NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

Draft date: 6/11/25

Virtual Meeting

LIFE RISK-BASED CAPITAL (E) WORKING GROUP
Wednesday, June 18, 2025
1:00 – 2:00 p.m. ET / 12:00 – 1:00 p.m. CT / 11:00 a.m. – 12:00 p.m. MT / 10:00 – 11:00 a.m. PT

ROLL CALL

Philip Barlow, Chair	District of Columbia	William Leung	Missouri
Ben Slutsker, Vice Chair	Minnesota	Michael Muldoon	Nebraska
Sheila Travis	Alabama	Jennifer Li	New Hampshire
Thomas Reedy	California	Seong-min Eom	New Jersey
Wanchin Chou	Connecticut	William B. Carmello	New York
Hannah Howard	Florida	Andy Schallhorn	Oklahoma
Matt Cheung	Illinois	Rachel Hemphill	Texas
Mike Yanacheak	Iowa	Tomasz Serbinowski	Utah

NAIC Support Staff: Kazeem Okosun/Maggie Chang

AGENDA

1.	Consider Adoption of its May 1 and Spring National Meeting Minutes —*Philip Barlow (DC)*	Attachment 1 Attachment 2
2.	Consider Adoption of the Working Group and Life Actuarial (A) Task Force's April 9 Joint Minutes—*Philip Barlow (DC)*	Attachment 3
3.	Consider Adoption of the Working Group and Variable Annuities Capital and Reserve (E/A) Subgroup's May 7 Joint Minutes—*Philip Barlow (DC)*	Attachment 4
4.	Consider Adoption of Proposal 2025-10-L (RBC Asset Credit MODCO/FWH)—*Philip Barlow (DC)*	Attachment 5
5.	Consider Exposure of Proposal 2025-13-L (Covariance) (LR031) —*Philip Barlow (DC)*	Attachment 6
6.	Discuss 2024 Life Risk-Based Capital (RBC) Statistics—*Philip Barlow (DC)*	Attachment 7
7.	Discuss Its Referral to the Statutory Accounting Principles (E) Working Group Regarding Asset Valuation Reserve (AVR) Equity and Other Invested Asset Component Lines 15, 16, 68, and 69—*Philip Barlow (DC)*	Attachment 8
8.	Receive a Referral from the Statutory Accounting Principles (E) Working Group Regarding Collateral Loan Schedule BA Reporting Changes —*Philip Barlow (DC)*	Attachment 9
9.	Discuss Any Other Matters Brought Before the Working Group —*Philip Barlow (DC)*	
10.	Adjournment	

Draft: 4/3/2025

Life Risk-Based Capital (E) Working Group
Indianapolis, Indiana
March 24, 2025

The Life Risk-Based Capital (E) Working Group of the Capital Adequacy (E) Task Force met in Indianapolis, IN, March 24, 2025. The following Working Group members participated: Philip Barlow, Chair (DC); Ben Slutsker, Vice Chair and Fred Andersen (MN); Sanjeev Chaudhuri (AL); Thomas Reedy (CA); Wanchin Chou (CT); Jane Nelson (FL); Mike Yanacheak (IA); Matt Cheung (IL); William Leung (MO); Michael Muldoon (NE); Jennifer Li (NH); Seong-min Eom (NJ); William B. Carmello (NY); Andy Schallhorn (OK); Rachel Hemphill (TX); and Tomasz Serbinowski (UT). Also participating were: Tom Botsko and Peter Weber (OH); and John Tudino (RI).

1. Adopted its Feb. 21, 2025, and Oct. 23, 2024, Minutes

The Working Group met Feb. 21, 2025, and Oct. 23, 2024. During these meetings, the Working Group took the following action: 1) adopted its 2024 Summer National Meeting minutes; 2) exposed proposal 2024-21-L (Tax Credit Investments) for a 75-day public comment period that ended Jan. 6, 2025; 3) exposed proposal 2024-24-L (Principle-Based Bond Project) for a 75-day public comment period that ended Jan. 6, 2025; 4) re-exposed proposal 2024-21-L MOD (Tax Credit Investments) for a 30-day public comment period that ended March 23, 2025; 5) re-exposed proposal 2024-24-L MOD (Principle-Based Bond Project) for a 30-day public comment period that ended March 23, 2025; 6) exposed proposal 2025-01-L (C-2 Mortality risk) for a 30-day public comment period that ended March 23, 2025; 7) exposed proposal 2025-05-L (Assets Concentration – LR010) for a 30-day public comment period that ended March 23, 2025; 8) received updates from the Generator of Economic Scenarios (GOES) (E/A) Subgroup, Longevity Risk (E/A) Subgroup, and Variable Annuities Capital and Reserve (E/A) Subgroup; and 9) heard updates from the American Academy of Actuaries (Academy) on covariance and C-3 risk, which included key differences in correlation methodologies across jurisdictions, the impact of time horizons on risk assumptions, and ongoing efforts to refine risk-based capital (RBC) frameworks.

Chou made a motion, seconded by Muldoon, to adopt the Working Group's Feb. 21, 2025 (Attachment) and Oct. 23, 2024 (Attachment) minutes. The motion passed unanimously.

2. Received Updates from its Subgroups

A. GOES (E/A) Subgroup

The Working Group received updates reported by Yanacheak for the GOES (E/A) Subgroup. In his report, Yanacheak said that following the 2024 GOES field test, feedback from participants was discussed, and several key changes were identified to be made to the GOES: 1) a revised initial Treasury yield curve fitting method; 2) replacement of the flooring method with a dynamic generalized fractional floor targeting 3% negative 1-year Treasury rates in the steady state; and 3) recalibration of the equity model to bring the lower tail accumulated equity returns closer to the acceptance criteria. Model office testing was performed on scenario sets reflecting the changes, and GOES (E/A) Subgroup members generally felt that the results were in line with expectations.

He added that work will now focus on implementing the GOES into the *Valuation Manual* and life RBC blanks and instructions to be effective for 2026 reserve and capital calculations. During the Life Actuarial (A) Task Force's meeting at the Spring National Meeting, discussions were held to continue to refine amendment proposal Form 2025-04 that will effectuate GOES in the *Valuation Manual*. On the RBC side, the GOES (E/A) Subgroup has made referrals to the Variable Annuities Capital and Reserve (E/A) Subgroup and the Life Risk-Based Capital (E) Working

Group to amend the life RBC blanks and instructions to use the GOES for C-3 Phase I and C-3 Phase II calculations. The Variable Annuities Capital and Reserve (E/A) Subgroup and the Life Risk-Based Capital (E) Working Group plan to meet after the Spring National Meeting to address the referrals.

Additionally, work will need to be done to put a model governance program in place for the GOES. Comments have been received on an initial draft of the model governance framework and discussed at meetings of the GOES Model Governance Drafting Group. Key areas of feedback will be discussed during a future joint meeting of the Life Actuarial (A) Task Force and Life Risk-Based Capital (E) Working Group.

Barlow said that a lot of the work was going on at the Subgroup and at the Life Actuarial (A) Task Force. For those who are interested in knowing details about GOES activities should ensure that they follow both GOES (E/A) Subgroup meetings and the discussions at the Life Actuarial (A) Task Force.

B. Longevity Risk (E/A) Subgroup

Eom reported that the Subgroup has not met since the 2024 Fall National Meeting. She said the Subgroup would resume its meetings once the currently exposed VM-22, Statutory Maximum Valuation Interest Rates for Income Annuities, principle-based reserving (PBR) methodology is finalized. Regarding the VM-22 development relevant to the Subgroup in particular, the longevity reinsurance methodology within the current VM-22 is almost finalized, and she said she anticipates that the Subgroup would resume meetings in early summer.

C. Variable Annuities Capital and Reserve (E/A) Subgroup

Weber said the Subgroup met Feb. 20 to discuss comments that were received on draft additions to the variable annuities supplement in the annual statement. He said that the Subgroup chair drafted blanks changes to the supplement reflecting some of the comments received, as well as comments that were made during the meeting. Weber said the Subgroup exposed the draft supplement blanks additions for a 45-day public comment period ending April 7.

Weber added that on Feb. 27, the Subgroup received a referral from the GOES (E/A) Subgroup. The referral asks the Variable Annuities Capital and Reserve (E/A) Subgroup to consider changes to the capital metric for the C-3 Phase II calculation, if necessary, and to coordinate with the Life Risk-Based Capital (E) Working Group on any changes to the C-3 Phase II metric and related changes to the life risk-based capital blanks and instructions. He concluded that the Variable Annuities Capital and Reserve (E/A) Subgroup plans to meet after the Spring National meeting to address the referral.

3. Received a Referral from GOES (E/A) Subgroup

The Working Group received a referral from the GOES (E/A) Subgroup requesting amendments to the life risk-based capital blanks and instructions to facilitate the implementation of the new economic scenario generator (Attachment XX). The Working Group decided to develop a proposal to address the referral from GOES for its consideration.

4. Heard a Presentation from the Academy on C-3 Alignment

Rick Hayes (Academy) and Maambo Mujala (Academy) provided background and the scope of their presentation (Attachment XX). Hayes said the Academy C-3 subcommittee met for a number of months by now and there are multiple areas the subcommittee members did not achieve consensus. Those areas are laid out in the presentation

for the Working Group considerations. Hayes believed field testing will be a valuable tool to help in decision making process.

Mujala discussed the proposed timeline, adoption, and phase-in period. She said the timeline is fluid. Mujala said for year-end 2026, the C-3 alignment team hopes to reflect some of the changes that will go in line with some of the GOES adoption and VM-22 PBR adoption. To facilitate some of that decision making, the team anticipates a field test during 2025 and adoption effective year-end 2026.

Barlow asked if the alignment project would require structural changes to the RBC calculation or only instructional changes. Mujala responded by saying the C-3 alignment team hopes that it is isolated through instructions. However, if structural changes are needed, the team would try to factor it into the timeline so that it can still make it into year-end 2026. Barlow suggested that it would be helpful for the team to consider Life Risk-Based Capital (E) Working Group procedures regarding times that changes are to be introduced and whether there are structural or factor changes. For instructional changes only, he suggested that the Working Group and the C-3 alignment team work together to figure out how it could be handled in terms of timing and speeding up the process based on feedback received from interested parties.

Following up on the discussions on assumptions and model approach, Slutsker asked if the Academy would recommend single premium life to rely on VM-20, Requirements for Principle-Based Reserves for Life Products, in lieu of VM-22 as it is in the instructions and scope of VM-20. Mujala said that on Phase I, the reporting entities used cash-flow testing models to do the calculations with the assumption that the models would be "moderately adverse." This is different from Phase II, which used the VM-21, Requirements for Principle-Based Reserves for Variable Annuities, model using prudent estimate assumptions. She said it would be applicable to C-3 Phase I having VM-20 business, which follows PBR requirements if issued from 2020 onward, but for pre-2020 issuances that are not subject to PBR, she said people use the cash-flow testing model. She said that the same situation would be expected as the process moved to VM-22, which also expects to have prospective application.

Mujala said by Jan. 1, 2026, there will be business under VM-22 that is not subject to PBR. She cited a complication that could arise in the C-3 Phase I calculation, where some of the products are under PBR, and others are not. Additionally, she said that for year-end 2026, a lot of companies would probably not have the infrastructures to have PBR models to be incorporated seamlessly into C-3 Phase I calculations. Mujala said that the alignment team would allow some flexibility for companies that do have the infrastructures to move towards using prudent estimate assumptions on PBR models and for companies that could not, they can still continue using their cash-flow testing models. However, for C-3 Phase II, everyone would continue under PBR models' prudent estimate.

Mujala discussed the different approaches and the associated shortcomings with the one-year Treasury rate for discounting for Phase I. She noted that the Phase II approaches, net asset earned rate (NAER) and direct iteration, are better options in terms of intuitiveness and the asset strategy. She indicated that the Academy proposed moving to Phase II discounting approaches, which allows the use of NAER or direct iteration for discounting.

Hayes discussed the C-3 default cost and recommended updating the default cost assumptions in C-3 Phase I to the CTE70 level. He also discussed stochastic equity risk and aggregation. There was no firm recommendation on these topics.

Regarding C-3 floor amount, the Academy recommends retaining the current C-3 floors for year-end 2026 and suggested revisiting this area after 2026. Hayes said the Academy has spent a significant amount of time on the topics of metric, scalar working reserves, and time horizons, and there was divergence in viewpoints in defining risk metrics. Specifically, the C-3 Phase I metric is a surplus measure, whereas the C-3 Phase II metric is an asset

measure. Hayes said he would like to build out these two metrics in field testing to allow the Academy to quantify the differences and to make recommendations.

Slutsker observed that the Academy's recommendations, for the most part, attempt to align capital methodology with C-3 Phase II, except for the metric decision point (surplus vs. assets). He asked if the Academy is envisioning a recommendation that deviates from C-3 Phase II and if so, what would be the justification or the inconsistency between the two phases. Hayes responded by saying that there are different schools of thought within the Academy subcommittee. While some viewed consistency as key, others see the surplus as more appropriate. Because they were unable to reach consensus, the Academy decided that carrying out field testing first might be helpful to the alignment team in making appropriate decisions.

Slutsker asked if the Academy viewed testing both metrics (assets vs. surplus-based) as a bottleneck in the testing because not only are there two assumptions, but also there are two methodologies. Hayes responded by saying that adding working reserves would be an additional element and noted that there was already a measure of capital within the field test for VM-22 PBR that was placed on greatest premium value accumulated deficiencies (GPVAD) (assets) and not surplus. Layering on working reserves depends on how complex the working reserve is and may not be much additional effort, which is to be determined.

Slutsker then asked if the working reserve would then also be applicable to VM-22 or if it is only intended to be applicable for capital. Hayes responded that it was only applicable for capital. Slutsker noted how interesting the Academy's approach is because of the different points in the distribution and the additional differences involved. Hayes said that the measure of capital would only be GPVAD for assets or surplus, compared to the assets over the reserve, i.e. CTE70 on whatever the basis it is.

Mujala added that part of the tension in their discussion was to understand what was to be captured in both metrics. As part of their exercise, the team investigated the inconsistencies in approaches currently within the capital and what the team would want to reflect in C-1 versus C-3 with the time horizon in mind. She said the Academy would be illustrating the two metrics that would be captured within the field test in its next presentation to the Life Risk-Based Capital (E) Working Group, which would then allow the Working Group to make an appropriate decision. Cheung said it would shock him if RBC was to be calculated on a different basis than the reserve.

Slutsker asked if the Academy subcommittee expects feedback from the Working Group about any of its recommendations. Hayes said that the Academy is looking for feedback for anything covered in the presentation, in particular topics like default cost, stochastic equity risk considerations, etc.

Barlow asked if the proposed field test is new or just an addition to the VM-22 field test. Hayes said that it is a separate field test. He said the Academy will leverage the VM-22 field test to the extent possible but believes a separate field test is warranted.

Barlow encouraged companies to participate in the field test and expressed support from the Working Group for completing this project.

5. Exposed Proposal 2025-04-L (Other Long-Term Assets—LR008)

The Working Group considered proposal 2025-04-L (Other Long-Term Assets – LR008) (Attachment XX) and noted the following: 1) the proposal reorganizes LR008 to ensure Schedule BA assets of the same risk components (C-1o vs. C1-cs) are grouped to facilitate proper modified coinsurance (modco)/funds withheld reinsurance agreement adjustments within LR008; 2) should changes proposed for LR008 be adopted, there would be corresponding

changes to LR030 and LR031 instructions and/or blanks; and 3) the areas highlighted in gray within the blank pages of the proposal are subject to the adoption of proposal 2024-21-L MOD and proposal 2024-24-L MOD.

The Working Group agreed to expose proposal 2025-04-L for a 30-day public comment period ending April 23, 2025.

6. Discussed Other Matters

Barlow reminded Working Group that it plans to meet May 1 to consider adoptions of the pending proposal.

Having no further business, the Life Risk-Based Capital (E) Working Group adjourned.

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Draft: 5/15/25

Life Risk-Based Capital (E) Working Group
Virtual Meeting
May 1, 2025

The Life Risk-Based Capital (E) Working Group of the Capital Adequacy (E) Task Force met May 1, 2025. The following Working Group members participated: Philip Barlow, Chair (DC); Ben Slutsker, Vice Chair (MN); Sanjeev Chaudhuri (AL); Thomas Reedy (CA); Wanchin Chou (CT); Hannah Howard (FL); Mike Yanacheak (IA); Matt Cheung (IL); William Leung (MO); Michael Muldoon (NE); Jennifer Li (NH); Seong-min Eom (NJ); William B. Carmello (NY); Rachel Hemphill (TX); and Tomasz Serbinowski (UT).

1. Adopted Proposal 2024-21-L-MOD (Tax Credit Investments)

The Working Group considered proposal 2024-21-L-MOD to remove or rename the Guaranteed Federal Low-Income Housing Tax Credits, Federal Non-Guaranteed Low Income Housing Tax Credits, State Guaranteed Low-Income Housing Tax Credits, State Non-Guaranteed Low-Income Housing Tax Credits, and All Other Low Income Housing Tax Credits lines (asset value reserve [AVR] lines 75 through 79) and broaden the scope of remaining tax credit structure lines in AVR in line with the Statutory Accounting Principles (E) Working Group adoption. These changes resulted in corresponding changes in the life risk-based capital (RBC) instructions and/or blanks, namely LR007, LR010, LR030, and LR031.

Barlow said that the proposal was re-exposed for a 30-day public comment period ending March 23 after receiving comments from the American Council of Life Insurers (ACLI), dated Feb. 5, in response to the original proposal. He said that no comment letters were received during the re-exposure period.

Slutsker made a motion, seconded by Reedy, to adopt proposal 2024-21-L MOD (Attachment XX). The motion passed unanimously.

2. Adopted Proposal 2024-24-L-MOD (Principle-Based Bond Project)

The Working Group considered proposal 2024-24-L to incorporate changes adopted by the Blanks (E) Working Group, namely #2023-06BWG MOD, #2023-07BWG MOD, and #2023-12BWG MOD. These changes resulted from the Statutory Accounting Principles (E) Working Group adopting the principle-based bond definition.

