supplemental Option Budget are deducted from the illustrated cash value, then Indexed Credits generated by the return from the Supplemental Option Budget within the scenario being illustrated may be illustrated in an amount up to, but not exceeding, such charges.

Drafting note: The intention is to specify that designs with multipliers or other enhancements should not illustrate better than non-multiplier designs.

5A. Disciplined Current Scale

The earned interest rate for the disciplined current scale shall be limited as follows:

A. If an insurer engages in a hedging program for index-based interest, the assumed earned interest rate underlying the disciplined current scale shall not exceed 145% of the annual net investment earnings rate (gross portfolio earnings less provisions for investment expenses and default costs) of the general account assets (excluding hedges for index-based credits) allocated to support the policy.

B. If an insurer does not engage in a hedging program for index-based interest, the assumed earned interest rate underlying the disciplined current scale shall not exceed the annual net investment earnings rate of the general account assets allocated to support the policy.
C. These experience limitations shall be included when testing for self-support and lapse-support under Model #582, accounting for all benefits including illustrated bonuses.

D. If more than one Benchmark Index Account is used for an illustrated policy, each set of Index Accounts that correspond to each Benchmark Index Account must independently pass the self-support and lapse-support tests under Model #582, subject to the limitations in 5 (A), (B), and (C). All experience assumptions that do not directly relate to the Index Accounts as to expenses, mortality, investment earnings rate of the general account assets, lapses, and election of any Fixed Account shall equal the assumptions used in the testing for the entire policy.

5B. Disciplined Current Scale

The annual earned interest rate for underlying the disciplined current scale shall be limited as follows:

A. If an insurer engages in a hedging program for index-based interest Indexed Credits, the assumed annual net investment performance underlying the disciplined current scale, inclusive of all general account assets and hedge assets that support the policy and net of default costs and investment expenses, including the amount spent to generate the Indexed Credits of the policy, shall not exceed 145% of the Annual Net Investment Earnings Rate.

Drafting Note: The focus was shifted from the earned rate to the investment performance to distinguish the term from that in the Model Regulation and avoid creating inconsistency with Section 4. The limit is based on a Net rate, so it does not include multiplier returns in the 145% limit. This would still allow reflecting the multiplier hedge return in DCS testing up to the amount spent to hedge the multiplier, as long as the corresponding hedge cost is also reflected, resulting in a net effect of 0.

i. the Annual Net Investment Earnings Rate, plus

ii. 45% times the Annual Net Investment Earnings Rate, plus

iii. 0% times the Supplemental Option Budget.

145% of the annual net investment earnings rate (gross portfolio earnings less provisions for investment expenses and default costs) of the general account assets (excluding hedges for index-based credits) allocated to support the policy.

A.B. If an insurer does not engage in a hedging program for index-based interest Indexed Credits, the assumed annual earned interest rate underlying the disciplined current scale for the policy shall not exceed the annual Net Investment Earnings Rate of the general account assets allocated to support the policy.

B.C. These experience limitations shall be included when testing for self-support and lapse-support under Model #582, accounting for all Indexed Credits and all other illustrated benefits and including illustrated bonuses.

D. If more than one Benchmark Index Account is used for an illustrated policy, each set of Index Accounts that correspond to each Benchmark Index Account, including all illustrated Indexed Credits that apply to an Indexed Account, must independently pass the self-support and lapse-support tests under Model #582, subject to the limitations in 5 (A), (B), and (C). All experience assumptions that do not directly relate to the Index Accounts and Indexed Credits as to expenses, mortality, investment earnings rate of the general account assets, lapses, and election of any Fixed Account shall equal the assumptions used in the testing for the entire policy.

The table below illustrates two examples of the calculation of the assumed annual earned interest rate underlying the disciplined current scale and assumes the insurer engages in a hedging program. Example 1 assumes the insurer’s Supplemental Option Budget is zero. Example 2 assumes the insurer’s Supplemental Option Budget is positive.

<table>
<thead>
<tr>
<th>Annual Net Investment Earnings Rate</th>
<th>Example 1</th>
<th>Example 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.5%</td>
<td>4.5%</td>
</tr>
</tbody>
</table>

Example 1 | Example 2
---|---
Annual Net Investment Earnings Rate | 4.5% | 4.5%
### Supplemental Option Budget (as % of Indexed Account Value)

<table>
<thead>
<tr>
<th></th>
<th>0%</th>
<th>2.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Annual Earned Interest Rate underlying the Disciplined Current Scale</td>
<td>6.53% = 1.45 × 0.045 + 0.025</td>
<td>6.53% = 1.45 × 0.045 + 0.025</td>
</tr>
</tbody>
</table>

6A. Policy Loans

If the illustration includes a loan, the illustrated rate credited to the loan balance shall not exceed the illustrated loan charge by more than 100 basis points.

6B. Policy Loans

If the illustration includes a loan, the total index credits amount credited as a result of illustrated rate credited to the loan balance, including Indexed Credits and all other illustrated benefits and bonuses that impact the policy’s account value, shall not exceed the sum of the interest rate charged to the loan and any asset-based charges for Indexed Credits applicable to the loan balance illustrated loan charge by more than 100 basis points. For example, if the loan charge plus asset-based charges for Indexed Credits is 6% of the loan balance, Indexed Credits and all other illustrated benefits and bonuses that impact the loan balance cannot exceed 7%, regardless of product features available.

7. Additional Standards

The basic illustration shall also include the following:

- A. A ledger using the Alternate Scale shall be shown alongside the ledger using the illustrated scale with equal prominence.

- B. A table showing the minimum and maximum of the geometric average annual credited rates calculated in 4 (A).

- C. For each Index Account illustrated, a table showing actual historical index changes and corresponding hypothetical interest rates using current index parameters for the most recent 20-year period.
November 25, 2019

Mr. Fred Andersen  
Chair, NAIC IUL Illustration (A) Subgroup  
Mr. Reggie Mazyck  
Life Actuary, NAIC  

Re: Questions on IUL Illustrations

Dear Mr. Andersen and Mr. Mazyck,

Global Atlantic Financial Group, through Accordia Life and its predecessor companies, has been continuously offering IUL products since the product was first introduced in the 1990’s, longer than any other carrier in the market today. We participated in the development of the original AG49 and thank the IUL Illustrations Subgroup for the opportunity to provide input to discussions on potential AG49 updates with this, our fourth comment letter of 2019.

Our March comment letter recommended that the underlying intention of AG49 be applied to all components of interest credits, inclusive of multipliers.

AG49’s goals of consistency and transparency were at the heart of our June comment letter recommendations of:

- Whether explicit or implicit charges are used to create a higher hedging budget, the resulting interest credit should follow the same underlying guidance of AG49 for interest crediting absent such charges, and 
- The 100bp loan leverage limit should be applied collectively to all sources of index returns.

We reiterated these items within our comment letter from earlier this month as we noted that:

- Products with multipliers would not illustrate the same as non-multiplier products as each benchmark account has a unique maximum illustrated rates while, per Section 4E, multiplier products are subject to a separate limit.  
- Products with multipliers would not illustrate the same as non-multiplier products as, per Section 6B, different loan leverage amounts result for multiplier and non-multiplier products due to the charges for the multiplier.

Global Atlantic believes the current draft wording fails to bring all IUL illustrations in line with the underlying intention of AG49. We therefore recommend that additional time be taken to ensure that any AG49 updates:

1. Provide consistent guidance for interest crediting regardless of the source of hedging budget,  
2. Generate consistent loan leverage limits regardless of product design, and
3. Create no bias in the manner for which hedge budgets are derived or investment returns are generated.

AG49 provides uniformity in illustrating IUL’s index value proposition. Products that offer higher index growth potential due to a higher cap, for example, are provided a higher maximum illustrated rate reflective of that increased potential. A product’s growth potential does not change based on the source of the hedge budget. Any AG49 updates should continue to provide for maximum illustrated rates commensurate with the growth potential and should not vary the maximum rate based on the source of the hedge budget.

AG49 provides a 100bp maximum difference between the rate charged on loaned funds and the rate credited on loaned funds. The intent of this provision is to limit the index value proposition to 100bps on loaned funds. Ensuring this value proposition limit is applied to the total index credit will not only result in compliance with the spirit of AG49 but also achieve the illustrated consistency being sought between multiplier and non-multiplier products.

AG49 directs the illustration actuary on earned rate assumption within the disciplined current scale given the use of hedge assets on IUL products. Limitations for this assumption are appropriate. The return on the hedge asset does not depend on the asset source; any limitations should not depend on the source of the asset. A consistent limitation within Section 5B would create the uniform practice desired without bias or incentive to certain product designs or hedge budget bifurcation.

With a consistent limitation in Section 5B, we believe Section 4E can be removed. For consistent loan leverage limits, we believe Section 6B should read “If the illustration includes a loan, the total index credits to the policy loan balance shall not exceed the illustrated loan charge, including any asset-based or other policy charges deducted to hedge the Index Credits as a result of the loan balance, by more than 100 basis points.”

In summary, Global Atlantic recommends further refinement of proposed updates to facilitate consistent and uniform illustration of the index value proposition while ensuring the spirit of AG49 through appropriate loan leverage and disciplined current scale limits.

Thomas A. Doruska
Head of Life Product Development

David P. Wilken
President, Life
Introduction to VBT Analysis Process

Academy Life Experience Committee and SOA Preferred Mortality Oversight Group (“Joint Committee”)

NAIC 2019 Fall National Meeting - Life Actuarial (A) Task Force - Austin, Texas

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Agenda

- Monitoring 2015 VBT for when to modify
- Metrics to be reviewed
- Triggers for action
- Potential corrective actions
- Next steps

Monitoring 2015 VBT for Need to Modify

- In VM-20, Section 9.C, companies are required to use an Industry Mortality Table for determining their prudent best estimate mortality.
- The industry mortality table is currently based on the 2015 VBT and corresponding RR Tables, advanced forward to the valuation date using prescribed mortality improvement factors published by the Society of Actuaries (SOA).

Monitoring 2015 VBT for Need to Modify, cont’d

- Once PBR is mandatory, there will be a significant increase in the number of contributing companies and amount of exposure and claims via the mandatory data collection within VM-51.
- The “Joint Committee” is recommending a method based on analytics to determine when there is sufficient change in the underlying mortality relative to the experience to warrant changes to the table.
Metrics to Be Reviewed

- Confidence Intervals (CI) based on normal distribution
  - CI of expected deaths vs. actual deaths
  - CI of A/E’s vs. 100% reference
  - Proposed 95% CI; can be parameterized
  - \[ A-E \]
- Amount based only
  - VBT based on amount-based experience
- Test 3rd moments to test if statistically <> 0
- Track/check Bühlmann coefficients based on recent data

New Calculated Fields—to Be Added to Individual Life Mortality data

- Expected deaths and A/E’s with and without mortality improvement adjustment to current observation year
  - Based on 2019 YE VM-20/AG38 mortality improvement factors
- Components to calculate Variance
  - By count and amount
  - To be used in CI calculation (normal distribution)
  - Will facilitate Limited Fluctuation and Bühlmann Credibility calculations
- Components to calculate 3rd Moment
  - By count and amount
  - May be used in the future, enhanced CI calculation that takes skewness into account; current limitations in software capabilities and budget prevent this today

Data Partitions for Review

- Determine how many years of data to use
- Will partition and review CI’s and \[ A-E \] of data by
  - Face amount bands
  - Gender
  - Age groups—quinquennial age groups for oldest attained ages
  - Duration groups
  - Nonsmoker/smoker status; will consider going down to preferred levels but lack of credibility may preclude this
- Each partition will be fully credible (>5,000 claims) based on frequency and severity

Trigger for Action

- Determine total number of partitions
- Determine total number of partitions outside CI
  - \[ A-E \] by amount results used to determine materiality
- If number outside CI greater than expected, action needed by VBT team
  - For example, if using 95% CI and 200 partitions
    - 10 partitions should be outside of CI; 5 above and 5 below
  - Monitor trends, if nearing the limit—create watchlist, may do additional analysis
Potential Corrective Actions on Current VBT

- Slope adjustments using multiplicative factors
- Adjustments to mortality improvement factors
- New VBT developed
- $|A-E|$ by amount results used to prioritize areas of the VBT to adjust

Software

- Recommend Tableau as delivery platform for data and calculations
- Benefits of Tableau
  - VBT team able to work with large ILEC datasets
  - CI calculations can be added using new calculated fields
  - Grouping feature can be used to create partitions of the data
  - Create visual displays of the data and areas of concern
- Current Limitations of Tableau
  - CI calc with skewness requires a new ‘R’ function to be developed and a Linux server. Will complete a proof of concept in 2020 and determine whether to proceed with a future implementation.

Next Steps

- Provide MIB and NAIC with request to add new calculated fields and complete Bühlmann calculations
- MIB to add new fields to 2009–2017 data
- NAIC to add new fields to 2015 test data and 2018+
- Complete Tableau calculations and visualizations in first half 2020
- Present to LATF in Summer 2020
### New Calculated Fields

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### Contact Information

Mary Bahna-Nolan, MAIA, FSA, CERA  
Chairperson, Academy Life Experience  
Committee and SOA Preferred Mortality  
Oversight Group  

Ian Treganier  
Life Policy Analyst  
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NAIC 2019 Fall National Meeting – Life Actuarial (A) Task Force – Austin, Texas
October 7, 2019

To: NAIC Life Actuarial Task Force
   Kent Sullivan, Chair

Re: Amendment Proposal 2019-56, Revisions to VM-51 Data Elements for AUW

Thank you for the opportunity to provide input on this proposal.

While we can appreciate the interest in collecting additional data, we struggle to understand the practical value potential of the current proposal. Because of several specific concerns noted below, especially regarding consumer data privacy and security, we believe that this proposal requires a tighter focus, and would benefit from further discussion and revision.

1. **Privacy and Security**
   The privacy and security of our applicants’ information is of the utmost importance to us. We go to great lengths to protect that information, and to comply with all regulations regarding the same. We would be very concerned about the sharing of any data, especially highly sensitive medical information at the individual level, with third parties and outside of our data environment.

2. **Data Complexity**
   Additionally, the depth and complexity of this expanded data scope increase the likelihood that carriers make different interpretations, resulting in non-uniform submissions for certain data elements. This in turn will render those elements unusable (or worse, misleading), effectively defeating the intended purpose of the expanded data.

3. **Underwriting Regime Definitions**
   Fundamentally, we struggle to see how the additional data breadth and granularity will actually enable more effective mortality table construction or establishment of more appropriate reserves.

   The recent perceived innovations in the underwriting process, commonly referred to as “accelerated” underwriting, are in many respects an extension of existing common practice (e.g. consider how medical records, aka “APS”, are typically only ordered at older ages and higher face amounts, or for cause). There is no obvious reason why this most recent underwriting iteration would necessitate a substantial overhaul to the data collection methodology for this process.

   Also, the recent perceived underwriting innovations are very immature, and rapidly evolving. It is probable that in just a few years, many of the data elements currently being explored will no longer be relevant, and that new items will have emerged as well. Trying to collect information on some of these new elements is likely to be wasted effort.
If more specific knowledge about how a policy was underwritten would add value to the various stakeholders, there seem to be several viable and more practical alternatives, such as submitting metadata about the type underwriting or tests used, rather than case-level data and test results.

4. Operational Costs
And finally, this expansion does generate a high degree of operational difficulty and cost. The issues are myriad, and include lack of available data, data maintained in disparate locations, and data maintained in image rather than structured format. The proposed phasing in of the requirements does not address the fundamental issue – namely, that a significant capital investment will be required to enable compliance, yet, as mentioned above, there is no clear expected value to be gained, for neither the carrier nor the consumer. Increasing the operating costs of carriers ultimately results in increased prices in market to be borne by consumers.

We thank you for your consideration, and look forward to continued dialogue on this important issue.

Sincerely,

Brian Guntli, FSA, MAAA
Director and Actuary
Allstate Life Insurance Company
October 7, 2019

Mr. Mike Boerner
Chair, NAIC Life Actuarial Task Force

Re: Accelerated Underwriting Data Elements

Dear Mike:

The American Council of Life Insurers (ACLI) appreciates the opportunity to comment on the exposed Accelerated Underwriting Data Elements on behalf of our member companies.