Barlow said the Working Group is considering adoption of proposal 2024-24-L-MOD (Principle-Based Bond Project). He said the proposal was also re-exposed for a 30-day comment period ending March 23, in light of the initial comments received from the ACLI dated Feb. 5. Barlow said that no comment letters were received during the re-exposure period. He added that Kazeem Okosun (NAIC) has further modified this proposal to reflect the 2025 annual statement references.

Slutsker made a motion, seconded by Leung, to adopt proposal 2024-24-L MOD (Attachment XX). The motion passed unanimously.

3. Adopted Proposal 2025-01-L (C-2 Mortality Risk)

The Working Group considered proposal 2025-01-L to update the RBC instructions and blanks to allow for direct pulls of information between the annual statement, including the newly adopted general interrogatory as per 2023-15BWG MOD, and the RBC blank.

Barlow said item No. 3 is to consider the adoption of the proposal 2025-01-L C-2 Mortality Risk. He said that the Working Group exposed this proposal for a 30-day comment period ending March 23, 2025, and no comment letters were received.

Reedy made a motion, seconded by Yanacheak, to adopt proposal 2025-01-L (Attachment XX). The motion passed unanimously.

4. Adopted Proposal 2025-05-L (Asset Concentration [LR010])

The Working Group considered proposal 2025-05-L to clarify the LR010 instruction so that "Securities Valuation Office (SVO)-designated non-bond debt securities" can obtain asset concentration factor treatment akin to bonds in LR002 (C-1o risk component). This put the investments' RBC treatment at the same pre- and post-principle-based bond definition adoption.

Barlow said the Working Group directed NAIC staff to draft and send a referral to the Statutory Accounting Principles (E) Working Group to solicit comments, and the Working Group received a response from the Statutory Accounting Principles (E) Working Group. He said that at the same time, the proposal was exposed for a 30-day period ending March 23, and no additional comment letters were received from interested parties.

Barlow acknowledged the February Life Risk-Based Capital (E) Working Group referral letter to the Statutory Accounting Principles (E) Working Group and the response received from the Statutory Accounting Principles (E) Working Group, which was in support of option 1.

Yanacheak made a motion, seconded by Leung, to adopt proposal 2025-05-L (Attachment XX). The motion passed unanimously.

5. Adopted Proposal 2025-04-L Other Long-Term Assets

The Working Group considered proposal 2025-04-L to reorganize the LR008—Other Long-Term Assets page to ensure Schedule BA assets of the same risk components (C-1o versus C1-cs) are grouped, to facilitate proper modified coinsurance (modco)/funds withheld reinsurance agreement adjustments within LR008. These also resulted in corresponding changes to LR030 and LR031 instructions and/or blanks.

Barlow said this proposal was exposed for a 30-day public comments period ending April 23, and that one comment letter was received from the ACLI, with minor editorial changes. The Working Group has a modified Other Long-Term Assets proposal for consideration. He noted that the comment letter requested the Working Group's discussion of the conceptual issue within LR008, including the treatment of Schedule BA investments that owned-insurance affiliates do not file AVR (e.g., foreign, health, property/casualty [P/C], etc.).

Barlow noted that the ACLI had requested to discuss some conceptual issues with the proposal. Marc Altschull (ACLI) explained that the ACLI's comments were generally supportive of the proposal but sought clarification on an inconsistency between the RBC formula and the AVR instructions. Maggie Chang (NAIC) highlighted that the changes in the modified proposals were in response to the ACLI editorial comments, which were inconsequential and did not impact the mapping to the risk components but expressed concerns about the adoption timeline, noting that the structural change needs to be locked down by May 15 by the Task Force. Chang emphasized that the changes do not impact the life RBC framework in terms of mappings or comparison with the 2024 filing.

Barlow and Julie Gann (NAIC) discussed whether the changes to the AVR instructions would hold up the adoption of LR008. Gann clarified that the AVR instructions are under the purview of the Blanks (E) Working Group and that

an editorial change could be incorporated without holding up the RBC element. Barlow suggested that the benefits of moving forward with the change to LR008 are sufficient to make the change now, with the minor changes made to the proposal based on ACLI's comments. He proposed referring the conceptual issue to the Blanks (E) Working Group and any other relevant parties to consider instructional changes in AVR for consistency with the life RBC instructions.

Noting that this referral to the Blanks (E) Working Group would not in any way impact the adoption of the proposal 2025-04-L MOD, Leung made a motion, seconded by Yanacheak, to adopt proposal 2025-04-L MOD (Attachment XX). The motion passed unanimously.

6. Received a Referral from Statutory Accounting Principles (E) Working Group

Barlow said the Working Group received a referral from the Statutory Accounting Principles (E) Working Group on RBC asset credit for modco reinsurance transactions, and in line with the referral, the Working Group is to consider the exposure of the proposal 2025-10-L (Attachment XX).

The Working Group agreed to expose the proposal for a 30-day public comment period ending May 30.

7. Heard a Presentation from the Academy on C-3 Alignment

Barlow opened the conversation with remarks on the previously proposed 2025 field test timeline, noting discussions with NAIC staff and industry participants. He said due to practical constraints, the field testing is now recommended to occur in 2026, with a new target effective date for adoption in 2027. Barlow acknowledged the potential need to address inconsistencies with the generator of economic scenarios (GOES) but noted these could be reviewed separately. He confirmed the American Academy of Actuaries (Academy) was in support of this revised timeline.

Rick Hayes (Academy) and Maambo Mujala (Academy) presented "C-3 Alignment, Part II" (Attachment XX). Hayes provided the updated timeline and scope. He stated that the fixed indexed annuities (FIAs) would also be included in C-3 phase I and that the discounting methodology would mirror C-3 phase II: net assets earned rate (NAER) or direct iteration. Speaking in terms of the scenarios, he proposed a GOES usage. Hayes, in his presentation on the assumptions, proposed the use of principle-based reserve (PBR) models with prudent estimate assumptions, noting that with *Valuation Manual* (VM)-22, Statutory Maximum Valuation Rates for Income Annuities, PBR requirements, there is a disconnect between enforced prior to effective date and new business thereafter. He added that an option to continue the use of conditional tail expectation (CTE) models with moderate adverse assumptions would be allowed.

Mujala recapped and discussed the default costs and double counting presented at the last meeting. She recommended revising default cost assumptions from expected levels to a more conservative CTE 70 level, aligning them to ensure consistency between C-3 phase II and PBR frameworks (VM-20, Requirements for Principle-Based Reserves for Life Products; VM-21, Requirements for Principle-Based Reserves for Variable Annuities; and VM-22). Mujala stated that the advantage of the approach includes being able to assume the same default costs for the reserves and capital calculations, and at the same time, leverage the same model output to do required calculations on VM-21 and VM-22. She noted the potential double-counting issue of default cost between C-1 and C-3 and illustrated this using a calibration chart. Mujala further proposed exploring an optional credit mechanism and possible factor-based adjustments as part of field testing.

Slutsker expressed concern over the complexity this adds with regard to double-counting. He argued that the numerical impact may be minor (just a few basis points) and suggested it should not be included in this phase of

the project due to the existing work volume. Slutsker proposed that model office testing be used to determine whether the issue is material. Mujala acknowledged these points and suggested that credit could remain optional in the field test, allowing companies flexibility depending on their materiality assessment. She noted the practicality issue of including all the points in the field test and agreed that model office testing could be a useful tool to pre-assess the impact.

Mujala discussed how stochastic equity returns could introduce unintended interim deficiencies in C-3 phase I calculations. She stated that as part of the VM-22 field testing, there were C-3 phase I calculations that were also tested, and that stochastic equity returns were introduced in the calculations as well. Mujala noted that introducing stochastic equity returns into C-3 phase I, which is based on a gross premium valuation at date of valuation surplus (GPVAD), could lead to interim deficiencies in the calculations. Clarifying, she said a double count in C-1 and C-3 calculations could be introduced, like the default costs, and the introduction of stochastic equity returns could cause interim deficiencies that potentially impact C-3. Mujala, however, noted that the double count between C-1 and C-3 would be seen through the first two years' calculations.

She proposed a three-bucket approach for liabilities: 1) hedge-driven liabilities (e.g., FIAs), which would include hedge error margin in the calculation like the same approach on the reserves; 2) equities backing liabilities, which could exist in general account (e.g., structured settlements), assuming a levelized returns because the liability cash flows do not change as equity returns change; and 3) equity-sensitive liabilities that include stochastic equity returns into C-3 phase I with the risk captured in the calculation, which could lead to double counting like the default costs. Mujala then suggested two ways forward for the field testing: 1) a GPVAD calculation based on surplus, which could explore whether to exclude the first two years of equity modeling that have been captured in the C-1 calculation, and 2) use a factor-based credit.

Hayes, discussing metric, scalar, working reserves, and time horizon, said the consideration for measurement for the risk is still ongoing and that the projection length or time horizon would be dependent on whether a working reserve is included. Hayes reviewed two metric approaches. He noted that pre-PBR stat reserves were formulaic and easier to project. But in the post-PBR period, modeling reserve paths require more advanced computationally intensive methods (stochastic on stochastic process). He added that this left the team with the following choice: a short-term surplus measure that captures more disintermediation risk and un-deferred annuities versus a long-term asset measure capturing more reinvestment risk.

He clarified that the C-3 phase 1 uses the GPVAD surplus measure and that the measure focuses on projecting the stats surplus, which accounts for the future reserve changes with inherent interim deficiencies that may require a short projection horizon due to complexity. Hayes further said that the C-3 phase II used the GPVAD asset measure with the working reserves set at zero, and the metric focuses on claim payment ability and does not reflect interim surplus deficiencies resulting from the long-term reserves changes. He added that due to this approach's computational simplicity relative to the surplus measure, the projection horizon could be set long enough to capture the life of the business, which would allow PBR businesses to use the same model to be leveraged for both reserve and capital purposes.

He noted that in the asset valuation (AV) reform, the use of working reserves discouraged hedging due to the accounting mismatch between assets and liabilities. Hayes then presented illustrative examples showing the surplus deficits during early years when asset earnings lag liability growth and the differences in risk capture between surplus-based and asset-based metrics. He then summarized the pros and cons of each approach in the comparison of options section to guide the Working Group's preference. In the next steps section, Hayes confirmed that the field testing is planned for 2026 and that the adoption of the updated C-3 methodology is expected in 2027. He added that the evaluation of consistency between PBR and capital treatment (especially C-1) will be undertaken, and based on the feedback received, further specification development will continue.

Barlow reiterated the importance of aligning C-3 methodology with PBR and C-3 phase II wherever possible. He thanked presenters and participants for their input and encouraged continued collaboration as field test development progresses.

8. Heard a Presentation from the Academy on Covariance

Paul Navratil (Academy) presented an update on the Academy's work on covariance (Attachment XX). He provided a brief review of the guiding principles for the covariance work. He said the objective was to maintain the targeted statistical safety level of RBC both before and after covariance, such that the use of covariance does not create an RBC amount that is either more or less conservative than the amount to which the factors themselves were calibrated. Navratil said that consistency is key, especially for companies with varying risk profiles, to ensure they consistently achieve the targeted safety level of RBC and emphasized the practicality and ease of implementation, including maintaining a 25% rounding to avoid any appearance of a false position.

Navratil discussed the current structure and the key recommended changes and said the current structure has either zero or 100% correlation between all the risks, except for longevity and mortality risks, which were recently introduced. Navratil highlighted the key changes and recommendations. (Refer to the presentation slide titled "Recommendations.")

Navratil supported his recommendations by presenting the data and analysis results. He reviewed the historical data and the observed correlations and added that the data sources included issuer-weighted corporate bond default rates for credit risk and S&P 500 for equity risk. Navratil said the interest rate risk was analyzed using total return data from bond funds, taking into consideration both rates and spreads, while the insurance risk was analyzed using U.S. population mortality rates, and the business risk was assessed using state guarantee association assessments.

Navratil explained the calibration process and key assumptions by saying the average correlations were calculated over various time periods and that the shape of loss distributions was analyzed to confirm the appropriateness of average correlations for RBC. He noted that the average correlation does remain appropriate even if the lost distributions are not normal. Navratil added that non-linearity was considered, particularly for equity and credit correlations, where stress scenarios indicated higher correlations. He noted the limited data points, saying it was consistent in showing that correlations could increase during the time of stress for the equity and credit pair.

Navratil summarized the rationale for the recommendations and noted that the historical data suggests a range from 0% to 75% for credit and equity correlation, and he recommended 50%. For interest rate and credit correlation, he recommended 25% based on historical data, which supports a range from 0% to 25%. Navratil recommended a 50% interest rate and equity correlation based on historical data supporting a range from 43% to 75%. He said no change was recommended for insurance risk.

Navratil discussed the rationale for nested correlations. For credit, he said C-1o was combined with C-3b with a 25% correlation due to the lack of data and the conservative approach, and that the equity combined C-1cs and C-3c with 100% correlation because they captured similar risks. He added that there are no changes to the current RBC structure of insurance and business risk, with business risk set to zero due to a lack of theoretical rationale for correlation.

Navratil performed an impact analysis on a hypothetical company that has a distribution of risk equal to the reported 2023 aggregate industry RBC statistics. He said his recommended changes to the covariance calculation will slightly increase the RBC after covariance (as a percentage of RBC before covariance) by 1.6% for that

hypothetical company. Navratil also performed a sensitivity test by a 50% increase in various risk components in order to simulate companies that have different weights in different risk components. He concluded that the impact would be greatest for companies with a higher concentration of C1-cs risk.

Barlow asked if the recommended covariance calculation could all be done at the end of the calculation, and Navratil said yes, since there would be no structural changes to the respective risk component calculation, but only the covariance calculation at the end of the calculation is proposed to be changed. Barlow sought clarification as to whether the Academy has looked into the impact on individual companies. Navratil confirmed that, in lieu of performing impact analysis at the individual company level, the Academy used the impact sensitivity test described above to evaluate the potential impact on individual companies. Navratil admitted that this exercise may not capture all of the company's specifics.

Cheung raised a related question about the covariance within the C-1 charge, specifically regarding different bonds and whether covariance is captured or assumed to be additive for conservativeness. Navratil responded that the scope was defined to look at correlations between the C factors as they exist today. He noted that there is a concentration risk adjustment within C-1, which is similar to covariance, and mentioned the potential correlation between bonds, mortgages, and real estate, which may not be fully captured. Barlow noted that the updates presented look ready for exposure, and Navratil agreed that exposure would be appropriate.

Barlow said that the Working Group and NAIC staff would work with the Academy to get the covariance proposal ready for exposure appropriately.

9. Discussed Other Matters

Barlow reminded the Working Group of the joint call with the Variable Annuities Capital and Reserve (E/A) Subgroup scheduled for May 7. He informed the Working Group that a trend test proposal is with the Capital Adequacy (E) Task Force for consideration, and that the Working Group would not be meeting in person at the Summer National Meeting. The Working Group plans to schedule an interim meeting for June.

Having no further business, the Life Risk-Based Capital (E) Working Group adjourned.

SharePoint/NAIC Support Staff Hub/Committees /E CMTE/CADTF/2025-2-Summer/Life RBC 05-01-25 Minutes TPR'd.docx

Draft: 5/20/25

Life Actuarial (A) Task Force
and the Life Risk-Based Capital (E) Working Group
Virtual Meeting
April 9, 2025

The Life Actuarial (A) Task Force met April 9, 2025, in joint session with the Life Risk-Based Capital (E) Working Group. The following Task Force members participated: Cassie Brown, Chair, represented by Rachel Hemphill (TX); Lori K. Wing-Heier represented by Sharon Comstock (AK); Mark Fowler represented by Sanjeev Chadhuri (AL); Ricardo Lara represented by Ahmad Kamil and Thomas Reedy (CA); Andrew N. Mais represented by Wanchin Chou (CT); Doug Ommen represented by Mike Yanacheak (IA); Ann Gillespie represented by Matt Cheung (IL); Holly W. Lambert represented by Scott Shover (IN); Vicki Schmidt represented by Nicole Boyd (KS); Marie Grant represented by Nour Benchaaboun (MD); Grace Arnold represented by Fred Andersen and Ben Slutsker (MN); Angela L. Nelson represented by William Leung (MO); Justin Zimmerman represented by Seong-min Eom (NJ): Adrienne A. Harris represented by William B. Carmello (NY); Judith L. French represented by Peter Weber (OH); Andrew R. Stolfi represented by Tashia Sizemore (OR); Michael Humphreys represented by Steve Boston (PA); and Jon Pike represented by Tomasz Serbinowski (UT). The following Working Group members participated: Philip Barlow, Chair (DC); Ben Slutsker, Vice Chair (MN); Sanjeev Chaudhuri (AL); Thomas Reedy (CA); Wanchin Chou (CT); Mike Yanacheak (IA); Matt Cheung (IL); William Leung (MO); Jennifer Li (NH); Seong-min Eom (NJ); William B. Carmello (NY); Rachel Hemphill (TX); and Tomasz Serbinowski (UT).

1. Exposed APF 2025-04

Hemphill introduced amendment proposal form (APF) 2025-04 that will effectuate the generator of economic scenarios (GOES) in the *Valuation Manual* (VM), noting that it had previously been exposed for public comment at the GOES (E/A) Subgroup level. Hemphill said that phase-in language had been added at the suggestion of the American Council of Life Insurers (ACLI) since the first draft to allow for the financial impact of the GOES to be amortized over time. Brian Bayerle (ACLI) noted appreciation for the inclusion of the phase-in language and noted that some additional refinement may be necessary during the next exposure period. Robin Marcotte (NAIC) stated that generally, statutory accounting requires complex phase-ins to have additional disclosures. Cheung asked how the phase-in would affect risk-based capital (RBC) amounts, noting that a lower reserve resulting from a phase-in could lead to a higher capital amount. Bayerle replied that this would not be an issue for businesses subject to VM-20, Requirements for Principle-Based Reserves for Life Insurance, but would need to be considered carefully when RBC instructions change to effectuate that the GOES are drafted for businesses subject to VM-21, Requirements for Principle-Based Reserves for Variable Annuities.

Yanacheak made a motion, seconded by Weber, to expose APF 2025-05 for a 21-day public comment period ending April 29. The motion passed unanimously.

2. Discussed VM-20 DR Scenario Methodology

Bayerle and Jeffrey Miklas (Northwestern Mutual) walked through a presentation (Attachment One-A) detailing the ACLI's proposal for a revised VM-20 deterministic reserve (DR) scenario. Following the ACLI's presentation, Dan Finn (Conning Asset Management) delivered a presentation (Attachment One-B) on its review of the ACLI's proposal. Hemphill asked if any Task Force or Working Group members objected to moving forward with the ACLI's proposed DR scenario methodology. Slutsker noted support for the ACLI's proposal, and no other Task Force or Working Group members objected.

3. Discussed the GOES Model Governance Framework

Scott O'Neal (NAIC) presented a series of key GOES model governance topics (Attachment One-C) to get feedback from the Task Force and Working Group. Regarding the fallback plan, if scenarios were unable to be published on the first of the month, Barlow asked how easy it would be for companies to adjust previous month-end scenarios for use as of the current valuation date. Randall McCumber (Lincoln Financial Group) noted that the biggest adjustments would likely be to the starting Treasury yield curve and that those adjustments would likely need to be graded off over time, but that it could be a feasible approach. Connie Tang (Retired) replied that there would still be differences in the projected scenarios resulting from differences in the shape and level of the starting Treasury yield curve.

Cheung asked whether companies that license the Conning software would be able to generate the scenarios themselves in the event that Conning is unable. O'Neal confirmed and said that in certain circumstances, if Conning's infrastructure were down, companies that license the software would still be able to generate the scenarios themselves. O'Neal said that the NAIC licenses the Conning software and is considering whether it could use the software to provide scenarios in the event that Conning is unable. Tang noted that business disruption events could likely be categorized, with different resolutions for different categories of issues. O'Neal responded that he would incorporate that feedback into the next draft of the GOES Model Governance Framework.

Hemphill asked if there was any objection to directing NAIC staff to revise the draft GOES Model Governance Framework. Hearing none, NAIC staff were directed to revise the GOES Model Governance Framework.

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

SharePoint/NAIC Support Staff Hub/Member Meetings/A CMTE/LATF/2025-2-Summer/LATF Calls/04 09/Apr 09 Minutes.docx

Draft: 6/5/25

Life Risk-Based Capital (E) Working Group and Variable Annuities Capital and Reserve (E/A) Subgroup
Virtual Meeting
May 7, 2025

The Life Risk-Based Capital (E) Working Group of the Capital Adequacy (E) Task met May 7, 2025, in joint session with the Variable Annuities Capital and Reserve (E/A) Subgroup of the Life Risk-Based Capital (E) Working Group and Life Actuarial (A) Task Force.

The following Working Group members participated: Philip Barlow, Chair (DC); Ben Slutsker, Vice Chair (MN); Sanjeev Chaudhuri (AL); Thomas Reedy (CA); Wanchin Chou (CT); Hannah Howard (FL); Mike Yanacheak (IA); William Leung (MO); Michael Muldoon (NE); Jennifer Li (NH); William B. Carmello (NY); Rachel Hemphill (TX); and Tomasz Serbinowski (UT).

The following Subgroup members participated: Peter Weber, Chair (OH); Matt Cheung, Vice Chair (IL); Thomas Reedy (CA); Philip Barlow (DC); Ben Slutsker (MN); William Leung (MO); William B. Carmello (NY); and Rachel Hemphill (TX).

1. Heard Updates on Request for NAIC to Provide GOES Sensitivity Scenarios

Scott O'Neal (NAIC) said that the NAIC will not periodically provide the Generator of Economic Scenarios (GOES) sensitivity scenarios as requested by the industry. Brian Bayerle (American Council of Life Insurers—ACLI) asked when the next scenario sets will become available. O'Neal said the NAIC is working with Conning and aims to release the scenario sets at the end of June. The scenario sets will fully reflect the recent revisions to the Treasury flooring, initial yield curve fitting methodology, and equity model calibration.

2. Discussed GOES (E/A) Subgroup Referrals to Life RBC (E) Working Group and Variable Annuity Capital and Reserve (E/A) Subgroup

O'Neal gave a presentation (Attachment A) on the two referrals from the GOES (E/A) Subgroup. He discussed some limitations of the analysis for the metrics used in the C3 Phase I (C3PI) and C3 Phase II (C3PII) summaries of the 2024 GOES field test results. He said the results may not be directly comparable across different participants, particularly for C3PII calculations, because they were not collected using a standard template. Thus, some adjustments were made where possible to make the data more comparable and some participants were removed from the analysis. O'Neal concluded by noting that the analytics can be strongly dependent on a subset of the results due to the limited number of participant results.

O'Neal went over the first referral addressed to the Working Group, in which the GOES (E/A) Subgroup asked the Working Group to implement any necessary changes to the life risk-based capital (RBC) blanks and instructions and coordinate with the Variable Annuities Capital and Reserve (E/A) Subgroup on recommending any changes to the C3PII calculation. For the C3PI calculation, the GOES (E/A) Subgroup asked the Working Group to consider any changes to the required number of scenarios and, if necessary, to the current capital metric.

O'Neal began the C3PI discussion by providing background on how the calculation works. He said the Academy Interest Rate Generator (AIRG) for C3PI has a constant mean reversion parameter (MRP) of 6.55%, which is different from the dynamic MRP in the current AIRG used in the C3PII and Valuation Manual (VM)-20, Requirements for Principle-Based Reserve for Life Products, calculations. Because the dynamic MRP resets annually, it is currently much lower than 6.55 %. He also pointed out that the weighted average metric for the

C3PI calculation, which is centered around the 95th percentile scenario, is different from a conditional tail expectation (CTE) metric used in C3PII.

O'Neal then explained the C3PI results by metric from the 2024 GOES field test. He said the C3 factor is calculated as the C3 RBC amount divided by the statutory reserve amount. He said 13 of the 16 model segments for the baseline run, which the companies provided, have a factor-based floor greater than or equal to the model-determined factor. In comparison, when the 2024 GOES field test 1 (FT1) scenarios are used, 11 of the 16 model segments have a factor-based floor greater than or equal to the model-determined factor. However, O'Neal noted that the average C3 factor from FT1 is significantly higher than the average factor-based floor due to a few companies whose lines of business are a lot more sensitive to the new scenarios.

O'Neal then talked about the average C3 factor associated with the CTE 90 metric. He noted that even though the average C3 factor increases, the same number of model segments (11 of 16) have a formulaic floor greater than or equal to the model-determined factor. He said the CTE metric increases as it goes into a higher confidence level, as shown by the average C3 factors associated with the CTE 95 and CTE 98 metrics, respectively. O'Neal pointed out that results at various percentile levels show that they may be more driven by outliers since the average values sometimes can be misleading.

Barlow asked about the scenarios that the average C3 factor from FT1 was calculated based on. O'Neal replied that the baseline run uses 50 scenarios while a minimum of 200 scenarios is required for all the field test runs. Barlow then asked whether the outliers come from any lines of business. O'Neal said some lines of business could be more susceptible than others and for those that have higher RBC factors in the baseline run, it is more likely they would be more sensitive to the GOES scenarios.

Bayerle questioned whether it made sense to implement the GOES scenarios for C3PI in 2026 given the changes to the C3PI methodology planned for 2027. O'Neal said that from the GOES (E/A) Subgroup perspective, some updates to the methodology need to be made to effectuate the GOES. Bayerle said it may be more reasonable to defer scenario updates to the C3PI methodology until the broader overhaul is completed. Barlow commented that there could be potential unintended consequences if no updates are made for 2026.

Bayerle said it will be difficult for companies to assess the impact due to changes in the methodology versus scenarios. He expressed concern about the uncertainty of the impact these changes might have on the industry in aggregate.

Cheung said that he is interested in updating the scenarios for C3PI from a regulatory perspective. He expressed his concerns, however, about updating the scenarios alone while leaving the methodology intact.

O'Neal said an exposure could be released including the presentation along with a series of questions, including whether to delay GOES implementation for C3PI.

O'Neal then talked about the second referral from the GOES (E/A) Subgroup to the Variable Annuities Capital and Reserve (E/A) Subgroup regarding: 1) any potential changes to the capital metric that is used in the C3PII calculation; and 2) asked the Subgroup to coordinate with the Working Group on any related changes to the life RBC blanks and instructions.

O'Neal provided background on the C3PII calculation. Then he went over the 2024 GOES field test results from six companies that show eight model segments altogether.

Cheung asked whether the observed higher weighted average amount is due to any outlier company result. O'Neal said some companies tend to dominate, especially with a limited sample size.

O'Neal moved on to talk about the model office results. He said all results are on an unfloored and adjusted basis.

Bayerle said it is reassuring that the model office results validate some of the differences seen in the field test results and supported effectuating the GOES for C3PII in 2026. Bayerle said that the ACLI will make a comment during an exposure period.

O'Neal proposed putting the presentation together with some cover questions to expose for public comment. Barlow and Weber agreed to review the exposure questions, provide any feedback, and then Chair expose the document for a 45-day public comment period following the call.

Having no further business, the Life Risk-Based Capital (E) Working Group and the Variable Annuities Capital and Reserve (E/A) Subgroup adjourned.

SharePoint/NAIC Support Staff Hub/Member Meetings/A CMTE/LATF/2025-2 Summer/VACR SG/05 07 Joint LRBC WG VACR SG/0507 Joint LRBC VACR Minutes.docx

Capital Adequacy (E) Task Force
RBC Proposal Form

☐ Capital Adequacy (E) Task Force ☐ Health RBC (E) Working Group ☒ Life RBC (E) Working Group
☐ Catastrophe Risk (E) Subgroup ☐ P/C RBC (E) Working Group ☐ Longevity Risk (A/E) Subgroup
☐ Variable Annuities Capital. & Reserve (E/A) Subgroup ☐ Economic Scenarios (E/A) Subgroup ☐ RBC Investment Risk & Evaluation (E) Working Group

DATE:	**04/14/2025**
CONTACT PERSON:	**Kazeem Okosun**
TELEPHONE:	**816-783-8981**
EMAIL ADDRESS:	**kokosun@naic.org**
ON BEHALF OF:	**Life Risk-Based Capital (E) Working Group**
NAME:	**Philip Barlow, Chair**
TITLE:	**Associate Commissioner of Insurance**
AFFILIATION:	**District of Columbia**
ADDRESS:	**1050 First Street, NE Suite 801**
	Washington, DC 20002

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Agenda Item # 2025-10-L
Year 2025

DISPOSITION

ADOPTED:
☐ TASK FORCE (TF) _____
☐ WORKING GROUP (WG) _____
☐ SUBGROUP (SG) _____

EXPOSED:
☐ TASK FORCE (TF) _____
☒ WORKING GROUP (WG) **05-01-2025**
☐ SUBGROUP (SG) _____

REJECTED:
☐ TF ☐ WG ☐ SG _____

OTHER:
☐ DEFERRED TO _____
☐ REFERRED TO OTHER NAIC GROUP
☐ (SPECIFY) _____

IDENTIFICATION OF SOURCE AND FORM(S)/INSTRUCTIONS TO BE CHANGED

☐ Health RBC Blanks ☐ Property/Casualty RBC Blanks ☐ Life and Fraternal RBC Blanks
☐ Health RBC Instructions ☐ Property/Casualty RBC Instructions ☒ Life and Fraternal RBC Instructions
☐ Health RBC Formula ☐ Property/Casualty RBC Formula ☐ Life and Fraternal RBC Formula
☐ OTHER _____

DESCRIPTION/REASON OR JUSTIFICATION OF CHANGE(S)

The Working Group received a referral from Statutory Accounting Principles (E) Working Group, which informed the Working Group of the adopted statutory accounting revisions for the reporting of modified coinsurance (modco) and fund withheld (FWH) assets as restricted assets, and added new disclosures on whether the modco/FWH assets have been pledged for another purpose specific to the ceding insurance reporting entity. The reporting changes are anticipated to be effective year end 2025, subject to Blanks (E) Working Group activity.

The referral suggested clarifications to the *Life/Fraternal RBC Forecasting and Instructions* so that it is clear that if any portion of a modco/FWH assets has been concurrently used as a pledged asset for a purpose specific to the ceding insurance reporting entity at any time of the year, the RBC for the ceding company shall not be reduced.

Additional Staff Comments:

05-01-2025: Proposal was exposed with comments due 05-30-2025. No comment letter received (KO)

6-18-2025: Highlighted in YELLOW were editorial changes we needed to make to the instruction due to the adoption of Proposal 2025-04-L MOD

**** This section must be completed on all forms.** **Revised 2-2023**

MODCO OR FUNDS WITHHELD REINSURANCE AGREEMENTS
LR045, LR046, LR047 and LR048

References to MODCO and funds withheld reinsurance agreements apply to all treaties in effect.

Basis of Factors
When the default risk in modified coinsurance (MODCO) and other reinsurance transactions with funds withheld is transferred, this transfer should be recognized by reducing the RBC for the ceding company and increasing it for the assuming company. In the event that the entire asset credit or variability in statement value risk associated with the assets supporting the business reinsured is not transferred to the assuming company for the entire duration of the reinsurance treaty, the RBC for the ceding company should not be reduced. For clarity, if any portion of a Modco/Funds Withheld reinsurance agreement asset held as of the year-end date has been used as a pledged asset concurrently with the pledged asset being included as a Modco/Funds Withheld reinsurance agreement asset for any purpose specific to the ceding insurance reporting entity at any time during the year, the RBC for the ceding company shall not be reduced. For example, if any portion of a Modco/Funds Withheld reinsurance agreement asset held as of the year-end date was the collateral in a securities lending, repurchase, or FHLB transaction executed for the benefit of by the ceding entity at any time over the year concurrently with the pledged asset being included as a Modco/Funds Withheld reinsurance agreement asset, then RBC shall not be reduced. In situations where the economic benefit received from pledging the assets inure to the reinsurer throughout the duration of the reinsurance treaty, the cedant is allowed to reduce its RBC for those assets.

MODCO OR FUNDS WITHHELD REINSURANCE AGREEMENTS
Reinsurance Ceded - Bonds C-1o
LR045

Column (4)
Enter by reinsurer, the amount of C-1o RBC the insurance company has ceded that is attributable to bonds. The "total" should equal the total amount of the reduction in C-1o RBC shown on Line (19) of page LR002 Bonds.

MODCO OR FUNDS WITHHELD REINSURANCE AGREEMENTS
Reinsurance Assumed - Bonds C-1o
LR046

Column (4)
Enter by ceding company, the amount of C-1o RBC the insurance company has assumed that is attributable to bonds. The "total" should equal the total amount of the increase in C-1o RBC shown on Line (20) of page LR002 Bonds.

MODCO OR FUNDS WITHHELD REINSURANCE AGREEMENTS
Reinsurance Ceded – All Other Assets C-0, C-1o And C-1cs
LR047

Column (4)
Enter by reinsurer, the amount of C-0, C-1o And C-1cs RBC the company has ceded that is attributable to all assets except bonds. The "total" should equal the total amount of the reduction of C-0, C-1o And C-1cs RBC attributable to all assets except bonds for MODCO and funds withheld agreements. Specifically, LR047 Column (4), Line (9999999) should equal the sum of LR004 Column (6) Line (29), LR005 Column (5) Line (8) and (19), LR006 Column (3) Line (5), LR007 Column (3) Line (11) and (23), LR008 Column (5) Line (9), Line (19), Line (29), Line (39), ~~**Line (45)**~~ **Line (47)** and Line (55), LR009 Column (6) Line (22), LR012 Column (2) Line (19) and LR017 Column (5) Line (28).

MODCO OR FUNDS WITHHELD REINSURANCE AGREEMENTS
Reinsurance Assumed – All Other Assets C-0, C-1o And C-1cs
LR048

Column (4)
Enter by ceding company, the amount of C-0, C-1o And C-1cs RBC the insurance company has assumed that is attributable to all assets except bonds. The "total" should equal the total amount of the increase in C-0, C-1o And C-1cs RBC attributable to all assets except bonds for MODCO and funds withheld agreements. Specifically, LR048 Column (4), Line (9999999) should equal the sum of LR004 Column (6) Line (30), LR005 Column (5) Line (9) and (20), LR006 Column (3) Line (6), LR007 Column (3) Line (12) and (24), LR008 Column (5) Line (10), Line (20), Line (30), Line (40), ~~**Line (46)**~~ **Line (48)** and Line (56), LR009 Column (6) Line (23), LR012 Column (2) Line (20) and LR017 Column (5) Line (29).

Capital Adequacy (E) Task Force

RBC Proposal Form

☐ Capital Adequacy (E) Task Force ☐ Health RBC (E) Working Group ☒ Life RBC (E) Working Group
☐ Catastrophe Risk (E) Subgroup ☐ P/C RBC (E) Working Group ☐ Longevity Risk (A/E) Subgroup
☐ Variable Annuities Capital. & Reserve (E/A) Subgroup ☐ Economic Scenarios (E/A) Subgroup ☐ RBC Investment Risk & Evaluation (E) Working Group

DATE: 5/23/25

CONTACT PERSON: Paul Navratil, MAAA, FSA
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ON BEHALF OF: AAA Life Investment and Capital Adequacy Committee
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Agenda Item # 2025-13-L
Year 2026

DISPOSITION

ADOPTED:
☐ TASK FORCE (TF) _____
☐ WORKING GROUP (WG) _____
☐ SUBGROUP (SG) _____

EXPOSED:
☐ TASK FORCE (TF) _____
☐ WORKING GROUP (WG)
☐ SUBGROUP (SG) _____

REJECTED:
☐ TF ☐ WG ☐ SG _____

OTHER:
☐ DEFERRED TO _____
☐ REFERRED TO OTHER NAIC GROUP
☐ (SPECIFY) _____

IDENTIFICATION OF SOURCE AND FORM(S)/INSTRUCTIONS TO BE CHANGED

☐ Health RBC Blanks ☐ Property/Casualty RBC Blanks ☒ Life and Fraternal RBC Blanks
☐ Health RBC Instructions ☐ Property/Casualty RBC Instructions ☒ Life and Fraternal RBC Instructions
☐ Health RBC Formula ☐ Property/Casualty RBC Formula ☒ Life and Fraternal RBC Formula
☐ OTHER _____

DESCRIPTION/REASON OR JUSTIFICATION OF CHANGE(S)

This proposal presents updates to the correlation between risk factors within the Life Risk Based Capital formula as recommended by the American Academy of Actuaries (see Attachment)

These changes will result in corresponding changes in LRBC instructions and/or blanks, namely LR031, LR037 and LR049.