The ACLI has significant concerns about the current scope of the proposal, which are outlined below. These concerns echo many of the concerns we expressed in our November 7, 2017 letter. We are concerned that in its current state, the request does not serve the needs of consumers, regulators, or industry. ACLI would recommend that this APF be assessed in much greater detail through thorough dialogue on the regulatory and predictive value of the additional data elements, especially as regards the vision for turning the additional data into more effective reserving or other practical benefits. In addition, ACLI would encourage further review of retrospective elements and the timing of prospective elements.

1. Consumer Privacy and Confidentiality

ACLI member companies treat the privacy and security of our customers’ information very seriously, and would be very concerned about the sharing of data, especially highly sensitive and unique medical information at the individual level, with third parties and outside of our data environment. These concerns include, but are not limited to, elements capturing the following data:

i. Personal history information captured in items 86-101;
ii. Family history information captured in items 128-152;
iii. Detailed medical results captured in items 104-106, 108-109, 111-112;
iv. Other personal information captured in items 118, 121-127.

2. Level of Granularity

ACLI believes that there should be a discussion of the appropriateness of collecting underwriting data at the policy level rather than at the level of the underwriting regime for the policy. This can include elements similar to existing items 73-85, but applied generally for the underwriting practices the company follows within certain age groups, face amounts, or risk classes. An underwriting-regime-level of

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1 ACLI is a Washington, D.C.-based trade association with approximately 290 member companies operating in the United States and abroad. ACLI advocates in state, federal, and international forums for public policy that supports the industry marketplace and the 75 million American families that rely on life insurers’ products for financial and retirement security. ACLI members offer life insurance, annuities, retirement plans, long-term care and disability income insurance, and reinsurance, representing 95 percent of industry assets, 93 percent of life insurance premiums, and 98 percent of annuity considerations in the United States. Learn more at www.acli.com.
detail should generally be sufficient for studying life mortality, and categorizing experience into similar underwriting frameworks as needed. While many companies collect such data on an individual basis, we are concerned about it being required for reporting purposes for both consumer privacy and the sheer amount of data to be collected.

Further, the depth and complexity of this expanded data request increase the likelihood that carriers make different interpretations, resulting in non-uniform submissions for certain data elements. This in turn renders those elements unusable (or worse, misleading), effectively defeating the intended purpose of the expanded data.

ACLI acknowledges that more granular data might be beneficial as mortality improvement assumptions are able to set using insured population data, and should be part of the conversation about the level of granularity in the data collection.

3. Applicable Timing of the Data Elements

We believe there needs to be greater clarification of time expectation of the new elements. For example, if an element is mandatory in 2021, given the lag in reporting, it would imply companies would need to be collecting that data in 2019, before the APF would be fully adopted through the Valuation Manual updating process. It is an unrealistic expectation for companies to plan on retaining such data before the requirements are finalized. We would advise further deferring these additional elements no less than 1 to 2 years to properly allow companies an opportunity to update their internal processes to maintain such data.

Even if we are incorrect in our assumptions on timing, many of these fields are likely too new to consistently gather useful data. We do not think the timing is reasonable for elements related to marketing data or credit-based risk score, for example.

4. Operational Burden

This dramatic expansion of required data elements and the accompanying timetable for collection create an undue operational burden for many companies. The issues are myriad: lack of available data, data maintained in disparate locations, and data maintained in unstructured formats such as images or PDFs. Many member companies operate under disciplined and lean technology structures, with prescribed system change protocols and release dates scheduled in advance; in this environment, it can take many months or even years to implement changes. The proposed phasing in of the requirements does not address the fundamental issue – namely, that a significant capital investment will be required to enable compliance, yet, as mentioned in the opening general commentary, there is no expected value to be gained from this exercise, neither for the carrier nor the consumer.

We look forward to a discussion of these issues.

Sincerely,

cc Reggie Mazyck, NAIC
Comments for the Center for Economic Justice

To the Experience Reporting Subgroup of LATF

VM-51 Experience Reporting

November 10, 2019

The Center for Economic Justice offers the following comments in response to the VM-51 exposure draft released following the Summer 2019 National Meeting.

All page references are to the page numbers in the LATF meeting materials for the Summer 2019 national meeting.

Page 93

The scope of reporting includes direct written business and assumption reinsurance where the assuming company is legally responsible for benefits and claims paid but excludes reinsurance assumed from a ceding company to avoid double counting by an insurer and by its reinsurer.

It would be useful to provide examples of which entity is responsible for reporting what experience in various situations. For example, when does the direct writer’s responsibility for reporting end (if ever) if it utilizes assumption reinsurance or some other mechanism? What is the direct insurer’s responsibility if the assumption reinsurer is an alien insurer?

Page 98

For the “segment type” data field, is a data element “primary insured additional permanent rider” needed?

Page 98

For the “type of application” data field, the data elements mix how the application information is assembled (paper, electronic form, verbal) with how the application information is delivered – (internet, paper). This data element should be clarified – perhaps to “method of collecting information from the consumer” with data elements for paper form completed by consumer, electronic form completed by consumer, phone application. Data elements for multiple approaches might be necessary.
In addition, a number of insurers are utilizing data pre-fill for applications in which the insurer utilizes third-party sources to obtain information about the consumer from sources other than the consumer. A Y/N data element for “consumer data obtained from third-party sources” might be useful to distinguish applications that relied upon only data provided by the consumer or upon consumer-supplied data plus third-party data.

Page 98

For the “applicant type” data field, can a COLI or BOLI or Trust-Owned also be either individual or group? It might be useful to break applicant type into two or three items – individual or group and type of group.

Page 99

For the “gender” data field, is clarification or expansion needed to recognize transgender people?

Page 101-102

For the “smoker and non-smoker classes” data fields, why are smoker and non-smoker classes separated into two data fields? Perhaps the two data fields could be combined into one data field – class – while keeping all the segments listed. With new methods of underwriting, smoker/non-smoker may become one characteristic of several that determine a class. For illustration, an insurer might develop a 10-class system in which smoker/non-smoker, credit score, social media score and more are used to determine class placement. Another approach would be to have separate data fields for the components of class determination, such as a separate data field just for smoker/non-smoker.

Also, to be meaningful for any type of aggregation purposes, a data field is needed to report the total number of smoker and non-smoker classes. Third-preferred class for an insurer with three classes is significantly different from third-preferred class for an insurer with ten classes.

Finally, with the advent of AUW and scoring algorithms, the number of classes may grow exponentially. That has been the experience on the property casualty side. For example, for personal auto, Allstate went from nine classes to 384 in the mid 2000’s and now employs tens or hundreds of thousands of classes.
For the “Length of Surrender Charge Period” data field, what is the purpose or intended use of these data? We ask because the reporting options are ten-year periods that seem too broad for meaningful analysis. It seems like the more granularity would facilitate better data analysis. In addition, we suggest that instead of a series of ten-year periods for reporting options, this data element simply require the length of the surrender charge period in years. The statistical agent will be able to create time periods if needed, but the specific number of years will permit more robust analysis.

For the “Distribution Channel” data field, two concepts are mingled – distribution and marketing. Some of the reporting options refer to the intermediary distributing the product – career, independent, broker, IMO, financial planner – while other options refer to marketing – website, direct mail, print media, tv, telephone. The data element should be clarified and limited to distribution channel. If type of marketing is relevant, than a separate data field is advisable.

In any event, reporting choices should be defined to ensure the choices are mutually exclusive or that a reporting option is provided to permit multiple selections.

For the “Type of Underwriting Requirement” data field, two concepts are mingled – type of underwriting and method of acquisition (guaranteed issue, term conversion, group conversion, exercise of a guaranteed insurability option). These latter categories seem to be variations of “not underwritten” and belong in a different data field.

Definitions of the terms – traditional, simplified, guaranteed, accelerated underwriting – are needed to ensure the choices are mutually exclusive and understandable to reporting companies.

For the “Is financial data of any kind used in a marketing pre-screening process?” data field, “financial data” should be defined as it is a very broad concept. This data element might be broken out into consumer credit information and non-credit consumer financial data.

For the “Was there an underwriter review?” data field, we suggest the choices be expanded to unknown, yes via algorithm only, yes via human, no.
For the “After the policy is issued, is monitoring employed?” data field, we suggest adding Yes, wearable or other internet-enabled devices.

For the “Was the application designed with Sentinel Value or Behavioral Economics considerations?” data field, the definition of “Sentinel Value” describes a particular application design while the definition of “Behavioral Economics” describes a field of research. We suggest this data field needs further consideration and more specificity towards specific techniques or practices. Ask if these issues were considered is overly broad.

For the “predictive analytics for marketing selection (lead generation)” data field, we suggest some refinement is needed. For decades, insurers have obtained lists of consumers from consumer reporting agencies (credit bureaus) who met certain qualifications (such as a minimum credit score). This was/is a crude form of predictive analytics. We suspect the intent of this data field is to identify more refined approaches that might utilize non-credit data. We suggest the following reporting options: unknown, no, yes based only consumer credit information, yes based only non-credit consumer data, yes based on consumer credit information plus additional data.

For the “predictive analytics for underwriting triage or risk classification” data field, we suggest some refinement is needed. Traditional underwriting and risk classification utilizes predictive analytics based on mortality tables and selected consumer characteristics. The term “predictive analytics” should be defined to distinguish the information sought with this data field from traditional predictive analytics used for underwriting and risk classification.

The data fields on these pages relate to health status and medical conditions of the consumer. We assume that all of these fields intend to collect these data as of the date of application, but a statement in that regard would be useful. We would note that with insurers’ access to data from consumers’ wearable devices and more widespread use of electronic medical records, insurers can update medical condition information routinely and rapidly.
For the financial and credit data fields, we offer the following. “Credit data” presumably means data from a credit bureau, which is technically known as a consumer reporting agency pursuant to the Fair Credit Reporting Act, which is the federal law that permits the use of such information for insurance underwriting. While, historically, some insurers reviewed consumer credit reports to identify specific events – such as a bankruptcy or other public record – for the past 25 years, insurers have utilized consumer credit data indirectly through the use of credit-based insurance scores.

In addition, “credit data,” understood as information in a consumer credit report, was historically limited to information on lines of credit – mortgages, auto loans, personal loans, credit cards – and consisted of payment history, amounts and types of credit and public records such as bankruptcy and loans in collection. However, in recent years, credit bureaus have begun to add “alternative” data to consumer credit files, including utility, telecom and rental payments.

We provide this background to suggest that data items 113, 114 and 115 could be refined to Financial Data Other Than a Consumer Credit Report; Consumer Credit Data Other Than a Credit-Based Scoring Algorithm and Credit-Based Insurance Score or Other Credit-Based Algorithm.

On page 126, there are three data elements related to driving – motor vehicle records, driving record – moving violation and driving record – specific violations. On page 127, we find the data field “driving record.” It is unclear what the data field on page 127 is attempting to capture that is not already captured in the page 126 data fields.

In addition, some vendors provide motor vehicle record information that expands upon that available in an individual state’s motor vehicle record. For example TransUnion provides a series of products related to driving violations¹

Driving violations have historically been categorized as minor or major. Speeding may be a minor or major violation depending on how excessive the speeding is.

Based on the above, we suggest the following.

Data Field: Driving Record Information Used: No, Yes Major Violations Only, Yes All Violations, Yes, All Violations and Other Driving Record Information

¹ https://www.transunion.com/resources/transunion/doc/products/resources/P-driverrisk-ig.pdf
Other Considerations

We suggest data fields that ask if the insurer utilized social media and facial analytics for underwriting (limited to the decision to accept or reject the applicant) or risk class placement.
VM-51: Experience Reporting Formats

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Section 1: Introduction

A. The experience reporting requirements are defined in Section 3 of VM-50. The experience reporting requirements state that the Experience Reporting Agent will collect experience data based on statistical plans that are defined in VM-51 of the Valuation Manual. Statistical plans are to be added to VM-51 of the Valuation Manual when they are ready to be implemented.

B. Each statistical plan shall contain the following information:

1. The type of experience data to be collected (e.g., mortality experience; policy behavior experience, such as surrenders, lapses, conversions, premium payment patterns, etc.; and company expense experience, such as commission expense, policy issue and maintenance expense, company overhead expenses etc.);

2. The scope of business to be included in the experience data to be collected (e.g., line(s) of business, such as individual or group, life, annuity or health; product type(s), such as term, whole life, universal life, indexed life, variable life, fixed annuity, indexed annuity, variable annuity, LTC or disability income; and type of underwriting, such as medically underwritten, simplified issue (SI), GI, accelerated, etc.);

3. The criteria for determining which companies or legal entities must submit the experience data to be collected;

4. The process for submitting the experience data to be collected, which will include the frequency of the data collection, the due dates for data collection and how the data is to be submitted to the Experience Reporting Agent;

5. The individual data elements and format for each data element that will be contained in each experience data record, along with detailed instructions defining each data element or how to code each data element. Additional information may be required, such as questionnaires and plan code forms that will assist in defining the individual data elements that may be unique to each company or legal entity submitting such experience data elements;

6. The experience data reports to be produced.

Section 2: Statistical Plan for Mortality

A. Type of Experience Collected Under This Statistical Plan

The type of experience to be collected under this statistical plan is mortality experience.

B. Scope of Business Collected Under This Statistical Plan

The data type for which this statistical plan is individual ordinary life line of business.
• Direct written business issued in the U.S.;
• Assumption reinsurance of an individual ordinary life line of business, where the assuming company is legally responsible for all benefits and claim payment;
• Policies issued as conversions from term or group contracts;
• Term/paid-up riders or additional amounts of insurance purchased through dividend options; and
• Terminations (death and non-death).

Not included in scope:
• Separate lines of business, such as SI/GI, worksite, individually solicited group life, direct response, term life, mortgage life, group, bonus life, credit life, and COLI/BOLI/charity-owned life insurance (CHOLI);
• Reinsurance assumed from a ceding company, to avoid double-counting of experience submitted by an issuer and by its reinsurers;
• Policies that cover more than two lives on the base policy segment; and
• Child term riders.

Such business is to include direct written business issued in the U.S., and all values should be prior to any reinsurance ceded. Voluntary conversion assumed from a ceding company shall be excluded from data collection in total. The reporting of experience submitted by an issuer and by the reinsurers is to be included within the scope of this statistical plan. Experience submitted from writing companies, to avoid double-counting of experience submitted by a writer and by its reinsurers, shall also be included within the scope of this statistical plan. The ordinary life line of business does not include separate lines of business, such as SI/GI, worksite, individually solicited group life, direct response, term life, mortgage life, group, bonus life, credit life, and COLI/BOLI/charity-owned life insurance (CHOLI).

Each company is to submit data for in-force and terminated life insurance policies that are within the scope defined in Section 2.B. Policies in scope, except:

i. For policies issued before Jan. 1, 1990, companies may certify that submitting data presents a hardship due to fields not readily available in their systems/databases or legacy computer systems that continue to be used for older issued policies and differ from computer systems for newer issued policies.

ii. For policies issued on or after Jan. 1, 1990, companies must:
   a) Document the percentage that the face amount of policies excluded are relative to the face amount of submitted policies issued on or after Jan. 1, 1990; and
   b) Certify that this requirement presents a hardship due to fields not readily available in their systems/databases or legacy computer systems that continue to be used for older issued policies and differ from computer systems for newer issued policies.

C. Criteria to Determine Companies That Are Required to Submit Experience Data

Companies with less than $50 million of direct individual life premium shall be exempted from reporting experience data required under this statistical plan. This threshold for exemption shall be measured based on aggregate premium volume of all affiliated companies and shall be reviewed annually and be subject to change by the Experience Reporting Agent. At its option, a group of nonexempt affiliated companies may exclude from these requirements affiliated companies with less than $10 million direct individual life premium provided that the affiliated group remains nonexempt.

Additional exemptions may be granted by the Experience Reporting Agent where appropriate, following consultation with the domestic insurance regulator, based on achieving a target level of approximately 85% of industry experience for the type of experience data being collected under this statistical plan.

D. Process for Submitting Experience Data Under This Statistical Plan
Data for this statistical plan for mortality shall be submitted on an annual basis. Each company required to submit this data shall submit the data using the Regulatory Data Collection (RDC) online software submission application developed by the Experience Reporting Agent. For each data file submitted by a company, the Experience Reporting Agent will perform reasonability and completeness checks, as defined in Section 4 of VM-50, on the data. The Experience Reporting Agent will notify the company within 30 days following the data submission of any possible errors that need to be corrected. The Experience Reporting Agent will compile and send a report listing potential errors that need correction to the company.

Data for this statistical plan for mortality will be compiled using a calendar year method. The reporting calendar year is the calendar year that the company submits the experience data. The observation calendar year is the calendar year of the experience data that is reported. The observation calendar year will be two years prior to the reporting calendar year. For example, if the current calendar year is 2018 and that is the reporting calendar year, the company is to report the experience data relating to policies that were in-force or issued in calendar year 2016, which is the observation calendar year.

Given an observation calendar year of 20XX, the calendar year method requires reporting of experience data as follows:

i. Report policies in force during or issued during calendar year 20XX.

ii. Report terminations policies that were incurred terminated in calendar year 20XX and reported before July 1, 20XX+1. However, exclude rescinded policies (e.g., 10-day free look exercises) from the data submission.

For any reporting calendar year, the data call will occur during the second quarter, and data is to be submitted according to the requirements of the Valuation Manual in effect during that calendar year. Data submissions must be made by Sept. 30 of the reporting calendar year. Corrections of data submissions must be completed by Dec. 31 of the reporting calendar year.

E. Experience Data Elements and Formats Required by This Statistical Plan

Companies subject to reporting pursuant to the criteria stated in Section 2.C are required to complete the data elements and formats forms in Appendix 1 and Appendix 2, as appropriate, and also complete the Experience Data Elements and Formats as defined in underwriting specification data elements as defined in Appendix 43.

The data should include policies issued as standard, substandard, optional, or sold within a preferred class structure. Preferred class structure refers to any policies sold with underwriting results that could result in lower premium rates or a lower mortality assumption than the standard rate assumption or a preferred standard rate. Policies issued as part of a preferred class structure may be issued as standard, substandard, or optional.

For any reporting calendar year, the data call will occur during the second quarter, and data is to be submitted according to the requirements of the Valuation Manual in effect during that calendar year. Data submissions must be made by Sept. 30 of the reporting calendar year. Corrections of data submissions must be completed by Dec. 31 of the reporting calendar year.

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The data should include policies issued as standard, substandard, optional, or sold within a preferred class structure. Preferred class structure refers to any policies sold with underwriting results that could result in lower premium rates or a lower mortality assumption than the standard rate assumption or a preferred standard rate. Policies issued as part of a preferred class structure may be issued as standard, substandard, or optional.

For any reporting calendar year, the data call will occur during the second quarter, and data is to be submitted according to the requirements of the Valuation Manual in effect during that calendar year. Data submissions must be made by Sept. 30 of the reporting calendar year. Corrections of data submissions must be completed by Dec. 31 of the reporting calendar year.
Plans of insurance should be carefully matched with the three-digit codes in item 19, Plan. These plans of insurance are important because they will be used not only for mortality experience data collection, but also for policyholder behavior experience data collection. It is expected that most policies will be matched to three-digit codes that specify a particular policy type, rather than select a code that indicates a general plan type.

F. Experience Data Reports Required by This Statistical Plan

1. Using the data collected under this statistical plan, the Experience Reporting Agent will produce an experience data report that aggregates the experience data of all companies whose data have passed all of the validity and reasonableness checks outlined in Section 4 of VM-50 and has been determined by the Experience Reporting Agent to be acceptable to be used in the development of industry mortality experience.

2. The Experience Reporting Agent will provide to the SOA or other actuarial professional organizations an experience data report of aggregated experience that does not disclose a company’s identity, which will be used to develop industry mortality experience and valuation mortality tables.

3. As long as a company is licensed in a state, that state insurance regulator will be given access to a company’s experience data that is stored on a confidential database at the Experience Reporting Agent. Access by the state insurance regulator will be controlled by security credentials issued to the state insurance regulator by the Experience Reporting Agent.

Appendix 1: Preferred Class Structure Questionnaire

Appendix 2: Mortality Claims Questionnaire

Appendix 3: Additional Plan Code Form
## Appendix 1: Mortality Data Elements and Format

### Section 1. Basic Policy Information

Round all dollar amounts to the nearest dollar. All values should be prior to any reinsurance ceded. If an item is unknown, leave blank unless otherwise specified.

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<td>20</td>
<td>Policy Number</td>
<td>Enter Policy Number. For Policy Numbers with length less than 20, left justify the number, and blank fill the empty columns. Any other unique identifying number can be used instead of a Policy Number for privacy reasons.</td>
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### Section 1: Basic Policy Information

- Round all dollar amounts to the nearest dollar. All values should be prior to any reinsurance ceded. If an item is unknown, leave blank unless otherwise specified.

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<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
<th>PROSPECTIVE</th>
<th>RETROSPECTIVE</th>
<th>PHASE IN PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>30–32</td>
<td>3</td>
<td>Segment Number</td>
<td>If only one policy segment exists, enter segment number ‘1.’ For a single life policy, the base policy is to be put in the record with segment number ‘1.’ Subsequent policy segments are in separate records with information about that coverage and differing segment numbers. For joint life policies, the base policy of the first life is to be put in a record with segment number ‘1,’ and the base policy of the second life is to be put in a separate record with segment number ‘2.’ Joint life policies with more than two lives are not to be submitted. Subsequent policy segments are in separate records with information about that coverage and differing segment numbers. <strong>Commented [MA4]:</strong> For elements that may not be readily available, the phase in period identifies the year in which this element will be required.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 5, 6, 16 | Policy segments in a layer of coverage may not overlap. Each policy segment is a unique piece of data that is used in the base policy coverage. For the same policy segment, if the policy segment is in an Observation Year, then the current policy segment is considered to be the first policy segment that is used in a policy segment. In the base policy coverage as reported in a new policy segment, there could be one policy segment across each policy segment that shows the amount of insurance that was purchased through dividend options. Subsequent policy segments are in separate records with information about that coverage and differing segment numbers. |

| 7, 8, 9, 10 | Subsequent policy segments are in separate records with information about that coverage and differing segment numbers. |

For single life policies, joint life policies, term/paid up riders, or additional amounts of insurance including purchase through dividend options, policy segments with the same policy number are to be submitted: single life policies; joint life policies; term/paid up riders; or additional amounts of insurance including purchase through dividend options.
## Basic Policy Information

Round all dollar amounts to the nearest dollar. All values should be prior to any reinsurance ceded. If an item is unknown, leave blank unless otherwise specified.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
<th>PROSPECTIVE RETROSPECTIVE PHASE IN PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Segment Type</td>
<td></td>
<td>Prospective 2023 Retrospective 5/35-6/34</td>
</tr>
<tr>
<td>01</td>
<td></td>
<td></td>
<td></td>
<td>01 = Base policy coverage</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>02 = Primary insured additional term rider</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>03 = Other insured permanent rider</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>034 = Other insured term rider</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>04 = Accidental death and dismemberment rider</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>05 = Additional amounts of insurance purchased with dividends</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>06 = Additional amounts of insurance purchased as the result of exercising a guaranteed insurability option</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>068 = Additional amounts of insurance purchased after issue</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>07 = Other (life insurance coverage only)</td>
<td></td>
</tr>
<tr>
<td>08</td>
<td></td>
<td></td>
<td>Segment Life</td>
<td></td>
<td>Prospective 2023 Retrospective 5/36-6/37</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Use standard, two-letter state abbreviations (e.g., NY for New York)</td>
<td></td>
</tr>
<tr>
<td>09</td>
<td></td>
<td></td>
<td>Type of Application</td>
<td></td>
<td>Prospective 2023 Retrospective 5/38-6/39</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0 = Unknown</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 = Paper</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2 = Electronic (Fillable PDF)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3 = Online Internet</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4 = Phone Application</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td>Applicant Type</td>
<td></td>
<td>Prospective 2023 Retrospective 5/40-6/41</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0 = Unknown</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 = Individual Consumer</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2 = Member of Employee Group (including worksite)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3 = Member of Association Group</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4 = COLI</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5 = BOL</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6 = Trust Owned</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7 = Other</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td>Application Signed Date</td>
<td></td>
<td>Retrospective 5/42-6/43</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>YYYYMMDD</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td>State of Issue</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Use standard, two-letter state abbreviations (e.g., NY for New York)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>State of Domicile</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Current Resident State</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Use standard, two-letter state abbreviations (e.g., NY for New York)</td>
<td></td>
</tr>
</tbody>
</table>

Commented [MA4]: For elements that may not be readily available, the phase in period identifies the year in which this element will be required.
<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
<th>PROSPECTIVE PHASE IN PERIOD</th>
<th>RETROSPECTIVE PHASE IN PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>40</td>
<td>50</td>
<td>Gender</td>
<td>0 = Unknown or unable to subdivide 1 = Male 2 = Female 3 = Unisex – Unknown or unable to identify 4 = Unisex – Male 5 = Unisex – Female</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>51</td>
<td>58</td>
<td>Date of Birth</td>
<td>Enter the numeric date of birth in YYYYMMDD format</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>50</td>
<td>50</td>
<td>Age Basis</td>
<td>0 = Age Nearest Birthday 1 = Age Last Birthday 2 = Age Next birthday</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>52</td>
<td>62</td>
<td>Issue Age</td>
<td>Enter the Issue Age</td>
<td>52</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>63</td>
<td>70</td>
<td>Smoker Status (at issue)</td>
<td>Smoker status should be submitted where reliable. 0 = Unknown 1 = No tobacco usage 2 = Nonsmoker 3 = Cigarette smoker 4 = Tobacco user</td>
<td>63</td>
<td></td>
</tr>
</tbody>
</table>

**Drafting Note:** Professional actuarial organization will need to develop either age next birthday mortality tables or procedure to adapt existing mortality tables to age next birthday basis.

**Commented [MA4]:** For elements that may not be readily available, the phase in period identifies the year in which this element will be required.
### 1. Basic Policy Information

Round all dollar amounts to the nearest dollar. All values should be prior to any reinsurance ceded. If an item is unknown, leave blank unless otherwise specified.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
<th>PROSPECTIVE PHASE IN PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>3</td>
<td></td>
<td>Number of Classes in Nonsmoker Preferred Class Structure</td>
<td>If Preferred Class Structure Indicator is 0 or if Smoker Status is 0, 3 or 4, or if preferred information is unknown, leave blank. For nonsmoker or no tobacco usage policies that could have been issued as one of multiple preferred and standard classes, enter the number of nonsmoker preferred and standard classes available at time of issue.</td>
<td>Commented [MA4]: For elements that may not be readily available, the phase in period identifies the year in which this element will be required.</td>
</tr>
<tr>
<td>12</td>
<td>3</td>
<td></td>
<td>Preferred Class Structure Indicator</td>
<td>0 = If no reliable information on multiple preferred and standard classes is available, or if the policy segment was issued substandard (Item 18 is 1 or 2), or if there were no multiple preferred and standard classes available for this policy segment or if preferred information is unknown. 1 = If this policy was issued in one of the available multiple preferred and standard classes for this policy segment. Note: If Preferred Class Structure Indicator is 0, or if preferred information is unknown, leave next four items blank.</td>
<td>Commented [MA5]: Moved this item to plan table.</td>
</tr>
<tr>
<td>13</td>
<td>3</td>
<td></td>
<td>Number of Classes in Nonsmoker Preferred Class Structure</td>
<td>If Preferred Class Structure Indicator is 0 or if Smoker Status is 0, 3 or 4, or if preferred information is unknown, leave blank. For nonsmoker or no tobacco usage policies that could have been issued as one of multiple preferred and standard classes, enter the number of nonsmoker preferred and standard classes available at time of issue.</td>
<td>Commented [MA6]: Moved this item to plan table.</td>
</tr>
<tr>
<td>12</td>
<td>3</td>
<td></td>
<td>Preferred Class Structure Indicator</td>
<td>0 = If no reliable information on multiple preferred and standard classes is available, or if the policy segment was issued substandard (Item 18 is 1 or 2), or if there were no multiple preferred and standard classes available for this policy segment or if preferred information is unknown. 1 = If this policy was issued in one of the available multiple preferred and standard classes for this policy segment. Note: If Preferred Class Structure Indicator is 0, or if preferred information is unknown, leave next four items blank.</td>
<td>Commented [MA7]: Moved this item to plan table.</td>
</tr>
<tr>
<td>13</td>
<td>3</td>
<td></td>
<td>Number of Classes in Nonsmoker Preferred Class Structure</td>
<td>If Preferred Class Structure Indicator is 0 or if Smoker Status is 0, 3 or 4, or if preferred information is unknown, leave blank. For nonsmoker or no tobacco usage policies that could have been issued as one of multiple preferred and standard classes, enter the number of nonsmoker preferred and standard classes available at time of issue.</td>
<td>Commented [MA8]: Moved this item to plan table.</td>
</tr>
<tr>
<td>12</td>
<td>3</td>
<td></td>
<td>Preferred Class Structure Indicator</td>
<td>0 = If no reliable information on multiple preferred and standard classes is available, or if the policy segment was issued substandard (Item 18 is 1 or 2), or if there were no multiple preferred and standard classes available for this policy segment or if preferred information is unknown. 1 = If this policy was issued in one of the available multiple preferred and standard classes for this policy segment. Note: If Preferred Class Structure Indicator is 0, or if preferred information is unknown, leave next four items blank.</td>
<td>Commented [MA9]: Moved this item to plan table.</td>
</tr>
<tr>
<td>13</td>
<td>3</td>
<td></td>
<td>Number of Classes in Nonsmoker Preferred Class Structure</td>
<td>If Preferred Class Structure Indicator is 0 or if Smoker Status is 0, 3 or 4, or if preferred information is unknown, leave blank. For nonsmoker or no tobacco usage policies that could have been issued as one of multiple preferred and standard classes, enter the number of nonsmoker preferred and standard classes available at time of issue.</td>
<td>Commented [MA10]: Moved this item to plan table.</td>
</tr>
</tbody>
</table>
**Section 1. Basic Policy Information**

Round all dollar amounts to the nearest dollar. All values should be prior to any reinsurance ceded. If an item is unknown, leave blank unless otherwise specified.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>
|      | 42     |   | Nonsmoker Preferred Class | If Preferred Class Structure Indicator is 0 or if Smoker Status is 0, 3 or 4, or if preferred information is unknown, leave blank. For nonsmoker policy segments that could have been issued as one of multiple preferred and standard classes: 1 = Best preferred class 2 = Next Best preferred class after 1 3 = Next Best preferred class after 2 4 = Next Best preferred class after 3 5 = Next Best preferred class after 4 6 = Next Best preferred class after 5 7 = Next Best preferred class after 6 8 = Next Best preferred class after 7 9 = Next Best preferred class after 8  

Note: The policy segment with the highest nonsmoker Preferred Class number should have that number equal to the Number of Classes in Nonsmoker Preferred Class Structure. | PROSPECTIVE RETROSPECTIVE PHASE IN PERIOD |
|      | 3      |   | Number of Classes in Nonsmoker Preferred Class Structure | If Preferred Class Structure Indicator is 0 or if Smoker Status is 0, 1 or 2, or if preferred information is unknown, leave blank. For smoker or tobacco user policies that could have been issued as one of multiple preferred and standard classes, enter the number of smoker preferred and standard classes available at time of issue. |
|      | 5      |   | Number of Classes in Smoker Preferred Class Structure | If Preferred Class Structure Indicator is 0 or if Smoker Status is 0, 1 or 2, or if preferred information is unknown, leave blank. For smoker or tobacco user policies that could have been issued as one of multiple preferred and standard classes, enter the number of smoker preferred and standard classes available at time of issue. |

Commented [MA4]: For elements that may not be readily available, the phase in period identifies the year in which this element will be required.

Commented [MA11]: Moved to Plan Table

Commented [MA12]: Moved this item to plan table

Commented [MA13]: Moved this item to plan table
<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>
| 16   | 19     | 73 | Smoker Preferred Class | Smoker Preferred Class Structure Indicator is 0 or Smoker Status is 0, 1 or 2, preferred information is unknown or unreliable, policy segment was issued substandard, or Smoker Status is 0, 1 or 2 leave blank. If policy segment was not issued as one of multiple preferred and standard classes then enter 0. For smoker policy segments that could have been issued as one of multiple preferred and standard classes:  
1 = Best preferred class  
2 = Next Best preferred class after 1  
3 = Next Best preferred class after 2  
4 = Next Best preferred class after 3  
5 = Next Best preferred class after 4  
6 = Next Best preferred class after 5  
7 = Next Best preferred class after 6  
8 = Next Best preferred class after 7  
9 = Next Best preferred class after 8  
Note: The policy segment with the highest Smoker Preferred Class number should have that number equal to the Number of Classes in Smoker Preferred Class Structure. |
### Subject: Life Policy Information

**Section 1. Basic Policy Information**

**Note:** All data appears in the present dollar. **All values shall be prior to any reinsurance ceded.**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>66-65</td>
<td>1</td>
<td>Type of Underwriting Requirements</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>66</td>
<td>1</td>
<td>Substandard Indicator</td>
<td></td>
</tr>
</tbody>
</table>

**Prospective / Retrospective Phase In Period**

*Commented [MA4]:* For elements that may not be readily available, the phase in period identifies the year in which this element will be required.