Additional Staff Comments:

**** This section must be completed on all forms.** **Revised 2-2023**

CALCULATION OF AUTHORIZED CONTROL LEVEL RISK-BASED CAPITAL

LR031

Basis of Factors

The purpose of the formula is to estimate the risk-based capital levels required to manage losses that can be caused by a series of catastrophic financial events. However, it is remote that all such losses will occur simultaneously. The covariance adjustment states that the combined effect of the C–1o, C-1cs, C–2, and C–3 and a portion of the C-4 risks are not equal to their sum but are equal to the square root calculation described below. It is statistically assumed that the C–1o risk and a portion of the C–3 risk are correlated, while the C-1cs risk, the C–2 risk, the balance of the C-3 risk and a portion of the C-4 risk are independent of both. The split of the C-3 and C-4 risks allows for general consistency with the health RBC formula. This assumption provides a reasonable approximation of the capital requirements needed at any particular level of losses. The formula uses a nested structure combining similar risks into major risk categories then applying covariance between these major risk categories: Credit risk is the aggregation of C-1o and C-3b with 25% correlation, Equity risk the aggregation of C-1cs and C-3c with 100% correlation and Business Risk the aggregation of C-4a and C-4b with independent 0% correlation. C-2 Insurance and C-3a Interest Rate remain as major risk categories. Credit and Equity risks are assumed to be 50% correlated, Credit and Interest Rate assumed to be 25% correlated, and Equity and Interest Rate assumed to be 50% correlated. The remaining risk pairs are assumed to be independent. The assumptions are intended to provide a reasonable approximation of the capital requirements at the level of losses contemplated in the calibration of the risk factors themselves. A key assumption in the calibration of the factors is the possibility for correlation between credit and equity to increase during times of adversity to a level higher than their historical average.

The covariance formula is applied on Line (69) on LR031 before adding operational risk and Primary Security Shortfall Calculated in Accordance With Actuarial Guideline XLVIII:

Credit = Square Root of $[(C\text{-}1o)^2 + (C\text{-}3b)^2 + 2 \times 0.25 \times (C\text{-}1o) \times (C\text{-}3b)]$
Equity = C-1cs + C-3c
Business = Square Root of $[(C\text{-}4a)^2 + (C\text{-}4b)^2$
RBC after Covariance Before Operational Risk = ~~C0 + C4a + Square Root of $[(C1o + C3a)^2 + (C\text{-}1cs + C\text{-}3c)^2 + (C2)^2 + (C3b)^2 + C4b)^2]$~~ C-0 + Square Root of $[Credit^2 + Equity^2 + Interest\ Rate^2 + Insurance^2 + Business^2 + 2 \times 0.50 \times Credit \times Equity + 2 \times 0.25 \times Credit * Interest\ Rate + 2 \times 0.50 \times Equity \times Interest\ Rate]$

Operational Risk:
Operational risk is defined as the risk of financial loss resulting from operational events, such as the inadequacy or failure of internal systems, personnel, procedures or controls, as well as external events. Operational risk includes legal risk but excludes reputational risk and risk arising from strategic decisions. Operational risk has been identified as a risk that should be explicitly addressed in the RBC formulas. The Operational Risk charge is intended to account for operational risks that are not already reflected in existing risk categories.

A Gross Operational Risk charge will be reported on Line (70) using a percentage of RBC or "add-on" approach that will apply a risk factor of 3.00% to the amount reported in Line (69) – Total RBC after Covariance Before Operational Risk reported on page LR031. The result will represent an initial value of operational risk. Because the current C-4a risk charge is assumed to include some operational risk, a company's C-4a – Post Tax reported on Line (65) is offset against operational risk. A further reduction to the operational risk charge equal to the sum of the C-4a offset amounts reported by direct life RBC filing insurance subsidiaries (Page LR031, Lines (65 + 71)), adjusted for the percentage of ownership in the direct life insurance subsidiary, will be reported on Page LR031 in Line (71).

Net Operational risk after C-4a offset is reported on Line (72), but not less than zero.

Total RBC After Covariance including Operational Risk will be reported in Line (74) as the sum of lines (69), (72) and (73) - Primary Security Shortfall Calculated in Accordance With Actuarial Guideline XLVIII as described below.

Authorized Control Level Risk-Based Capital is 50% of the sum of items A plus B plus C where:

"A" equals C-0 + Square Root of [Credit^2 + Equity^2 + Interest Rate^2 + Insurance^2 + Business^2 + 2 x 0.50 x Credit x Equity + 2 x 0.25 x Credit * Interest Rate + 2 x 0.50 x Equity x Interest Rate] ~~C-0 plus the C-4a risk-based capital and the square root of the sum of the C-1o and C-3a risk-based capital squared, the C-1cs and C-3c risk-based capital squared, the C-2 risk-based capital squared, the C-3b risk-based capital squared and the C-4b risk-based capital squared as reported on Line (69~~) and,

"B" equals the amount of operational risk after C-4a offset as reported on Line (72) and

"C" equals the greater of zero and the amount of Primary Security shortfalls for all cessions covered by Actuarial Guideline XLVIII (AG 48) multiplied by two on Line (73).

The intent of this addend is to produce a dollar for dollar increase in the Authorized Control Level for the total of the AG 48 Primary Security shortfall. This Authorized Control Level increase for the amount of Primary Security shortfall applies to all insurers and all cessions of Covered Policies as defined in AG 48, that do not fall within an exemption set forth in AG 48, regardless of whether a state may have chosen to waive all or part of AG 48. For example, if a cession is of Covered Policies and no exemption is available under the terms of AG 48 for a particular insurer or transaction, but a state nevertheless determines that the insurer or Appointed Actuary will not be required to comply in full with the Guideline, then for RBC a computation of shortfall, if any, will still be required and an increase to Authorized Control Level for any such shortfall will still apply.

The information reported should be consistent with the information that will be included in Part 2B, Column 19, of the annual statement Supplemental Term and Universal Life Insurance Reinsurance Exhibit.

Mandatory Control Level Risk-Based Capital is 70% of Authorized Control Level Risk-Based Capital.

Specific Instructions for Application of the Formula

All amounts reflected for the calculation of Authorized Control Level Risk-Based Capital will be calculated automatically by the software.

In recognition of the exclusion of the carrying value of Alien Insurance Subsidiaries – Other from Total Adjusted Capital, the carrying value of these entities is also to be excluded from the calculation of C-0 risk-based capital.

Company Name | Cocode: 00000

CALCULATION OF AUTHORIZED CONTROL LEVEL RISK-BASED CAPITAL

		Source	(1) RBC Requirement	
	Insurance Affiliates and Misc. Other Amounts (C-0)			
(1)	Directly Owned Health Insurance Companies or Health Entities	LR042 Summary for Affiliated/Subsidiary Stocks Column (4) Line (1)	$0	
(2)	Directly Owned Property and Casualty Insurance Affiliates	LR042 Summary for Affiliated/Subsidiary Stocks Column (4) Line (2)	$0	
(3)	Directly Owned Life Insurance Affiliates	LR042 Summary for Affiliated/Subsidiary Stocks Column (4) Line (3)	$0	
(4)	Indirectly Owned Health Insurance Companies or Health Entities	LR042 Summary for Affiliated/Subsidiary Stocks Column (4) Line (4)	$0	
(5)	Indirectly Owned Property and Casualty Insurance Affiliates	LR042 Summary for Affiliated/Subsidiary Stocks Column (4) Line (5)	$0	Go to LR042
(6)	Indirectly Owned Life Insurance Affiliates	LR042 Summary for Affiliated/Subsidiary Stocks Column (4) Line (6)	$0	
(7)	Affiliated Alien Insurers - Directly Owned	LR042 Summary for Affiliated/Subsidiary Stocks Column (4) Lines (9) + (10) + (11)	$0	
(8)	Affiliated Alien Insurers - Indirectly Owned	LR042 Summary for Affiliated/Subsidiary Stocks Column (4) Lines (12) + (13) + (14)	$0	Go to LR017
(9)	Off-Balance Sheet and Other Items	LR017 Off-Balance Sheet and Other Items Column (5) Line (34)	$0	
(10)	Total (C-0) - Pre-Tax	Sum of Lines (1) through (9)	$0	
(11)	(C-0) Tax Effect	LR030 Calculation of Tax Effect for Life and Fraternal Risk-Based Capital Column (2) Line (122)	$0	Go to LR030
(12)	Net (C-0) - Post-Tax	Line (10) - Line (11)	$0	
	Asset Risk – Unaffiliated Common Stock and Affiliated Non-Insurance Stock (C-1cs)			
(13)	Schedule D Unaffiliated Common Stock	LR005 Unaffiliated Common Stock Column (5) Line (21) + LR018 Off-Balance Sheet Collateral Column (3) Line (16)	$0	Go to LR005
(14)	Schedule BA Unaffiliated Common Stock	LR008 Other Long-Term Assets Column (5) line (47)	$0	Go to LR008
(15)	Schedule BA Affiliated Common Stock - C-1cs	LR008 Other Long-Term Assets Column (5) lines (49.2) + (51)	$0	
(16)	Common Stock Concentration Factor	LR011 Common Stock Concentration Factor Column (6) Line (6)	$0	Go to LR011
(17)	Holding Company in Excess of Indirect Subs	LR042 Summary for Affiliated/Subsidiary Stocks Column (4) Line (7)	$0	
(18)	Affiliated Non-Insurers	LR042 Summary for Affiliated/Subsidiary Stocks Column (4) Lines (19) + (20) + (21)	$0	
(19)	Total (C-1cs) - Pre-Tax	Sum of Lines (13) through (18)	$0	
(20)	(C-1cs) Tax Effect	LR030 Calculation of Tax Effect for Life and Fraternal Risk-Based Capital Column (2) Line (134)	$0	Go to LR030
(21)	Net (C-1cs) - Post-Tax	Line (19) - Line (20)	$0	
	Asset Risk - All Other (C-1o)			
(22)	Bonds after Size Factor	LR002 Bonds Column (2) Line (27) + LR018 Off-Balance Sheet Collateral Column (3) Line (8)	$0	Go to LR002
(23)	Mortgages (including past due and unpaid taxes)			Go to LR004
(24)	Unaffiliated Preferred Stock	LR005 Unaffiliated Preferred and Common Stock Column (5) Line (10) +	$0	Go to LR005
		LR018 Off-Balance Sheet Collateral Column (3) Line (15)	$0	
(25)	Investment Affiliates	LR042 Summary for Affiliated/Subsidiary Stocks Column (4) Line (8)		
(26)	Investment in Upstream Affiliate (Parent)	LR042 Summary for Affiliated/Subsidiary Stocks Column (4) Line (15)	$0	
(27)	Directly Owned Health Insurance Companies or Health Entities Not Subject to RBC	LR042 Summary for Affiliated/Subsidiary Stocks Column (4) Line (16)	$0	Go to LR042
(28)	Directly Owned Property and Casualty Insurance Companies Not Subject to RBC	LR042 Summary for Affiliated/Subsidiary Stocks Column (4) Line (17)	$0	
(29)	Directly Owned Life Insurance Companies Not Subject to RBC	LR042 Summary for Affiliated/Subsidiary Stocks Column (4) Line (18)	$0	
(30)	Publicly Traded Insurance Affiliates	LR042 Summary for Affiliated/Subsidiary Stocks Column (4) Line (22)	$0	
(31)	Separate Accounts with Guarantees	Line 8 Formula	$0	Goto LR006
(35)	Schedule BA Real Estate (gross of encumbrances)	LR007 Real Estate Column (3) Line (25)	$0	
(36)	Other Long-Term Assets	LR008 Other Long-Term Assets Column (5) Line (57) + LR018 Off-Balance Sheet	$0	Go to LR008
		Collateral Column (3) Line (17) + Line (18)	$0	
(37)	Schedule BA Mortgages	LR009 Schedule BA Mortgages Column (6) Line (24)		Go to LR009
(38)	Concentration Factor	LR010 Asset Concentration Factor Column (6) Line (62) Grand Total Page	$0	Go to LR010
(39)	Miscellaneous	LR012 Miscellaneous Assets Column (2) Line (21)	$0	Go to LR012
(40)	Replication Transactions and Mandatory Convertible Securities	LR013 Replication (Synthetic Asset) Transactions and Mandatory	$0	Go to LR013
		Convertible Securities Column (7) Line (9999999)	$0	
(41)	Reinsurance	LR016 Reinsurance Column (4) Line (17)		Go to LR016
(42)	Total (C-1o) - Pre-Tax	Sum of Lines (22) through (41)	$0	
(43)	(C-1o) Tax Effect	LR030 Calculation of Tax Effect for Life and Fraternal Risk-Based Capital Column (2) Line (110)	$0	Go to LR030
(44)	Net (C-1o) - Post-Tax	Line (42) - Line (43)	$0	
			$0	
	Insurance Risk (C-2)			
(45)	Individual and Industrial Life Insurance	LR025 Life Insurance Column (2) Line (5)		Go to LR025
(46)	Group and Credit Life Insurance and FEGI/SGLI	LR025 Life Insurance Column (2) Line (12)	$0	
(46b)	Longevity Risk	LR025-A Longevity Risk Column (2) Line (5)	$0	
(47)	Total Health Insurance	LR024 Health Claim Reserves Column (4) Line (18)	$0	Go to LR024
(48)	Premium Stabilization Reserve Credit	LR026 Premium Stabilization Reserves Column (2) Line (10)	$0	Go to LR026
(49)	Total (C-2) - Pre-Tax	L(47) + L(48) + Greatest of [Guardrail Factor * (L(45)+L(46)), Guardrail Factor * L(46b), Square	$0	Guardrail Factor 0.0
		Root of [(L(45) + L(46))2 + L(46b)2 + 2 * (Correlation Factor) * (L(45) + L(46)) * L(46b)]]	$0	Correlation Fact -0.25
(50)	(C-2) Tax Effect	LR030 Calculation of Tax Effect for Life and Fraternal Risk-Based Capital Column (2) Line (141)		Go to LR030
(51)	Net (C-2) - Post-Tax	Line (49) - Line (50)	$0	
			$0	
	Interest Rate Risk (C-3a)			
(52)	Total Interest Rate Risk - Pre-Tax	LR027 Interest Rate Risk Column (3) Line (36)		Go to LR027
(53)	(C-3a) Tax Effect	LR030 Calculation of Tax Effect for Life and Fraternal Risk-Based Capital Column (2) Line (142)	$0	Go to LR030
(54)	Net (C-3a) - Post-Tax	Line (52) - Line (53)	$0	
			$0	
	Health Credit Risk (C-3b)			
(55)	Total Health Credit Risk - Pre-Tax	LR028 Health Credit Risk Column (2) Line (7)		Go to LR028
(56)	(C-3b) Tax Effect	LR030 Calculation of Tax Effect for Life and Fraternal Risk-Based Capital Column (2) Line (143)	$0	Go to LR030
(57)	Net (C-3b) - Post-Tax	Line (55) - Line (56)	$0	
			$0	
	Market Risk (C-3c)			
(58)	Total Market Risk - Pre-Tax	LR027 Interest Rate Risk Column (3) Line (37)		Go to LR027
(59)	(C-3c) Tax Effect	LR030 Calculation of Tax Effect for Life and Fraternal Risk-Based Capital Column (2) Line (144)	$0	Go to LR030
(60)	Net (C-3c) - Post-Tax	Line (58) - Line (59)	$0	
			$0	
	Business Risk (C-4a)			
(61)	Premium Component	LR029 Business Risk Column (2) Lines (12) + (24) + (36)		Go to LR029
(62)	Liability Component	LR029 Business Risk Column (2) Line (39)	$0	
(63)	Subtotal Business Risk (C-4a) - Pre-Tax	Lines (61) + (62)	$0	
(64)	(C-4a) Tax Effect	LR030 Calculation of Tax Effect for Life and Fraternal Risk-Based Capital Column (2) Line (145)	$0	Go to LR030
(65)	Net (C-4a) - Post-Tax	Line (63) - Line (64)	$0	
			$0	
	Business Risk (C-4b)			
(66)	Health Administrative Expense Component of Business Risk (C-4b) - Pre-Tax	LR029 Business Risk Column (2) Line (57)		Go to LR029
(67)	(C-4b) Tax Effect	LR030 Calculation of Tax Effect for Life and Fraternal Risk-Based Capital Column (2) Line (146)	$0	Go to LR030
(68)	Net (C-4b) - Post-Tax	Line (66) - Line (67)	$0	
			$0	