*Commented [MB14]:* Moved from Section 2 Underwriting Information, Item 60.

---

**Legend:**

- **01** = Traditionally Underwritten, but unknown whether fluid was collected
- **02** = Traditionally Underwritten with no fluid collection
- **03** = Traditionally Underwritten with fluid collected
- **04** = Simplified Issue
- **05** = Guaranteed Issue
- **06** = Accelerated Underwriting
- **07** = Underwritten as hold-out from Accelerated Underwriting
- **08** = Term Conversion
- **09** = Group Conversion
- **10** = Exercise of a Guaranteed Insurability Option
- **99** = For issues where underwriting requirements are not reliably known, or only known in certain circumstances.

**Substandard Indicator:**

- **0** = Policy segment is not substandard
- **1** = Policy segment is substandard
- **2** = Policy segment is uninsurable

All policy segments that are substandard need to be identified as substandard or uninsurable. Submission of substandard policies is optional. If feasible, identify substandard policy segments where temporary flat extra has ceased as substandard.
<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
<th>PROSPECTIVE/ RETROSPECTIVE PHASE IN PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>75-77</td>
<td>3</td>
<td>Extra Mortality Table Rating</td>
<td>If Substandard Indicator, is 1, and the extra mortality percentage is known, then enter the mortality rating as a percentage of the standard mortality (e.g. if the risk is classified as exhibiting 150% of standard mortality, enter '150'). If Substandard Indicator, is 1, and the extra mortality percentage is unknown, enter 000. If Substandard Indicator, is 0, enter 100. If Substandard Indicator, is 2, leave blank.</td>
<td>Retrospective</td>
</tr>
<tr>
<td>22</td>
<td>78</td>
<td>1</td>
<td>Type of Flat Extra Mortality</td>
<td>If Substandard Indicator, is 1, and the policy segment was issued with an extra flat mortality rate per 1000 of insurance amount and is currently in effect: enter the current permanent or temporary extra mortality per 1000 of insurance (e.g. if the risk is being charged an extra $4.50 per 1000 of insurance, enter '00450'). If the flat extra rate is unknown, enter '00000'. If Substandard Indicator is not 1, then leave blank.</td>
<td>Retrospective</td>
</tr>
<tr>
<td>23</td>
<td>96-81</td>
<td>3</td>
<td>Rated Issue Age</td>
<td>If Substandard Indicator, is 1, and the policy segment was issued at an age rate higher than to the actual issue age, and which is currently in effect: enter the rated issue age at which the policy was issued (e.g. if the actual issue age is 45 and the rates are based on issue age 50, enter '050'). If the rates issue age is unknown, enter '000'. If Substandard Indicator is not 1, then leave blank.</td>
<td>Retrospective</td>
</tr>
</tbody>
</table>

Commented [MA4]: For elements that may not be readily available, the phase in period identifies the year in which this element will be required.

Commented [MA15]: Did not include extensive list of plan descriptions.
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>If unable to distinguish among plan types listed below</td>
</tr>
<tr>
<td>01</td>
<td>Term life</td>
</tr>
<tr>
<td>02</td>
<td>Whole life</td>
</tr>
<tr>
<td>03</td>
<td>Econolife (combination of permanent life and term life)</td>
</tr>
<tr>
<td>04</td>
<td>Excess interest whole life</td>
</tr>
<tr>
<td>05</td>
<td>Universal life</td>
</tr>
<tr>
<td>06</td>
<td>Extended term (nonforfeiture)</td>
</tr>
<tr>
<td>07</td>
<td>Reduced paid-up (nonforfeiture)</td>
</tr>
</tbody>
</table>

Exclude from contribution: spouse and children under family policies or riders. If Form for Additional Plan Codes was submitted for this policy, enter unique three-digit plan number(s) that differ from the plan numbers below:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>If unable to distinguish among plan types listed below</td>
</tr>
<tr>
<td>100</td>
<td>Joint life plan unable to distinguish among joint life plan types listed below</td>
</tr>
</tbody>
</table>

Permanent Plans:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>010</td>
<td>Traditional fixed premium fixed benefit permanent plan</td>
</tr>
<tr>
<td>011</td>
<td>Permanent life (traditional) with term</td>
</tr>
<tr>
<td>012</td>
<td>Single premium whole life</td>
</tr>
<tr>
<td>013</td>
<td>Econolife (permanent life with lower premiums in the early durations)</td>
</tr>
<tr>
<td>014</td>
<td>Excess interest whole life</td>
</tr>
<tr>
<td>015</td>
<td>First to die whole life plan (submit separate records for each life)</td>
</tr>
<tr>
<td>016</td>
<td>Second to die whole life plan (submit separate records for each life)</td>
</tr>
<tr>
<td>017</td>
<td>Joint whole life plan – unknown whether 015 or 016 (submit separate records for each life)</td>
</tr>
<tr>
<td>018</td>
<td>Permanent products with non-level death benefits</td>
</tr>
<tr>
<td>019</td>
<td>Permanent plans 010, 011, 012, 013, 014, 015, 016, 017, 018 combined (i.e. unable to separate)</td>
</tr>
</tbody>
</table>

Term Insurance Plans:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>020</td>
<td>Term (traditional level benefit and attained age premium)</td>
</tr>
<tr>
<td>021</td>
<td>Term (level death benefit with guaranteed level premium for five years and anticipated level term period for five years)</td>
</tr>
<tr>
<td>211</td>
<td>Term (level death benefit with guaranteed level premium for five years and anticipated level term period for 10 years)</td>
</tr>
<tr>
<td>212</td>
<td>Term (level death benefit with guaranteed level premium for five years and anticipated level term period for 15 years)</td>
</tr>
<tr>
<td>213</td>
<td>Term (level death benefit with guaranteed level premium for five years and anticipated level term period for 20 years)</td>
</tr>
</tbody>
</table>

© 2019 National Association of Insurance Commissioners
Term (level death benefit with guaranteed level premium for five years and anticipated level term period for 25 years)

Term (level death benefit with guaranteed level premium for five years and anticipated level term period for 30 years)

Term (level death benefit with guaranteed level premium for 10 years and anticipated level term period for 10 years)

Term (level death benefit with guaranteed level premium for 10 years and anticipated level term period for 15 years)

Term (level death benefit with guaranteed level premium for 10 years and anticipated level term period for 20 years)

Term (level death benefit with guaranteed level premium for 10 years and anticipated level term period for 25 years)

Term (level death benefit with guaranteed level premium for 10 years and anticipated level term period for 30 years)

Term (level death benefit with guaranteed level premium for 15 years and anticipated level term period for 15 years)

Term (level death benefit with guaranteed level premium for 15 years and anticipated level term period for 20 years)

Term (level death benefit with guaranteed level premium for 15 years and anticipated level term period for 25 years)

Term (level death benefit with guaranteed level premium for 15 years and anticipated level term period for 30 years)

Term (level death benefit with guaranteed level premium for 20 years and anticipated level term period for 20 years)

Term (level death benefit with guaranteed level premium for 20 years and anticipated level term period for 25 years)

Term (level death benefit with guaranteed level premium for 20 years and anticipated level term period for 30 years)

Term (level death benefit with guaranteed level premium for 25 years and anticipated level term period for 25 years)

Term (level death benefit with guaranteed level premium for 25 years and anticipated level term period for 30 years)

Term (level death benefit with guaranteed level premium for 30 years and anticipated level term period for 30 years)
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>027</td>
<td>Term (level death benefit with guaranteed level premium period equal to anticipated level term period, where the period is other than five, 10, 15, 20, 25 or 30 years)</td>
</tr>
<tr>
<td>028</td>
<td>Term (decreasing benefit)</td>
</tr>
<tr>
<td>040</td>
<td>Select ultimate term (premium depends on issue age and duration)</td>
</tr>
<tr>
<td>041</td>
<td>Return of Premium Term (level death benefit with guaranteed level premium for 15 years)</td>
</tr>
<tr>
<td>042</td>
<td>Return of Premium Term (level death benefit with guaranteed level premium for 20 years)</td>
</tr>
<tr>
<td>043</td>
<td>Return of Premium Term (level death benefit with guaranteed level premium for 25 years)</td>
</tr>
<tr>
<td>044</td>
<td>Return of Premium Term (level death benefit with guaranteed level premium for 30 years)</td>
</tr>
<tr>
<td>045</td>
<td>Return of Premium Term (level death benefit with guaranteed level premium for period other than 15, 20, 25 or 30 years)</td>
</tr>
<tr>
<td>046</td>
<td>Economatic term</td>
</tr>
<tr>
<td>059</td>
<td>Term plan, unable to classify</td>
</tr>
<tr>
<td>101</td>
<td>First to die term plan (submit separate records for each life)</td>
</tr>
<tr>
<td>102</td>
<td>Second to die term plan (submit separate records for each life)</td>
</tr>
<tr>
<td>103</td>
<td>Joint term plan – unknown whether 101 or 102 (submit separate records for each life)</td>
</tr>
<tr>
<td>061</td>
<td>Single premium universal life</td>
</tr>
<tr>
<td>062</td>
<td>Universal life (decreasing risk amount)</td>
</tr>
<tr>
<td>063</td>
<td>Universal life (level risk amount)</td>
</tr>
<tr>
<td>064</td>
<td>Universal life – unknown whether code 062 or 063</td>
</tr>
<tr>
<td>065</td>
<td>First to die universal life plan (submit separate records for each life)</td>
</tr>
<tr>
<td>066</td>
<td>Second to die universal life plan (submit separate records for each life)</td>
</tr>
<tr>
<td>067</td>
<td>Joint life universal life plan – unknown whether code 065 or 066 (submit separate records for each life)</td>
</tr>
<tr>
<td>068</td>
<td>Indexed universal life</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>072</td>
<td>Universal life with secondary guarantees (decreasing risk amount)</td>
</tr>
<tr>
<td>073</td>
<td>Universal life with secondary guarantees (level risk amount)</td>
</tr>
<tr>
<td>075</td>
<td>Universal life with secondary guarantees – unknown whether code 072 or 073</td>
</tr>
<tr>
<td>076</td>
<td>First to die universal life plan with secondary guarantees (submit separate records for each life)</td>
</tr>
<tr>
<td>077</td>
<td>Second to die universal life plan with secondary guarantees (submit separate records for each life)</td>
</tr>
<tr>
<td>078</td>
<td>Joint life universal life plan with secondary guarantees – unknown whether code 075 or 076 (submit separate records for each life)</td>
</tr>
<tr>
<td>080</td>
<td>Variable life</td>
</tr>
<tr>
<td>081</td>
<td>Variable universal life (decreasing risk amount)</td>
</tr>
<tr>
<td>082</td>
<td>Variable universal life (level risk amount)</td>
</tr>
<tr>
<td>083</td>
<td>Variable universal life – unknown whether code 081 or 082</td>
</tr>
<tr>
<td>084</td>
<td>First to die variable universal life plan (submit separate records for each life)</td>
</tr>
<tr>
<td>085</td>
<td>Second to die variable universal life plan (submit separate records for each life)</td>
</tr>
<tr>
<td>086</td>
<td>Joint life variable universal life plan – unknown whether code 084 or 085 (submit separate records for each life)</td>
</tr>
<tr>
<td>090</td>
<td>Variable life with secondary guarantees</td>
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<tr>
<td>091</td>
<td>Variable universal life with secondary guarantees (decreasing risk amount)</td>
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<tr>
<td>092</td>
<td>Variable universal life with secondary guarantees (level risk amount)</td>
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<tr>
<td>093</td>
<td>Variable universal life with secondary guarantees – unknown whether code 091 or 092</td>
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<tr>
<td>094</td>
<td>First to die variable universal life plan with secondary guarantees (submit separate records for each life)</td>
</tr>
<tr>
<td>095</td>
<td>Second to die variable universal life plan with secondary guarantees (submit separate records for each life)</td>
</tr>
<tr>
<td>096</td>
<td>Joint life variable universal life plan with secondary guarantees – unknown whether code 094 or 095 (submit separate records for each life)</td>
</tr>
<tr>
<td>098</td>
<td>Extended term</td>
</tr>
<tr>
<td>099</td>
<td>Reduced paid-up</td>
</tr>
</tbody>
</table>
### Section 1. Basic Policy Information

Round all dollar amounts to the nearest dollar. All values should be prior to any reinsurance ceded. If an item is unknown, leave blank unless otherwise specified.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>92-101</td>
<td>10</td>
<td>Plan Code</td>
<td>Company’s plancode used for this policy</td>
</tr>
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</table>

**Commented [MA4]:** For elements that may not be readily available, the phase in period identifies the year in which this element will be required.
<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
<th>PROSPECTIVE PHASE IN PERIOD</th>
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<tbody>
<tr>
<td>19.6</td>
<td>26</td>
<td>109</td>
<td>Length of Surrender Charge Period</td>
<td>0 = No surrender charge period, 1 = 0 to 9.99 years, 2 = 10 to 19.99 years, 3 = 20 to 29.99 years, 4 = 30 to 39.99 years, 5 = 40+ years</td>
<td>19.7</td>
</tr>
<tr>
<td>19.7</td>
<td>27</td>
<td>33</td>
<td>Distribution Channel</td>
<td>00 = Unknown, 01 = Career, 02 = Independent, 03 = Bank/wirehouse/broker, 04 = Website, 05 = Direct Mail / Email, 06 = Print Media, 07 = TV / Radio, 08 = Telephone, 09 = IMO (Independent Marketing Organization), 10 = Financial Planner, 11 = Kiosk, 124 = Other/unknown</td>
<td>19.8</td>
</tr>
<tr>
<td>19.8</td>
<td>28</td>
<td>34</td>
<td>Life Insurance Test</td>
<td>1 = Cash value accumulation test, 2 = Guideline premium test</td>
<td>19.9</td>
</tr>
<tr>
<td>19.9</td>
<td>29</td>
<td>35</td>
<td>Premium Ratio</td>
<td>TBD</td>
<td>20</td>
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<tr>
<td>20</td>
<td>30</td>
<td>36</td>
<td>In-force Indicator</td>
<td>0 = If the policy segment was not in force at the end of the observation year, 1 = If the policy segment was in force at the end of the observation year</td>
<td>21</td>
</tr>
<tr>
<td>21</td>
<td>31</td>
<td>37</td>
<td>Face Amount of Insurance at Issue</td>
<td>Face amount of the policy segment at its issue date rounded to nearest dollar. If policy provides payment of cash value in addition to face amount, include face amount and do not include cash value. If the death benefit includes return of premium or cash value, do not include premium or cash value amount in the face amount of the policy segment. Data required to support this item is policy provided. Note: premium amount includes return of premium and cash value.</td>
<td>Commented [MA4]: For elements that may not be readily available, the phase in period identifies the year in which this element will be required. Commented [MA16]: Needs to be defined or removed</td>
</tr>
<tr>
<td>ITEM</td>
<td>COLUMN</td>
<td>L</td>
<td>DATA ELEMENT</td>
<td>DESCRIPTION</td>
<td>PROSPECTIVE RETROSPECTIVE PHASE IN PERIOD</td>
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<td>--------------</td>
<td>-------------</td>
<td>----------------------------------------</td>
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<tr>
<td>22</td>
<td>111-122</td>
<td>136-147</td>
<td>Face Amount of Insurance at the Beginning of the Observation Year</td>
<td></td>
<td></td>
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<tr>
<td>32</td>
<td>136-147</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>111-122</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>123-134</td>
<td>148-159</td>
<td>Face Amount of Insurance at the End of the Observation Year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>148-159</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>58</td>
<td>123-134</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>160-171</td>
<td></td>
<td>Ultimate Face Amount</td>
<td>Face Amount at maturity. Enter 99999999999 if not known at issue. Leave blank if using units</td>
<td>Retrospective</td>
</tr>
<tr>
<td>ITEM</td>
<td>COLUMN</td>
<td>L</td>
<td>DATA ELEMENT</td>
<td>DESCRIPTION</td>
<td>PROSPECTIVE/RETROSPECTIVE PHASE IN PERIOD</td>
</tr>
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<td>--------</td>
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<td>--------------</td>
<td>-------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>41</td>
<td>172-180</td>
<td>9</td>
<td>Number of Units</td>
<td>For policies that have a constant number of units for all policy durations but vary the dollar value of the unit over different policy durations, fill out the number of units. Leave blank if using amounts. The number of units is the ultimate face amount divided by 1000, rounded to the nearest integer.</td>
<td>Retrospective</td>
</tr>
<tr>
<td>42</td>
<td>181-189</td>
<td>9</td>
<td>Death Claim Units</td>
<td>If Inforce Indicator is 1 or amounts are used, leave blank. This number of units is to represent the number of units that were paid for the death claim. If Inforce Indicator is 0 and Cause of Termination is not '04', then leave blank.</td>
<td>Retrospective</td>
</tr>
<tr>
<td>43</td>
<td>190-201</td>
<td>12</td>
<td>Death Claim Amount</td>
<td>Death claim amount rounded to the nearest dollar. If the death benefit includes return to premium or cash values, report face amount, and do not include cash value. If the death benefit includes return to premium or cash values, do not include premium or cash value amount. Exclude extra amounts attributable to 7702 corridors. If In-force Indicator is 1, leave blank. If In-force Indicator is 0 and Cause of Termination is not 04, then leave blank. If In-force Indicator is 0 and termination is not due to death (Cause of Termination is not 04), then leave blank.</td>
<td>Retrospective</td>
</tr>
<tr>
<td>44</td>
<td>202-203</td>
<td>2</td>
<td>Cause of Death Code Type</td>
<td>Identify the classification method of diagnosis for the death claim. 00 = Unknown 09 = ICD 9 10 = ICD 10 11 = SOA's 1980 cause of death codes</td>
<td>Prospective 2021</td>
</tr>
<tr>
<td>ITEM</td>
<td>COLUMN</td>
<td>L</td>
<td>DATA ELEMENT</td>
<td>DESCRIPTION</td>
<td>PROSPECTIVE RETROSPECTIVE PHASE IN PERIOD</td>
</tr>
<tr>
<td>------</td>
<td>--------</td>
<td>---</td>
<td>---------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>45</td>
<td>204-207</td>
<td>4</td>
<td>Primary Cause of Death</td>
<td>Enter the Primary Cause of Death Code using the type indicated in Cause of Death Code Type.</td>
<td>Prospective 2021</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>If unknown, enter '0000000'.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>If not a death, leave blank.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Enter the ICD 9/10 diagnosis code for the primary cause of death or enter the SOA's 1980 cause of death codes. If ICD9 code, insert the three-digit code (e.g. - if ICD9 code = 010 (Primary Tuberculosis infections), enter &quot;010&quot;). Do not include supplementary digits 4 nor 5 in the code. For e800-e999, use the letter and 3 digit number, e.g. for e806-Other specified railway accident, enter &quot;e806&quot;. Note: the base 800-999 codes (those without a letter classification) are morbidity codes, not mortality codes. If ICD10 code, insert the letter and first two digits (e.g. - if ICD10 code = A00 (Cholera), insert &quot;A00&quot;). Do not include any additional supplementary digits in the code. If SOA 1980 codes are used, insert the three digit SOA class code (e.g. for 07 Septicemia, insert &quot;070&quot;). Leave blank if unknown or if termination is other than by death.</td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>208-211</td>
<td>4</td>
<td>Secondary Cause of Death</td>
<td>Enter the Secondary Cause of Death Code using the type indicated in Cause of Death Code Type.</td>
<td>Prospective 2021</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>If unknown or no secondary cause of death, enter '0000000'.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>If not a death, leave blank.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Enter the ICD 9/10 diagnosis code for the secondary cause of death or enter the SOA's 1980 cause of death codes. If ICD9 code, insert the letter (if applicable) and the three-digit code (e.g. - if ICD9 code = 010 (Primary Tuberculosis infections), enter &quot;0010&quot;). Do not include supplementary digits 4 nor 5 in the code. For e800-e999, use the 3 digit number, e.g. for e806-Other specified railway accident, enter &quot;e806&quot;. Note: the base 800-999 codes (those without a letter classification) are morbidity codes, not mortality codes. If ICD10 code, insert the letter and first two digits (e.g. - if ICD10 code = A00 (Cholera), insert &quot;A00&quot;). Do not include any additional supplementary digits in the code. If SOA 1980 codes are used, insert the three digit SOA class code (e.g. for 07 Septicemia, insert &quot;070&quot;). Leave blank if the secondary cause of death is unknown or if termination is other than by death.</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>147-154</td>
<td>8</td>
<td>Termination Reported Date</td>
<td>If In-force Indicator is 1, leave blank.</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>212-219</td>
<td></td>
<td>termination</td>
<td>Enter in the format YYYYMMDD the eight-digit calendar date that the termination was reported.</td>
<td></td>
</tr>
</tbody>
</table>
### Section 1: Basic Policy Information

**Round all dollar amounts to the nearest dollar. All values should be prior to any reinsurance ceded. If an item is unknown, leave blank unless otherwise specified.**

#### ITEM | COLUMN L | DATA ELEMENT | DESCRIPTION | PROSPECTIVE | RETROSPECTIVE | PHASE IN PERIOD | Commented [MA4]: For elements that may not be readily available, the phase in period identifies the year in which this element will be required.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
<th>PROSPECTIVE</th>
<th>RETROSPECTIVE</th>
<th>PHASE IN PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>155-162</td>
<td>220-227</td>
<td>8 Actual Termination Date</td>
<td>If In-force Indicator is 1, leave blank. Enter in the format YYYYMMDD the eight-digit calendar date when the termination occurred. If termination is due to death (Cause of Termination is 04), enter actual date of death. If termination is lapse due to non-payment of premium (Cause of Termination is 01 or 02 or 14), enter the last day the premium was paid.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>163-164</td>
<td>228-229</td>
<td>2 Cause of Termination</td>
<td>If In-force Indicator is 1, leave blank. 00 = Termination type unknown or unable to subdivide 01 = Reduced paid-up 02 = Extended term 03 = Voluntary; unable to subdivide among 01, 02, 07, 09, 10, 11 or 13 04 = Death 07 = 1035 exchange 09 = Term conversion – unknown whether attained age or original age 10 = Attained age term conversion 11 = Original age term conversion 12 = Coverage expired or contract reached end of the mortality table 13 = Surrendered for full cash value 14 = Lapse (other than to Reduced Paid Up or Extended Term) 15 = Termination via payment of a discounted face amount while still alive, pursuant to an accelerated death benefit provision</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Section 1. Basic Policy Information

Round all dollar amounts to the nearest dollar. All values will be prior to any reinsurance ceded. If an item is unknown, leave blank unless otherwise specified.

### Table: Annualized Premium at Issue

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>165-124</td>
<td>10</td>
<td>Annualized Premium at Issue</td>
<td>For level term segments with plan codes 021 through 027, 041 through 045 or 211 through 271 of Item 19, Plan, enter the annualized premium set at issue. For all other segments, leave blank. Except for level term segments specified above, leave blank for non-base segments. For the base segments for ULSG, and Variable Life with Secondary Guarantees (VLSG) with plan codes 071 through 078 or 090 through 096 of Item 19, Plan, enter the annualized billed premium set at issue. Round to the nearest dollar. If unknown, leave blank.</td>
</tr>
</tbody>
</table>

Commented [MA4]: For elements that may not be readily available, the phase in period identifies the year in which this element will be required.

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## ITEM 1. Basic Policy Information

### Annualized Premium at the Beginning of Observation Year

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>125-126</td>
<td>10</td>
<td>Annualized Premium at the Beginning of Observation Year</td>
<td>annualized premium for the policy year that includes the beginning of the observation year. For level term segments with plan codes 021 through 027, 041 through 045 or 211 through 271 of Item 19, enter the annualized premium for the policy year that includes the beginning of the observation year. Except for level term segments specified above, leave blank for non-base segments. For the base segments for ULSG and VLSG with plan codes 071 through 078 or 090 through 096 of Item 19, enter the annualized billed premium for the policy year that includes the beginning of the observation year. For all other segments, leave blank. Round to the nearest dollar. For policies issued in the observation year, leave blank. If unknown, leave blank.</td>
</tr>
</tbody>
</table>

*Commented [MA4]:* For elements that may not be readily available, the phase in period identifies the year in which this element will be required.
<table>
<thead>
<tr>
<th>Segment</th>
<th>Annualized Premium at the End of Observation</th>
<th>Annualized Premium at the End of Observation</th>
<th>Annualized Premium at the End of Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>01-03</td>
<td>as of Year/Actual Termination Date</td>
<td>as of Year/Actual Termination Date</td>
<td>as of Year/Actual Termination Date</td>
</tr>
</tbody>
</table>

For level term segments with plan codes 021 through 027, 041 through 045 or 211 through 271 of Item 19, Plan, for each segment that has Item 20, with the In-force Indicator = 1, enter the annualized premium for the policy year that includes the end of the observation year. Otherwise, enter the annualized premium that would have been paid at the end of the observation year. If end of year premium is not available, enter the annualized premium as of the Actual Termination Date (Item 26). Except for level term segments specified above, leave blank for non-base segments.

For the base segments for ULSG and VLSG with plan codes 071 through 078 or 090 through 096 of Item 19, Plan, use the annualized billed premium. For base segments that have Item 20, with the Inforce Indicator =1, enter the annualized billed premium for the policy year that includes the end of the observation year. Otherwise, enter the annualized billed premium that would have been paid at the end of the observation year. If end of year premium is not available, enter the annualized premium as of the Actual Termination Date (Item 26).

Round to the nearest dollar. If unknown, leave blank.

For Segment Types 01 through 03 (Item 5) level term segments with plan codes 021 through 027, 041 through 045 or 211 through 271 of Item 19, Plan, for each segment that has Item 20, with where the In-force Indicator is= 1, enter the annualized premium for the policy year that includes the end of the observation year. For Segment Types 01 through 03 (Item 5) where the In-force Indicator is 0, otherwise, enter the annualized premium that would have been paid at the end of the observation year. If end of year premium is not available, enter the annualized premium as of the Actual Termination Date (Item 26). Except for level term segments specified above, leave blank for non-base segments.

For all other segments, leave blank. Round to the nearest dollar. If unknown, leave blank.
### 1. Basic Policy Information

Round all dollar amounts to the nearest dollar. All values should be prior to any reinsurance ceded. If an item is unknown, leave blank unless otherwise specified.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
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<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
<th>PROSPECTIVE RETROSPECTIVE PHASE IN PERIOD</th>
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</tr>
<tr>
<td>41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>53</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>195-196</td>
<td>260-261</td>
<td>Premium Mode</td>
<td>01 = Annual 02 = Semiannual 03 = Quarterly 04 = Monthly Bill Sent 05 = Monthly Automatic Payment 06 = Semimonthly 07 = Biweekly 08 = Weekly 09 = Single Premium 10 = Other/Unknown</td>
<td>Prospective Retrospective</td>
</tr>
<tr>
<td></td>
<td>262</td>
<td></td>
<td>Latest Payment Type</td>
<td>If policy is terminated, then enter the last payment type used prior to termination. 0 = Unknown 1 = Direct 2 = Payroll Deduction / Group 3 = Credit Card / Debit Card 4 = EFT / Pre-Authorized check 5 = Coupon 6 = Other 7 = Unable to Determine</td>
<td>Retrospective</td>
</tr>
<tr>
<td>54</td>
<td>263-272</td>
<td></td>
<td>Cumulative Premium Collected as of the Beginning of Observation Year</td>
<td>For ULSG, and VLSG policies with plan codes 071 through 078 or 090 through 096 of Item 19, Plan: If not ULSG or VLSG, leave blank. 1) For non-base segments, leave blank. 2) For base segments, enter the cumulative premium collected since issue, as of the beginning of the observation year. Round to the nearest dollar. For policies issued in the observation year, leave blank. If unknown, leave blank.</td>
<td></td>
</tr>
</tbody>
</table>
## Section 1. Basic Policy Information

Round all dollar amounts to the nearest dollar. All values should be prior to any reinsurance ceded. If an item is unknown, leave blank unless otherwise specified.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
<th>PROSPECTIVE/RETROSPECTIVE PHASE IN PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td></td>
<td></td>
<td>Cumulative Premium Collected as of the End of Observation Year if available. Otherwise, Cumulative Premium Collected as of Actual Termination Date.</td>
<td>2021-2022</td>
<td>Prospective 2021</td>
</tr>
<tr>
<td>34</td>
<td></td>
<td></td>
<td>Cumulative Premium Collected as of the End of Observation Year if available. Otherwise, Cumulative Premium Collected as of Actual Termination Date.</td>
<td>2021-2022</td>
<td>Prospective 2021</td>
</tr>
</tbody>
</table>
| 35   |        |   | Policy On Premium Waiver | 0 = Unknown  
1 = Policy not converted, not on waiver  
2 = Policy not converted but on waiver  
3 = Policy converted, then on waiver  
4 = Policy on waiver then converted | Prospective 2024 |
| 57   | 283    | 1 | Term Conversion Type | If policy was issued as a result of a term conversion, enter the type of term conversion:  
0 = Unknown  
1 = Original Age Term Conversion  
2 = Attained Age Term Conversion  
3 = Unknown whether Original Age or Attained Age Term Conversion  
4 = Not a Term Conversion | Prospective 2021 |
| 59   | 285-292 | 8 | Original Issue Date | If Type of Term Conversion is 1, enter the issue date of the original policy in YYYYMMDD format. If the issue date of the original policy is unknown, please leave blank. Otherwise, Leave blank | Prospective 2021 |

Commented [MA4]: For elements that may not be readily available, the phase in period identifies the year in which this element will be required.
<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>COLUMN</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>64-65</td>
<td></td>
<td>293-294</td>
<td>Type of Underwriting Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>If underwriting requirement of ordinary business is reliably known, use code other than “99.” Ordinary business does not include separate lines of business, such as simplified issue/guaranteed issue, worksite, individually solicited group life, direct response, final expense, pre-need, home service and COLI/BOLI/CHOL. Requirements of ordinary business is reliably known, use code other than “99.” Ordinary business does not include separate lines of business, such as simplified issue/guaranteed issue, worksite, individually solicited group life, direct response, final expense, pre-need, home service and COLI/BOLI/CHOL. Underwriting requirements of ordinary business is reliably known, use code other than “99.” Ordinary business does not include separate lines of business, such as simplified issue/guaranteed issue, worksite, individually solicited group life, direct response, final expense, pre-need, home service and COLI/BOLI/CHOL. 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<td></td>
<td>01 = Underwritten, but unknown whether fluid was collected</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>02 = Underwritten with no fluid collection</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>03 = Underwritten with fluid collected</td>
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<td>04 = Simplified Issue</td>
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<td>05 = Guaranteed Issue</td>
</tr>
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<td></td>
<td></td>
<td>06 = Accelerated Underwriting</td>
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<td></td>
<td></td>
<td></td>
<td>07 = Underwritten as hold-out from Accelerated Underwriting</td>
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<td></td>
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<td></td>
<td>08 = Term Conversion</td>
</tr>
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<td>09 = Group Conversion</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td>10 = Exercise of a Guaranteed Insurability Option</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td>11 = Not Underwritten</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>99 = Unknown or unable to subdivide</td>
</tr>
<tr>
<td>61</td>
<td>295-303</td>
<td></td>
<td></td>
<td>Underwriting Specification Identifier</td>
<td>Identifier that ties to UW Specification File Item 3</td>
</tr>
<tr>
<td>62</td>
<td>304</td>
<td></td>
<td></td>
<td>Is financial data of any kind used in a marketing pre-screening process?</td>
<td>Retrospective 2021</td>
</tr>
<tr>
<td>63</td>
<td>305</td>
<td></td>
<td></td>
<td>Are there medical questions on the application?</td>
<td>Prospective 2021</td>
</tr>
<tr>
<td>64</td>
<td>306</td>
<td></td>
<td></td>
<td>If full medical info is required in part 2, how is it collected?</td>
<td>Prospective 2021</td>
</tr>
</tbody>
</table>
### Section 2: Underwriting Information

For non-base segments, leave blank. Round all dollar amounts to the nearest dollar. All values should be prior to any reinsurance ceded, if an item is unknown, leave blank unless otherwise specified.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
<th>PROSPECTIVE PHASE IN PERIOD</th>
</tr>
</thead>
</table>
| 65   | 307    | 1 | Do you have a reflexive aspect to your application? | 0 = Unknown  
1 = No  
2 = Yes | Prospective 2021 |

Reflexive questions are questions that are asked depending on the response to a previous question. For example, if the applicant answers yes to a specific condition question, then reflexive questions would gather additional information about the condition. If unknown, leave blank.

| 66   | 308    | 1 | Was there an underwriter review? | 0 = Unknown  
Y = Yes  
N = No | Prospective 2023 |

Round to the nearest dollar. If unknown, leave blank.

| 67   | 309    | 1 | After the policy is issued, is monitoring employed? | 0 = Unknown  
1 = No or None  
2 = Yes, Prescription Data  
3 = Yes, Attending Physician Statement  
4 = MIB  
5 = Multiple | Prospective 2023 |

| 68   | 310    | 1 | Was the application designed with Sentinel Value or Behavioral Economic considerations? | 0 = Unknown  
1 = Yes  
2 = No | Prospective 2021 |

Sentinel Value involves asking specific questions in order to prompt the applicant to divulge information that they might not otherwise divulge or to discourage them from proceeding with the application because of the information divulged.