Company Name | Cocode: 00000

CALCULATION OF AUTHORIZED CONTROL LEVEL RISK-BASED CAPITAL

		Source	(1) RBC Requirement	
	Total Risk-Based Capital After Covariance Before Basic Operational Risk			
~~(69)~~	~~C-0 + C-4a + Square Root of [(C-1o + C-3a)² + (C-1es + C-3e)² + (C-2)² + (C-3b)² + (C-4b)²]~~	~~REPORT AMOUNT ON PARENT COMPANY'S RBC IF APPLICABLE L(12)+L(65) + Square Root of [(L(44) + L(54))² + (L(21) + L(60))² + L(51)² + L(57)² + L(68)²]~~	~~$0~~	
(69)	C-0 + Square Root of [Credit² + Equity² + Interest Rate² + Insurance² + Business² + 2 x 0.50 x Credit x Equity + 2 x 0.25 x Credit x Interest Rate + 2 x 0.50 x Equity x Interest Rate]	L(12) + Square Root of [(L79)² + (L81)² + (L54)² + (L51)² + (L83)² + 2 x 0.50 x (L79) x (L81) + 2 x 0.25 x (L79) x (L54) + 2 x 0.50 x (L81) x (L54)]	$0	=ROUND(D19+SQRT(D129^2+D131^2+D76^2+D71^2+D133^2+2*0.5*D129*D131+2*0.25*D129*D76+2*0.5*D131*D76),0)
(70)	Gross Basic Operational Risk	0.03 x L(69)		
(71)	C-4a of U.S. Life Insurance Subsidiaries	Company Records	$0	
(72)	Net Basic Operational Risk	Line (70) - (Line (65) + Line (71)) (Not less than zero)	$0	
(73)	Primary Security Shortfall Calculated in Accordance With Actuarial Guideline XLVIII Multiplied by 2	LR036 XXX/AXXX Reinsurance Primary Security Shortfall by Cession Column (7) Line (9999999) Multiplied by 2	$0	
(74)	Total Risk-Based Capital After Covariance (Including Basic Operational Risk and Primary Security Shortfall multiplied by 2)	Line (69) + Line (72) + Line (73)	$0	
	Authorized Control Level Risk-Based Capital (After Covariance Adjustment and Shortfall)			
(75)	Total Risk-Based Capital After Covariance Times Fifty Percent	Line (74) x 0.50	$0	
	Tax Sensitivity Test			
~~(76)~~	~~Tax Sensitivity Test: Total Risk-Based Capital After Covariance~~	~~L(10)+L(63) + Square Root of [(L(42) + L(52))² + (L(19) + L(58))² + L(49)² + L(55)² + L(66)²]~~	~~$0~~	
(76)	**'Tax Sensitivity Test: Total Risk-Based Capital After Covariance**	**L(10) + Square Root of [(L78)² + (L80)² + (L52)² + (L49)² + (L82)² + 2 x 0.50 x (L78) x L(80) + 2 x 0.25 x (L78)x (L52) + 2 x 0.50 x (L80) x (L52)]**	**$0**	=ROUND(D17+SQRT(D128^2+D130^2+D74^2+D69^2+D132^2+2*0.5*D128*D130+2*0.25*D128*D74+2*0.5*D130*D74),0)
(77)	Tax Sensitivity Test: Authorized Control Level Risk-Based Capital	Line (76) x 0.50	$0	
(78)	**Net Credit Risk Pre-Tax**	**Square Root of [L(42)² + L(55)² + 2 x 0.25 x L(42) x L(55)]**	$0	=SQRT(D58^2+D79^2+2*0.25*D58*D79)
(79)	**Net Credit Risk Post-Tax**	**Square Root of [L(44)² + L(57)² + 2 x 0.25 x L(44) x L(57)]**	$0	=SQRT(D60^2+D81^2+2*0.25*D60*D81)
(80)	**Net Equity Risk Pre-Tax**	**L(19)+L(58)**	$0	=D29+D84
(81)	**Net Equity Risk Post-Tax**	**L(21)+L(60)**	$0	=D31+D86
(82)	**Net Business Risk Pre-Tax**	**Square Root of [L(63)² + L(66)²]**	$0	=SQRT(D91^2+D96^2)
(83)	**Net Business Risk Post-Tax**	**Square Root of [L(65)² + L(68)²]**	$0	=SQRT(D93^2+D98^2)

Company Name

XXX/AXXX CAPTIVE REINSURANCE CONSOLIDATED EXHIBIT

		(1) Ceding Company	(2) Pro Rata Captive #1	(3) Pro Rata Captive #2	(4) Pro Rata Captive #3	(5) Pro Rata Captive #4	(6) Pro Rata Captive #5	(7) Pro Rata Captive #6	(8) Pro Rata Captive #7	(9) Other Captives As necessary*	(10) Total
(1) C-0		$0	$0	$0	$0	$0	$0	$0	$0	$0	XXX
(2) C-1o		$0	$0	$0	$0	$0	$0	$0	$0	$0	XXX
(2.1) C-1o Concentration Factor		$0	$0	$0	$0	$0	$0	$0	$0	$0	XXX
(2.2) C-1o Concentration Factor Adjustment		$0	$0	$0	$0	$0	$0	$0	$0	$0	XXX
(2.3) Net C-1o	Line (2) minus Line (2.1) plus Line (2.2)	$0	$0	$0	$0	$0	$0	$0	$0	$0	XXX
(3) C-1cs		$0	$0	$0	$0	$0	$0	$0	$0	$0	XXX
(3.1) C-1cs Concentration Factor		$0	$0	$0	$0	$0	$0	$0	$0	$0	XXX
(3.2) C-1cs Concentration Factor Adjustment		$0	$0	$0	$0	$0	$0	$0	$0	$0	XXX
(3.3) Net C-1cs	Line (3) minus Line (3.1) plus Line (3.2)	$0 ##	$0	$0	$0	$0	$0	$0	$0	$0	XXX
(4) C-2		$0	$0	$0	$0	$0	$0	$0	$0	$0	XXX
(5.1) C-3a		$0	$0	$0	$0	$0	$0	$0	$0	$0	XXX
(5.2) C-3b		$0	$0	$0	$0	$0	$0	$0	$0	$0	XXX
(5.3) C-3c		$0	$0	$0	$0	$0	$0	$0	$0	$0	XXX
(6.1) C-4a		$0	$0	$0	$0	$0	$0	$0	$0	$0	XXX
(6.2) C-4b		$0	$0	$0	$0	$0	$0	$0	$0	$0	XXX
(7) Total Adjusted Capital		$0	$0	$0	$0	$0	$0	$0	$0	$0	XXX
~~(8) Authorized Control Level #~~		~~$0~~	~~$0~~	~~$0~~	~~$0~~	~~$0~~	~~$0~~	~~$0~~	~~$0~~	~~$0~~	~~XXX~~
(8) Authorized Control Level #		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	XXX
(9) Benchmark RBC		XXX	$0	$0	$0	$0	$0	$0	$0	$0	XXX
(10) RBC Shortfall		XXX	$0	$0	$0	$0	$0	$0	$0	$0	$0
(11) Final Total Adjusted Capital Reflecting RBC Cushion		$0	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

* If there are more than 7 captives subject to consolidation, provide the totals for the captives not reported in columns (2) through (8).

\# The amount on this line is to be the result of the normal calculation of Authorized Control Level RBC with possible adjustment to the concentration factor as described in the instructions for this exhibit.

(12) in Part 2A and Part 2B of the Supplemental XXX/AXXX Reinsurance Exhibit to the current Annual Statement had not occurred (i. 0 reporting entity did not receive the reserve credit taken required to be reported in Part 2A and Part 2B, Column 12 and held the security required to be reported in Part 2A, Columns 14 and 17, and Part 2B, Columns 14, 15, and 18 of the Supplemental XXX/AXXX Reinsurance required to be reported in Part 2A, Columns 14 and 17, and Part 2B, Columns 14, 15, and 18 of the Supplemental Exhibit to the current Annual Statement)? Yes [ ] No [ ] N/A [ ]

(13) If the response to line (12) is yes, please explain:

Line 8 Formula

```
=ROUND(E9+SQRT(((SQRT(E13^2+E20^2+2*0.25*E13*E20))^2+(E17+E21)^2+E19^2+E18^2+(SQRT(E22^2+E23^2))
^2+2*0.25*(SQRT(E13^2+E20^2+2*0.25*E13*E20)))*E19 +
2*0.5*(E17+E21)*E19+2*0.5*(SQRT(E13^2+E20^2+2*0.25*E13*E20))*(E17+E21)))*0.5,0)
```

EXEMPTION TEST: CASH FLOW TESTING FOR C-3 RBC

Company Name | Cocode: 00000

EXEMPTION TEST: CASH FLOW TESTING FOR C-3 RBC

	C-3 Significance Test	Source	(1) Amount	(2) Yes/No Response	(3) Equity Indexed **Annuities Adjustment (Pre-Tax)**
(1)	C-0 Asset Risk - Affiliated Amounts	LR031 Calculation of Total Authorized Control Level Capital Column (1) Line (12)	$0		
(2)	C-1cs Asset Risk - Unaffiliated Common Stock	LR031 Calculation of Total Authorized Control Level Capital Column (1) Line (21)	$0		
(3)	C-1o Asset Risk - All Other	LR031 Calculation of Total Authorized Control Level Capital Column (1) Line (44)	$0		
(4)	C-2 Insurance Risk	LR031 Calculation of Total Authorized Control Level Risk-Based Capital Column (1) Line (51)	$0		
(5)	C-3a Factor-Based Interest Rate Risk Single Premium and Annuity Reserves (Excluding Equity Indexed Annuities)	LR027 Interest Rate Risk Column (3) Line (17) x (1-enacted maximum federal corporate income tax rate) + LR027 Interest Rate Risk Column (3) Line (16) x (1-enacted maximum federal corporate income tax rate)	$0		**$0**
(6)	C-3a Interest Rate Risk All Other Reserves	LR027 Interest Rate Risk [Column (3) Line (22) + (27) + (29) + (30) + (31) + (35)] x (1-enacted maximum federal corporate income tax rate)	$0		**$0**
(7)	C-3b Health Credit Risk	LR031 Calculation of Total Authorized Control Level Risk-Based Capital Column (1) Line (57)	$0		
(8)	C-3c Market Risk	LR031 Calculation of Total Authorized Control Level Risk-Based Capital Column (1) Line (60)	$0		
(9)	C-4a Business Risk: Premium and Liability Components	LR031 Calculation of Total Authorized Control Level Risk-Based Capital Column (1) Line (65)	$0		
(10)	C-4b Business Risk: Health Administrative Risk	LR031 Calculation of Total Authorized Control Level Risk-Based Capital Column (1) Line (68)	$0		
(11)	Total	Sum of Lines (1) through (10)	$0		
(12)	C-3a Interest Rate Risk	Line (5) + Line (6)	$0		
(13)	C-3a Percentage	Line (12) divided by Line (11)	0.000%		
(14)	Is Line (13) greater than 40 percent? (Complete cash flow testing for C-3 RBC on Page LR027 Interest Rate Risk Column (3) Line (33) if "Yes.")	"Yes" or "No" in Column (2)		**No**	
	C-3 Stress Test				
(15)	Total Adjusted Capital	LR033 Calculation of Total Adjusted Capital Column (2) Line (13)	$0		
(16)	C-3a Factor-Based Interest Rate Risk Single Premium and Annuity Reserves (Excluding Equity Indexed Annuities)	LR027 Interest Rate Risk Column (3) Line (17) x 0.79 + LR027 Interest Rate Risk Column (3) Line (16) x (1-enacted maximum federal corporate income tax rate)	$0		**$0**
(17)	6.5 Times C-3a Factor-Based Interest Rate Risk Single Premium and Annuity Reserves	LR027 Interest Rate Risk Column (3) Line (17) x 6.5 x (1-enacted maximum federal corporate income tax rate)	$0		**$0**
(18)	C-3a Interest Rate Risk All Other Reserves	LR027 Interest Rate Risk [Column (3) Line (22) + (27) + (29) + (30) + (31) + (35)] x (1-enacted maximum federal corporate income tax rate)	$0		**$0**
(19)	Adjusted C-3a Interest Rate Risk	Line (16) + Line (17) + Line (18)	$0		
~~(20)~~	~~RBC After Covariance with Line (19) in C-3a Formula~~	~~Line (1) + Line (9) + Square Root of [(Line (3) + Line (19))² + (Line (2) + Line (8))² + Line (4)² + Line (7)² + Line (10)²]~~	~~$0~~		
		'Line 1+Square Root of [((Square Root of (Line 3^2+Line 7^2+2*0.25*Line 3*Line 7))^2+(Line 2+Line 8)^2+Line 19^2+Line 4^2+(Square Root of (Line 9^2+Line 10^2))^2+2*0.25*(Square Root of (Line 3^2+Line 7^2+2*0.25*Line 3*Line 7))*Line 19 + 2*0.5*(Line 2+Line 8)*Line 19+2*0.5*(Square Root of (Line 3^2+Line 7^2+2*0.25*Line 3*Line 7))*(Line 2+Line 8))]			
(20)	RBC After Covariance with Line (19) in C-3a Formula		**$0**		
(21)	Total	Line (15) / Line (20)	0.000%		
(22)	Is Line (21) less than 100 percent and not equal to zero? (Complete cash flow testing for C-3 RBC on Page LR027 Interest Rate Risk Column (3) Line (33) if "Yes".)	"Yes" or "No" in Column (2)		**No**	
(23)	Has the company elected to quantify RBC for Certain Annuities and Single Premium Life Insurance using Cash Flow Testing?	"Yes" or "No" in Column (2)		**No**	

Line 8 Formula

Line 20 formula

=ROUND(D8+SQRT(((SQRT(D10^2+D15^2+2*0.25*D10*D15))^2+(D9+D16)^2+D33^2+D11^2+(SQRT(D17^2+D18^2))^2+2*0.25*(SQRT(D10^2+D15^2+2*0.25*D10*D15))*D33 + 2*0.5*(D9+D16)*D33+2*0.5*(SQRT(D10^2+D15^2+2*0.25*D10*D15))*(D9+D16))),0)

Correlation in Life Risk Based Capital

Life Investment and Capital Adequacy Committee

About the Academy

Mission:
To serve the public and the U.S. actuarial profession.

Community:
Serving over 20K MAAAs & public stakeholders for 60 years

Standards:
Setting qualification, practice, and professionalism standards

Impact:
Delivering over 300 insight-driven publications & resources annually

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Guiding Principles for this review

Consistent measure of aggregate company risk

- A best estimate view of tail risk aggregation supports the regulatory objective to identify potentially weakly capitalized companies and provides consistent differentiation between companies with concentration or diversification of risks

Consistent with targeted statistical safety level of RBC

- Target a correlation approach that achieves a Company Action Level RBC that maintains the statistical safety level to which the individual risk factors within RBC are calibrated over a multiyear horizon
- Recognize that correlations may not be linear across all outcomes

Practical to implement

- Avoid false precision in both methodology and numerical values: maintain simple linear correlation approach with appropriate rounding of correlation factors

Recommendation

Linear correlation between major risk categories expressed as a correlation matrix:

No change to the structure of how existing risk factors are defined

	Credit C-1o, C-3b	Equity C-1cs, C-3c	Interest Rate C-3a	Insurance C-2a, C-2b	Business C-4a, C-4b
Credit	100%	50%	25%	0%	0%
Equity	50%	100%	50%	0%	0%
Interest Rate	25%	50%	100%	0%	0%
Insurance	0%	0%	0%	100%	0%
Business	0%	0%	0%	0%	100%

Nested correlation used to combine C risks that fall within each major risk category:

Credit	C-1o	C-3b
C-1o	100%	25%
C-3b	**25%**	100%

Insurance	Mortality C-2a	Longevity C-2b
Mortality C-2a	100%	-25%
Longevity C-2b	**-25%**	100%

Equity	C-1cs	C-3c
C-1cs	100%	100%
C-3c	**100%**	100%

Business	C-4a	C-4b
C-4a	100%	0%
C-4b	**0%**	100%

Data Sources and Limitations

Recommendations are informed by analysis of historical correlations among data used to proxy C-risks within LRBC

Risk	Proxy Data	Key Assumptions
Credit	**Primary** – Issuer weighted corporate bond default rates **Secondary** – NCREIF real estate index total returns	Correlation of data weighted by issuer used as a proxy for correlations for mix of insurer bond holdings
Equity	S&P 500 Total Return	Insurer equity holdings under C-1cs assumed to be correlated with other risks similarly to S&P 500 equity returns
Interest Rate	Total Return of Investment Grade Bond Fund FBNDX	Correlations in bond fund returns driven by rates and spreads are assumed to be a reasonable proxy for more the complex C-3 calculation Recommend the absolute value of correlations with interest rates since rate & spread movements could be in either direction and not practical to differentiate correlation between up rate and down rate binding scenarios given the current structure of the C-3 calculation
Insurance	United States population mortality rates by age and socioeconomic decile	Age weighting based on SOA Mortality Experience Studies for Individual Life Insurance and Individual Payout Annuity used to represent Mortality and Longevity risks
Business	Life and Annuity State Guaranty Association Assessments as a Percentage of Capacity; *data available 1988 to 2021*	Represents portion of C-4a whose factor is in part intended to cover potential exposure to guaranty fund assessments

Time Period – Core period of 1982 to 2019 to create a consistent period for all risks (except Business); longer time periods were also reviewed for individual pairs where available to check for consistency with core period

Calibration

The guiding principle for calibration is a linear correlation assumption that achieves an aggregate RBC amount that maintains the statistical safety level to which the individual risk factors were calibrated.