Behavioral Economics is the study of how cognitive, emotional, and social factors affect decision-making. In life insurance, the structure of the application, order of the questions and product design may all be developed with the thought of influencing the truthfulness of the applicant or policyholder. Round to the nearest dollar. If unknown, leave blank.

| 69   | 311    | 1 | Was there a senior underwriting questionnaire or protocol done? | 0 = Unknown  
1 = No  
2 = Yes | Prospective 2023 |

| 70   | 312    | 1 | Field Underwriting (Impairment or Rx Knockouts) | 0 = Unknown  
1 = No  
2 = Yes | Prospective 2023 |

Round to the nearest dollar. If unknown, leave blank.

Commented [MA17]: For elements that may not be readily available, the phase in period identifies the year in which this element will be required.
<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
<th>PROSPECTIVE RETROSPECTIVE PHASE IN PERIOD</th>
</tr>
</thead>
</table>
| 71   | 313    | 1 | Predictive Analytics for Marketing Selection (Lead Generation) | 0 = Unknown  
1 = No  
2 = Yes | Prospective 2021 |
| 72   | 314    | 1 | Predictive Analytics for Underwriting Triage or Risk Classification | 0 = Unknown  
1 = No  
2 = Yes | Prospective 2021 |
| 73   | 315    | 1 | Attending Physician Statement | 0 = Unknown  
1 = No  
2 = Yes, full report  
3 = Yes, summary only  
3 = Waived | Prospective 2021 |
| 74   | 316    | 1 | Para-Medical Exam | 0 = Unknown  
1 = No  
2 = Yes  
3 = Waived | Prospective 2021 |
| 75   | 317    | 1 | Physician Exam | 0 = Unknown  
1 = No  
2 = Yes  
3 = Waived | Prospective 2021 |
| 76   | 318    | 1 | Electronic Health Records | 0 = Unknown  
1 = No  
2 = Yes  
3 = Waived  
4 = Requested – no hit | Prospective 2021 |
| 77   | 319    | 1 | Personal History Interview | 0 = Unknown  
1 = No  
2 = Yes  
3 = Waived | Prospective 2021 |
| 78   | 320    | 1 | Blood Sample | 0 = Unknown  
1 = No  
2 = Yes  
3 = Waived | Prospective 2023 |
| 79   | 321    | 1 | Urine / HOS specimen | 0 = Unknown  
1 = No  
2 = Yes  
3 = Waived | Prospective 2023 |

Commented [MA17]: For elements that may not be readily available, the phase in period identifies the year in which this element will be required.
Section 2: Underwriting Information
For non-base segments, leave blank.
Round all dollar amounts to the nearest dollar. All values should be prior to any reinsurance ceded.
If an item is unknown, leave blank unless otherwise specified.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
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<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
<th>PROSPECTIVE RETROSPECTIVE PHASE IN PERIOD</th>
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</thead>
<tbody>
<tr>
<td>80</td>
<td>322</td>
<td></td>
<td>Saliva / Oral fluid specimen</td>
<td>0 = Unknown</td>
<td>Prospective 2023</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 = No</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2 = Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3 = Waived</td>
<td></td>
</tr>
<tr>
<td>81</td>
<td>323</td>
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<td>Stress Test</td>
<td>0 = Unknown</td>
<td>Prospective 2023</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 = No</td>
<td></td>
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<td>2 = Yes - treadmill test</td>
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<td>3 = Yes - chemical stressers</td>
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<td></td>
<td></td>
<td>4 = Waived</td>
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<tr>
<td>82</td>
<td>324</td>
<td></td>
<td>MIB Requested</td>
<td>0 = Unknown</td>
<td>Prospective 2021</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td>1 = No</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>2 = Yes</td>
<td></td>
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<td>3 = Yes IAI</td>
<td></td>
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<td>4 = Yes both</td>
<td></td>
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<td></td>
<td></td>
<td>5 = Requested but not used</td>
<td></td>
</tr>
<tr>
<td>83</td>
<td>325</td>
<td></td>
<td>Prescription History Data Requested</td>
<td>0 = Unknown</td>
<td>Prospective 2021</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 = No</td>
<td></td>
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<td></td>
<td></td>
<td>2 = Yes</td>
<td></td>
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<td>3 = Not used</td>
<td></td>
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<tr>
<td>84</td>
<td>326</td>
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<td>Prescription History Data Received</td>
<td>0 = Unknown</td>
<td>Prospective 2021</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 = No</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2 = Hit with drugs</td>
<td></td>
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<td></td>
<td></td>
<td>3 = Hit with no drugs</td>
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<tr>
<td></td>
<td></td>
<td></td>
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<td>4 = Not used</td>
<td></td>
</tr>
<tr>
<td>85</td>
<td>327</td>
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<td>Prescription Rating Provided</td>
<td>0 = Unknown</td>
<td>Prospective 2021</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Automatically</td>
<td>1 = No</td>
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<td></td>
<td></td>
<td>2 = Numerical Score</td>
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<td></td>
<td>3 = Severity Group</td>
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<td>4 = Both</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>5 = Not used</td>
<td></td>
</tr>
<tr>
<td>86</td>
<td>328</td>
<td></td>
<td>Personal History - Cancer</td>
<td>0 = Unknown</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y = Yes</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>N = No</td>
<td></td>
</tr>
<tr>
<td>87</td>
<td>329-331</td>
<td></td>
<td>Personal History - Cancer - Age at Diagnosis</td>
<td>Number</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>88</td>
<td>332</td>
<td></td>
<td>Personal History - Cerebrovascular (stroke, artery sclerosis, vascular disease)</td>
<td>0 = Unknown</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y = Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N = No</td>
<td></td>
</tr>
<tr>
<td>89</td>
<td>333-335</td>
<td></td>
<td>Personal History - Cerebrovascular - Age at Diagnosis</td>
<td>Number</td>
<td>Prospective 2025</td>
</tr>
</tbody>
</table>

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## Section 2: Underwriting Information

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<th>PROSPECTIVE/RETROSPECTIVE PHASE IN PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>90</td>
<td>336</td>
<td>1</td>
<td>Personal History - Coronary (heart attack, hypertensive heart disease, arteriosclerotic vascular disease)</td>
<td>0 = Unknown Y = Yes N = No</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>91</td>
<td>337-339</td>
<td>3</td>
<td>Personal History - Age at Diagnosis</td>
<td>Number</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>92</td>
<td>340</td>
<td>1</td>
<td>Personal History - Mental / Nervous</td>
<td>0 = Unknown Y = Yes N = No</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>93</td>
<td>341-343</td>
<td>3</td>
<td>Personal History - Age at Diagnosis</td>
<td>Number</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>94</td>
<td>344</td>
<td>1</td>
<td>Personal History - Diabetes</td>
<td>0 = Unknown Y = Yes N = No</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>95</td>
<td>345-347</td>
<td>3</td>
<td>Personal History - Age at Diagnosis</td>
<td>Number</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>96</td>
<td>348</td>
<td>1</td>
<td>Personal History - Alcohol Abuse</td>
<td>0 = Unknown Y = Yes N = No</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>97</td>
<td>349-351</td>
<td>3</td>
<td>Personal History - Alcohol Abuse - Age at Diagnosis</td>
<td>Number</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>98</td>
<td>352</td>
<td>1</td>
<td>Personal History - Drug Abuse other than Marijuana</td>
<td>0 = Unknown Y = Yes N = No</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>99</td>
<td>353-355</td>
<td>3</td>
<td>Personal History - Drug Abuse other than Marijuana - Age at Diagnosis</td>
<td>Number</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>100</td>
<td>356</td>
<td>1</td>
<td>Personal History - Marijuana</td>
<td>0 = Unknown Y = Yes N = No</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>101</td>
<td>357-359</td>
<td>3</td>
<td>Personal History - Drug Abuse - Marijuana - Age at Diagnosis</td>
<td>Number</td>
<td>Prospective 2025</td>
</tr>
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</tr>
</thead>
</table>
| 102  | 360-364 | 5 | Smoking status source | 0 = Unknown  
1 = App  
2 = E-Health Records  
3 = Paramed  
4 = APS  
5 = Other  
Enter all options that apply. (e.g. if both App and Paramed, then enter 13) | Prospective 2025 |
| 103  | 365-370 | 6 | Blood Pressure Source | 0 = Unknown  
1 = Not used  
2 = App self reported  
3 = E-Health Records  
4 = Paramed  
5 = APS  
6 = Other  
Enter all that apply (e.g. if App, Paramed, and APS, then enter 245) | Prospective 2025 |
| 104  | 371-373 | 5 | Diastolic Blood Pressure | Numerical Value  
999 = Not collected | Prospective 2025 |
| 105  | 374-376 | 5 | Systolic Blood Pressure | Numerical Value  
999 = Not collected | Prospective 2025 |
| 106  | 377    | 3 | Blood Pressure Treatment | 0 = Unknown  
1 = Not Treated  
2 = Treated  
3 = Not collected | Prospective 2025 |
| 107  | 378-382 | 5 | Source of Height and Weight | 0 = Unknown  
1 = Self Reported  
2 = Independently Taken  
3 = E-Health Records  
4 = Paramed  
5 = Other  
Enter all that apply (e.g. if both self reported and Paramed, then enter 14) | Prospective 2025 |
| 108  | 383-385 | 5 | Height in inches | Numerical Value as an integer  
999 = Not collected | Prospective 2025 |
| 109  | 386-388 | 5 | Weight in pounds | Numerical Value as an integer  
999 = Not collected | Prospective 2025 |
| 110  | 389-393 | 5 | Cholesterol Source | 0 = Unknown  
1 = App / Self Reported  
2 = E-Health Records  
3 = Paramed  
4 = APS  
5 = Other  
Enter all options that apply. (e.g. if both App and Paramed, then enter 13) | Prospective 2025 |

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### Section 2: Underwriting Information

For non-base segments, leave blank.

Round all dollar amounts to the nearest dollar. All values should be prior to any reinsurance ceded.

If an item is unknown, leave blank unless otherwise specified.

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<th>PROSPECTIVE/RETROSPECTIVE PHASE IN PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>111</td>
<td>394-396</td>
<td>1</td>
<td>Cholesterol Total</td>
<td>Numerical Value as an integer</td>
<td>Prospective 2025 If 999 = Not collected</td>
</tr>
<tr>
<td>112</td>
<td>395-399</td>
<td>1</td>
<td>HDL</td>
<td>Numerical Value as an integer</td>
<td>Prospective 2024 If 999 = Not collected</td>
</tr>
<tr>
<td>113</td>
<td>400</td>
<td>1</td>
<td>Financial Data (Income and Assets information on the Application)</td>
<td>0 = Unknown, 1 = No, 2 = Yes</td>
<td>Prospective 2024</td>
</tr>
<tr>
<td>114</td>
<td>401</td>
<td>1</td>
<td>Credit Data</td>
<td>0 = Unknown, 1 = No, 2 = Yes</td>
<td>Prospective 2024</td>
</tr>
<tr>
<td>115</td>
<td>402</td>
<td>1</td>
<td>Credit Behavior Mortality Risk Score (not FICO Credit Score)</td>
<td>0 = Unknown, 1 = No, 2 = Yes</td>
<td>Prospective 2024</td>
</tr>
<tr>
<td>116</td>
<td>403</td>
<td>1</td>
<td>Motor Vehicle Records Requested</td>
<td>0 = Unknown, 1 = No, 2 = Yes, 3 = Yes &amp; used as part of a scoring system, 4 = Waived, 5 = Not used</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>117</td>
<td>404</td>
<td>1</td>
<td>Driving Record - Moving Violations</td>
<td>0 = Unknown, Y = Yes, N = No</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>118</td>
<td>405-407</td>
<td>1</td>
<td>Driving Record - Specific Violations</td>
<td>0 = Unknown, 1 = Driving Under the Influence (DUI), 2 = Reckless Driving (RD), 3 = Driving License Suspended, 4 = None of the above</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>119</td>
<td>408</td>
<td>1</td>
<td>Wearable Technology</td>
<td>0 = Unknown, 1 = No, 2 = Yes, as part of underwriting, 3 = Yes, enforce engagement, 4 = Both 2 and 3</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>120</td>
<td>409</td>
<td>1</td>
<td>Other New Technology or Data Considered</td>
<td>0 = Unknown, Y = Yes, N = No</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>121</td>
<td>410</td>
<td>1</td>
<td>Occupation</td>
<td>0 = Unknown, 1 = No, 2 = Yes: Information collected and rated as a result, 3 = Yes: Information collected but not used, 4 = Yes, Reflexive Question Only, 5 = Actively at work question only</td>
<td>Prospective 2025</td>
</tr>
</tbody>
</table>

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## Section 2: Underwriting Information

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</tr>
</thead>
<tbody>
<tr>
<td>122</td>
<td>411</td>
<td>1</td>
<td>Avocation</td>
<td>0 = Unknown 1 = No 2 = Yes: Information collected and rated as a result 3 = Yes: Information collected but not used 4 = Yes, Reflexive Question Only</td>
<td>Prospective 2023</td>
</tr>
<tr>
<td>123</td>
<td>412</td>
<td>1</td>
<td>Driving Record</td>
<td>0 = Unknown 1 = No 2 = Yes: Information collected and rated as a result 3 = Yes: Information collected but not used 4 = Yes, Reflexive Question Only</td>
<td>Prospective 2023</td>
</tr>
<tr>
<td>124</td>
<td>413</td>
<td>1</td>
<td>Aviation</td>
<td>0 = Unknown 1 = No 2 = Yes: Information collected and rated as a result 3 = Yes: Information collected but not used</td>
<td>Prospective 2023</td>
</tr>
<tr>
<td>125</td>
<td>414</td>
<td>1</td>
<td>Citizenship</td>
<td>0 = Unknown 1 = No 2 = Yes: Information collected and rated as a result 3 = Yes: Information collected but not used</td>
<td>Prospective 2023</td>
</tr>
<tr>
<td>126</td>
<td>415</td>
<td>1</td>
<td>Foreign Travel</td>
<td>0 = Unknown 1 = No 2 = Yes: Information collected and rated as a result 3 = Yes: Information collected but not used</td>
<td>Prospective 2023</td>
</tr>
<tr>
<td>127</td>
<td>416</td>
<td>1</td>
<td>Residency</td>
<td>0 = Unknown 1 = No 2 = Yes: Information collected and rated as a result 3 = Yes: Information collected but not used</td>
<td>Prospective 2023</td>
</tr>
<tr>
<td>128</td>
<td>417-419</td>
<td>3</td>
<td>Family History - Cancer</td>
<td>F = Father M = Mother S = Sibling blank if none Enter all that apply (e.g. if both Mother and Sibling, then enter MS)</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>129</td>
<td>420-422</td>
<td>3</td>
<td>Family History - Cancer - Youngest Age at Diagnosis for Parent</td>
<td>Enter the youngest age at diagnosis for either parent identified in item 128. Blank if none</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>130</td>
<td>423-425</td>
<td>3</td>
<td>Family History - Cancer - Youngest Age at Death for Parent</td>
<td>Enter the youngest age at death for either parent identified in item 128. Blank if none</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>131</td>
<td>426-428</td>
<td>3</td>
<td>Family History - Cancer - Youngest Age at Diagnosis for Sibling</td>
<td>Enter the youngest age at diagnosis for sibling(s) identified in item 128. Blank if none</td>
<td>Prospective 2025</td>
</tr>
</tbody>
</table>

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</tr>
</thead>
<tbody>
<tr>
<td>132</td>
<td>429-431</td>
<td>3</td>
<td>Family History – Cancer – Youngest Age at Death for Sibling</td>
<td>Enter the youngest age at death for sibling(s) identified in item 128.</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Blank if none</td>
<td></td>
</tr>
</tbody>
</table>
| 133  | 432-434| 3 | Family History – Cerebrovascular (stroke, arteria sclerotic vascular disease) | F = Father
M = Mother
S = Sibling
Blank if none
Enter all that apply (e.g. if both Mother and Sibling, then enter MS) | Prospective 2025                          |
| 134  | 435-437| 3 | Family History – Cerebrovascular – Youngest Age at Diagnosis for Parent      | Enter the youngest age at diagnosis for either parent identified in item 133.                        | Prospective 2025                          |
|      |        |   |                                                                              | Blank if none                                                                                       |                                          |
| 135  | 438-440| 3 | Family History – Cerebrovascular – Youngest Age at Death for Parent          | Enter the youngest age at death for either parent identified in item 133.                            | Prospective 2025                          |
|      |        |   |                                                                              | Blank if none                                                                                       |                                          |
| 136  | 441-443| 3 | Family History – Cerebrovascular – Youngest Age at Diagnosis for Sibling     | Enter the youngest age at diagnosis for sibling(s) identified in item 133.                          | Prospective 2025                          |
|      |        |   |                                                                              | Blank if none                                                                                       |                                          |
| 137  | 444-446| 3 | Family History – Cerebrovascular – Youngest Age at Diagnosis for Sibling     | Enter the youngest age at death for sibling(s) identified in item 133.                              | Prospective 2025                          |
|      |        |   |                                                                              | Blank if none                                                                                       |                                          |
| 138  | 447-449| 3 | Family History – Coronary (heart attack, hypertensive heart disease, arteria sclerotic vascular disease) | F = Father
M = Mother
S = Sibling
Blank if none
Enter all that apply (e.g. if both Mother and Sibling, then enter MS) | Prospective 2025                          |
| 139  | 450-452| 3 | Family History – Coronary – Youngest Age at Diagnosis for Parent             | Enter the youngest age at diagnosis for either parent identified in item 138.                      | Prospective 2025                          |
|      |        |   |                                                                              | Blank if none                                                                                       |                                          |
| 140  | 453-455| 3 | Family History – Coronary – Youngest Age at Death for Parent                 | Enter the youngest age at death for either parent identified in item 138.                          | Prospective 2025                          |
|      |        |   |                                                                              | Blank if none                                                                                       |                                          |
| 141  | 456-458| 3 | Family History – Coronary – Youngest Age at Diagnosis for Sibling            | Enter the youngest age at diagnosis for sibling(s) identified in item 138.                        | Prospective 2025                          |
|      |        |   |                                                                              | Blank if none                                                                                       |                                          |

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</thead>
<tbody>
<tr>
<td>142</td>
<td>459-461</td>
<td>3</td>
<td>Family History - Coronary - Youngest Age at Death for Sibling</td>
<td>Enter the youngest age at death for sibling(s) identified in item 138. Blank if none</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>143</td>
<td>462-464</td>
<td>3</td>
<td>Family History - Mental / Nervous</td>
<td>F = Father  M = Mother  S = Sibling  Blank if none Enter all that apply (e.g. if both Mother and Sibling, then enter MS)</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>144</td>
<td>465-467</td>
<td>3</td>
<td>Family History - Mental / Nervous - Youngest Age at Diagnosis for Parent</td>
<td>Enter the youngest age at diagnosis for either parent identified in item 143. Blank if none</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>145</td>
<td>468-470</td>
<td>3</td>
<td>Family History - Mental / Nervous - Youngest Age at Death for Parent</td>
<td>Enter the youngest age at death for either parent identified in item 143. Blank if none</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>146</td>
<td>471-473</td>
<td>3</td>
<td>Family History - Mental / Nervous - Youngest Age at Diagnosis for Sibling</td>
<td>Enter the youngest age at diagnosis for sibling(s) identified in item 143. Blank if none</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>147</td>
<td>474-476</td>
<td>3</td>
<td>Family History - Mental / Nervous - Youngest Age at Death for Sibling</td>
<td>Enter the youngest age at death for sibling(s) identified in item 143. Blank if none</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>148</td>
<td>477-479</td>
<td>3</td>
<td>Family History - Diabetes</td>
<td>F = Father  M = Mother  S = Sibling  Blank if none Enter all that apply (e.g. if both Mother and Sibling, then enter MS)</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>149</td>
<td>480-482</td>
<td>3</td>
<td>Family History - Diabetes - Youngest Age at Diagnosis for Parent</td>
<td>Enter the youngest age at diagnosis for either parent identified in item 148. Blank if none</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>150</td>
<td>483-485</td>
<td>3</td>
<td>Family History - Diabetes - Youngest Age at Death for Parent</td>
<td>Enter the youngest age at death for either parent identified in item 148. Blank if none</td>
<td>Prospective 2025</td>
</tr>
<tr>
<td>151</td>
<td>486-488</td>
<td>3</td>
<td>Family History - Diabetes - Youngest Age at Diagnosis for Sibling</td>
<td>Enter the youngest age at diagnosis for sibling(s) identified in item 148. Blank if none</td>
<td>Prospective 2025</td>
</tr>
</tbody>
</table>

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<th>PROSPECTIVE RETROSPECTIVE PHASE IN PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>152</td>
<td>489-491</td>
<td>4</td>
<td>Family History - Diabetes - Youngest Age at Death for Sibling</td>
<td>Enter the youngest age at death for sibling(s) identified in item 148. Blank if none</td>
<td>Prospective 2025</td>
</tr>
</tbody>
</table>

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### Section 23: Secondary Guarantee Policy Information

**Policy Information**

For non-ULSG or non-VLSG products, leave blank.

For non-base segments, leave blank.

Round all dollar amounts to the nearest dollar. All values should be prior to any reinsurance ceded.

If an item is unknown, leave blank unless otherwise specified.

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<tr>
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<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>
| 43   | 1      | 2 | Length of Secondary Guarantee ULSG/VLSG | 1 = 0 to 4.99 years  
2 = 5 to 9.99 years  
3 = 10 to 19.99 years  
4 = 20+ years |
| 44   | 1      | 2 | Premium Type | For non-base segments, leave blank.  
If not ULSG or VLSG, leave blank.  
For ULSG and VLSG policies with plan codes 071 through 078 or 090 through 096 of Item 19, Plan:  
00 = Unknown  
01 = Single premium  
02 = ULSG/VLSG Whole life level premium  
03 = Lower premium (term like)  
04 = Other |
| 153  | 1      | 2 | Premium Type | For non-base segments, leave blank.  
If not ULSG or VLSG, leave blank.  
For ULSG and VLSG policies with plan codes 071 through 078 or 090 through 096 of Item 19, Plan:  
00 = Unknown  
01 = Single premium  
02 = ULSG/VLSG Whole life level premium  
03 = Lower premium (term like)  
04 = Other |
| 45   | 1      | 2 | Type of Secondary Guarantee | 00 = Unknown  
01 = Cumulative Premium without Interest (Single Tier)  
02 = Cumulative Premium without Interest (Multiple Tier)  
03 = Cumulative Premium without Interest (Other)  
04 = Cumulative Premium with Interest (Single Tier)  
05 = Cumulative Premium with Interest (Multiple Tier)  
06 = Cumulative Premium with Interest (Other)  
11 = Shadow Account (Single Tier)  
12 = Shadow Account (Multiple Tier)  
13 = Shadow Account (Other)  
21 = Both Cumulative Premium without Interest and Shadow Account  
22 = Both Cumulative Premium with Interest and Shadow Account  
23 = Other |

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### Section 23: Secondary Guarantee Policy Information

For non-ULSG or non-VLSG products, leave blank.
For non-base segments, leave blank.

<table>
<thead>
<tr>
<th>ITEM</th>
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<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>46</td>
<td>448-469</td>
<td>10</td>
<td>Cumulative Minimum Premium as of the Beginning of Observation Year</td>
<td>If not ULSG or VLSG, leave blank. If not ULSG or VLSG, leave blank.</td>
</tr>
</tbody>
</table>

For ULSG and VLSG policies with plan codes 071 through 078 or 090 through 096 of Item 19, Plan:

If Item 35, Type of Secondary Guarantee is blank, 00, 11, 12, 13 or 23, leave blank.
If Item 35, Type of Secondary Guarantee is blank, 00, 11, 12, 13 or 23, leave blank.

1) Leave non-base segments, blank.
2) For base segments:
Enter the cumulative minimum premiums, including applicable interest, for all policy years up to the beginning of the observation year.
Round to the nearest dollar.
If unknown, leave blank.

For ULSG and VLSG policies with plan codes 071 through 078 or 090 through 096 of Item 19, Plan:

If Item 35, Type of Secondary Guarantee (Item 15445) is blank, 00, 11, 12, 13 or 23, leave blank.
If Item 35, Type of Secondary Guarantee (Item 15445) is 01, 02, 03, 04, 05, 06, 21 or 22:
1) Leave non-base segments, blank.
2) For base segments:
Enter the cumulative minimum premiums, including applicable interest, for all policy years up to the beginning of the observation year.
Round to the nearest dollar.
For policies issued in the observation year, leave blank.
For unknown, leave blank.
### Section 2: Secondary Guarantee Policy Information

For non-ULSG or non-VLSG products, leave blank.

For non-base segments, leave blank.

Round all dollar amounts to the nearest dollar. All values should be prior to any reinsurance ceded.

If an item is unknown, leave blank unless otherwise specified.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>47</td>
<td>505-514</td>
<td>10</td>
<td>Cumulative Minimum Premium as of the End of Observation Year/Actual Termination Date</td>
<td>If Item 35, Type of Secondary Guarantee (Item 15445) is blank, 00, 11, 12, 13 or 23, leave blank. If Item 35, Type of Secondary Guarantee (Item 15445) is 01, 02, 03, 04, 05, or 06, 21 or 22: For non-base segments, leave blank. For base segments inforce at the end of the observation year, enter the cumulative minimum premiums, including applicable interest, up to the end of the observation year. For base segments terminated during the observation year, enter the cumulative minimum premiums, including applicable interest or up to the Actual Termination Date (Item 4836). Rounded to the nearest dollar.</td>
</tr>
</tbody>
</table>
### Section 23: Secondary Guarantee Policy Information

**Policy Information**

- For non-ULSG or non-VLSG products, leave blank.
- For non-base segments, leave blank.
- Round all dollar amounts to the nearest dollar. All values should be prior to any reinsurance ceded.
- If an item is unknown, leave blank unless otherwise specified.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>48</td>
<td>515-524</td>
<td>Shadow Account Amount at the Beginning of Observation Year</td>
<td>Enter the total amount of the Shadow Account at the beginning of the observation year. The Shadow Account can be positive, zero or negative. Leave blank if unknown.</td>
</tr>
</tbody>
</table>
Section 23 | Secondary Guarantee Policy Information

For non-ULSG or non-VLSG products, leave blank.
For non-base segments, leave blank.
Round all dollar amounts to the nearest dollar. All values should be prior to any reinsurance ceded.
For ULSG and VLSG policies with plan codes 071 through 078 or 090 through 096 of Item 19, Plan: If Item 35, Type of Secondary Guarantee is blank, 00, 01, 02, 03, 04, 05, 06, or 23 leave blank. If Item 35, Type of Secondary Guarantee is 11, 12, 13, 21 or 22:
1) For non-base segments, leave blank.
2) For base segments in force at the end of the observation year, enter the total amount of the Shadow Account at the end of the observation year. The Shadow Account can be positive, zero or negative.
3) For base segments terminated during the observation year, enter the total amount of the Shadow Account as of the Actual Termination Date (Item 48). The Shadow Account can be positive, zero or negative.
Round to the nearest dollar.
If unknown, leave blank.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>
| 150-159 | 525-534 | 10 | Shadow Account Amount at the End of Observation Year/ Actual Termination Date | If not ULSG, or VLSG, leave blank. If not ULSG, or VLSG, leave blank. For ULSG and VLSG policies with plan codes 071 through 078 or 090 through 096 of Item 19, Plan: If Item 35, Type of Secondary Guarantee is blank, 00, 01, 02, 03, 04, 05, 06, or 23 leave blank. If Item 35, Type of Secondary Guarantee is 11, 12, 13, 21 or 22:
1) For non-base segments, leave blank.
2) For base segments in force at the end of the observation year, enter the total amount of the Shadow Account at the end of the observation year. The Shadow Account can be positive, zero or negative.
3) For base segments terminated during the observation year, enter the total amount of the Shadow Account as of the Actual Termination Date (Item 48). The Shadow Account can be positive, zero or negative.
Round to the nearest dollar.
If unknown, leave blank. |
### Section 23: Secondary Guarantee Policy Information

For purposes of Section 23.2, secondary guarantee policies are defined as policies written with a guarantee provided by a reinsurer, as opposed to a guarantor or other similar relationship. These policies may be written for non-underwriting line products. For purposes of this section, account value is defined as the amount due to the policyholder on the face of the policy at the beginning of the observation period, prior to any reinsurance ceded.

#### ITEM 159

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>159</td>
<td>535-544</td>
<td>10</td>
<td>Account Value at the Beginning of Observation Year</td>
<td></td>
</tr>
</tbody>
</table>

For non-underwriting line products, leave blank.

For non-base segments, leave blank.

If not ULSG or VLSG, leave blank.

For ULSG and VLSG policies with plan codes 071 through 078 or 090 through 096 of Item 19, Plan, the policy Account Value (gross of any loan) at the Beginning of the Observation Year. The policy Account Value can be positive, zero or negative.

Round to the nearest dollar.

If unknown, leave blank.

For policies issued in the observation year, leave blank.

For ULSG and VLSG policies with plan codes 071 through 078 or 090 through 096 of Item 19, Plan, the policy Account Value (gross of any loan) at the Beginning of the Observation Year. The policy Account Value can be positive, zero or negative.

Round to the nearest dollar.

If unknown, leave blank.

For policies issued in the observation year, leave blank.
## Section 23: Secondary Guarantee Policy Information

For non-ULSG or non-VLSG products, leave blank.

For non-base segments, leave blank.

Round all dollar amounts to the nearest dollar. All values should be prior to any reinsurance ceded.

If an item is unknown, leave blank unless otherwise specified.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>51</td>
<td>545-554</td>
<td>Account Value at the End of Observation Year/Actual Termination Date</td>
<td>For non-base segments, leave blank. For non-ULSG or VLSG, leave blank. If not ULSG or VLSG, leave blank. If unknown, leave blank.</td>
</tr>
</tbody>
</table>
**Section 23: Secondary Guarantee Policy Information**

For non-ULSG or non-VLSG products, leave blank.

For non-base segments, leave blank.

Round all dollar amounts to the nearest dollar. All values should be prior to any reinsurance ceded.

If an item is unknown, leave blank unless otherwise specified.

**ITEM** | **COLUMN** | **DATA ELEMENT** | **DESCRIPTION**
--- | --- | --- | ---
52 | 555-564 | 10 | Amount of Surrender Charge at the Beginning of Observation Year

For ULSG and VLSG policies with plan codes 071 through 078 and 090 through 096 of Item 19, Plan, enter the dollar Amount of the Surrender Charge as of the Beginning of the Observation Year.

Round to the nearest dollar.

For policies issued in the observation year, leave blank. If unknown, leave blank.

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### Section 3: Secondary Guarantee Policy Information

**For non-ULSG or non-VLSG products, leave blank.**

**For non-base segments, leave blank.**

Round all dollar amounts to the nearest dollar. All values should be prior to any reinsurance ceded.