Our approach to achieving this calibration result considered three elements:

1. **Analysis of average risk correlation**
    - Numerous metrics were considered aimed at calibrating the average observed correlation between risks across different time horizons
    - A mathematical appendix demonstrates that for normally distributed risks that are linearly correlated, this average correlation achieves this calibration objective
2. **Confirmed that average correlation remains appropriate for non-normal market loss distributions**
    - Analysis was done to confirm that for market losses that are not normally distributed the average correlation remains an appropriate calibration target for the approximate level of statistical significance targeted by RBC
3. **Considered if there is evidence of non-linear correlations that are higher in unfavorable risk scenarios**
    - Cumulative 5 year risk losses were calculated and compared to the corresponding rolling 5 year correlations to identify risk pairs where higher correlations have been observed in years where losses were greater (e.g. tail events)

Summary Results & Rationale – Market Risks

The primary metric was the average annual correlation over the core 1982-2019 period

Numerous secondary metrics along with qualitative factors were also considered; more information on these additional considerations is included in the appendices

Risk Pair	Average Annual Correlation	Recommend	Reasonable Alternatives	Key Additional Insights from Secondary metrics
Credit - Equity	24% with bond default 9% with real estate	50%	25%, 75%	• Multi-year cumulative correlations more strongly supported 50% • Rolling 5 and 10 year distributions were most consistent with 25% or 0% • Data was consistent with nonlinearity with higher correlations in stress scenarios which could support 50% or 75% assumption
Interest Rate - Credit	18% with bond default 17% with real estate	25%	0%	• Rolling 5 and 10-yr distributions were consistent with both 0% and 25% while 50% was a much poorer fit
Interest Rate - Equity	43%	50%	75%	• Rolling 5-year distribution tail supported both 50% and 75% • Other metrics most consistent with 50%

Summary Results & Rationale – Insurance Risks

There was little quantitative evidence or qualitative considerations supporting a non-zero correlation for Insurance risk

Risk Pair	Average Annual Correlation	Recommend
Insurance – Credit	8% Life Mortality with Bond default -10% Life Mortality with Real Estate -6% Annuity Mortality with Bond default 8% Annuity Mortality with Real Estate	0%
Insurance – Equity	16% with Life Mortality -14% with Annuity Mortality	0%
Insurance – Interest Rate	4% with Life Mortality -1% with Annuity Mortality	0%

Correlations for mortality risk based on q(x) values while longevity risk represented by p(x) = 1 - q(x)

Results reflect total population mortality, though analysis done on the wealthiest population decile showed similar results

Summary Results & Rationale – Business Risk

The average annual correlations for business risk analysis used the available 1988-2021 period

The 1998-2021 results were also considered which exclude the wave of guaranty fund assessments in the early 1990's and also supported the recommendation

Risk Pair	Average Annual Correlation	Recommended
Business - Credit	-34% with bond default 29% with real estate	0%
Business - Equity	-28%	0%
Business – Interest Rate	-5%	0%
Business - Insurance	-46% with Life 48% with Annuity	0%

Current RBC includes a C-4b health administrative component within the correlation matrix with 0% correlation to the other risks, while C-4a is excluded from the correlation matrix and added to the total after covariance

- The limited historical data supports a 0% correlation assumption which is achieved by including Business Risk within the correlation matrix
- A theoretical argument for keeping Business Risk as additive outside of the correlation matrix is that guaranty assessments result from insurance company failures which would be caused by the realization of RBC risks in aggregate, therefore should be expected to have high correlation with the total RBC amount in times of stress
- Counterarguments include cases of insolvencies driven by underpricing or a lack of diversification rather than systemic risk events along with the lag between low RBC indicating financial difficulty and the ultimate guaranty fund assessment
- Recommend combining C-4a and C-4b to a single Business Risk value then treating all business risk consistently whether included within or additive to the correlation matrix

Nested Correlation Rationale

Rationale for nested correlations rely on descriptions of risks covered and judgment of reasonable correlations in the absence of data

Credit: Recommend 25% Correlation between C-1o and C-3b

- C-3b Health Credit Risk covers the risk that the company will pay capitation payments to health care providers but will not receive the agreed-upon services and will encounter unexpected expenses in arranging for alternative coverage
- It seems plausible that this risk would be independent from asset default risk covered in C-1o which would support a 0% correlation assumption
- It could also be possible that a weak economic environment that would lead to C-1o asset defaults could also be associated with increased incidence of failure of health care provider entities
- In the absence of data, we recommend the more conservative argument for a correlation of 25%.

Equity: Recommend 100% Correlation (additive) between C-1cs and C-3c

- Both C-1cs and C-3c capture market risk of equity assets and therefore the existing approach of combining the risks for covariance purposes is reasonable

Nested Correlation Rationale - Continued

Insurance: Recommend no change to existing -25% Correlation between C-2a and C-2b

- Correlation between C-2a mortality and C-2b longevity was recently reviewed when Longevity risk was added to LRBC; we are not recommending changes to the existing negative 25% correlation between C-2a and C-2b.

Business: Recommend 0% Correlation between C-4a and C-4b

- C-4a premium and liability components cover in part the risk of guaranty fund assessments following the failure of other insurers in addition to other risks not covered elsewhere in the RBC formula such as exposure to litigation
- C-4b health administrative expense component provides for the risk that actual expenses of administering certain types of health insurance will exceed the portion of the premium allocated to cover these expenses
- The lack of an expected relationship between these components supports a zero correlation assumption

Impacts – 2023 Aggregate Industry Mix

The recommendation would increase the effective required capital after covariance for Equity and Credit Risk and decrease the effective required capital for Insurance, Interest Rate and Business Risks

The net impact to a hypothetical company with a risk distribution equal to the 2023 aggregate industry mix would be an increase of 1.6% to RBC After Covariance

YE'23 Industry Mix	
C-0	15.5%
C-1cs	26.1%
C-1o	30.0%
C-2	14.5%
C-3a	7.3%
C-3b	0.0%
C-3c	1.1%
C-4a	5.3%
C-4b	0.3%
Total	**100.0%**

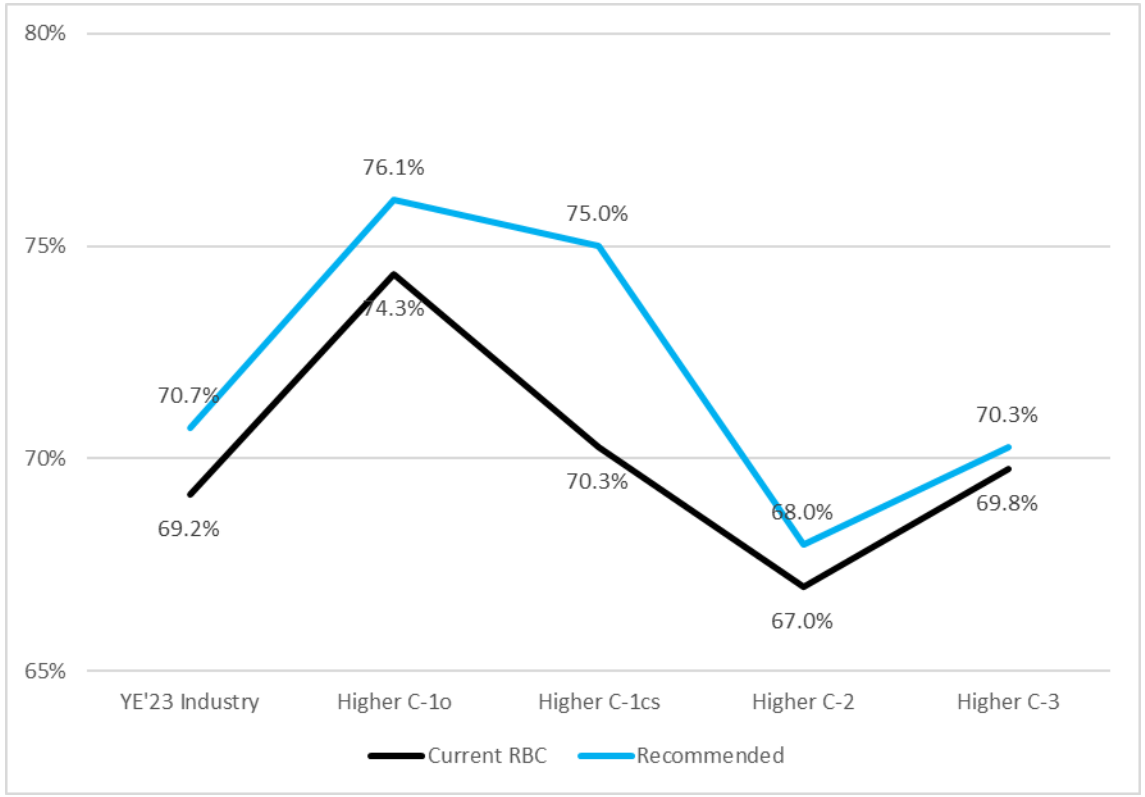
RBC After Covariance as a % of RBC Before Covariance

	Current RBC	Recommended	Change
Equity	56%	83%	27%
Credit	77%	82%	5%
Insurance	30%	26%	-4%
Interest Rate	77%	51%	-26%
Business	100%	10%	-90%
Total	**69.2%**	**70.7%**	**1.6%**

Impact shown for a hypothetical company with a distribution of risks equal to the reported 2023 aggregate industry RBC mix
This is not necessarily representative of the impact to average company RBC across the industry

Impact Sensitivities

Each of the sensitivities tested resulted in an increase to RBC after covariance
The impact is greatest for companies with higher concentration of C-1cs risk



Sensitivities increase the percentage of each risk noted by 50% relative to the 2023 Aggregate Industry baseline while all other risks are reduced proportionally

	YE'23 Industry	Higher C-1o	Higher C-1cs	Higher C-2	Higher C-3
C-0	15.5%	15.5%	15.5%	15.5%	15.5%
C-1cs	26.1%	18.9%	39.2%	23.4%	24.9%
C-1o	30.0%	45.0%	23.3%	26.9%	28.6%
C-2	14.5%	10.5%	11.2%	21.7%	13.8%
C-3a	7.3%	5.3%	5.6%	6.5%	10.9%
C-3b	0.0%	0.0%	0.0%	0.0%	0.0%
C-3c	1.1%	0.8%	0.8%	1.0%	1.0%
C-4a	5.3%	3.9%	4.1%	4.8%	5.1%
C-4b	0.3%	0.2%	0.2%	0.2%	0.2%

Questions?

For more information, please contact:

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Appendix

Overview of Secondary Metrics

Several metrics were used to inform the recommendation and improve consistency with core principles:

- Average annual correlation over core 1982-2019 period (primary metric)
- Average annual correlation over extended period where data is available for each risk pair
- Average correlation of cumulative multi-year risk outcomes (rolling 2-year, 5-year and 10-year periods) – recognizes the fact that the calibration of RBC factors considers losses over the risk cycle which is generally longer than one year
- Distribution of observed multi-year rolling correlations (5-year, 10-year):
  - Correlations observed from data over rolling 5 and 10-year periods
  - Observations rounded to nearest 10% and plotted as a histogram
  - Expected histogram distributions for 0%, 25%, 50% correlations developed through simulation
  - Goodness of fit (error sum of squares) evaluated to quantify best fit to data distribution
  - Considered error sum of squares for only values >=0 and >=50% to ensure appropriate right tail
  - Also provided graphical perspective on level of uncertainty from only 37 years of data

Calibration

Demonstration that within a linear correlation framework, the average correlation is appropriate for calculating target capital

- Let X1 and X2 denote individual risk random variables
- Y = X1 + X2 is the aggregate outcome resulting from the risks
- Assume for illustration that X1 and X2 are standard normally distributed with mean zero and variance 1
- It follows that Y is also normally distributed with variance = $\sigma_{X1}^2 + \sigma_{X2}^2 + 2\,\rho\,\sigma_{X1}\,\sigma_{X2} = 2 + 2\,\rho$ where ρ is the linear correlation between X1 and X2
- C1 and C2 are capital factors for risks X1 and X2
- Assume that C1 and C2 are calibrated to capture risk of X1 and X2 between 1 standard deviation and 95th percentile, so that C1 and C2 both equal ~0.645
- Assume that aggregate reserves cover aggregate risk of Y at approximately 1 standard deviation
- Assume the objective is to combine C1 and C2 with covariance to achieve an aggregate capital requirement C_A equal to the excess of the 95th percentile of Y over the 1 standard deviation covered by reserves
- The targeted C_A is achieved across all correlations by combining C1 and C2 using the average linear correlation ρ between X1 and X2

Risk correlation ρ	**0**	**25%**	**50%**	**75%**	**100%**
Y 95th	2.33	2.60	2.85	3.08	3.29
Y 1σ	1.41	1.58	1.73	1.87	2.00
Target Capital	0.91	1.02	1.12	1.21	1.29
Correlation that achieves Target	0%	25%	50%	75%	100%

Analysis was done to empirically validate this result using the observed loss distributions for equity, credit and interest rate risk as well as using loss distributions output by the published ESG

Tail Calibration

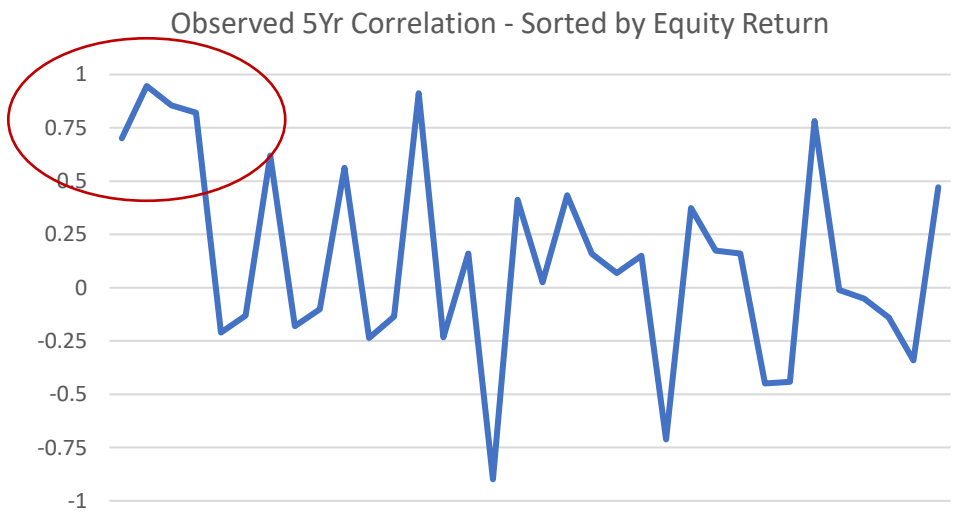
A key assumption in a linear correlation framework is that correlations are static across time

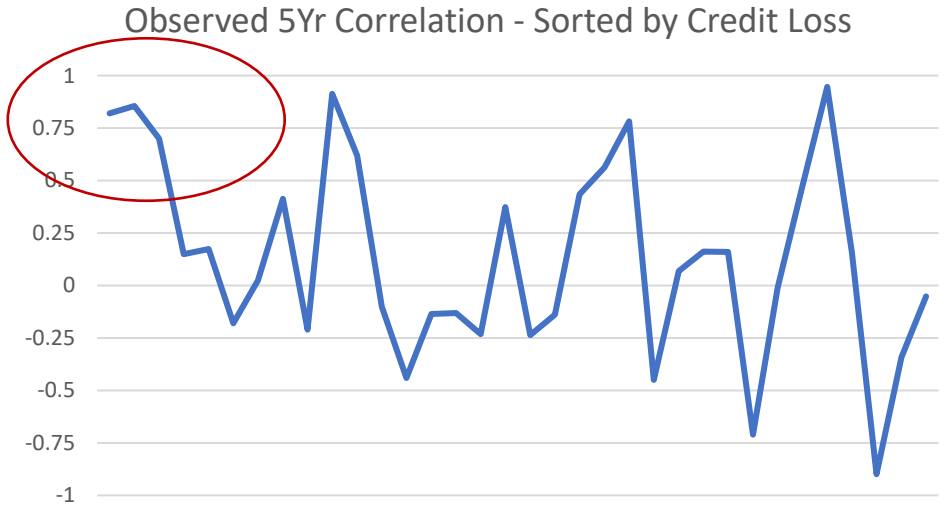
The calibration process also considered whether there was evidence to suggest that correlations may be higher in tail scenarios

The Credit – Equity risk pair showed the most evidence consistent with correlations increasing during times of stress, and this observation influenced the recommendation

The graphs below show observed rolling 5 year correlations between Equity and Credit data, each sorted with the worst outcomes for each risk on the left. In both cases the worst several risk outcomes were observed to also have higher observed correlations

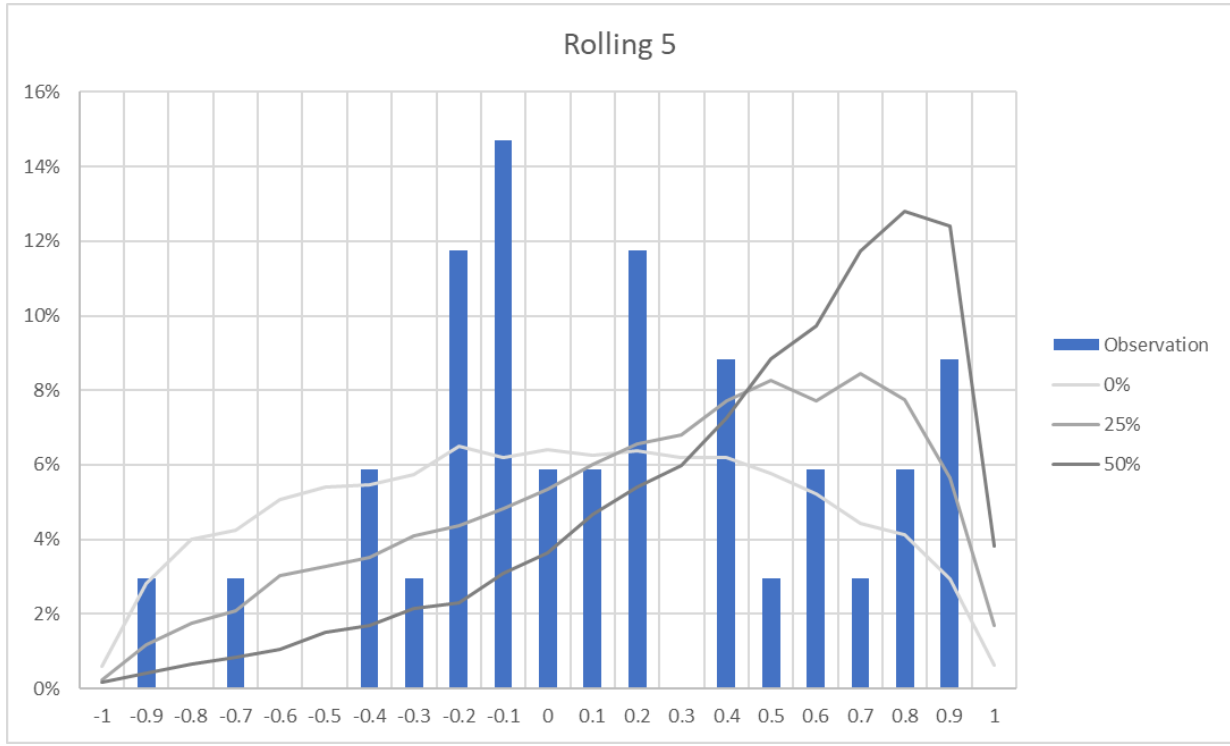
The small number of data points available in stress scenarios limits the credibility that should be assigned to this observation