If an item is unknown, leave blank unless otherwise specified.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>53</td>
<td>290-299</td>
<td>Amount of Surrender Charge at the End of Observation Year/Actual Termination Date</td>
<td>[Description]</td>
</tr>
</tbody>
</table>

For ULSG and VLSG policies with plan codes 071 through 078 or 090 through 096 of Item 19, Plan:

1) If policy is in force at the end of observation year, enter the dollar amount of the Surrender Charge at the end of the Observation Year.
2) If policy terminated during the observation year, enter the dollar amount of the Surrender Charge as of the Actual Termination Date [Item 48].

Round to the nearest dollar.

If unknown, leave blank.
Section 2. Secondary Guarantee Policy Information

For non-ULSG or non-VLSG products, leave blank.

For non-base segments, leave blank.

Round all dollar amounts to the nearest dollar. All values should be prior to any reinsurance ceded.

If an item is unknown, leave blank unless otherwise specified.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>44</td>
<td>54</td>
<td>163</td>
<td>Operative Secondary Guarantee at the Beginning of Observation Year</td>
</tr>
</tbody>
</table>

The company defines whether a secondary guarantee is in effect for a policy with a secondary guarantee at the beginning of the Observation Year.

- If Item 35, Type of Secondary Guarantee is blank, leave blank.
- If Item 35, Type of Secondary Guarantee is 00 through 23:
  - 1) For non-base segments, leave blank.
  - 2) For base segments:
    - 00 = If unknown whether the secondary guarantee is in effect
    - 01 = If secondary guarantee is not in effect
    - 02 = If secondary guarantee is in effect
    - 03 = If all secondary guarantees have expired

If Item 35, Type of Secondary Guarantee is blank, leave blank.

- If Item 35, Type of Secondary Guarantee is 00 through 23:
  - 1) For non-base segments, leave blank.
  - 2) For base segments:
### Section 32: Secondary Guarantee Policy Information

For non-ULSG or non-VLSG products, leave blank.

For non-base segments, leave blank.

Round all dollar amounts to the nearest dollar. All values should be prior to any reinsurance ceded.

If an item is unknown, leave blank unless otherwise specified.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>55</td>
<td>164</td>
<td></td>
<td>302-303 577-578</td>
<td>Operative Secondary Guarantee at the End of Observation Year/Actual Termination Date</td>
</tr>
</tbody>
</table>

The company defines whether a secondary guarantee is in effect for a policy with a secondary guarantee at the end of the Observation Year/Actual Termination Date. The company defines whether a secondary guarantee is in effect for a policy with a secondary guarantee at the end of the Observation Year/Actual Termination Date.

If Item 35, Type of Secondary Guarantee is blank, leave blank.

If Item 35, Type of Secondary Guarantee is 00 through 23:

1) For non-base segments, leave blank.

2) For base segments in force at the end of observation year, enter the appropriate value below as of the end of observation year:
- 00 = If unknown whether the secondary guarantee is in effect
- 01 = If secondary guarantee is not in effect
- 02 = If secondary guarantee is in effect
- 03 = If all secondary guarantees have expired

3) For base segments terminated during the observation year, enter the appropriate value below as of the Actual Termination Date (Item 26):
- 00 = If unknown whether the secondary guarantee is in effect
- 01 = If secondary guarantee is not in effect
- 02 = If secondary guarantee is in effect
- 03 = If all secondary guarantees have expired
### Section 3. State of Domicile

For non-base segments, leave blank.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>46</td>
<td>275</td>
<td>2</td>
<td>State of Domicile</td>
<td>Use standard, two-letter state abbreviations codes (e.g., FL for Florida) for the state of the policy owner's domicile. If outside of the U.S., leave blank.</td>
</tr>
</tbody>
</table>

### Section 4. Term Policy Information

For non-term policies, leave blank.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>47</td>
<td>#</td>
<td>1</td>
<td>Death Benefit</td>
<td>Initial Term Period: 1 = Level, 2 = Increasing, 3 = Decreasing</td>
</tr>
<tr>
<td>48</td>
<td>#</td>
<td>1</td>
<td>Death Benefit</td>
<td>After Initial Term Period: 1 = Level, 2 = Increasing, 3 = Decreasing</td>
</tr>
<tr>
<td>49</td>
<td>#</td>
<td>1</td>
<td>Death Benefit</td>
<td>Payout: 1 = Lump sum, 2 = Income term – level payment, 3 = Income term – increasing payment</td>
</tr>
<tr>
<td>50</td>
<td>#</td>
<td>2</td>
<td>Guaranteed Level Premium Period</td>
<td>01 = 1 year/ART, 05 = 5 years, 10 = 10 years, 15 = 15 years, 20 = 20 years, 25 = 25 years, 30 = 30 years, 00 = Other</td>
</tr>
<tr>
<td>51</td>
<td>#</td>
<td>2</td>
<td>Anticipated Level Premium Period</td>
<td>01 = 1 year/ART, 05 = 5 years, 10 = 10 years, 15 = 15 years, 20 = 20 years, 25 = 25 years, 30 = 30 years, 00 = Other</td>
</tr>
</tbody>
</table>

Commented [MA19]: Moved to item 8

Commented [LH20]: For discussion: should Section 4 be left blank for non-base segments?
### Section 4. Term Policy Information

For non-term policies, leave blank. If an item is unknown, leave blank.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>
| 52   | 1        | Post Level Premium Period | 1 = No post level premium period  
 2 = Attained age premium – guaranteed only  
 3 = Attained age premium – indeterminate  
 4 = Select and ultimate |

### Section 4. Rider Information

For non-base segments, leave blank. If an item is unknown, leave blank.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>
| 53   | 1        | Chronic Illness Rider | Does this policy contain this rider?  
 0 = No  
 1 = Yes (no separate charge)  
 2 = Yes (separate charge)  
 3 = Not offered  
 4 = Included (no separate charge)  
 5 = Not included (no separate charge)  
 6 = Selected (separate charge)  
 7 = Offered but not selected (separate charge) |
| 54   | 1        | Critical Illness Rider | Does this policy contain this rider?  
 0 = No  
 1 = Yes (no separate charge)  
 2 = Yes (separate charge)  
 3 = Not offered  
 4 = Included (no separate charge)  
 5 = Not included (no separate charge)  
 6 = Selected (separate charge)  
 7 = Offered but not selected (separate charge) |
| 55   | 1        | Long-Term Care Rider | Does this policy contain this rider?  
 0 = No  
 1 = Yes (no separate charge)  
 2 = Yes (separate charge)  
 3 = Not offered  
 4 = Included (no separate charge)  
 5 = Not included (no separate charge)  
 6 = Selected (separate charge)  
 7 = Offered but not selected (separate charge) |
| 56   | 1        | Guaranteed Insurability Rider | Does this policy contain this rider?  
 0 = No  
 1 = Yes (no separate charge)  
 2 = Yes (separate charge)  
 3 = Not offered  
 4 = Included (no separate charge)  
 5 = Not included (no separate charge)  
 6 = Selected (separate charge)  
 7 = Offered but not selected (separate charge) |

**Commented [LH20]:** For discussion, should Section 4 be left blank for non-base segments?
<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>L</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>169</td>
<td>585</td>
<td></td>
<td>Return of Premium Rider</td>
<td>Does this policy contain this rider? 0 = No 1 = Yes (no separate charge) 2 = Yes (separate charge)</td>
</tr>
<tr>
<td>170</td>
<td>584</td>
<td></td>
<td>Disability Rider (Waiver of Premium)</td>
<td>Does this policy contain this rider? 0 = No 1 = Yes (no separate charge) 2 = Yes (separate charge)</td>
</tr>
<tr>
<td>171</td>
<td>583</td>
<td></td>
<td>Liquidity Rider</td>
<td>Does this policy contain this rider? 0 = No 1 = Yes (no separate charge) 2 = Yes (separate charge)</td>
</tr>
<tr>
<td>172</td>
<td>586</td>
<td></td>
<td>Terminal Illness Rider</td>
<td>Does this policy contain this rider? 0 = No 1 = Yes (no separate charge) 2 = Yes (separate charge)</td>
</tr>
</tbody>
</table>
## Appendix 2: Plan Design Data Elements and Format

### Section 1. Basic Plan Information

If an item is unknown, leave blank unless otherwise specified.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1–5</td>
<td>NAIC Company Code</td>
<td>Your NAIC Company Code</td>
</tr>
<tr>
<td>2</td>
<td>6–9</td>
<td>Observation Year</td>
<td>Enter Calendar Year of Observation</td>
</tr>
<tr>
<td>3</td>
<td>10–19</td>
<td>Data Plan Identifier</td>
<td>Unique identifier for each plan. May be sequential numbering or unique identifier used within the company. This field is used to tie a record in the policy file to this plan file.</td>
</tr>
<tr>
<td>4</td>
<td>20–29</td>
<td>Policy Form Number</td>
<td>If multiple policy forms are used for this plan, then enter the most commonly used form.</td>
</tr>
<tr>
<td>5</td>
<td>30–39</td>
<td>Application Form Number</td>
<td>If multiple application forms are used for this plan, then enter the most commonly used form.</td>
</tr>
<tr>
<td>6</td>
<td>40</td>
<td>Pre-Need (as defined in VM02)</td>
<td>0 = Unknown 1 = Not Pre-Need Policy 2 = Pre-Need Policy</td>
</tr>
<tr>
<td>7</td>
<td>41</td>
<td>Death Benefit Pattern</td>
<td>0 = Unknown 1 = Level (includes increases due to corridor) 2 = Modified Death Benefit 3 = Increasing 4 = Decreasing 5 = Flexible 6 = Other</td>
</tr>
<tr>
<td>8</td>
<td>42–43</td>
<td>Death Benefit Pattern Years</td>
<td>Number of years of grading before Death Benefit Pattern becomes level. If Death Benefit does not become level then enter 99. If Death Benefit not Increasing or Decreasing then leave blank.</td>
</tr>
<tr>
<td>9</td>
<td>44–45</td>
<td>Premium Pattern</td>
<td>00 = Unknown 01 = Single Premium 02 = Level Modal Premium payable for the life of the policy 03 = Graded Premium then Level 04 = Level Premium then Graded 05 = Renewable Term based on Attained Age (incl. ART) 06 = Renewable Term based on Issue Age 07 = Limited Pay Premium by number of years 08 = Paid up at a Specified Age 09 = Flexible 10 = RPU 11 = ETI 12 = Other</td>
</tr>
</tbody>
</table>
### Basic Plan Information

If an item is unknown, leave blank unless otherwise specified.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>4</td>
<td>6-47</td>
<td>Premium Pattern Years</td>
</tr>
<tr>
<td>11</td>
<td>4</td>
<td>8-1</td>
<td>Are applicants underwritten based on the same requirements?</td>
</tr>
<tr>
<td>12</td>
<td>4</td>
<td>9-50</td>
<td>Smoker Period Definition</td>
</tr>
<tr>
<td>13</td>
<td>51</td>
<td>1</td>
<td>Smoker Definition</td>
</tr>
<tr>
<td>14</td>
<td>52</td>
<td>1</td>
<td>Marijuana User Definition</td>
</tr>
</tbody>
</table>

### Risk Class Structure

If an item is unknown, leave blank unless otherwise specified.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>53</td>
<td>1</td>
<td>Preferred Class Structure Indicator</td>
</tr>
</tbody>
</table>

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### Section 2. Risk Class Structure

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6</td>
<td>54</td>
<td>Nonsmoker Preferred Class Structure</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td>If Preferred Class Structure Indicator is 0 or if Smoker Status is 0, 3 or 4, or if preferred information is unknown, leave blank. For nonsmoker or no tobacco usage policies that could have been issued as one of multiple preferred and standard classes, enter the number of nonsmoker preferred and standard classes available at time of issue.</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>56</td>
<td>Smoker Preferred Class Structure</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td>If Preferred Class Structure Indicator is 0 or if Smoker Status is 0, 1 or 2, or if preferred information is unknown, leave blank. For smoker or tobacco user policies that could have been issued as one of multiple preferred and standard classes, enter the number of smoker preferred and standard classes available at time of issue.</td>
</tr>
</tbody>
</table>

### Section 3. Term Policy Information

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>5</td>
<td>8</td>
<td>Death Benefit</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td></td>
<td>Initial Term Period</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
<td>1 = Level</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 = Increasing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3 = Decreasing</td>
</tr>
<tr>
<td>19</td>
<td>5</td>
<td>9</td>
<td>Death Benefit After Initial Term Period</td>
</tr>
<tr>
<td></td>
<td>1</td>
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<td>Initial Term Period</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>1 = Level</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>2 = Increasing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3 = Decreasing</td>
</tr>
<tr>
<td>20</td>
<td>6</td>
<td>1</td>
<td>Death Benefit Payout</td>
</tr>
<tr>
<td></td>
<td>1</td>
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<td>Lump sum</td>
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<td></td>
<td>Income term – level payment</td>
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<td>Income term – increasing payment</td>
</tr>
<tr>
<td>21</td>
<td>6</td>
<td>-62</td>
<td>Guaranteed Level Premium Period</td>
</tr>
<tr>
<td></td>
<td>01</td>
<td></td>
<td>1 year/ART</td>
</tr>
<tr>
<td></td>
<td>05</td>
<td></td>
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<td>DATA ELEMENT</td>
<td>DESCRIPTION</td>
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</tr>
<tr>
<td>23</td>
<td>6</td>
<td>5</td>
<td>Post Level Premium</td>
</tr>
</tbody>
</table>

1 = No post level premium
2 = Attained age premium – guaranteed only
3 = Attained age premium – indeterminate
4 = Select and ultimate
Appendix 3: Underwriting Specifications Data Elements and Format

This will be submitted as a separate file. There will be a separate record for each combination of coverage band and age band within each Specification Identifier. Items with asterisks represent key fields which define a unique record. Round all dollar amounts to the nearest dollar.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLUMN</th>
<th>DATA ELEMENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1*</td>
<td>5-9</td>
<td>NAIC Company Code</td>
<td>Your NAIC Company Code</td>
</tr>
<tr>
<td>1*</td>
<td>10-12</td>
<td>Observation Year</td>
<td>Enter Calendar Year of Observation</td>
</tr>
<tr>
<td>1*</td>
<td>13-18</td>
<td>Underwriting Specification Identifier</td>
<td>Sequential number or company defined identifier</td>
</tr>
<tr>
<td>19-26</td>
<td>8</td>
<td>Effective Date of Underwriting Specification</td>
<td>Date this specification was first used (format YYYYMMDD)</td>
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<td>27-38</td>
<td>12</td>
<td>Minimum Face Amount</td>
<td>Minimum Face Amount allowed</td>
</tr>
<tr>
<td>39-41</td>
<td>1</td>
<td>Minimum Issue Age</td>
<td>Minimum Issue Age allowed</td>
</tr>
<tr>
<td>42-43</td>
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<td>Number of Coverage Bands</td>
<td>Total number of Coverage Bands</td>
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<tr>
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<td>1</td>
<td>Number of Age Bands</td>
<td>Total number of Age Bands</td>
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<td>46-47</td>
<td>2</td>
<td>Coverage Band Number</td>
<td>Specific Coverage Band for this Record</td>
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<tr>
<td>48-59</td>
<td>12</td>
<td>Maximum Face Amount this Coverage Band</td>
<td>Number</td>
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<tr>
<td>60-61</td>
<td>2</td>
<td>Age Band Number</td>
<td>Specific Age Band for this Record</td>
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<td>62-64</td>
<td>3</td>
<td>Maximum Age this Age Band</td>
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<td>1</td>
<td>Attending Physician Statement</td>
<td>Is this item required for this Coverage and Age Group? 1 = Yes 2 = No</td>
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<td>Electronic Health Records</td>
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<tr>
<td>69</td>
<td>1</td>
<td>Personal History Interview</td>
<td>Is this item required for this Coverage and Age Group? 1 = Yes 2 = No</td>
</tr>
</tbody>
</table>

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This will be submitted as a separate file.

There will be a separate record for each combination of coverage band and age band within each Specification Identifier.

Items with asterisks represent key fields which define a unique record.

Round all dollar amounts to the nearest dollar.

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<thead>
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<th>ITEM</th>
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<td></td>
<td></td>
<td>2 = No</td>
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<td>19</td>
<td>71</td>
<td>Urine / HOS specimen</td>
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<td></td>
<td>2 = No</td>
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<td>72</td>
<td>Saliva / Oral fluid specimen</td>
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<tr>
<td></td>
<td></td>
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<td>2 = No</td>
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