Results Detail – Credit & Equity

Recommended:	50%
Average Annual Correlation – Core 1982-2019	24%
Average Annual Correlation – Extended 1972-2021	11%
Average Cumulative 2yr, 5yr, 10yr Correlations	46% 2-year 56% 5-year 53% 10-year
5-year Rolling Distribution best fit	**0% best fit** using all data (25% also good fit)
10-year Rolling Distribution best fit	**0% best fit** using all data (25% also good fit)
Tail Correlation in Worst 10% & 20% of 5Yr Credit Outcomes	63% in worst 4 rolling 5yr data points 36% in worst 7 rolling 5yr data points
Tail Correlation in Worst 10% & 20% of 5Yr Equity Outcomes	81% in worst 4 rolling 5yr data points 51% in worst 7 rolling 5yr data points

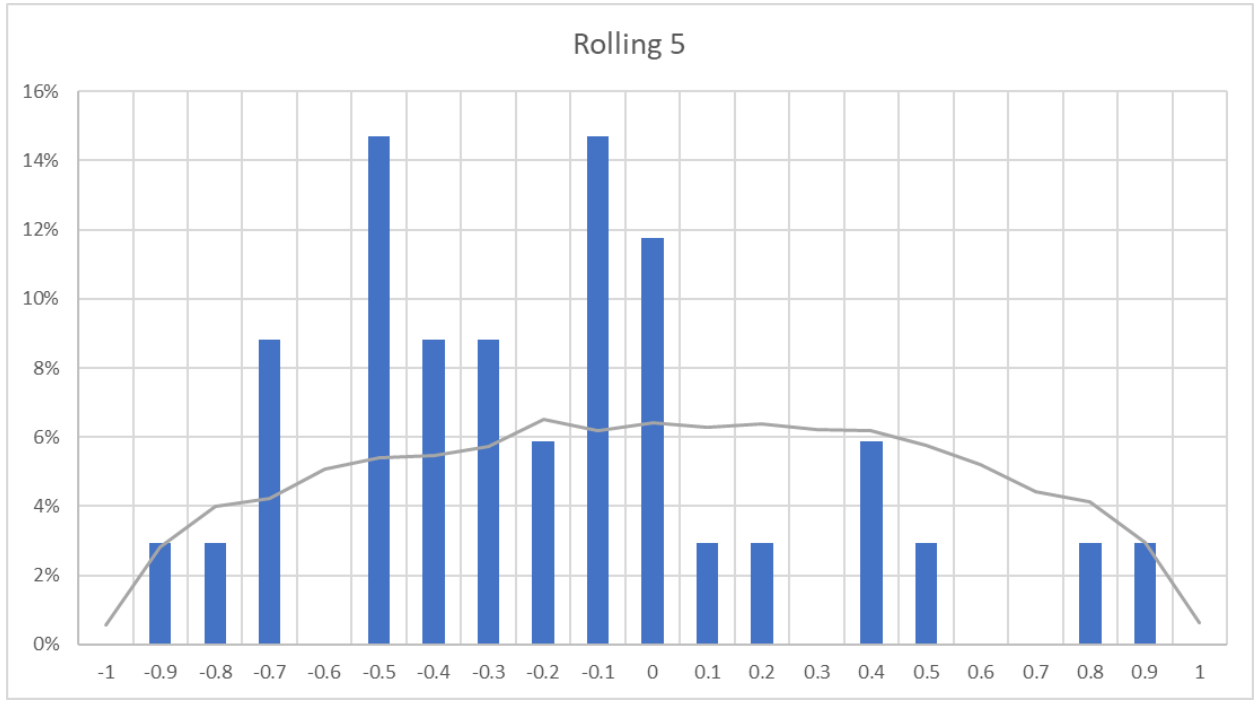


Qualitative Considerations

- Expect positive correlation given the nature of the risks
- Weak economic environment with company credit defaults to debt holders would also be expected to be unfavorable for equity holders
- There may be a time lag in the data between the risks which weakens the observed correlations
- The longer time period for calibration of risks within LRBC would support a lower correlation compared to 1 year capital frameworks

Results Detail – Credit & Interest Rate

Recommended:	25%
Average Annual Correlation – Core 1982-2019	18%
Average Annual Correlation – Extended 1972-2021	33%
Average Cumulative 2yr, 5yr, 10yr Correlations	31% 5-year 5% 10-year
5-year Rolling Distribution best fit	**25% best fit** using all data, taking the absolute value of -25% (0% also good fit)
10-year Rolling Distribution best fit	**25% best fit** using all data
Tail Correlation in Worst 10% & 20% of 5Yr Credit Outcomes	49% in worst 4 rolling 5yr data points 27% in worst 7 rolling 5yr data points
Tail Correlation in Worst 10% & 20% of 5Yr Rate Outcomes	3% in worst 4 rolling 5yr data points 9% in worst 7 rolling 5yr data points

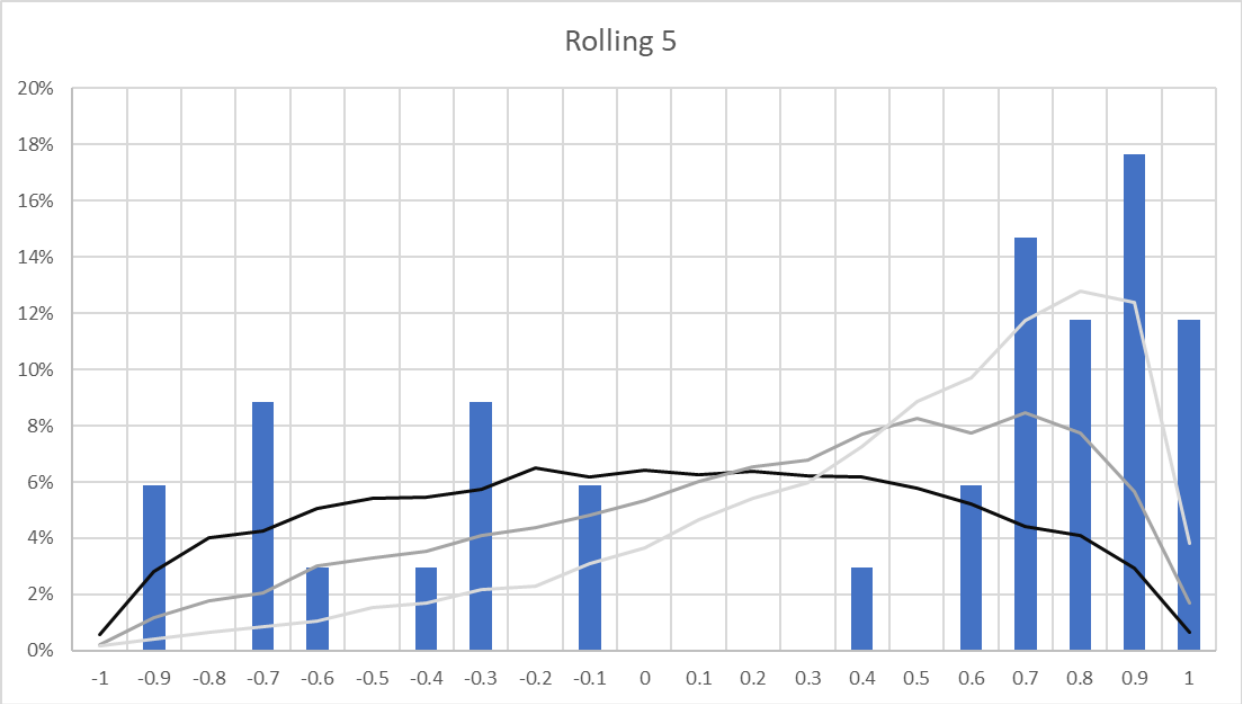


Qualitative Considerations

- Since interest rate losses could be driven by either increases or decreases in rates, we have considered the absolute value of all interest rate correlations in our results
- Correlations may differ in up rate vs down rate binding scenarios; the current structure of RBC does not easily allow for this differentiation
- The data used for interest rate risk captures both rate and spread movements; we might expect a positive relationship between credit defaults and increase in spreads

Results Detail – Equity & Interest Rate

Recommended:	50%
Average Annual Correlation – Core 1982-2019	43%
Average Annual Correlation – Extended 1972-2023	46%
Average Cumulative 2yr, 5yr, 10yr Correlations	12% 5-year 42% 10-year
5-year Rolling Distribution best fit	**75% best fit** using all data (50% also good fit)
10-year Rolling Distribution best fit	**50% best fit** using all data
Tail Correlation in Worst 10% & 20% of 5Yr Equity Outcomes	31% in worst 4 rolling 5yr data points 2% in worst 7 rolling 5yr data points
Tail Correlation in Worst 10% & 20% of 5Yr Rate Outcomes	91% in worst 4 rolling 5yr data points 68% in worst 7 rolling 5yr data points



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- Since interest rate losses could be driven by either increases or decreases in rates, we have considered the absolute value of all interest rate correlations in our results
- Correlations may differ in up rate vs down rate binding scenarios; the current structure of RBC does not easily allow for this differentiation
- The data used for interest rate risk captures both rate and spread movements; we might expect a positive relationship between credit defaults and increase in spreads

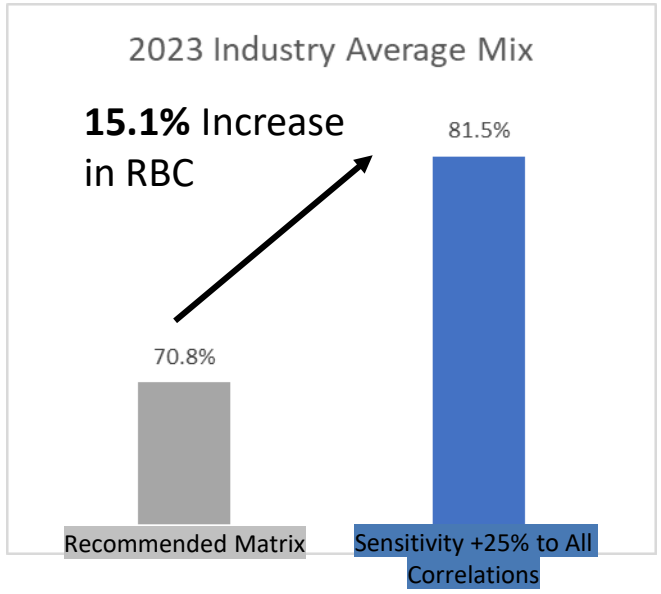
Conservatism in Calibration

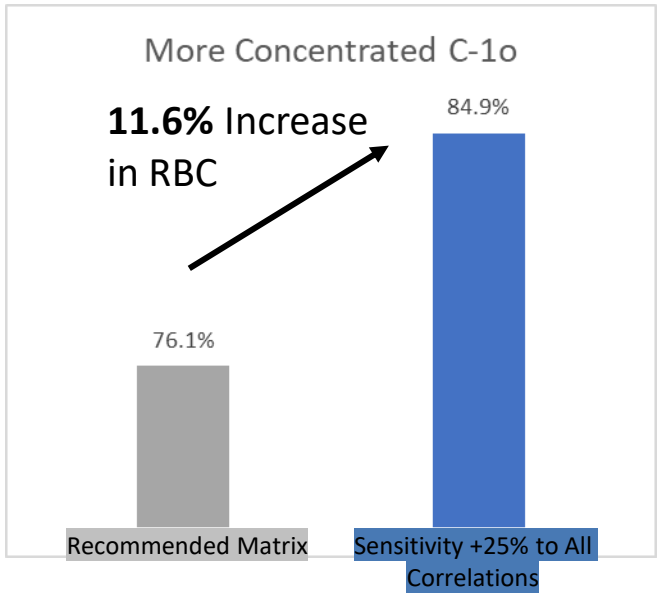
Higher correlation assumptions are 'conservative' in that they will increase aggregate RBC

However the impact would disproportionately impact diversified companies while having less impact on aggregate RBC for companies with relatively more concentrated risk exposures

This could weaken the effectiveness of RBC as a tool for identifying potentially weakly capitalized companies

Recommend best estimate correlations without explicit conservatism consistent with the objective of maintaining the statistical safety level to which risk factors were calibrated





Sensitivity shows the impact of increasing correlations between major risk categories 25% higher than the recommendation

Higher correlations increase RBC for both companies, but the impact less for companies with more concentrated risk exposures

The "More Concentrated C-1o" sensitivity increases C-1o risk by 50% while proportionally reducing all other C risks

Background

- The Life Risk Based Capital Working Group has reviewed and made updates to many areas of the LRBC formula in recent years to maintain the effectiveness of LRBC as a regulatory tool to identify potentially weakly capitalized insurers
- The calculation of each individual risk factor within LRBC has been reviewed and/or updated since the introduction of formula in the 1990s
- A holistic review of correlation of risks within the formula has not yet been undertaken
  - In 2001, the C1-cs component was created with separate covariance from C-1o
  - In 2021, C-2b longevity risk was introduced, including correlation with mortality C-2a
- Except for longevity and mortality risk, all correlations within LRBC are either 0% or 100%
- The scope of this analysis is initially focused on correlation between C-risks within LRBC; an extension of this effort could also consider correlation within individual C-risks (such as within C-1o)

Rationale for Review of Covariance Within LRBC

Due for regular maintenance review

- Every C-factor within LRBC has been individually reviewed in recent years; covariance between C-factors is due for a routine review to maintain the effectiveness of LRBC

Current approach is simplistic

- Except for C-2b longevity which was recently added, every correlation within LRBC is either 0% or 100%
- A more refined approach could be considered that improves effectiveness without adding undue complexity

Impact to effectiveness of LRBC could be material

- Changes to covariance could improve the effectiveness of RBC in differentiating between companies with concentration or diversification of risks

Current Life Risk Based Capital

RBC after Covariance =

C0 + C4a + Square Root of [(C1o + C3a)^2 + (C-1cs + C-3c)^2 + (C2)^2 + (C3b)^2 + C4b)^2]

Expressed as a correlation matrix, all correlations are either 0% or 100% except for the nested correlation within C-2 between mortality and longevity:

	C-1cs	C-1o	C-2	C-3a	C-3b	C-3c	C-4b
C-1cs	100%						
C-1o	0%	100%					
C-2	0%	0%	100%				
C-3a	0%	100%	0%	100%			
C-3b	0%	0%	0%	0%	100%		
C-3c	100%	0%	0%	0%	0%	100%	
C-4b	0%	0%	0%	0%	0%	0%	100%

Nested correlation for C-2:

	C-2 Mortality	C-2 Longevity
C-2 Mortality	100 %	
C-2 Longevity	-25%	100 %

AGGREGATED LIFE RBC AND ANNUAL STATEMENT DATA
2024 Data as of 6/2/2025

Attachment 7

		Year-End 2024	Year-End 2023	Year-End 2022	Year-End 2021	Year-End 2020	Year-End 2019
# of Companies Filed RBC		725	735	742	750	760	772
# of Companies Filed Annual Statement		741	749	755	766	774	786
% of RBC Companies		98%	98%	98%	98%	98%	98%
Company Action Level - Trend Test at 300%		5	1	6	8	5	7
Company Action Level - Trend Test at 250%				1	1	1	3
Company Action Level, excluding CAL- Trend Test	1	1	2	2	3	2	4
Regulatory Action Level	2	2	1	0	1	0	0
Authorized Control Level	3	1	0	0	0	0	1
Mandatory Control Level	4	2	3	3	3	4	3
Total		11	7	12	16	12	18
		1.52%	0.95%	1.62%	2.13%	1.58%	2.33%
# of Companies with RBC Ratio > 10,000%		41	44	45	55	52	50
# of Companies with RBC Ratio >1000 & < 10,000%		319	312	298	292	306	312
# of Companies with RBC Ratio >500 & <1,000%		297	302	313	315	317	332
# of Companies with RBC Ratio >300 & <500%		52	62	69	73		
# of Companies with RBC Ratio >250 & <300%		4	9	9	9		
# of Companies with RBC Ratio >250 & < 500%						78	68
# of Companies with RBC Ratio > 200 & < 250%		6	1	3	2	2	4
# of Companies with RBC Ratio < 200% & <> 0%		6	5	5	4	5	6
# of Companies with RBC Ratio of Zero		0	0	0	0	0	0
Total		725	735	742	750	760	772
Total Adjusted Capital		752,566,690,699	733,909,113,489	696,198,240,900	710,746,904,192	635,213,337,716	606,901,270,691
Authorized Control Level RBC		86,652,329,484	84,142,856,020	81,640,007,079	80,264,014,541	74,177,610,650	70,095,026,244
Aggregate RBC %		868%	872%	853%	886%	856%	866%
Median RBC %		993%	978%	931%	965%	972%	964%
Total C-0 Asset Risk - Affilates		35,259,977,766	34,300,788,830	33,786,700,697	32,282,896,095	27,669,014,696	25,328,213,376
Total C-1cs Asset Risk - Common Stock		58,516,684,017	57,768,527,572	54,900,737,718	55,182,980,709	45,635,935,886	42,580,467,817
Total C-1o Asset Risk - All Other		68,778,586,654	66,301,470,377	64,146,694,016	62,725,689,661	60,109,306,053	55,635,242,506
Total C-2 Insurance Risk		34,125,643,189	32,011,834,354	31,195,104,008	37,296,986,893	29,241,196,797	29,733,905,846
Total C-3a Interest Rate Risk		15,403,842,193	16,061,418,244	17,190,092,747	16,066,024,280	16,792,371,276	15,883,584,969
Total C-3b Health Credit Risk		43,442,646	19,114,152	18,337,840	111,552,562	104,729,771	92,196,729
Total C-3c Market Risk		1,610,503,560	2,342,014,491	3,529,226,438	4,295,739,257	6,181,583,664	5,209,040,590
Total C-4a Business Risk		13,062,931,991	11,797,283,285	10,224,912,322	9,240,542,060	8,816,493,013	8,678,807,068
Total C-4b Business Risk Admin. Expenses		570,883,709	585,932,801	583,359,049	620,386,794	680,883,943	652,941,471
		227,372,495,725	221,188,384,106	215,575,164,835	217,822,798,311	195,231,515,099	183,794,400,372
Net Basic Operational Risk		432,410,452	518,789,825				
Total C-0 Asset Risk - Affilates		15.51%	15.51%	15.67%	14.82%	14.17%	13.78%
Total C-1cs Asset Risk - Common Stock		25.74%	26.12%	25.47%	25.33%	23.38%	23.17%
Total C-1o Asset Risk - All Other		30.25%	29.98%	29.76%	28.80%	30.79%	30.27%
Total C-2 Insurance Risk		15.01%	14.47%	14.47%	17.12%	14.98%	16.18%
Total C-3a Interest Rate Risk		6.77%	7.26%	7.97%	7.38%	8.60%	8.64%
Total C-3b Health Credit Risk		0.02%	0.01%	0.01%	0.05%	0.05%	0.05%
Total C-3c Market Risk		0.71%	1.06%	1.64%	1.97%	3.17%	2.83%
Total C-4a Business Risk		5.75%	5.33%	4.74%	4.24%	4.52%	4.72%
Total C-4b Business Risk Admin. Expenses		0.25%	0.26%	0.27%	0.28%	0.35%	0.36%
		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Total Assets		9,429,183,092,654	8,915,394,823,594	8,439,367,712,664	8,832,312,765,460	8,297,856,845,231	7,697,670,761,108
Total Invested Assets		5,746,233,628,982	5,470,188,985,349	5,312,077,013,619	5,159,452,752,770	4,907,504,359,175	4,582,985,123,381
Reserves (Liabilities Line 1 + 2)		3,703,189,265,643	3,619,051,443,815	3,580,757,824,976	3,468,243,938,821	3,394,241,406,583	3,285,116,770,876
Surplus (Liabilities Line 37)		629,142,197,080	617,441,214,536	589,231,822,136	599,394,009,357	543,174,466,456	521,516,943,871
Premiums Earned (Page 4 Line 1)		829,082,617,115	687,761,484,264	714,406,215,905	649,749,402,737	635,918,317,202	691,912,622,389
Claims Incurred (Page 4 Lines 10 Through 13)		373,548,953,569	346,809,474,331	327,099,260,850	345,503,167,520	319,751,913,923	308,204,032,091

Source: NAIC Financial Data Repository

NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

MEMORANDUM

TO: Dale Bruggeman, Chair, Statutory Accounting Principles (E) Working Group
Kevin Clark, Vice-Chair, Statutory Accounting Principles (E) Working Group

FROM: Philip Barlow, Chair, Life Risk-Based Capital (E) Working Group
Ben Slutsker, Vice-Chair, Life Risk-Based Capital (E) Working Group

DATE: May 28, 2025

RE: Asset Valuation Reserve (AVR) Equity and Other Invested Asset Component Line 15, 16, 68 & 69 Referral

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On May 1, 2025, the Life Risk-Based Capital (E) Working Group received and discussed a comment letter from the American Council of Life Insurers (ACLI) in response to exposure of Proposal 2025-04-L Other Long-Term Assets (LR008) (Attachment A). The ACLI raised questions regarding AVR equity reporting lines for common stock in SCAs and other affiliates and requested clarifications and updates to the AVR instructions. The Working Group directed NAIC Staff to refer to the comments to the Statutory Accounting Principles (E) Working Group (SAPWG) for further review to determine if changes and/or clarifications in Annual Statement Blanks instructions are needed.

Background

Currently, the Life and Fraternal Annual Statement provided the following instructions for AVR Equity and Other Invested Asset Component Table Line 15, 16, 68 and 69:

AVR Equity Line	Instructions (Excerpt and emphasis added)
Line 15 - Subsidiary, Controlled or Affiliated Common Stocks – Certain Other Subsidiaries	Report the book/adjusted carrying value of all subsidiary, controlled or affiliated company common stocks owned that have been valued according to the *Purposes and Procedures Manual of the NAIC Investment Analysis Office* in Columns 1 and 4…
Line 16 - Subsidiary, Controlled or Affiliated Common Stocks – Other	Report that portion of the book/adjusted carrying value of all common stocks of all subsidiary, controlled or affiliated companies, that have not been included on Lines 4 through 15, in Columns 1 and 4…

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Line 68 – Investments with the Underlying Characteristics of Common Stock – Affiliated Certain Other (See SVO Purposes & Procedures Manual)	…Line 68 should show all Schedule BA assets owned where the characteristics of the underlying investments are similar to subsidiary, controlled or affiliated company common stocks owned and these assets should be valued according to the Purposes and Procedures Manual of the NAIC Investment Analysis Office. Categorize these assets consistent with the directions for Pages 32 and 33, Lines 1 through 4, 15 and 16…
Line 69 - Investments with the Underlying Characteristics of Common Stock – Affiliated Other – All Other	…. Categorize these assets consistent with the directions for Pages 32 and 33, Lines 1 through 4, 15 and 16…

ACLI has expressed confusions as to what Subsidiary, Controlled or Affiliated (SCA) Investments should have been categorized in respective AVR Equity lines referenced above. Through detailed review, NAIC Staff noted the following:

1) AVR Equity Line 15 and 68 singled out "certain SCAs" that are eligible to lower AVR Maximum Reserve Factors (e.g. Maximum Reserve Factor of 0.20 for Certain Other SCA vs. 0.25 for All Other SCA) . Such a design was supported by working groups and/ or task force when AVR was first instituted in 1992. The eligible SCAs were required to be valued in accordance with Securities Valuation Office (SVO) Purpose & Procedures Manual (P&P Manual) Section 4(B)(i) and Section 4(B)(iii).

Excerpt from 1992 SVO P&P Manual are focused on valuations of SCA, see Attachment B for the full Manual:

SVO P&P Section 4(B)(i)	**SVO P&P Section 4(B)(iii)**
*…**the value of only such of the assets** of such company as would constitute lawful investments for the insurer if acquired or held directly by the insurer.*	***book value**, defined as in Section 4 (A)(c)*, provided, however, that the common stock of a non-insurance company may not be valued on the basis of this subsection (iii);* ** 4(A)(c) states: Association Values for common stocks which are not publicly traded which are issued by insurance companies will be equal to book value, which shall be calculated as follows: by dividing the amount of its capital and surplus as shown in its last annual statement or subsequent report of examination (excluding from surplus, reserves required by statute and any portion of surplus properly allocable to policyholders, rather than stockholders) less the value (par or redemption value, whichever is the greater) of all of its preferred stock, if any, outstanding, by the number of shares of its common stock issued and outstanding.*

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2) Subsequent to 1992, there were several iterations of SVO P&P Manual in which the valuation methodologies were refined (e.g. version 1994, 1995, 1998 etc.). These iterations were believed to be the impetus where the AVR instruction was generically amended to use the terminology "Certain Other (See SVO Purposes and Procedures Manual) as it is currently used.

3) In 2017 the instructions for valuation of SCA investments were deleted from SVO P&P Manual and moved to Exhibit A of *Statement of Statutory Accounting Principles No. 97—Investments in Subsidiary, Controlled and Affiliated Entities*. The deletion of the valuation instructions for SCA investments was accompanied by a decision of the Valuation of Securities Task Force to transfer oversight of this activity from the Task Force and the SVO to the Statutory Accounting Principles Working Group and the Financial Regulatory Services Division. The AVR instructions were not updated because of this transfer of valuation function.

4) Subsequent to 2017, there were a couple updates to the AVR factors (in general, not specifically for AVR lines referenced above) as a result of tax effect changes and/or NAIC Designation Categories deployment.

In light of the historical development summarized above, the Working Group would appreciate consideration by SAPWG for possible updates and/or clarifications to SSAP No. 97 (if needed) and the AVR instructions. Specifically, the SAPWG may want to assess whether the AVR SCA lines 15 & 16 for "Affiliated – Certain Other" and "Affiliated – All Other" should be retained and if so, propose guidance for consistent reporting within the two categories.

Please contact NAIC Staff of the Life Risk-Based Capital (E) Working Group with any questions.

Cc: Maggie Chang, Kazeem Okosun, Julie Gann, Robin Marcotte, Jake Stultz, Jason Farr, Wil Oden

Attachment A – ACLI Comment Letter to Proposal 2025-04-L Other Long-Term Assets dated April 23, 2025

Attachment B – SVO P&P Manual effective for 1992

https://naic.soutronglobal.net/Portal/Public/en-GB/DownloadImageFile.ashx?objectId=3245&ownerType=0&ownerId=11833

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April 23, 2025

Philip Barlow
Chair, NAIC Life Risk-Based Capital (E) Working Group (LRBC)

Re: Proposal 2025-04-L (LR008 Other Long-Term Assets)

Dear Chair Barlow:

The American Council of Life Insurers (ACLI) appreciates the opportunity to provide feedback on RBC Proposal Form 2025-04-L which seeks to reorganize the LR008 - Other Long-Term Assets page to ensure BA assets of the same risk components (C-1o vs. C1-cs) are grouped, so as to facilitate proper MODCO/Funds Withheld Reinsurance Agreement adjustments within that section.

ACLI is generally supportive of this Proposal, but we do have one editorial comment and a few more broad considerations that we would wish to see discussed prior to adoption.

For consistency, we suggest that the term “equity interests” be capitalized like the remaining terms in the header and subtotal/total lines throughout the document. ACLI also recommends that the line references shaded in gray be updated since the Blanks (E) Working Group adopted 2023-12

effective 1/1/25 and as such, those references, especially for Surplus/Capital notes, have a different line number than “99” as illustrated in the proposal.

More conceptually, the exposure states that “affiliated non-insurance stock” should be included in C1-cs and Schedule BA Affiliated Common Stock – All Other has been moved into the non-insurance stock section. This only leaves Life with AVR in C1-o section but this category would not apply to foreign insurance affiliated companies, as foreign insurance companies do not have an AVR (something that would also be true if there was a foreign affiliated P&C or health insurance company, based on our current understanding). Therefore, we would propose that foreign affiliated insurance company stock should be treated similarly to Life with AVR and included in C1-o, which would require a new line added to the blanks.

Additionally, if the BA-Affiliated Certain Other category, per the AVR instructions, is intended to capture “where the characteristics of the underlying investments are similar to subsidiary, controlled or affiliated company common stocks owned, and these assets should be valued according to the Purposes and Procedures Manual of the NAIC Investment Analysis Office” and non-insurance entities are included in C1-cs in the RBC proposal, the AVR Instructions should clarify that only non-insurance entities are reported in BA Affiliated Common Stock – All Other in the AVR. Clarification should be made as to where a reporting entity would classify investments in insurance companies that do not hold AVR (i.e., foreign, health, P&C) so that it would feed from the AVR into the RBC Blanks correctly.

Thank you very much for your consideration of our comments, and we look forward to further discussion at a future LRBC Working Group Meeting.

Sincerely,

cc: Kazeem Okosun, NAIC; Maggie Chang, NAIC

NAIC NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

MEMORANDUM

TO: Mike Yanacheak, Chair of the Capital Adequacy (E) Task Force
Tom Botsko, Vice Chair of the Capital Adequacy (E) Task Force
Philip Barlow, Chair of the Life Risk-Based Capital (E) Working Group
Ben Slutsker, Vice Chair of the Life Risk-Based Capital (E) Working Group

FROM: Dale Bruggeman, Chair of the Statutory Accounting Principles (E) Working Group
Kevin Clark, Vice Chair of the Statutory Accounting Principles (E) Working Group

DATE: June 5, 2025

RE: Collateral Loan Schedule BA Reporting Changes

On May 29, 2025, the Blanks (E) Working Group adopted revisions to the Asset Valuation Reserve (AVR) and Schedule BA: Other Long-Term Assets to incorporate more granular reporting of collateral loans based on the type of underlying collateral that secures the loan. (These revisions are detailed in 2024-19BWGMOD). The revisions reflect the adopted recommendations from the Statutory Accounting Principles (E) Working Group (SAPWG) from agenda item 2023-28: Collateral Loan Reporting. With the revised reporting, the SAPWG requests consideration of updated AVR (for life companies) and RBC factors for collateral loans (for all companies). The SAPWG identified that some reporting entities were using collateral loans as a way to access certain types of investment structures while obtaining more favorable RBC than if they held the underlying collateral directly. As such, the ability to incorporate RBC parity for certain collateral loans to what would be incurred if the collateral was held directly was a focus of the project to incorporate more granular reporting lines.

The adopted AVR and Schedule BA reporting lines for collateral loans are as follows (all lines divided between unaffiliated and affiliated loans):

- Backed by Mortgage Loans
- Backed by Investments in Joint Ventures, Partnerships or Limited Liability Companies
- Backed by Residual Tranches or Interests
- Backed by Debt Securities
- Backed by Real Estate
- Backed by Other Collateral Types

There are also new Schedule BA reporting lines for non-collateral loans to separate related party loans, affiliated loans and other loans. These are believed to be captured in the 2025 AVR Schedule BA line 102 for "Other Invested Assets" and incur the standard Schedule BA RBC Charge (e.g., 30% in the Life formula).

A new disclosure was available for year-end 2024 to detail collateral loans based on certain types of collateral. The aggregated results from a review of that disclosure are provided:

Washington, DC 444 North Capitol Street NW, Suite 700, Washington, DC 20001-1509 p | 202 471 3990
Kansas City 1100 Walnut Street, Suite 1500, Kansas City, MO 64106-2197 p | 816 842 3600
New York One New York Plaza, Suite 4210, New York, NY 10004 p | 212 398 9000
www.naic.org

An aggregate review of the 2024 collateral loan disclosure is as follows:
(This information is from the reported note only and does not include a comparison to Schedule BA.)

As shown in the detail below, collateral loans backed by "affiliated ICO bonds," unaffiliated mortgage loans" and "affiliated investments in joint ventures, LLCs and partnerships" are greater than 70% of the total.

Of the $27.8B in collateral loans, only $65M was disclosed as nonadmitted:

- Of the $10.6B reported as backed by affiliated JV, LLC or partnership investments, $3M was nonadmitted.
- Of the $309M reported as backed by affiliated other qualifying investments, $32.5M was nonadmitted.
- Of the $45.8M reported as backed by unaffiliated non-qualifying collateral, $28.5M was nonadmitted.

Collateral Backing Collateral Loan	Note Disclosure Total	% of Total
Unaffiliated Cash / CE & ST	$145,575,627	0.52%
Issuer Credit Obligations - Affiliated	$3,286,243,783	11.79%
Issuer Credit Obligations - Unaffiliated	$1,196,181,621	4.29%
Asset-Backed Securities - Affiliated	$1,292,104,481	4.63%
Asset-Backed Securities - Unaffiliated	$547,154,663	1.96%
Preferred Stocks - Affiliated	$25,000,000	0.09%
Preferred Stocks - Unaffiliated	$875,892,650	3.14%
Common Stocks - Affiliated	$10,089,663	0.04%
Common Stocks - Unaffiliated	$93,746,538	0.34%
Real Estate - Affiliated	$584,798,322	2.10%
Real Estate - Unaffiliated	$304,055,142	1.09%
Mortgage Loans - Affiliated	$377,120,058	1.35%
Mortgage Loans - Unaffiliated	$5,966,730,875	21.40%
JV, LLC & Partnerships - Affiliated	$10,603,824,022	38.04%
JV, LLC & Partnerships - Unaffiliated	$1,292,344,887	4.64%
Other Qualifying - Affiliated	$309,339,173	1.11%
Other Qualifying - Unaffiliated	$916,698,627	3.29%
Does Not Qualify - Affiliated	$4,912,141	0.02%
Does Not Qualify - Unaffiliated	$45,869,262	0.16%
Reported Note Total	**$27,877,681,535**	**100%**

The SAPWG highlights that mortgage loans and collateral reflecting investments that would be in scope of *SSAP No. 48—Joint Ventures, Partnerships and Limited Liability Companies* represent the highest percentage of the collateral backing collateral loans.

For collateral loans backed by mortgage loans, during the bond project, the SAPWG learned that companies were not reporting these loans on the dedicated "collateral loan" reporting line but were instead reporting these items on Schedule BA as "Private Equity Funds" so that they would flow through AVR to obtain more desirable RBC. The private equity fund reporting line was eliminated with the bond project, and an interim provision was allowed to permit these loans to be reported in AVR lines 38-64 (Schedule BA investments with underlying characteristics of mortgage loans) based on the mortgage loan details. As reporting entities have been classifying these collateral loans in accordance with the underlying mortgage loan details pursuant to the interim provision, this could be considered for a permanent option, with potential of a default category if the reporting entity does not know the mortgage loan details for granular reporting.

Collateral loans backed by investments in scope of SSAP No. 48, representing the largest population of collateral loans, have the greatest potential for inequitable RBC as entities can structure the investment to reflect a collateral loan rather than reporting the SSAP No. 48 investment directly. Previous SAPWG actions have incorporated requirements to ensure that such designs are only admitted if the underlying collateral is audited, as audited support for these investments is a requirement for admittance under SSAP No. 48, but consideration of comparable RBC would assist in further ensuring appropriate reflection of the underlying risk of these items.

The SAPWG appreciates the focus on this referral, and the consideration of specific AVR and RBC factors for the different collateral loan reporting lines. If you have any questions, or would like to further discuss, please contact the Statutory Accounting Principles (E) Working Group chair or vice chair (Dale Bruggeman, or Kevin Clark), or NAIC staff Julie Gann (jgann@naic.org).

Cc: Julie Gann, Robin Marcotte, Jake Stultz, Jason Farr, Wil Oden, Eva Yeung, Maggie Chang, Kazeem Okosun, Derek Noe

